FWS Form 3-200-41 (Rev. 01/2020)
U.S. Department of the Interior

OMB Control No. 1018-0093
Expires 08/31/2023

CAPTIVE-BRED WILDLIFE REGISTRATION (U.S. Endangered Species Act)

X☐**New** ☐Reissue/Renew ☐Amendment

Complete Sections **A or B**, and C, D, and E of this application. U.S. address may be required in Section C.**

A. Complete if applying as an individual			
1.a. Last name	1.b. First name	1.c. Middle name or initial	1.d. Suffix

2 Date of birth (mm/dd/yyyy)	5.a. Telephone number	5.b. Alternate telephone number	6. E-mail address

B. Complete if applying on behalf of a business, corporation, public agency, Tribe, or institution			
1.a. Name of business, agency, Tribe, or institution **Center for the Conservation of Tropical Ungulates**		1.b. Doing business as (dba) **CCTU**	
2. Tax identification no.	3.a. Description of business, agency, Tribe, or institution **Wildlife Conservation Breeder**		3.b. Website URL (if applicabl e) **N/A**
4.a. Principal officer (P.O.) last name **Johnson**	4.b. P.O. first name **Larry**	4.c. P.O. middle initial **E**	4.b. P.O. Title President Managing Member
5. Primary contact name **Larry E. Johnson**		6. Primary e-mail address **safari@gvtc.com**	

7.a. Business telephone number	7.b. Alternate phone no.	8.a. Primary contact telephone no.

C. All applicants complete address information				
1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes) **46470 Farabee Rd**				
1.b. City **Punta Gorda**	1.c. State **Florida**	1.d. Zip code/Postal code **33982**	1.e. County/Province **Charlotte**	1.f. Country **USA**
2.a. Mailing Address (include if different than physical address; include name of contact person if applicable) **Larry E Johnson. P.O.Box 2012**				
2.b. City **Boerne**	2.c. State **Texas**	2.d. Zip code/Postal code **78006**	2.e. County/Province **Kendall**	2.f. Country **USA**

D. All applicants MUST complete
1. Include a check or money order, payable to the U.S. FISH AND WILDLIFE SERVICE, **a nonrefundable processing fee [50 CFR 13.11(d)(4)]**. Federal, Tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee – ***attach documentation of fee exempt status as outlined in instructions.*** (50 CFR 13.11(d))

2. If you are requesting a reissue/renew/amendment, what is your permit/file number? **MAO18969-3**

3. Certification: I hereby certify that I have read and am familiar with the regulations contained in Title 50, Part 13 of the Code of Federal Regulations and the other applicable parts in subchapter B of Chapter I of Title 50, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001.

The individual/principal officer of the business must print and sign the application. (No photocopied or stamped signatures) Date (mm/dd/yyyy)

** Further instructions for the above application may be found on our ePermits website. See the last page for information on the Privacy Act, Paperwork Reduction Act, Estimated Burden, and Freedom of Information Act aspects of this application form.

Mail your application(s) to Division of Management Authority, Branch of Permits, MS:IA 5275 Leesburg Pike, Falls Church, VA 22041-3803.

FWS Form 3-200-41 (Rev. 01/2020) OMB Control No. 1018-0093 U.S. Department of the Interior Expires 08/31/2023

E. CAPTIVE-BRED WILDLIFE REGISTRATION (U.S. Endangered Species Act)

Please use the following application for all CBW requests. The CBW registration was designed to facilitate export, reimport, and interstate and foreign commerce of exotic species that are captive born in the U.S. Obtaining a registration under the permitting regulations found at 50 CFR 17.21(g) means that otherwise prohibited activities are allowed for the purpose of enhancing the propagation or survival of the species (conservation breeding). Therefore, your application must show how your activities will either enhance organized breeding programs or *in situ* projects to enhance the survival of the species in the wild. Loans and donations are not prohibited by the Act.

All applicants must complete Part 1 of the application. A CBW Registration remains valid for five years and may be renewed once for a total validity of ten years, after which the CBW Registration number will be retired and you must apply for a new CBW Registration. If a renewal application is submitted thirty days or more prior to the CBW Registration expiring, the applicant may continue to conduct previously authorized activities during the renewal process. However, if the application is submitted fewer than thirty days prior to expiration, activities must cease at the time the registration expires until the renewal process is completed.

- **For New applications and amendments**, complete Part 2 of the application. You may renew your CBW once after 5 years, but after a CBW registration has been valid for 10 years, you must submit a complete new application responding to all questions.

*** **Please note:** *If you have a change of mailing address, you must notify the Service within 10 days. If your facilities move, you will need to apply for an amendment.*

- **To renew your CBW** (it has been less than 10 years since you submitted a completely new application), complete Part 3 of this application.

- **If you maintain exotic wildlife in a natural setting, such as a ranch,** complete Part 1 and Part 4 only of the application.

Electronic submission of inventories, photographs, and receipts/invoices: For hard copy applications, if you wish to provide information electronically, please include a flash drive containing this information with your physical application.

Part 1: All Applicants Must Complete

1. Name and address where you wish the permit to be mailed, if different from physical address. If you would like expedited shipping, please enclose a self-addressed, pre-paid, computer-generated, courier service airway bill. If unspecified, all documents will be mailed via the U.S. Postal Service.

   Larry E Johnson. P.O. Box 2012 Boerne Texas 78006

2. Who should we contact if we have questions about the application (name, phone number, and e-mail)?
   John Seyjagat email: [redacted]

3. Have you or your client (if a broker applying on behalf of your client), been assessed a civil penalty or convicted of any criminal provision of any statute or regulation relating to the activity for which the application is filed; been convicted, or entered a plea of guilty or nolo contendere, for a felony violation of the Lacey Act, the Migratory Bird Treaty Act, or the Bald and Golden Eagle Protection Act; forfeited collateral; OR are currently under charges for any violation of the laws mentioned above?

   _X_ No __ Yes

   If you answered “Yes” to Question 3, provide: a) the individual’s name; b) date of charge; c) charge(s); d) location of incident; e) court, and f) action taken for each violation. Please be aware that a “Yes” response does not automatically disqualify you from getting a permit.

4. Provide copies of any license or registration under the Animal Welfare Act regulations of the U.S. Department of Agriculture (9 CFR 2) (if required) and/or any State license or registration required to maintain or breed the species requested in Part 2 or Part 3 below. If available, provide a copy of your last two (2) USDA AWA inspection reports.

   FFWCC Class I and II Wildlife copy attached.

   Previous CBW #MA018960-0 attached.

5. The exact location(s), including address(es), where the wildlife requested in this application will be maintained. If more than one location exists, list all that apply. NOTE: You must report any change in address or location of facilities to the Division of Management Authority within 10 days of such change taking place.

   46470 Farabee Rd. Punta Gorda Florida 33983
   GPS – 27 *01’51.80”N 81*41’18.21” W

6. Provide a current inventory, including those out on loan, for each of the exotic ESA-listed species you are requesting to include or have already been approved to hold (if currently holding a valid CBW registration) on your CBW registration.

Detailed Inventory Report for Center for the Conservation of Tropical Ungulates

Taxon	Owned and on Site	In On Loan	Out on Loan	Group	Colonies
Tapirus indicus	6.3.0	0.0.0	3.0.0	0.0.0	0.0.0
Tapirus terrestris	17.19.1	0.0.0	2.1.0	0.0.0	0.0.0
Ceratotherium simum	15.28.0	0.0.0	0.0.0	0.0.0	0.0.0
Diceros bicornis	0.0.0	0.0.0	1.2.0	0.0.0	0.0.0
Rhinoceros unicornis	3.10.0	1.0.0	1.0.0	0.0.0	0.0.0
Babyrousa celebensis	0.0.0	1.1.0	1.0.0	0.0.0	0.0.0
Bubalus depressicornis	66.82.7	1.4.0	0.0.0	0.0.0	0.0.0
Bos javanicus	104.172.0	0.0.0	0.0.0	0.0.0	0.0.0
Kobus leche	50.58.3	0.0.0	0.0.0	0.0.0	0.0.0

7. Attach a brief resume for all senior animal care staff or personnel that will be working with or maintaining each species, including the number of years' experience with this species or similar species.
   Dr. Patric O'Neil attached.
   John Seyjagat attached.
   Justin Clark attached.
   Patricia Clark attached.
   Conrad Cambell attached.
   David Schworm attached.

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Part 2: New Application, Amendment, or Renewal of CBW which are older than 10 years:

FOR EACH SPECIES BEING REQUESTED for inclusion in a registration, whether a new application or amendment, complete each of the following questions. Signify that you have read each question by writing "N/A" if nonapplicable. If submitting hard copy pages, please indicate the species and the application question number you are addressing.

8. The scientific name (genus, species and, if applicable, subspecies) and common name of each species for which you wish to be registered.

   Lowland Anoa (*Bubalus depressicornis*)
   Java Banteng (*Bos javanicus*)
   Red Lechwe (*Kobus leche*)
   South American Tapir (*Tapirus terrestris*)
   Malayan Tapir (*Tapirus indicus*)
   Great Indian Rhinoceros (*Rhinoceros unicornis*)
   Black Rhinoceros (*Diceros bicornis*)

9. Provide the name, address, and CBW registration number of the person(s) or institution(s) from whom you plan to acquire the wildlife, including the sale or loan agreements for the specimens. If currently unknown, describe your efforts, including documentation, to acquire appropriate specimens for your breeding efforts.
   There are no current plans to acquire additional species as the collection is now mature. On occasion, the facility may enter exchange arrangements with established and registered institutions, such as San Diego Zoo Safari Park, 15500 San Pasqual Valley Road, Can Diego, CA CBW #694912, and White Oak Conservation Center for propagative or other conservation purposes.

10. Indicate if there is an organized breeding program that you are currently involved with or if you have communicated with other breeding organizations regarding your potential participation in those programs. Provide documents to show you are currently involved with a breeding program or include any communication you have had with breeding organizations that you wish to be involved.

    AZA – Species Survival Program (SSP) and SAFE
    ZAA – Animal Managed Program (AMP)

11. Provide a description of how your proposed activities are going to facilitate captive breeding for conservation purposes of this species, including your long-term goals for your breeding program and intended disposition of any progeny. Be specific**.**

    The Center for the Conservation of Tropical Ungulates (CCTU) is a conservation breeding center that focuses exclusively on the propagation of endangered, threatened and at-risk species. Each of the listed species are part of an AZA and/or ZAA Species Management Plan or managed cooperatively with CCTU. The *ex-situ* breeding of these species contributes to the insurance population for the overall conservation of these species. In many cases, these *ex-situ* insurance populations help maintain genetic variability for wild populations and can assure that the species does not go extinct, acting as a resource for future reintroductions back to the wild at such time when the habitat can be secured. A few examples of CCTU's involvement in reintroduction projects are the successful repatriation of bongo to Mt. Kenya and the planned repatriation of reproductively active lowland anoa back to Indonesia.

    The long-term goals of CCTU with the above listed species is to maintain a viable and sustainable *ex-situ* population to act as an insurance population for the endangered and/or threatened wild population. The populations maintained at CCTU are available for future reintroductions should the situation in the wild allow for such a scenario. All progeny produced at CCTU are managed as part of the Captive

Management Plan (SSP/AMP) and disposition of the progeny is to facilities that are either part of the managed plan or are working cooperatively with CCTU for the benefit of the species.

12. Provide a detailed description and documentation showing how your captive population is being managed to maintain its genetic vitality. If you do not currently maintain a sufficient number of specimens for each species being requested to successfully maintain the genetic viability of the species, you must participate in an organized breeding program. Please identify this program and provide documentation describing the objectives and goals of the program, and confirmation that you are a participant in this program.

CCTU has viable populations of the covered species and are managed in such a way to maintain genetic health and sustainability of these populations. This is achieved by matching individuals on non-herd species appropriately to provide the best genetic and behavioral/age match between individuals. The herd species are maintained on large pastures that enable the animals to exhibit innate social behaviors including natural female groupings as well as competition between males, ensuring the male with the most vigor is the primary reproductive animal. These populations are managed by replacing the breeding males with unrelated individuals as appropriate, similar to their behavior in the wild. CCTU works with other cooperatively managed animal populations, such as San Diego Global, and AZA SSP Managed Populations for maintaining optimal genetic vitality.

13. If your activities include the holding of surplus animals (i.e., not currently needed in and not being bred) for an organized breeding program, document how your acquisition of such wildlife will relieve crowding at the locations from which the wildlife will be obtained, and thereby assist the breeding program for the species involved. Provide documentation that you are a participant in an organized breeding program where the holding of surplus wildlife has been identified as a necessary objective of the breeding program. Provide a description of how you will restrict/control breeding at your facility.

N/A

Anoa

Collection and assessment of semen from multiple male lowland anoa in conjunction with Southeast Zoo Alliance for Reproduction and Conservation (SEZARC; Yulee, FL). Semen has been used to artificially inseminate anoa females in an attempt to establish a successful protocol of assisted reproduction for this endangered species; one pregnancy was successfully established but was not carried to term. Various techniques for optimal cryopreservation of lowland anoa semen have been tested and numerous straws of semen are currently being stored at CCTU and Yulee, FL with SEZARC.

Banteng

Collection and assessment of semen from multiple Javan banteng bulls has been performed, helping to establish optimal cryopreservation techniques for semen of this species. Successful artificial insemination has also been performed using semen collected on site, with a banteng cow currently carrying a fetus successfully produced by assisted reproductive techniques established here. Many straws of banteng semen are currently stored at CCTU and Yulee, FL with SEZARC.

Greater one-horned rhinoceros

Collection of semen from 3 Greater One-Horned adult males in conjunction with SEZARC, San Diego Zoo, and Cincinnati Zoo has been performed successfully on-site.

Semen is currently being stored at the San Diego Frozen Zoo.

14. For each requested species, provide a description of your experience in maintaining and propagating the requested species or similar species, including:

    a. The number of years you or the facility has/have maintained the requested species or similar species.
    Rhinocerotidae sp. 19 years
    Bovidae sp. 18 years
    Tapiridae sp. 18 years

b. During the past five years, how many (by species, by year) successful births/hatchings of each requested species or similar species have occurred at your facility? How many survived beyond 30 days?

• **Lowland anoa**	***Bubalus depressicornis***	
Year	Successful births	Survived beyond 30 days
1 January -31 December 2018	6.6.0	5.6.0
1 January -31 December 2019	7.3.0	7.3.0
1 January-31 December 2020	4.1.0	4.1.0
1January-31 December 2021	0.0	0.0
1 January-31 December 2022	1.0	1.0

Banteng	***Bos javanicus***	
Year	Successful births	Survived beyond 30 days
1January -31 December 2018	3.0.0	3.0.0
1January -31 December 2019	4.2.0	4.2.0
1 January -31 December 2020	4.0.0	3.0.0
1 January -31 December 2021	4.3.0	4.3.0
1January -31 December 2022	0.2.0	0.2.0
1 January -31 December 2023	0.0.10	0.0.10

Red lechwe	***Kobus leche***	
Year	Successful births	Survived beyond 30 days
1 January -31 December 2018		
1 January 31 December	6.2.0	6.2.0

2019		
1 January -31 December 2020	7.2.3	6.2.2
1 January -31 December 2021	0.0.3	0.0.3
1January -31 December 2022	0.0.3	0.0.3

Lowland tapir	***Tapirus terrestris***	
Year	Successful births	Survived beyond 30 days
1 January -31 December 2018	8.5.0	8.3.0
1 January -31 December 2019	3.3.0	2.3.0
1January – 31 December 2020	1.1.0	1.1.0
1 January -31 December 2021	0.1.0	0.1.0
1 January – 31 December 2022	1.0.3	1.0.2

Malayan tapir	***Tapirus indicus***	
Year	Successful births	Survived beyond 30 days
1 January -31 December 2018	1.1.0	0.1.0
1 January-31 December 2019	1.1.0	1.1.0
1 January- 31 December 2020	0.2.0	0.2.0
1 January -31 December 2021	1.0.0	1.0.0
1 January – 31 December 2022	1.0.0	1.0.0

Southern white rhinoceros	***Ceratotherium simum simum***
Year	Success

Great Indian Rhinoceros	Rhinoceros unicornis	
Year	Successful Births	Survived beyond 30 days
1 January -31 December 2018	2.2.0	2.2.0

1 Jnauary -31 December 2019	4.0.0	3.0.0
1 January -31 December 2020	2.00	2.0.0
1 January -31 December 2021	3.1.0	3.1.0
1 January -31 December 2022	1.2.0	1.1.0

Black Rhinoceros

Year	Successful births	Survived beyond 30 days
1 January 2018	0.0.0	0.0.0

a. How many mortalities of requested species or similar species have occurred at your facility during the past five years? What were the causes? What measures have you taken to prevent future mortality?

Lowland Anoa

			Bubalus depressicornis
Sex	Age	Cause of Death	Corrective Action
3.2.0	20+years	Olde Age Attrition	N/A
1.0.0	9 years	Aggression	Reinforce barrier fences. Improve visual barriers
5.1.0	5-8 years	Unknown	Up preventive medicine program
4.8.0	1-4 years	Parasitic and Bacterial infection	Increase deworming, fecal screening and preventive medicine program

	1.0.0	<0 years	Unknown	Improve neonatal care
				Improve neonatal care. Reinforce and increase visual barriers. Improve observation and preventive medicine
Banteng				**Bos javanicus**
	Sex	Age	Cause of death	Future prevention
	0.6.0	20 + years	Old Age Attrition	N/A
	2.4.0	10-19 years	Undetermined	Improve observation and preventive medicine program
	3.5.0	1-10 years	3 Male aggression 2 Female dystocia 4 Female undetermined	Separate males into bachelor heard. Improve observation during calving. Improve preventive medicine program
	1.0	<0 years	Undetermined	Improve neonatal care and observation
Red Lechwe				**Kobus leche**
	Sex	Age	Cause of death	Future prevention
	8.9.0	15+years	Old Age Attrition	N/A
	6.3.1	10-15 years	Poor body condition – parasite and bacterial infection	Improve observation and preventive medicine program
	7.3.8	1- 10 years	Aggression, poor doers	Improve observation and deworming schedule
	2.0.15	<0years	Undetermined – abandonment, navel ill, bacterial infection	Improve calving observation prevention medicine program and neonatal care

Lowland Tapir				**Tapirus terrestris**
	Sex	Age	Cause of death	Future prevention
	0.1.0	20+ years	Old Age Attrition	N/A
	0.1.0	15-20 years	Undetermined	Improve observation
	1.1.0	10-15 years	Anesthesia related	Revise event and procedure
	1.1.0	5-10 years	Complications during move	Revise event and procedure
	2.2.0	1-5 years	Unknown	Improve observation during calving and neonatal care
	1.2.1	< 0 years		
Malayan tapir				**Tapirus indicus**
	Sex	Age	Cause of death	Future prevention
	1.0.0	20 + years	Old Age Attrition	N/A
	1.0.0	1.5 years	Anesthesia Related	Improve observation
	0.1.0	2 years	Compounded issues Enteritis and peritonitis	Review preventive medicine program. Look for stressors. Improve observation.
	1.0.0	2 months	Congenital heart failure	Improve pregnancy and gestation observations. Improve neonatal care
Black Rhinocerous				**Diceros bicornis**
	Sex	Age	Cause of death	Future prevention
	n/a	n/a	n/a	n/a

Greater One Horned

			Rhinoceros unicornis
Sex	Age	Cause of death	Future prevention
0.1.0	28 years	Age related	N/A
0.1.0	16-years	Preexisting medical issues Anemic Hypothermia	Improve preventive medicine and observation
0.1.0	5 years	Anemic Parasitic	Improve preventive medicine program and parasite screening
0.1.0	4 years	Killed by breeding male	
2.0.0	0 days	Still born	Improving calving observation
0.1.0	0 days	Birth in the pond. Calf drowned.	Improve calving observation.

15. Provide a detailed description, including size, construction materials, and protection from the elements, as well as photographs and detailed diagrams (no blueprints) clearly depicting your existing facilities, including space for future progeny, where the wildlife will be maintained.

    Photos and diagrams attached.

Part 3: Applications to Renew CBW registrations that are 5 years old or less:

All CBW registrants are required to submit an annual report on activities conducted at the facility over the previous year, as well as a current inventory of all species covered under the registration. If you have already responded to the following questions in your annual report, please note that in your answer to the question.

16. Have there been any changes to your operation such as reconstruction or new construction, new facilities, or other physical changes? If yes, please describe them. **N/A**

17. Have there been any changes to senior staff or personnel changes that would affect how your operation handles the species included in the registration? If yes, please describe these changes. **N/A**

18. Have there been any changes to your inventory that have not been reflected in your annual reports or the current inventory list provided to the Service? If yes, please describe these changes. **N/A**

19. Is there any additional information that you believe the Service should be aware of in regards to your operation, facilities, inventory, or business model? **N/A**

Part 4: Applications for wildlife that is maintained in a natural setting:

20. Provide a specific description of how your proposed activities are going to facilitate captive breeding for conservation purposes of this species **including your long-term goals for your breeding program and intended disposition of any progeny. Be specific.**

21. How often do you conduct surveys of your wildlife? **N/A**

22. How do you determine and identify which specimens are surplus to your operation? **N/A**

23. What is the approximate maximum number of specimens of each species your facility can support? **N/A**

24. What are you doing to prevent predation of stock? **N/A**

25. Provide a detailed description as well as photographs clearly depicting your existing facilities, including space for future progeny, where the wildlife will be maintained. **N/A**

NOTICES

PRIVACY ACT STATEMENT

Authority: The information requested is authorized by the following: the Bald and Golden Eagle Protection Act (16 U.S.C. 668), 50 CFR 22; the Endangered Species Act (16 U.S.C. 1531-1544), 50 CFR 17; the Migratory Bird Treaty Act (16 U.S.C. 703-712), 50 CFR 21; the Marine Mammal Protection Act (16 U.S.C. 1361, et seq.), 50 CFR 18; the Wild Bird Conservation Act (16 U.S.C. 4901-4916), 50 CFR 15; the Lacey Act: Injurious Wildlife (18 U.S.C. 42), 50 CFR 16; Convention on International Trade in Endangered Species of Wild Fauna and Flora (TIAS 8249), 50 CFR 23; General Provisions, 50 CFR 10; General Permit Procedures, 50 CFR 13; and Wildlife Provisions (Import/export/transport), 50 CFR 14.

Purpose: The collection of contact information is to verify the individual has an eligible permit to conduct activities which affect protected species. This helps FWS monitor and report on protected species and assess the impact of permitted activities on the conservation and management of species and their habitats.

Routine Uses: The collected information may be used to verify an applicant's eligibility for a permit to conduct activities with protected wildlife; to provide the public and the permittees with permit related information; to monitor activities under a permit; to analyze data and produce reports to monitor the use of protected wildlife; to assess the impact of permitted activities on the conservation and management of protected species and their habitats; and to evaluate the effectiveness of the permit programs. More information about routine uses can be found in the System of Records Notice, Permits System, FWS-21.

Disclosure: The information requested in this form is voluntary. However, submission of requested information is required to process applications for permits authorized under the listed authorities. Failure to provide the requested information may be sufficient cause for the U.S. Fish & Wildlife Service to deny the request.

PAPERWORK REDUCTION ACT STATEMENT

We are collecting this information subject to the Paperwork Reduction Act (44 U.S.C. 3501) in order provide the U.S. Fish and Wildlife Service the information necessary, under the applicable laws governing the requested activity, for which a permit is requested. Information requested in this form is purely voluntary. However, submission of requested information is required in order to process applications for permits authorized under the applicable laws. Failure to provide all requested information may be sufficient cause for the U.S. Fish and Wildlife Service to deny the request. According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. OMB has approved this collection of information and assigned Control No. 1018-0093.

ESTIMATED BURDEN STATEMENT

We estimate public reporting for this collection of information to average 2 hours, including time for reviewing instructions, gathering and maintaining data and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of the form to the Service Information Clearance Officer, Fish and Wildlife Service, U.S. Department of the Interior, 5275 Leesburg Pike, MS: BPHC, Falls Church, VA 22041-3803, or via email at Info_Coll@fws.gov.

Please do not send your completed form to this address.

CBW PERMIT # 018969

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Anoa
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Tapir
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Banteng
Anoa
Rhino
Rhino
Google Earth

#5
Rhino
Tapir

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1

#13

#14

#15

#11. Provide a copy of your license or registration, if any, under the Animal Welfare Act regulations of the U.S. Department of Agriculture (9 CFR 2) and/or any State license or registration you may have.

The Florida Fish and Wildlife Permit for Class 1 and Class 2 animals is in the process of being renewed.

OMB Control No. 1018-0092 Expires: 12/31/2018

Import/Export License

Permit Number: 015764

Date Effective: 08/04/2017 Date Expires: 07/31/2018

Issuing Office:

Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
Office of Law Enforcement
1875 Century Boulevard, Suite 380
Atlanta, GA 30345
Tel: 404-679-7195
Email: permitsEastLE@fws.gov

JENNIE MCALLISTER

Digitally signed by JENNIE MCALLISTER
Date: 2017.08.04 11:27:13 -05'00'

Legal Instruments Examiner

Permittee:

CENTER FOR CONSERVATION OF TROPICAL UNGULATES
46470 FARABEE ROAD
PUNTA GORDA, FL 33982 US

Principal Officer: GREG ALLEN BETTERTON , CEO

Authority - Statutes and Regulations: 16 USC 1538(d); 50 CFR 13; 50 CFR 14

Location where authorized activity may be conducted: Any Designated Port per 50 CFR 14 (unless further restricted below).

Reporting Requirements: Licensee is required to maintain records per 50 CFR 13 and 14. Acceptance of this license authorizes inspection of records per 50 CFR 13.

Conditions and Authorizations:

A. General conditions set out in Subpart D of 50 CFR 13, and specific conditions contained in federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal, of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.
B. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local, tribal, or other federal law.
C. Valid for use by **permittee** named above.
D. Licensee is responsible for requesting renewal of license at least 30 days prior to the expiration date as outlined in 50 CFR 13. Service Law Enforcement Officers will not clear shipments presented for import or export under expired licenses.
E. Licensee is authorized to import/export wildlife and/or wildlife products at the port(s) specified above.
F. Licensee must comply with all import/export procedures as outlined in 50 CFR 14.

LICENSE TO POSSESS CLASS I AND/OR CLASS II WILDLIFE FOR EXHIBITION OR PUBLIC SALE (26+ ANIMALS)

Florida Fish and Wildlife Conservation Commission
PO Box 6150, Tallahassee, FL 32314-6150
(850) 488-6253

ESB 746 **Cost: $250.00** **Issued: 12/20/2016**

Applicant ID: 65844 License ID: 402-127130 **Expires: 10/20/2017**

CCTU-CENTER FOR THE CONSERVATION OF TROPICAL UNGULATES, LLC
46470 FARABEE ROAD
PUNTA GORDA, FL 33982

Location Address:

DAVIS, MARK, DVM

46470 FARABEE ROAD
PUNTA GORDA, FL 33982

LICENSEE AUTHORIZATIONS

CLASS 1 - This licensee IS Authorized to Possess Class I Wildlife
RHINOCEROTIDAE
HIPPOPOTAMIDAE
CLASS 2
TAPIRIDAE
BOVIDAE

LICENSE TO POSSESS CLASS III WILDLIFE FOR EXHIBITION OR PUBLIC SALE

Florida Fish and Wildlife Conservation Commission
PO Box 6150, Tallahassee, FL 32314-6150
(850) 488-6253

ESC 25418 | **Cost: $50.00** | **Issued: 01/31/2017**

Applicant ID: 65844 License ID: 403-128482 | **Expires: 01/30/2018**

CCTU-CENTER FOR THE CONSERVATION OF TROPICAL UNGULATES, LLC
46470 FARABEE ROAD
PUNTA GORDA, FL 33982

Location Address:

DAVIS, MARK, DVM

46470 FARABEE ROAD
PUNTA GORDA, FL 33982

LICENSEE AUTHORIZATIONS

This license DOES NOT authorize the sale of federally-designated Endangered and Threatened species, state-designated Threatened species or state-designated Species of Special Concern, per Rule 68A-27.003 and 68A-27.005 F.A.C., respectively, or the possession of more than the limit, per Rule 68A-25.002 F.A.C.

CLASS 3

ALL CLASS III MAMMALS EXCEPT CAPUCHIN, SPIDER AND WOOLLY MONKEYS
BIRDS
Amphibians and Reptiles (Non-Venomous, Non-ROC and Non-Conditional)

DEPARTMENT OF THE INTERIOR
U.S. FISH AND WILDLIFE SERVICE

FEDERAL FISH AND WILDLIFE PERMIT

2. AUTHORITY-STATUTES
16 USC 1533 (d)
16 USC 1539 (a)

REGULATIONS
50 CFR 17.21 (g)

1. PERMITTEE

CENTER FOR CONSERVATION OF TROPICAL UNGULATES
46470 FARABEE RD.
PUNTA GORDA, FL 33982
U.S.A.

3. NUMBER
MA018969-0

4. RENEWABLE ☒ YES ☐ NO

5. MAY COPY ☒ YES ☐ NO

6. EFFECTIVE
07/17/2012

7. EXPIRES
07/17/2017

8. NAME AND TITLE OF PRINCIPAL OFFICER *(If "1 is a business)*
GREG ALLEN BETTERTON
CEO

9. TYPE OF PERMIT
CAPTIVE-BRED WILDLIFE REGISTRATION

10. LOCATION WHERE AUTHORIZED ACTIVITY MAY BE CONDUCTED
WITHIN THE UNITED STATES

11. CONDITIONS AND AUTHORIZATIONS.

A. GENERAL CONDITIONS SET OUT IN SUBPART D OF 50 CFR 13, AND SPECIFIC CONDITIONS CONTAINED IN FEDERAL REGULATIONS CITED IN BLOCK #2 ABOVE, ARE HEREBY MADE A PART OF THIS PERMIT. ALL ACTIVITIES AUTHORIZED HEREIN MUST BE CARRIED OUT IN ACCORD WITH AND FOR THE PURPOSES DESCRIBED IN THE APPLICATION SUBMITTED. CONTINUED VALIDITY, OR RENEWAL, OF THIS PERMIT IS SUBJECT TO COMPLETE AND TIMELY COMPLIANCE WITH ALL APPLICABLE CONDITIONS, INCLUDING THE FILING OF ALL REQUIRED INFORMATION AND REPORTS.

B. THE VALIDITY OF THIS PERMIT IS ALSO CONDITIONED UPON STRICT OBSERVANCE OF ALL APPLICABLE FOREIGN, STATE, LOCAL, TRIBAL, OR OTHER FEDERAL LAW.

C. VALID FOR USE BY PERMITTEE NAMED ABOVE.

D. Acceptance of this permit serves as evidence that the permittee is registered under 50 CFR 17.21(G), and that the permittee understands and agrees to abide by the special Conditions for Captive-bred Wildlife Registration as specified by the Office of Management Authority (copy enclosed).

E. Authorized to take for normal husbandry practices; deliver, receive, carry, transport or ship in interstate commerce, for the purpose of enhancement of propagation, any Endangered or Threatened wildlife that is bred in captivity in the United States, that has a natural geographic distribution **NOT** including any part of the United States **AND** that is taxonomically included in the families: **Bovidae**, **Rhinocerotidae**, **Tapiridae**; and the species **Galapagos tortoise** (*Chelonoidis nigra)* and **babarusa** (*Babyrousa babyrussa)*.

☒ ADDITIONAL CONDITIONS AND AUTHORIZATIONS ALSO APPLY

12. REPORTING REQUIREMENTS
ANNUAL REPORT DUE: 03/31
SEE "SPECIAL CONDITIONS FOR CAPTIVE-BRED WILDLIFE REGISTRATIONS"
SEE "SPECIAL CONDITION 10" FOR ANNUAL REPORTING REQUIREMENTS.

ISSUED BY	TITLE	DATE
	CHIEF, BRANCH OF PERMITS, OMA	07/17/2012

PERSONAL RESUME

CONRAD CAMPBELL

[redacted]

Punta Gorda, Florida 33982

Education

1999 Peace River Mennonite High School

Workshops (certifications)

Pesticide Safety Education

Summary of Experience:

5 years' experience in the care and husbandry of Rhinoceros (Southern White , Greater Indian and Black Rhino)

5 years' experience in the care and husbandry of Tapirs (South American and Malaysian)

20 years' experience in the care and husbandry of Bovidae (domestic cattle, wild cattle {Banteng and Anoa} and lechwe.

Employment

January 2017- Present CCTU Punta Gorda, Florida – Supervisor Animal Care and Husbandry.

Responsibilities include wildlife care and husbandry, observation, and reporting. Checking for new calves, expectant mothers, and any other obvious health issues. Checking enclosures for damage and reporting any damage immediately. Other responsibilities include assisting with animal captures, moves and transfers within our facility, and assisting with veterinary procedures.

Facility Maintenance

Grounds, building, and enclosure maintenance. This consists of repairing any damaged fences. Building new structures and repairing old structures within enclosures or on the property. Plumbing or irrigation repairs.

Heavy Equipment Operator.

This consists of pond digging, road building or maintenance, unloading feed or hay, and cleaning of pastures, corrals, and enclosures. Loading and unloading animal crates when animals are received at our facility or shipping out to another facility.

Mechanic

Vehicle and equipment mechanics. This consists of routine maintenance of equipment and keeper vehicles.

Over the years I have assisted with several large projects at our facility.
We have moved a large herd of 132 Nile Lechwe from a 600-acre pasture to a number of smaller and more manageable pastures while splitting the heard into smaller groups. This was done without the use of anesthesia. Another project was to ship out 140 Red Lechwe to another facility. At this time, we acquired

a small animal chute this allowed us to do this as minimally invasive as possible. As this was our first-time processing animals for shipment this way, we were not sure how it was going to go. After a few adjustments to the chute this worked out very well. We now use this technique as much as we can.

I have assisted in our Banteng cattle Al Program along with SEZARC reproduction specialist. This consisted of preparing the Banteng Cattle for the artificial insemination during this process we administered lutalyse and inserted cedars three days prior to insemination, assisted with the artificial insemination, and subsequent pregnancy testing of the Banteng cattle when ready.

One of the largest projects I have been involved with was the receiving of ten Southern White Rhinos from Africa. This required many months of planning. I was involved with the preparation at out our facility to meet the required standards. The receiving at Miami Airport and transport of the animals to our facility. Assisted with the maintenance and observation of each animal while in quarantine.

January 2010 - June 2023 Rum Creek Ranch/ CCTU Punta Gorda and Arcadia Florida- Ranch Hand

Responsibilities are to assist in all areas of the cattle production on the north Ranch consisting of 43,000 acres and 5000 head of domestic Cattle up until the sale of the North Ranch in 2017 and South Ranch consisting of 17,000 acres and 2500 head of domestic cattle and approximately 300 head of Exotic cattle. Assist with preparing meds and wormer and working the cattle every quarter. Assisting the veterinarian with semen testing bulls with electroejaculation and pregnancy testing the cows. Rotation of Bulls within the herds. Rotation of cattle in pastures and pasture maintenance. Transport all calves and cattle for sale to the livestock market. We keep a close eye on our first-time moms and occasionally must assist with calving when a mom is having trouble. Assist with growing and bailing our own hay on property. Assist with water management during or after storms and assist with preparation for controlled burns and controlled burns. Mowing and maintenance of cattle pastures and putting out mineral and molasses or mineral tubs.

2003 -2010 Mabry Carlton Ranch - Worker/ Ranch Hand —

Arcadia, Florida - Hawkins Ranch Arcadia, Florida — Bright Hour Ranch Arcadia, Florida

Responsibilities are to gather the cattle when it is time to work them. Work the cattle in the cow pens quarterly. Haul the cattle to the market when needed.

2003- 2010 Arcadia Stock Yard Arcadia, Florida -Worker/ Ranch Hand

Responsibilities are to unload cattle, push cattle to the correct pens, at the correct time push cattle to the sale arena. Load cattle on the buyers' trailers.

1997-2003 Lawn care Technician/ Campbells Lawn Service Arcadia, Florida

Responsibilities are all facets of lawn maintenance. This includes mowing, weed eating, trimming, Chemical spraying, mulching, horticulture, and planting. This also requires maintenance and service of equipment.

Reference will be provided on request.

PERSONAL RESUME

DAVID SCHWORM

[redacted]

Punta Gorda, Florida 33982

Education

2007 Lemon Bay High School Englewood, Florida

January 2010 Charloette County Technical College (Auto Mechanics)

January 2017 Manatee County Technical College (Welding)

Summary of Experience:

5 years' experience in the care and husbandry of Rhinoceros (Southern White, Greater Indian).

5 years' experience in the care and husbandry of Tapirs (South American and Malaysian)

5 years' experience in the care and husbandry of Bovidae (domestic cattle, wild cattle {Banteng and Anoa} and lechwe.

Employment History

December 2017- Present CCTU Punta Gorda, Florida. Wildlife Care and Husbandry.

Responsibilities as a Keeper are feeding, watering, cleaning, and observation of the animals. Checking for new calves, expectant mothers, and any other obvious health issues. Checking enclosures for damage and reporting any damage immediately.

Other responsibilities are to assist with animal captures, moves within our facility, and assist the Veterinarian with procedures. This consists of capturing animals to move for breeding, loading them on trailers and transporting them to new enclosure. Helping the Veterinarian with medical and routine procedures.

Grounds, building, and enclosure maintenance. This consists of repairing any damaged fences. Building new structures and repairing old structures within enclosures or on the property. Plumbing or irrigation repairs.

Heavy equipment operator. This consists of pond digging, road building or maintenance, unloading feed or hay, and cleaning of pastures, corrals, and enclosures. Loading and unloading animal crates when animals are received at our facility or shipping out to another facility.

Vehicle and equipment mechanics. This consists of routine maintenance of equipment and keeper vehicles.

I have assisted with several large projects at our facility.

We have moved a large herd of 132 Nile Lechwe from one enclosure to another without the use of anesthesia. This project required building fencing along a stretch of road about half a mile on the facility and funneling these animals out of a 600-acre pasture to several other large pastures and finally down the alleyway on the road to their destination. Along with the Nile Lechwe in the original pasture there were other species like Bongo, Sable, and Banteng. All of which were moved at different intervals. This project was a huge success.

Another project was to ship out 140 Red Lechwe to another facility. At this time, we acquired a small animal chute this allowed us to do this as minimally invasive as possible. As this was our first-time processing animals for shipment this way, we were not sure how it was going to go. After a few adjustments to the chute this worked out very well. We now use this technique as much as we can.

One of the largest projects I have been involved with was the receiving of ten Southern White Rhinos from Africa. This required many months of planning. I was involved with the preparation at out our facility to meet the required standards. The receiving at Miami Airport and transport of the animals to our facility. Assisted with the maintenance and observation of each animal while in quarantine.

December 2017 — June 2023 Rum Creek Ranch/ CCTU Punta Gorda, Florida

Responsibilities are to assist in all areas of the cattle production on the South Ranch consisting of 17,000 acres and 2500 head of domestic cattle and approximately 300 head of Exotic cattle. Assist with preparing meds and wormer and working the cattle every quarter. Assisting the veterinarian with semen testing bulls with electroejaculation and pregnancy testing the cows. Rotation of Bulls within the herds. Rotation of cattle in pastures and pasture maintenance. Transport all calves and cattle for sale to the livestock market. We keep a close eye on our first-time moms and occasionally must assist with calving when a mom is having trouble. Assist with growing and bailing our own hay on property. Assist with water management during or after storms and assist with preparation for controlled burns and controlled burns. Mowing and maintenance of cattle pastures and putting out mineral and molasses or mineral tubs.

2015 – 2016 Service technician/ Gasparilla Island Water Association Gasparilla, Florida
Responsibilities are Repairs to service, service installation, monitoring service area, and all facets of water treatment plant operations.

Patrick O'Neil, DVM

Texas A&M University

BS 1980

Doctor of Veterinary Medicine 1983

Owner and founder
Pedernales Veterinary Center
since 1987

Fredericksburg, Texas

Private Veterinary practitioner with special interest in wildlife medicine for 36 years

Published Journal wildlife Medicine- July 2020
American Veterinary Medical Association member
Texas Veterinary Medical Association member.
Wildlife Disease Association member.

Exotic Wildlife Association- 3 term board member.

Published Journal American Veterinary Association- July 2019.

Speaker TAMU Wildlife conferences 2016, 2017, 2018
2020- to present – Veterinary Consultant to the Zoological Society of Trinidad and Tobago

Dr. Oneil has 40 years' experience in wildlife medicine and has experience in immobilization, diagnostics and treatment of many species including Rhinoceros, Asian Elephants, Giraffe and African antelope species (Bongo, Sable, Kudu, Wildebeest, Oryx, Gemsbok, Dama, Nyala, Sitatunga), cervid species, exotic caprine and ovine species, Tapirs and marsupials. Wildlife medicine is a daily part of his private practice.

JOHN SEYJAGAT

[redacted] Alachua FL 32615
[redacted] john@zaa.com

John Seyjagat has over 40 years' experience in exotic animal management, 30 of which are at a supervisory or managerial level. He is currently employed as the Executive Director of the Zoological Association of America (ZAA) Prior to joining ZAA, Seyjagat was the Curator of Australian Exhibits at the National Aquarium in Baltimore after serving as the Director of the Lubee Foundation for 13 years. He has extensive experience monitoring and evaluating populations of small mammals in the wild and has done field conservation work in the Philippines, Malaysia, Borneo, Papua New Guinea, South America, the Caribbean, and Australia. He presently concentrates his capacity building efforts in North America, leading and expanding the Zoological Association of America; in Australia, partnering with the Territory Wildlife Park in NT to pursue sustainability population management of critically endangered native species and in Trinidad with the Zoological Society of Trinidad and Tobago and several NGOs on wildlife and conservation issues.

John Seyjagat has contributed to over 50 bat research projects that generated over 92 scientific publications. John has contributed to numerous reptile research projects which resulted in the rediscovery of thought to be extinct species and most recently the description of a new species of turtle for Australia, *Macrochelodina walloyarrina*.

John Seyjagat also served as the animal welfare officer on the Seafood Sustainability Program in Washington DC initiated by First Lady Michelle Obama.

John Seyjagat has been involved in numerous exhibit design projects including Disney's Animal Kingdom and the National Aquarium in Baltimore's Animal Planet Australia Wild Extremes (AZA's 2008 Exhibit Award winner).

In 2019 John Seyjagat was awarded the Order of the Republic of Trinidad and Tobago Hummingbird Medal Gold and in 2020 Honorary Doctorate of Science from the University of Trinidad and Tobago.

EDUCATION		
1963 - 1971	Arima Presbyterian School. Arima, Trinidad. W. I. Primary ***School Leaving***	Certificate
1971 - 1976	Curepe Educational Institute. Curepe, Trinidad W.I. ***English Language and West Indian History*.**	Certificate
1976 - 1977	Arima High School. Arima, Trinidad W.I. ***Commerce and Geography***.	Certificate
1976 - 1977	University of the West Indies. St. Augustine, Trinidad, W.I. ***Business Management*.**	Certificate
1992	State of Florida. Department of Education Gainesville, Florida USA. ***General Equivalency Diploma/ High School Diploma*.**	Diploma
1992	Professional Career Development Institute School of Animal Science. Atlanta, Georgia USA ***Animal Science*.**	Diploma
1992	American Zoo and Aquarium Association (North Carolina State University). Wheeling, West Virginia USA. ***Applied Zoo and Aquarium Biology*.**	Certificate
1992	University of Florida, Interdisciplinary Center for Biotechnology Research (ICBR). Gainesville, Florida USA. ***Biotechnology Training Program*.**	Certificate
1993	American Zoo and Aquarium Association Conservation Academy (St. Louis Zoo). Missouri USA. ***Population Management Course*.**	Certificate
1994 - 1995	American Zoo and Aquarium Association (North Carolina State University). Wheeling, West Virginia USA. ***Professional Development for Zoo and Aquarium Personnel*.**	Certificate
1996	Cornell University. New York City, New York USA ***Zoo and Exotic Animal Nutrition*.**	Certificate
1998	Safe Capture International Incorporation. Mount Horeb, Wisconsin USA. ***Chemical Immobilization of Animals*.**	Certificate
2002	Thomson Education Direct. ***Wildlife and Forestry Conservation*.**	Diploma

2002	Santa Fe Community College. Gainesville, Florida USA - ***Certified Nursing Assistant*.**	Certificate
2020	**Doctor of Science** University of Trinidad and Tobago (UTT)	Doctorate
PROFICENCY CERTIFICATION		
2016	DAN Diving First aid for Professional Divers	Certificate
2016	S.A.F.E Lift Truck Operation and Safety	Certificate
2012	Amphibian Ark Amphibian Conservation Techniques and Propagation	Certificate
2010	Waynesborough ALS Inc Medic 2 Venom Management and Emergency Response	Certificate
2010	MOSH Division of Labor Construction Fall Protection	Certificate
2005	PADI Open Water Scuba Certification	Certificate
2003	Confine Space Entry for Multiple Employer Worksites	Certificate
2001	International Wildlife Rehabilitation Council for Wildlife Rehabilitation: Avian & Small Mammal	Certificate

Employment		
2023- present	**Administrator**	Safari Enterprise and Center for the Conservation of Tropical Ungulates
2016- 2023	**Executive Director**	**Zoological Association of America – Punta Gorda Florida USA**
	Zoological Association of America (ZAA) is a non-profit, membership-based, accrediting organization dedicated to responsible wildlife management, conservation, and education. ZAA has over 600 members and represents 62 accredited zoological facilities. Responsibilities includes. • To implement the strategic goals and objectives of ZAA. • To give direction and leadership towards the achievement of ZAA's Philosophy, mission, strategy and its annual goals and objectives. • Provide leadership in developing programs, organizational and financial plans with the Board and Staff, and carry out plans and policies authorized by the Board. • Promote and publicize the activities and programs of ZAA. • Represent the programs and point of view of ZAA to members, agencies, organizations, and the general public	
2010 - present	**Director International**	**Zoological Society of Trinidad and Tobago**
	Director International of Zoological Society of Trinidad and Tobago and the Emperor Valley Zoo Responsibilities include. • Professional Training and Development of all staff • Technology transfer and capacity building in the zoological sector in Trinidad and Tobago • Animal Acquisition and disposition • International platform for representation of ZSTT/EVZ and the wildlife sector of Trinidad and Tobago	
2003 - 2016	**Curator of Australian Exhibits**	**National Aquarium in Baltimore – Baltimore MD USA**
	The National Aquarium in Baltimore is a 501 © 3 nationally recognized and respected conservation institute. The aquarium uses its animal collection and exhibit to measure success in how it impacts	

	people, the environment and the ability to sustain these efforts through dynamic partnerships and sound financial planning.	
	• Responsible for securing, sustaining, and managing the Australian animal collection including procuring specimens from the wild or through conservation and partnership affiliations	
	• Coordinator for the professional development, retention and succession of the Australian exhibit staff and its training procedures and policies	
	• Responsible for furthering partnerships and conservation initiatives through relations with Territory Wildlife Park NT Australia and the Australian Embassy in Washington DC	
	• Spokesperson and institutional representative on all aspects of Australian business involving the National Aquarium in Baltimore's Australian exhibit	
	• Responsible for the day-to-day operations of the section and its 1200 specimens that wows its 1.7 million visitors annually	
	• Utilizing the exhibit, its animal collection, and its staff to facilitate Aquarium professionals in furthering the conservation goals of the institution	
1990 – 2003	**Director**	**The Lubee Foundation – Gainesville FL USA**
	The Lubee Foundation was founded as a private conservation dedicated to Old World fruit bat conservation. The facility focuses on conservation through captive breeding, research and education. Lubee maintains in captivity 16 species of fruit bats numbering 629 specimens that range in size from the world's largest to some of the smallest.	
	• Administrated the day-to-day operations of the facility, including grant proposal evaluation, business management, office management, budgeting, payroll and public relations.	
	• Management of the captive breeding programs, acquisitions and dispositions, import and export, veterinary care, animal nutrition, housing, enclosure design and construction and staff management.	
	• Coordinated the Veterinary Program with the University of Florida College of Veterinary Medicine and the animal health program at Lubee. Initiated and monitored in-house clinical projects for veterinary students and residents...	
	• Animal Record Keeping both ARKS and MEDARKS	
	• Coordinated research in genetics, nutrition, energetics, behavioral ecology, reproductive physiology and maternal investment.	
	• Developed and implemented education programs for elementary school, high school, and undergraduate students and or interns. Assisted in project design and field training of postgraduate students	
1981 - 1990	**Head Zookeeper**	**Emperor Valley Zoo – Trinidad WI**
1980-1981	**Technical Representative**	**Erosion Control Caribbean ltd (ECC Engineering)**
1976-1880	**Charge Hand**	**Amalgamated Industries Ltd**
RELATED PROFESSIONAL EXPERIENCE		
2002 - present	Zoo All Hazard Preparedness (ZAHP) Advisory Council	
2020- present	Initiate and Chair of the Pandemic Task Force to monitor zoonotic and wildlife diseases and recommend state and federal measures to prevent the next wildlife disease related pandemic.	
20 19 - present	ZAA Legislative Committee – Federal, State and Local Legislative monitoring of harmful wildlife laws	
2018- present	Board of Directors Zunum- Coalition for the advancement of modern zoos and aquariums and the sustainability of wild and domestic species and habitat.	
2018- present	Zoological Association of America Crisis Management Committee	
2017 to 2020	Zoo All Hazard Preparedness Fusion Center (ZAHP) Zoological Disaster Preparedness Task Force State of Florida: First Responder, Rapid Assessment and Recovery	
2009 - Present	Director International Zoological Society of Trinidad and Tobago- Trinidad WI	
1995- 1997	Planning Consultant Disney's Animal Kingdom (Asia) – Lake Buena Vista, Florida USA	
1996-2000	Editor /Contributor PTEROPUS: Technical Bulletin of the Lube Foundation Inc	

1993 - 2003	Assistant Professor/Courtesy Clinical Instructor/. Dept. of Small Animal Sciences. University of Florida. College of Veterinary Medicine. Gainesville, Florida USA
1990 - 1995	Manager China Oil Cattle Company. Gainesville, Florida USA
1988 - 1990	Film/Field Research Assistant Pearl and Dean Distributors. "Ire: Land of the Hummingbird".
1988 - 1989	Film/Field Research Assistant Genesis Productions. UK "Natural History of Sex".
1988-1990	Film/Field Research Assistant BBC Natural History. "Trials of Life
1988-1990	Honorary Game Warden Wildlife Department Forestry Division Ministry of Agriculture Trinidad and Tobago
1988	Film/Field Research Assistant Ministry of Information/Dept. of Wildlife. "A Hunting Moratorium?"
1986	Film/Field Research Assistant Organization of American States. "Endangered Wildlife"
1984	Film/Field Research Assistant Black Widow Productions. "Trinidad Wildlife".
1980 - 1990	Turtle Research Coordinator Trinidad Field Naturalist Club/ Wildlife Division
	.

PUBLICATIONS	
1981	Seyjagat, John. (1981) Inconspicuous Beauty. *The Naturalist Magazine*. Vol. 3 (No. 11) Pp. 49.
1987	Seyjagat John (1987) Data Gleaning Bird Survey Airport Authority Trinidad and Tobago: Bird Hazard Piarco International Airport. Occasional Paper Zoological Society Trinidad and Tobago
1988	Seyjagat John.1988 Breeding the Arrau (Orinoco River Turtle) in Captivity for the First Time AAZK Forum 1988 Pg. 205
1990	D'Angierie, A., F.L.J Ball, P. Canevari, J.L. Dujardin, P. Fredrick, M. Held, G. Hislop, C.J. James, B. Ramsamoojh, L. Sanite, P. Schere Neto, J. Seyjagat, A.L. Spanns, M. Spadling and D.M. Teixeira. Developing an Action Plan for Scarlet Ibis Conservation in Trinidad, Guyana, Suriname, French Guyana and Brazil. "The Scarlet Ibis (*Eudocimus ruber*) Status Conservation and Recent Research. IWRB Special Publication No.11-1990. Pp. 152-156
1994	Seyjagat, John. (1994) "Principal Aspects of Enclosure Design for Flying Foxes." Proceedings of the AZA Regional Conference 1994 Pp. 158-159.
1994	Kunz, Thomas H., A.L. Allgaier, J. Seyjagat, R. Caligiuri. (1994) "Allomaternal Care: Helper assisted birth in Rodrigues Fruit Bat *Pteropus rodricensis*: Chiroptera: Pteropodidae." J. Zoo. Lond. (1994) 232, Pp. 691-700
1994	Seyjagat, John. 1995. "Conservation Initiative of the Lubee Foundation Inc." 10th International Bat Research Conference and 25th North American Symposium for Bat Research. Boston University. Paper 288.
1994	Atkinson, A.V., K.R. Atkinson, J. Seyjagat, T.S. Grass. 1995. "Characterization of Reproductive Cycle in the Island Flying Fox (*Pteropus hypomelanus*)" 10th International Bat Researchers Conference and the 25th North American Symposium for Bat Research. Boston University. Paper 27
1994	Seyjagat, John. 1996. "Conservation and Captive Breeding of Old-World Fruit Bats." The Sixth Conference of Southeast Asian Zoological Parks Association. Melaka, Malaysia. Abstract Pp. 43.
1994	Seyjagat, John. 1996. "Old World Fruit Bat Conservation at the Lubee Foundation Inc." Abstract. Proceedings of V11th European Bat Research Conference. Veldhoven, Netherlands.
1995	Seyjagat. John. 1996. "Marking Methods for the Individual Identification of Bats." AZA Regional Conference Proceedings. Pp. 363-369.
1995	Fruit Bat Husbandry Manual. AZA Bat Taxon (TAG) Advisory Group. Contributing author
1994	Seyjagat. John. 1997. "Developing Collaborative Links for Conservation in Developing Countries." Sylvatrop Vol. 5 No. 1/2 Pp. 101-104.
1996	LeBlanc. Dana & J. Seyjagat. 1997. "Old World Fruit Bat Enrichment at the Lubee Foundation Inc." Proceedings of the Third International Conference on Enrichment. Pp. 416
1997	Seyjagat, John. 1997. "Status Report of the Pemba Island Fruit Bat Conservation Project." AZA Regional Conference Proceedings Pp. 129-132.
1999	Dierenfeld, Ellen S. and J. Seyjagat. 1999. "Diet Assimilation and Plasma Nutrient Concentrations in Three Species of Captive Pteropid Bats." Proceedings of the International Nutrition Conference. Germany. (In print).
2000	Dierenfeld Ellen S. and J. Seyjagat. 2000 "Plasma Fat – Soluble Vitamins and Mineral Concentrations in Relation to Diet in Captive Pteropodid Bats." Journal of Zoo and Wildlife Medicine 31(3):315-321. 2000

2001	Hood, Wendy R., T. Kunz, O.T. Oftedal, S. J. Iverson, D. LeBlanc and J. Seyjagat. "Interspecific and Intraspecific Variation in Proximate, Mineral and Fatty Acid Composition of Milk in Old World Fruit Bats." (Chiroptera: Pteropodidae) Journal of Physiological and Biochemical Zoology 74(1):134-146.2001
2001	IUCN Global Status Survey and Conservation Action Plan for Microchiropteran Bats. Compiled by Anthony M. Huston, Simon P. Mickleburgh and Paul Racey. Contributing writer
2002	Wood, W.F., J. Seyjagat and P. Weldon. 2002. "Volatile Components in Shoulder Gland Secretions of Flying Foxes (Pteropus spp)".
2002	Seyjagat, John and J. Baulu. 2003 "Snakes of the Caribbean.".
2002	Seyjagat John. Lubee Foundation Inc. "The Encyclopedia of World Zoos," Edited by Cathrine Bell. Fitzroy Dearborn Publishers.
2010	Tuxburry, Kathryn. A. MS DVM, Lee Ann Clayton DVM DABVP, John Seyjagat, Kimberly Mann and Catherine Hadfield MA Vet MD. Fluorosis in Captive Grey Headed Flying Fox (Pteropus poliocephalus) associated with an exhibit misting system.
2011	Seyjagat John. "Bat Legislation for the United States of America". "Bats in Captivity" edited by Susan Barnard
2011	Seyjagat John and Tomlinson Denise. "Conditioning Bats for Public Education". "Bats in Captivity" edited by Susan Barnard,
2011	Seyjagat John and Tomlinson Denise. "Outreach Programs: Flying Foxes". "Bats in Captivity" edited by Susan Barnard
2011	Gyan Nadra and Seyjagat John. Standards for Captive Wildlife. Wildlife Section Forestry Division Trinidad and Tobago. Legislation: Wildlife Conservation Act.
2014	Persad. A. Seyjagat. J. Surveys of Animal Communities Associated with Threatened Green Ash Trees (Fraxinus pennsylvanica) in Emrald Ash Borer (EAB) (Agrilus planipennis fairmare) Management Programs Northwest Ohio. Utility Arborist Association 2014
2018	Status of Capybara (*Hydrochoerus hydrochaeris* Rodentia: Hydrochaeridae) and potential for Establishment in Florida B.M. Parker, C.J. Anderson, C.M. Romagosa, S.M. Wisely, D.W. Pearson, J. Seyjagat, K.A. Sayler

CURRENT PROFESSIONAL MEMBERSHIPS AND AFFILATIONS
• Trinidad and Tobago Zoological Society – Council Member
• American Zoo Association (AZA) - Professional Fellow Member
• American Zoo Association (AZA) Bat Taxon Advisory Group
• American Zoo Association (AZA) Marsupial & Monotreme TAG – Steering Committee
• American Zoo Association Australian Conservation Alliance (ACA) – Co Chair
• Zoological Association of America – Accreditation Committee/Accreditation Inspector
• Manatee Conservation Trust Trinidad and Tobago – Board of Directors
• Caribbean Animal Welfare Association – Board of Directors
• Maryland Museum of Natural History – Member Design and Renovation Committee
• Turtle Survival Alliance – Member

SPECIAL AWARDS	
2019	Order of the Republic of Trinidad and Tobago Hummingbird Medal Gold
2008	AZA Exhibit Award. Animal Planet Australia: Wild Extremes National Aquarium in Baltimore.
2002	Clinical Excellence. Nursing Program Santa Fe Community College.
1999	Outstanding Contribution to Bat Conservation Association of Zoos and Aquarium (AZA) Bat Taxon Advisory Group (TAG)
1999	Conservation Recognition. Rainbow River Conservation Dunnellon Florida
1996	AZA Significant Achievement Award for Conservation. The Lubee Foundation.

1988	Tourism Award. Trinidad and Tobago Tourist Board. Trinidad WI

PAST PROFESSIONAL AFFILIATIONS

- Endangered Wildlife Foundation, Trinidad. - Caribbean Representative
- Trinidad Field Naturalist Club - Executive Member
- Victoria Regia Tropical Research Institute, Trinidad - Board of Directors
- Caribbean Forestry Conservation Association, Trinidad - Founding Member
- American Association of Zookeepers (AAZK) - Contributing Member
- American Zoo Horticulture Association (AZH) – Professional Member
- Florida Zoo and Aquarium Association (FAZA) – Accredited Facility Member
- Florida Zoo and Aquarium Educators (FAZE) – Steering Committee Member
- Wildlife Conservation Society of the Philippines (WCSP) - Associate Member
- University of the Philippines Silliman /CENTROP -Coordinator Chiropteran Programs.
- World Conservation Union -IUCN- Species Survival Commission (SSC) Member
- Chiroptera Specialist Group IUCN/SSC/CBSG - Conservation Breeding Specialist Group – Member
- Pan African Association of Zoological Gardens, Aquarium and Botanical Gardens-Professional Member
- Gainesville Herpetological Club - Member
- Gainesville Bat Society - Vice President
- Museum of Discovery and Science. Fort Lauderdale, Florida - Scientific Advisory Board
- Zoocriaderos - Editorial Board
- AZA Bat Taxon Group - Steering Committee Member and Species Manager for Pteropus
- Rodrigues Fruit Bat Species Survival Plan (SSP)- Vice Chair
- AZA Conservation Action Partner (CAP) Southeast Asia - Secretary
- International Zooculturist Society - Member
- Barbados Wildlife Reserve Barbados, W.I. - Scientific Advisory Board Member
- Florida Bat Center, Port Charlotte, Florida - Executive Board Member
- State of Florida Dept. of Cultural Affairs - Panelist and Grant Reviewer
- Turtle Survival Alliance – Member

TRAINING COURSES DEVELOPED AND HOSTED

- Conservation and Captive Management of Megachiroptera: A Workshop on Husbandry, Behavior and Physiology
- Chiroptology: Captive Management and Husbandry of Megachiroptera.
- Research Methodologies and Field Techniques for Chiropteran Studies

NATIONAL CONFERENCE HOSTED

- 23 Annual North American Symposium on Bat Research October 13th 16th 1993 Gainesville Fl USA
- ANGFA Convention: Australia New Guinea Fish Association National Conference Darwin NT Australia 2007 (Co-host with Territory Wildlife Park)
- 33rd International Sea Turtle Society Meeting Baltimore Maryland February 1st -8th 2013 (Co-host) International Fresh Water Turtle and Tortoise Symposium
- Zoological Association of America Annual Conference 2017-2019, 2021

PERSONAL RESUME

WILLIAM JUSTIN CLARK
[redacted]
Punta Gorda, Florida 33982
[redacted]

Summary of Experience:

5 years' experience in the care and husbandry of Rhinoceros (Southern White, Greater Indian).

5 years' experience in the care and husbandry of Tapirs (South American and Malaysian)

20 years' experience in the care and husbandry of Bovidae (domestic cattle, wild cattle {Banteng and Anoa} and lechwe.

Employment History

April 2021 — Present CCTU Punta Gorda, Florida – Operations Manager

Oversee all areas of the facility this includes all animal care and husbandry, animal acquisition, disposition, record keeping enclosure maintenance, land maintenance, feed programs, breeding programs, and supervise all employees.

Assist the Veterinarian with all medical procedures and oversee all animal acquisitions, animal quarantine and dispositions.

Purchasing of all feed and hay for animal diets.

Organizing building projects including facilities and pasture management

Oversee all animal moves and transfers.

Safety and Security of personnel, animal collection and property.

Incident Commander for Contingency Plans and Emergencies.

January 2016 — April 2021 Assistant Facility Manager/Cattle Manager/ Security Officer CCTIJ
Punta Gorda, Florida

Responsibilities are to assist with overseeing the keepers, construction projects, maintenance of enclosures and grounds, animal moves requiring loading and unloading of animals, and being present to assist the Veterinarian with all animals' medical procedures including moves and shipping in or out of our facility.

Responsible for managing a 17,000-acre 2500 head domestic cattle program at this facility including mustering, range care (deworming, vaccinating, dehorning, tagging, castrations, breeding, calving).

Planned, organized and executed large scale projects.
Moved a large herd of 132 Nile Lechwe from 600acre pasture to several smaller pastures while breaking the heard in several smaller groups.

Executed the catch-up using chute and barriers of 140 Red Lechwes and shipping them to another facility.

Executed the import of a Malayan Tapir from Singapore. This included holding facility preparation to meet state and federal standard requirements, receiving and clearing the animal at port of entry, transport to CCTU, unloading and acclimating the tapir, quarantine care and observation and transfer to its permanent enclosure.

Led CCTU's Banteng cattle Al Program led by SEZARC reproductive specialist. This included preparing the Banteng Cattle for the artificial insemination by administering lutalyse and inserted cedars three days prior to insemination. Assisted with the artificial insemination procedure, and subsequent pregnancy testing of the Banteng cattle to determine pregnancy.

Led CCTU's biggest and most important acquisition; the importation of 10 Southern White Rhinos from Africa. This required extensive planning and teamwork. Assisted with the preparation of holding facility to meet the required state and federal standards, receiving, clearing and transporting the animals from Miami airport to CCTU. Oversee the quarantine care, observation and maintenance of each animal while in quarantine.

Assisted the neonate carer with hand raising multiple different species of animals. This includes the calves of Greater One Horned Rhino, Southern White Rhino, Bongo, Red Lechwe, Nile Lechwe and Lowland Tapir. Neonatal care requires close observation around the clock, milk preparation, bottle feeding, veterinary medical care and enclosure setup and maintenance, introduction of dry feed and or hay at the time of weaning and socialization with its own species.

January 2010 - June 2023 Cattle Manager Rum Creek Ranch/ CCTU Punta Gorda and Arcadia, Florida

Responsibilities includes oversee all areas of the cattle production on the north Ranch consisting of 43,000 acres and 5000 head of domestic cattle and South Ranch consisting of 17,000 acres and 2500 head of domestic cattle and approximately 300 head of exotic cattle.

List of duties included:

- health and wellbeing of the cattle,
- scheduling the cattle workings- quarterly health checks and preventive medicine care
- oversee all ranch hands and daily/weekly schedules,
- hiring day workers to work alongside the ranch hands,
- keeping cattle records,
- assisting the veterinarian with semen testing bulls with electroejaculation

- pregnancy testing the cows.
- rotation of bulls within the herds.
- determining which heifers to keep and which to cull to sell.
- transport all calves and cattle for sale to the livestock market.
- purchasing – feed hay minerals and facility hardware supplies
- growing and bailing hay
- rotation of cattle in pastures and pasture maintenance.
- preparation for controlled burns and controlled burns.
- storm water management and flood control during or after storms.

April 2006 - January 2010 Ranch Hand Rum Creek Ranch/ CCTU Arcadia, Florida
Responsibilities are to feed and hay the cattle. Gather the cattle when it is time to work them. Work the cattle in the cow pens quarterly. Fix fencing, mowing, putting out mineral and molasses. Assist with controlled burns.

February 2005 - April 2006 Ranch Hand/ Tippin Bay Ranch Punta Gorda, Florida
Responsibilities are to feed and hay the cattle. Gather the cattle when it is time to work them. Work the cattle in the cow pens quarterly. Fix fencing, mowing, putting out mineral and molasses. Assist with controlled burns. Planted 10,000 Cypress trees, orange trees, and 5000 Washingtonian palms and ran irrigation for all those trees. I was also responsible for the feeding, watering, pen cleaning and exercising of the cattle dogs and the bird dogs.

2002 February 2005 Plantation Hand / Arrowhead Plantation Quitman Georgia
Responsibilities are care of the 30 horses. This includes feeding, hay, grooming, and cleaning Of stalls. Haltering the teams up to pull wagons for hunts. Planting and flooding the different habitats for wildlife. Helping set up habitats for incoming wildlife. Land management and conservation to keep the natural wildlife coming to the plantation. This is where I learned quite a bit about Conservation and land management, water management, animal habitats, poisonous plants, and controlled burning.

Education
2002 Brooks County High School

Workshops
Livestock Vaccination workshop
Cattle Reproduction workshop

PERSONAL RESUME

PATRICIA CLARK
[redacted]
Punta Gorda, Florida 33982
[redacted]

Summary of Experience:

5 years' experience in the care and husbandry of Rhinoceros (Southern White, Greater Indian).

5 years' experience in the care and husbandry of Tapirs (South American and Malaysian)

5 years' experience in the care and husbandry of Bovidae (domestic cattle, wild cattle {Banteng and Anoa} and lechwe.

5 years' experience in Neonatal Care (Rhinos, Lechwe, and Tapir)

Employment History

February 2018 — Present - CCTU Punta Gorda, Florida. Registrar & Neonate Care

Primary responsibilities are Neonatal Care and Registrar
Responsibilities include bottle feed and raise any animal that is orphaned or rejected by their dam. Fill in when needed as a keeper, assist Veterinarian with animal care procedures, and assist with animal movements when needed.
Maintain animal and health records for the animal collection, and the organization and maintenance off facility clinic.

Successfully bottle raised and introduce back into the groups the following:
4 Greater One Horned Rhino calves
3 Southern White Rhino calves,
8 Bongo calves,
2 Red Lechwe calves,
3 Nile Lechwe calves,
5 Lowland Tapir calves.
This requires close observation around the clock care. Responsibilities include milk preparation, bottle feeding, medical care along with the Veterinarian when needed and enclosure setup and maintenance, At the appropriate age for weaning, offer solids and hay. Reintroduction to herd or enclosures with other animals of their species for socialization.

Assisted with several large projects at CCTU facility.

Assisted with the moving of a large herd of 132 Nile Lechwe from 600acre pasture to several smaller pastures while breaking the heard in several smaller groups.

Assisted with the catch-up using chute and barriers of 140 Red Lechwes and shipping them another facility.

Assisted with the importation of a Malayan Tapir from Singapore. This included holding facility preparation to meet state and federal standard requirements, receiving and clearing the animal at port of entry, transport to CCTU, unloading and acclimating the tapir, quarantine care and observation and transfer to its permanent enclosure.

Assisted in CCTU's Banteng cattle Al Program led by SEZARC reproductive specialist. This included preparing the Banteng Cattle for the artificial insemination by administering lutalyse and inserted cedars three days prior to insemination. Assisted with the artificial insemination procedure, and subsequent pregnancy testing of the Banteng cattle to determine pregnancy.

Assisted in CCTU's biggest and most important acquisition, the importation of 10 Southern White Rhinos from Africa. This required extensive planning and teamwork. Assisted with the preparation of holding facility to meet the required state and federal standards, receiving, clearing and transporting the animals from Miami airport to CCTU. Assisted with the quarantine care, observation and maintenance of each animal while in quarantine.

December 2015 — February 2018 Cattle Secretary/ Keeper Rum Creek Ranch/CCTU Punta Gorda, Florida

Responsibilities are to keep the records for the Cattle Program, assist when needed as a keeper, and assist the Veterinarian when needed with animal Procedures.

February 2005 - April 2006 Ranch Hand/ Tippin Bay Ranch Punta Gorda, Florida
Responsibilities are to spray pesticide on invasive plants. Maintain small orange grove and cook meals for the cattle crew when they are cow working. Assist with controlled burns. Planted 10,000 Cypress trees, orange trees, and 5000 Washingtonian palms and ran irrigation for all those trees.

November 1999 — December 2004 Stable Manager Finley Farms Thomasville, Georgia

Responsibilities are to Oversee and assist with the care of up to fifty horses. This consist of Feeding, hay, watering, grooming, blanketing, and medicating if needed. Rotating in and out of stalls at feeding time and stall maintenance. Working with the clients that are boarding at the facility to make sure we are meeting all their needs and to collect payment from clients. Assist the Veterinarian and Ferrier when needed. Pasture and fence maintenance. Travel with owners to different locations to purchase animals and to transport animals to different facilities.

Education
1988 Palm Bay High School Palm Bay, Florida
1987-1988 Romar Cosmetology School Melbourne, Florida

2001-2003 South West Georgia College (Advanced Emergency Medical Technician) Thomasville, Georgia

Workshops (certifications)
First aid and CPR
Extrication
Chemical and placard identification
Emergency Delivery and childbirth

AZA Regional Studbook
Lowland Anoa (*Bubalus depressicornis*)

Photo Credit: Point Defiance Zoo and Aquarium

AZA Regional Studbook Keeper
Telena Welsh
Telena.Welsh@pdza.org
Point Defiance Zoo & Aquarium

Male

Current to Date
11/18/2022

Date of Publication
11/18/2022

788	MICANOPY	UNDETERMINED	Male	24-Dec-14	629	680	7Y,10M,25D
797	MICANOPY	UNDETERMINED	Female	12-Jul-15	573	575	7Y,4M,6D
833	MICANOPY	985114000054127		14-Nov-18	769	750	4Y,0M,4D
834	MICANOPY	985113001917132	Male	19-Sep-18	776	757	4Y,1M,30D

RUM CREEK / Center for Conservation of Tropical Ungulates - Total: 45 (19.26.0)

Studbook ID	Current Location	Current Local ID	Sex Type	Birth Date	Sire	Dam	Age
423	RUM CREEK	UNDETERMINED	Male	7-Feb-92	313	336	30Y,9M,11D
463	RUM CREEK	103126	Female	1-Mar-95	371	336	27Y,8M,17D
502	RUM CREEK	100013	Female	23-Sep-97	313	336	25Y,1M,26D
522	RUM CREEK	100032	Female	18-Apr-99	367	463	23Y,7M,0D
565	RUM CREEK	990094	Female	21-May-99	374	439	23Y,5M,28D
568	RUM CREEK	100097	Male	11-Feb-00	423	414	22Y,9M,7D
570	RUM CREEK	102113	Female	22-Jul-00	374	439	22Y,3M,27D
580	RUM CREEK	102098	Male	17-Nov-01	405	467	21Y,0M,1D
581	RUM CREEK	104140	Male	13-Apr-02	423	414	20Y,7M,5D
616	RUM CREEK	105064	Female	12-May-05	577	572	17Y,6M,6D
620	RUM CREEK	105007	Female	10-Jan-05	347	515	17Y,10M,8D
			Male				

			Male					
			Female					
639	RUM CREEK	107001	Male	26-Jan-07	580	502	15Y,9M,23D
647	RUM CREEK	-	Female	4-Jul-07	584	576	15Y,4M,14D

Male

Male

Female

670 RUM CREEK - 27-Jun-09 577 572 13Y,4M,22D

671 RUM CREEK 109046 8-Jul-09 568 570
13Y,4M,10D

679 RUM CREEK 109080 21-
Nov-09 573 578 12Y,11M,28D

691 RUM CREEK 110053 Female 10-
Sep-10 568 570 12Y,2M,8D

694 RUM CREEK 110073 Female 28-
Nov-10 622 616 11Y,11M,21D

702 RUM CREEK 111056 Female 16-
May-11 651 655 11Y,6M,2D

717 RUM CREEK 111110 Male 9-
Nov-11 631 634 11Y,0M,9D

723 RUM CREEK 112070 Male 25-
Apr-12 588 463 10Y,6M,24D

725 RUM CREEK 112126 Female 15-Jul-12 625
620 10Y,4M,3D

726 RUM CREEK 112131 Female 6-Aug-12 627
630 10Y,3M,12D

739 RUM CREEK 113010 Female 1-
Mar-13 631 634 9Y,8M,17D

741 RUM CREEK 113016 Male 27-
Mar-13 611 502 9Y,7M,22D

758 RUM CREEK 113203 Female 26-
Nov-13 622 636 8Y,11M,23D

764 RUM CREEK 114025 Female 3-
Mar-14 653 652 8Y,8M,15D

766 RUM CREEK 114029 Male 25-
Mar-14 651 655 8Y,7M,24D

Male

Male

Female

775 RUM CREEK 114104 Male 3-Aug-14 573 578 8Y,3M,15D

781 RUM CREEK 114115 Female 18-Oct-14 653 654 8Y,1M,0D

782 RUM CREEK 114116 Female 18-Oct-14 514 515 8Y,1M,0D

785 RUM CREEK 114147 Female 18-Dec-14 568 570 7Y,11M,0D **786** RUM CREEK 114148 19-Dec-14 423 671 7Y,10M,30D

790 RUM CREEK 115025 28-Feb-15 701 703 7Y,8M,21D

794 RUM CREEK 115087 25-Jun-15 625 620 7Y,4M,24D

798 RUM CREEK 115097 Female 31-Jul-15 695 697 7Y,3M,18D

804 RUM CREEK 115112 Male 11-Oct-15 653 654 7Y,1M,7D

809 RUM CREEK 116004 Male 1-Feb-16 631 634 6Y,9M,17D

810 RUM CREEK 116006 Male 14-Feb-16 627 630 6Y,9M,4D

811 RUM CREEK 116008 Male 17-Feb-16 573 578 6Y,9M,1D

813 RUM CREEK 116052 Female 27-May-16 596 589 6Y,5M,22D

815 RUM CREEK 116126 Female 16-Nov-16 514 515 6Y,0M,2D

820 RUM CREEK 116035 Female 4-Apr-16 639 674 6Y,7M,14D

Male

				Male	
				Female	
	823	RUM CREEK	116068	Male	10-
Jul-16	715	718	6Y,4M,8D		
	825	RUM CREEK	116096	Female	31-
Aug-16	684	682	6Y,2M,18D		

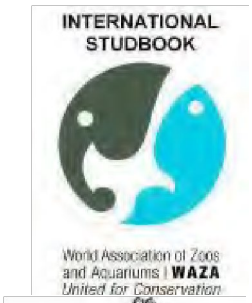
Male

2011
CENTRAL AMERICAN TAPIR
(*Tapirus bairdii)*

Baird's Tapir at ZooLeon Photo courtesy of ZooLeon Staff

INTERNATIONAL STUDBOOK

Studbook Keeper: Joseph Roman
Virginia
Zoological
Park
Norfolk,
Virginia
U.S.A.



222 M 1 Dec 2000 155 154 LA MARINA 1 Dec 2000 _____ Birth RONGI
065-598-027
26 Aug 2005 Death
[Death by: Unknown means]

223 F 20 Feb 2001 155 157 LA MARINA 20 Feb 2001 _____ Birth FICA
~Apr 2006±1m Death
[Death by: Unknown means]

224 F 13 Nov 2001 155 131 LA MARINA 13 Nov 2001 _____ Birth
SORPRESA
15 Nov 2001 Death
[Death by: Unknown means]

230 M 6 May 2005 160 187 LA MARINA 6 May 2005 _____ Birth ROMEO
086-068-372
RUM CREEK 15 Jan 2008 108004 Transfer
NASHV ZOO 24 Oct 2008 3001 Transfer

231 M 3 May 2005 92 106 SEDGWICK 3 May 2005 11085 Birth CAYOS
MEXICOCTY 1 Dec 2008 _____ Transfer

232 M ~ 2002 WILD WILD CHIAPAS 13 Nov 2002 NONE Capture
TZIMIN
TUXTLA 13 Nov 2002 _____ Transfer

233 F ~ 2000 WILD WILD OAXACA 6 Apr 2001 NONE Capture
PAQUITA
TUXTLA 6 Apr 2001 _____ Transfer

234 F ~ 2002 WILD WILD CHIAPAS 6 Nov 2002 NONE Capture
LILIANA
TUXTLA 6 Nov 2002 _____ Transfer

235 M 16 Apr 2005 118 186 VGRISELDA 16 Apr 2005 _____ Birth
CAMPEON 4A2A1C3F3C 236 M 13 Jan 2005 164 165
VGRISELDA 13 Jan 2005 _____ Birth CARLITOS 4924177062
237 F ~Sep 2005±1m WILD WILD DARIEN ~Dec 2005±1m NONE Capture LUCIA
SUMMIT ZO 18 Dec 2005 _____ Transfer

238 M 17 Nov 2005 33 95 BEIJING 17 Nov 2005 05-1 Birth

239 M 18 Jan 2006 102 149 WUPPERTAL 18 Jan 2006 206007 Birth CICO
968000004264012
BERLIN TP 22 Dec 2008 M03748

Loan to

240 M ~ 1996 WILD WILD WILD ~ 1998 NONE Capture VIUDO
MAMAJUA ~ 1998 0000D Transfer
???? Death
[Death by: Unknown means]

241 F ~ 1998 WILD WILD UNKNOWN ~ 1998 NONE Capture
ROSITA
MAMAJUA ~ 1998 0001D Transfer
1 Jan 2005 Death

P.J.JONES _____

PAIBAUMAN _____

PANAMA PANAMA
Central America, American Region

PANAMA P PANAMA CITY
Panama, Central America, American Region

PANYU Panyu Xiangjiang Safari Park
Panyu City, Guangzhou, China
86 84789023

PARAMUS Bergen County Zoological Park
216 Forest Avenue, Paramus, New Jersey, USA, 07652
(201)262-3771x114 fax: (201)986-1788 cnorton@co.bergen.nj.us
Contact: Cindy Norton Data current to 21 Apr 2012

PET FARM Pet Farm (Bern Levine)
3310 NW South River Dr, Miami, Florida, USA, 33142
PHILADELP The Philadelphia Zoo
3400 W Girard Ave., Philadelphia, Pennsylvania, USA, 19104
215.243.5214 fax: (215)243-0219
bahner.beth@phillyzoo.org
PUBLIC General Public

PUEBLA Africam Safari
11 Oriente #2407, Puebla, Puebla, Mexico, CP 72007
52.222.2817000x230 fax: 52 222 2817000x257 cholguin@africamsafari.com.mx
Contact: Carolina Holguin Data current to 21 Apr 2012

PYONGYANG Pyongyang Zoological Park
Pyongyang, North Korea

R CHAPMAN _____

R. WILSON _____

RUM CREEK Center for Conserv. of Trop. Ungulates
46470 Farabee Road, Punta Gorda, Florida, USA, 33982
1.941.637.3827 fax: (863)993-4547 cctu@desoto.net

S BARBARA Santa Barbara Zoological Gardens
500 Ninos Dr., Santa Barbara, California, USA, 93103-3798
(805)962-5339x32 fax: (805)962-3056
wstanford@sbzoo.org
SAN ANTON San Antonio Zoological Gardens & Aqua
3903 N. St. Mary's Street, San Antonio, Texas, USA, 78212-3199
(210)734-7184x162 fax: (210)734-7291 zooregistrar@sazoo-aq.org
Contact: Demi Peterson Data current to 5 Aug 2003

SAN FRAN San Francisco Zoological Gardens
1 Zoo Rd., San Francisco, California, USA, 94132-1098
(415)753-7176 fax: (415)681-4749 ingridr@sfzoo.org

Contact: Ingrid Russel-White, Cur Animal Col Data current to 21 Apr 2012

SANDIEGOZ San Diego Zoo
PO Box 120551, San Diego, California, USA, 92112-0551
(619)685-3250 fax: 619.232.4117 tgiezendan@sandiegozoo.org
Contact: Toni Giezendanner

SANJOSECR Zoologico Nacional Simon Bolivar
Fundacion por Zoologicos, San Jose, Costa Rica
506 256 0012 fax: 506 223 1817 fundazoo@racsa.co.cr
Contact: Federico Chinchilla

Population Analysis & Breeding and Transfer Plan

Banteng (*Bos javanicus*)
AZA Species Survival Plan
Red Program

AZA Species Survival Plan Coordinator
Steve Metzler, San Diego Zoo Safari Park
(smetzler@sdzwa.org)

AZA Studbook Keeper
Curt Coleman, The Wilds
(ccoleman@thewilds.org)

Adjunct Population Advisor
Jamie Ivy, PhD, San Diego Zoo Wildlife Alliance
(jivy@sdzwa.org)

22June 2021

PMC Population Management Center
LINCOLN PARK ZOO. ASSOCIATION OF ZOOS & AQUARIUMS
San Diego Zoo Wildlife Alliance

171	UNK	MULT4	81	-	Born at SD-WAP. MULT created from only two males present at SD-WAP on conception date. MULT4 = 94, 149
402	UNK	266	321	-	Born at SD-WAP. Sire assumed to be AZA 266 because all other offspring born around the same time at SDWAP were assigned that sire.
396	UNK	206	361	-	Conceived at DISNEY AK; AZA 206 was the only male present at the time.
404	UNK	MULT5	359	-	Born at PEACE RV. MULT created from animals known to have been transferred in prior to conception date. MULT5 = 348, 349, 376
502 569 570 571	UNK	MULT6	UNK	MULT7	Born at RUM CREEK. MULT created from animals known to have been transferred in (from PEACE RV) prior to conception dates. MULT6 = 329, 338, 349, 376, 393, 423, 424 MULT7 = 158, 170, 172, 182, 183, 278, 284, 308, 342, 345, 350, 359, 361, 363, 366, 377, 378, 382

493 502 571	UNK UNK UNK	MULT8 MULT10 MULT10	MULT9 MULT11 MULT11	UNK UNK UNK	Born at RUM CREEK. All animals reported as being at either PEACE RV or RUM CREEK are assumed to belong to a single herd. MULT created from animals with birth locations outside of RUM CREEK or PEACE RV that are known to have been transferred into RUM CREEK or PEACE RV prior to conception dates (so MULT represents "founder lineages" for the herd). MULT8 = 161, 329, 338, 348, 517 MULT9 = 158, 164, 170, 172, 278, 284, 308, 361, 363

SB#	Sire	New Sire	Dam	New Dam	Notes
502 571	UNK	MULT10	MULT11	UNK	Born at RUM CREEK. All animals reported as being at either PEACE RV or RUM CREEK are assumed to belong to a single herd. MULT created from animals with birth locations outside of RUM CREEK or PEACE RV that are known to have been transferred into RUM CREEK or PEACE RV prior to conception dates (so MULT represents "founder lineages" for the herd). MULT10 = 161, 329, 338, 348, 349, 376, 393, 423, 424, 449, 517 MULT11 = 158, 164, 170, 172, 182, 183, 278, 284, 308, 342, 345, 350, 359, 361, 363, 366, 377, 378, 382, 450

570 631 569 632	UNK	MULT12	MULT13	UNK	Born at RUM CREEK. All animals reported as being at either PEACE RV or RUM CREEK are assumed to belong to a single herd. MULT created from animals with birth locations outside of RUM CREEK or PEACE RV that are known to have been transferred into RUM CREEK or PEACE RV prior to conception dates (so MULT represents "founder lineages" for the herd). MULT12 = 161, 329, 338, 348, 349, 376, 393, 423, 424, 449, 497, 517 MULT13 = 158, 164, 170, 172, 182, 183, 278, 284, 308, 342, 345, 350, 359, 361, 363, 366, 377, 378, 382, 430, 450

Additional Notes: Remaining unknown pedigree is due to SB#s 517 and 430, which are included in the RUM CREEK MULTs; further resolution is difficult. SB# 517 originated at BULVERDE and there is little data on which to base origin/parentage assumptions. SB# 430 was born at SD-WAP but there were a large number of males present at the time (sire is UNK) and creating a large MULT to resolve the small amount of pedigree that descends from this individual was not currently deemed worthwhile.

Population Analysis & Breeding and Transfer Plan

Greater One-Horned Rhinoceros (*Rhinoceros unicornis*)
AZA Species Survival® Plan
Signature Program

AZA Species Survival® Plan Coordinator
Scotty Wade, White Oak Conservation (swade@white-oak.org)

AZA Studbook Keeper
Cody Cseplo, The Wilds (ccseplo@thewilds.org)

AZA Population Advisor
Jamie A. Ivy, PhD (jivy@jamieivy.com)

6 June 2023

PMC Population Management Center

LINCOLN PARK ZOO. ASSOCIATION OF ZOOS & AQUARIUMS

WHITE OAK CONSERVATION

RUM CREEK
Center for the Conservation of Tropical Ungulates
Arcadia, FL

Facility Note (Sustainability Partner): The following animals have low mean kinships and are of high genetic value to the population: M440 and M473. The following animals are over-represented but have mean kinships that are closer to the population average (therefore of moderate genetic value): M506, F488, and F517. The following animals are overrepresented (high mean kinships) and currently of little genetic value to the population: M351, M487, M502, M503, M504, M505, M513, M514, M519, F143, F230, F288, F402, F436, F444, F466, F486, F516. Please refer to Appendix E to review mean kinships in the context of the full population. Breed your animals at your discretion, while considering the following caveats about inbreeding:

Avoid breeding the following pairs due to high inbreeding:
M440 should not be bred with F230
M473 should not be bred with F230
M351 should not be bred with F436 or F466

Juveniles have not yet been given breeding recommendation due to their age; if those animals reach reproductive maturity before the next Breeding and Transfer Plan, please contact the SSP Coordinator for interim breeding recommendations if needed.

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
143	109090	F	35	HOLD	RUM CREEK	SEE NOTES		
230	115060	F	27	HOLD	RUM CREEK	SEE NOTES		
288	109091	F	20	HOLD	RUM CREEK	SEE NOTES		
351	122009	M	22	HOLD	RUM CREEK	SEE NOTES		
402	115083	F	14	HOLD	RUM CREEK	SEE NOTES		
436	110065	F	12	HOLD	RUM CREEK	SEE NOTES		
440	121182	M	11	HOLD	RUM CREEK	SEE NOTES		
444	112051	F	11	HOLD	RUM CREEK	SEE NOTES		
466	117042	F	8	HOLD	RUM CREEK	SEE NOTES		
473	115115	M	7	HOLD	RUM CREEK	SEE NOTES		
486	118002	F	5	HOLD	RUM CREEK	SEE NOTES		
487	118008	M	5	HOLD	RUM CREEK	DO NOT BREED		juvenile
488	118089	F	4	HOLD	RUM CREEK	SEE NOTES		
502	119147	M	3	HOLD	RUM CREEK	DO NOT BREED		juvenile
503	119148	M	3	HOLD	RUM CREEK	DO NOT BREED		juvenile
504	119169	M	3	HOLD	RUM CREEK	DO NOT BREED		juvenile
505	120001	M	3	HOLD	RUM CREEK	DO NOT BREED		juvenile
506	120027	M	3	HOLD	RUM CREEK	DO NOT BREED		juvenile
513	121094	M	1	HOLD	RUM CREEK	DO NOT BREED		juvenile
514	121178	M	1	HOLD	RUM CREEK	DO NOT BREED		juvenile
516	121207	F	1	HOLD	RUM CREEK	DO NOT BREED		juvenile

517	122010	F	1	HOLD	RUM CREEK	DO NOT BREED		juvenile
519	122046	M	0	HOLD	RUM CREEK	DO NOT BREED		juvenile

Draft for Institutional Representative Review – Please Respond by 19 April 2024

Population Analysis & Breeding and Transfer Plan

Malayan (Asian) Tapir (*Tapirus indicus*)
AZA Species Survival Plan®
Signature Program

AZA Species Survival Plan® Coordinator and Studbook Keeper
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19 March 2024

PMC Population Management Center

LINCOLN PARK ZOO.

ASSOCIATION OF ZOOS & AQUARIUMS

RUM CREEK
Center for the Conservation of Tropical Ungulates
Punta Gorda, FL

Facility notes: Prioritize breeding pairings with MateRx ratings 1,2,3 and 4. Avoid breeding pairings rated 5,6 and "-".

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
794	106033	M	18	HOLD	RUM CREEK	SEE MATERX		
821	**107039**	**M**	**16**	**HOLD**	**RUM CREEK**	**SEE MATERX**		**Genetically valuable. Priority for breeding.**
823	**118049**	**M**	**16**	**HOLD**	**RUM CREEK**	**SEE MATERX**		**Genetically valuable. Priority for breeding.**
838	110040	F	13	HOLD	RUM CREEK	SEE MATERX		
844	112152	F	11	HOLD	RUM CREEK	SEE MATERX		
848	103227	M	9	HOLD	RUM CREEK	SEE MATERX		
851	114114	F	9	HOLD	RUM CREEK	SEE MATERX		
866	119209	F	5	HOLD	RUM CREEK	SEE MATERX		
871	119055	M	4	HOLD	RUM CREEK	SEE MATERX		
872	**119164**	**F**	**4**	**HOLD**	**RUM CREEK**	**SEE MATERX**		**Genetically valuable. Priority for breeding.**
873	**120072**	**F**	**3**	**HOLD**	**RUM CREEK**	**SEE MATERX**		**Genetically valuable. Priority for breeding.**
874	120145	F	3	HOLD	RUM CREEK	SEE MATERX		
1801	**121208**	**M**	**2**	**HOLD**	**RUM CREEK**	**SEE MATERX**		**Genetically valuable. Priority for breeding.**

MateRx for RUM CREEK group.
See notes and refer to Explanation of Recommendations using MateRx on page 8.

AZA Regional Studbook

Nile Lechwe (*Kobus megaceros*)

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Current to Date
08/24/2022

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9/8/2022

									Death	Oct 10,
1010	JOHNSON L	_____	Male	May 11, 2004	Undetermined (Lost to follow up)	UND	952	Captive Birth/Hatch	Birth/Hatch	May 11,
									Transfer	Apr 15,
									GO LTF	Apr 15,
1011	AMIG GR R	_____	Male	May 15, 2004	Undetermined (Lost to follow up)	836	960	Captive Birth/Hatch	Birth/Hatch	May 15,
									Transfer	Feb 23,
									Transfer	Mar 11,
									GO LTF	Mar 11,
1012	ASHEBORO	1688	Female	Sep 21, 2004	Dead	836	940	Captive Birth/Hatch	Birth/Hatch	Sep 21,
									Transfer	Nov 09,
									Death	Feb 07,
1013	PEACE RV	104222	Undetermined	Nov 10, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 10,
									Death	Dec 25,
1014	PEACE RV	104223	Undetermined	Nov 10, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 10,
									Death	Dec 19,
1015	RUM CREEK	104226	Female	Nov 17, 2004	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 17,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1016	BERRY JIM	-	Male	Nov 20, 2004	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 20,
									Transfer	Dec 15,
									GO LTF	Dec 15,
1017	RUM CREEK	104228	Female	Nov 28, 2004	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 28,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1018	BULVERDE	_____	Male	Nov 29, 2004	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 29,

Studbook	**Current Location**	**Current Local ID**	**Sex**	**Birth Date**	**Current Status**	**Sire**	**Dam**	**Birth Type**	**Event Type**	**Date**

ID										
									Transfer	Aug 01,
									GO LTF	Aug 01,
1019	PEACE RV	104235	Undetermined	Dec 09, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 09,
									Death	Jan 06,
1020	PEACE RV	104236	Undetermined	Dec 09, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 09,
									Death	Jan 05,
1021	PEACE RV	104237	Undetermined	Dec 09, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 09,
									Death	Jan 03,
1022	PEACE RV	104238	Undetermined	Dec 09, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 09,
									Death	Dec 30,
1023	PEACE RV	104239	Undetermined	Dec 09, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 09,
									Death	Dec 27,
1024	SD-WAP	604260	Female	Jul 06, 2004	Dead	UND	941	Captive Birth/Hatch	Birth/Hatch	Jul 06,
									Death	Jul 12,
1025	SD-WAP	604405	Male	Dec 08, 2004	Dead	UND	563	Captive Birth/Hatch	Birth/Hatch	Dec 08,
									Death	Dec 12,
1026	HOLIDAY	_____	Male	Jan 15, 2005	Undetermined (Lost to follow up)	UND	942	Captive Birth/Hatch	Birth/Hatch	Jan 15,
									Transfer	Mar 23,
									GO LTF	Mar 23,
1027	PEACE RV	104245	Undetermined	Dec 14, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 14,
									Death	Dec 26,
1028	W PALM BE	E060	Male	Nov 20, 2004	Dead	949	962	Captive Birth/Hatch	Birth/Hatch	Nov 20,
									Death	Jan 03,

1029	W PALM BE	E061	Female	Nov 24, 2004	Dead	949	838	Captive Birth/Hatch	Birth/Hatch	Nov 24,
									Death	Feb 01,
1030	W PALM BE	E062	Female	Nov 27, 2004	Dead	949	708	Captive Birth/Hatch	Birth/Hatch	Nov 27,
									Death	Feb 25,
1031	SD-WAP	605019	Male	Jan 27, 2005	Dead	UND	946	Captive Birth/Hatch	Birth/Hatch	Jan 27,
									Death	Jan 27,

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date
1032	SD-WAP	605023	Male	Mar 02, 2005	Dead	UND	857	Captive Birth/Hatch	Birth/Hatch	Mar 02,
									Death	Mar 23,
1033	JOHNSON L	_____	Male	Mar 19, 2005	Undetermined (Lost to follow up)	UND	952	Captive Birth/Hatch	Birth/Hatch	Mar 19,
									Transfer	Apr 15,
									GO LTF	Apr 15,
1034	SD-WAP	605074	Male	Mar 27, 2005	Dead	UND	846	Captive Birth/Hatch	Birth/Hatch	Mar 27,
									Death	Mar 27,
1035	SD-WAP	605242	Female	May 30, 2005	Dead	UND	941	Captive Birth/Hatch	Birth/Hatch	May 30,
									Death	Mar 27,
1036	SD-WAP	605272	Female	Jun 21, 2005	Dead	UND	979	Captive Birth/Hatch	Birth/Hatch	Jun 21,
									Death	Jun 21,
1037	BULVERDE	_____	Male	Dec 31, 2004	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 31,
									Transfer	Aug 01,
									GO LTF	Aug 01,
1038	RUM CREEK	105015	Female	Jan 25, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jan 25,
									Transfer	Dec 29,
									GO LTF	Dec 02,

1039	PEACE RV	105042	Undetermined	May 19, 2005	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	May 19,
									Death	May 19,
1040	PEACE RV	105043	Undetermined	May 19, 2005	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	May 19,
									Death	May 19,
1041	RUM CREEK	105056	Female	Jun 01, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jun 01,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1042	RUM CREEK	105057	Female	Jun 01, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jun 01,
									Transfer	Dec 29,
									GO LTF	Dec 02,

Studbook ID	**Current Location**	**Current Local ID**	**Sex**	**Birth Date**	**Current Status**	**Sire**	**Dam**	**Birth Type**	**Event Type**	**Date**
1043	RUM CREEK	105101	Female	Oct 07, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 07,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1044	BULVERDE	-	Undetermined	Oct 18, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 18,
									Transfer	Dec 29,
									Transfer	Jan 13,
									GO LTF	Jan 13,
1045	RUM CREEK	105104	Female	Oct 18, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 18,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1046	HOLIDAY	_____	Male	Oct 16, 2005	Undetermined (Lost to follow up)	UND	1008	Captive Birth/Hatch	Birth/Hatch	Oct 16,
									Transfer	Mar 23,
									GO LTF	Mar 23,
1047	W PALM BE	F078	Male	Nov 23, 2005	Dead	1002	933	Captive Birth/Hatch	Birth/Hatch	Nov 23,
									Death	Nov 23,

1048	SD-WAP	605404	Male	Nov 23, 2005	Dead	UND	942	Captive Birth/Hatch	Birth/Hatch	Nov 23,
									Death	Nov 25,
1049	SD-WAP	605415	Male	Dec 10, 2005	Dead	UND	946	Captive Birth/Hatch	Birth/Hatch	Dec 10,
									Death	Dec 10,
1050	SD-WAP	606015	Female	Jan 26, 2006	Dead	UND	952	Captive Birth/Hatch	Birth/Hatch	Jan 26,
									Death	Jan 29,
1051	SD-WAP	606050	Male	Mar 22, 2006	Dead	UND	941	Captive Birth/Hatch	Birth/Hatch	Mar 22,
									Death	Mar 23,
1052	BULVERDE	-	Undetermined	Oct 31, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 31,
									Transfer	Dec 29,
									Transfer	Jan 13,
									GO LTF	Jan 13,
1053	RUM CREEK	105109	Undetermined	Nov 08, 2005	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 08,

Studbook ID	**Current Location**	**Current Local ID**	**Sex**	**Birth Date**	**Current Status**	**Sire**	**Dam**	**Birth Type**	**Event Type**	**Date**
									Transfer	Dec 29,
									Death	Jan 07,
1054	RUM CREEK	105110	Female	Nov 08, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 08,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1055	RUM CREEK	105111	Undetermined	Nov 15, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 15,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1056	BERRY JIM	-	Undetermined	Nov 20, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 20,
									Transfer	Dec 29,
									Transfer	Jan 12,
									GO LTF	Jan 12,

1057	RUM CREEK	105138	Female	Dec 01, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1058	RUM CREEK	105139	Female	Dec 02, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 02,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1059	RUM CREEK	105140	Female	Dec 03, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 03,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1060	RUM CREEK	105141	Female	Dec 04, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 04,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1061	RUM CREEK	105142	Female	Dec 05, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 05,
									Transfer	Dec 29,
									GO LTF	Dec 02,

Studbook ID	**Current Location**	**Current Local ID**	**Sex**	**Birth Date**	**Current Status**	**Sire**	**Dam**	**Birth Type**	**Event Type**	**Date**
1062	RUM CREEK	105143	Female	Dec 06, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 06,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1063	RUM CREEK	105194	Female	Dec 07, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 07,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1064	RUM CREEK	105144	Female	Dec 08, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 08,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1065	RUM CREEK	105145	Female	Dec 09, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 09,

									Transfer	Dec 29,
									GO LTF	Dec 02,
1066	RUM CREEK	105146	Female	Dec 10, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 10,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1067	RUM CREEK	105147	Female	Dec 11, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 11,
									Transfer	Dec 29,
									GO LTF	Dec 02,
1068	BERRY JIM	-	Undetermined	Dec 18, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 18,
									Transfer	Dec 29,

AZA Regional Studbook Publication

Pygmy Hippopotamus (*Choeropsis liberiensis*)

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4 January 2024

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23 January 2024

1241	JACKSON	Male	Mar 20, 2008	1161	1162	Birth/hatch	Mar 20, 2008	RUM CREEK	108031
						Transfer	Mar 08, 2012	LOWRY	102983
						Transfer	Mar 20, 2017	JACKSON	201312
1283	JACKSON	Female	Jan 24, 2009	1135	1147	Birth/hatch	Jan 24, 2009	BROWNSVIL	10292
						Transfer	Jan 25, 2011	JACKSON	201031

Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
1455	JOHN BALL	Male	Aug 28, 2014	902	931	Birth/hatch	Aug 28, 2014	LOUISVILL	103441
						Transfer	Jun 07, 2016	PITTSBURG	103037
						Transfer	Mar 09, 2023	JOHN BALL	UND
1570	JOHN BALL	Female	Aug 10, 2018	925	1192	Birth/hatch	Aug 10, 2018	TORONTO	50332
						Transfer	Jun 20, 2023	JOHN BALL	UND
1171	JOHNSON L	Female	Dec 13, 2004	1161	817	Birth/hatch	Dec 13, 2004	PEACE RV	104244
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	104244
						Transfer	Oct 13, 2023	JOHNSON L	UND
1343	JOHNSON L	Female	Apr 16, 2010	894	1171	Birth/hatch	Apr 16, 2010	RUM CREEK	110029
						Transfer	Oct 13, 2023	JOHNSON L	UND
1453	JOHNSON L	Male	Aug 20, 2014	1161	1178	Birth/hatch	Aug 20, 2014	RUM CREEK	114108
						Transfer	Oct 13, 2023	JOHNSON L	UND
1482	JOHNSON L	Female	Oct 18, 2015	894	1167	Birth/hatch	Oct 18, 2015	RUM CREEK	115113
						Transfer	Oct 13, 2023	JOHNSON L	UND
1505	JOHNSON L	Female	Jul 02, 2016	894	1230	Birth/hatch	Jul 02, 2016	RUM CREEK	116065
						Transfer	Oct 13, 2023	JOHNSON L	UND
1537	JOHNSON L	Female	May 13, 2017 +/- 1 day	1211	817	Birth/hatch	May 13, 2017 +/- 1 day	RUM CREEK	117046
						Transfer	Oct 13, 2023	JOHNSON L	UND
1608	JOHNSON L	Male	Dec 12, 2019	894	1167	Birth/hatch	Dec 12, 2019	RUM CREEK	119213
						Transfer	Oct 13, 2023	JOHNSON L	UND
1633	JOHNSON L	Female	Sep 04, 2020	894	1457	Birth/hatch	Sep 04, 2020	RUM CREEK	120120

						Transfer	Oct 13, 2023	JOHNSON L	UND
902	LOUISVILL	Male	Sep 16, 1993	421	438	Birth/hatch	Sep 16, 1993	CHICAGOLP	9751
						Transfer	Nov 23, 1994	NZP-WASH	111532
						Transfer	Apr 18, 2002	LOUISVILL	102319
1522	LOUISVILL	Female	Dec 24, 2016	1422	1283	Birth/hatch	Dec 24, 2016	JACKSON	201303
						Transfer	May 24, 2022	LOUISVILL	103820
1093	LOWRY	Male	Dec 01, 2001	460	931	Birth/hatch	Dec 01, 2001	OKLAHOMA	770103
						Transfer	Apr 17, 2003	CHICAGOLP	20764

Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
						Transfer	Oct 14, 2021	LOWRY	103586
1143	LOWRY	Female	Nov 26, 2003	521	452	Birth/hatch	Nov 26, 2003	SINGAPORE	G9799
						Transfer	Apr 04, 2006	LOWRY	102184
						Transfer	Jun 30, 2006	SALISB L	NONE
						Transfer	Mar 09, 2007	LOWRY	102184
1213	METRORICH	Female	Oct 11, 2006	894	1162	Birth/hatch	Oct 11, 2006	PEACE RV	106125
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	106125
						Transfer	May 28, 2018	METRORICH	118019
1498	METRORICH	Male	Apr 03, 2016	1117	1252	Birth/hatch	Apr 03, 2016	MONTGOMRY	4056
						Transfer	Jun 14, 2017	METRORICH	117042
1595	METRORICH	Female	Aug 04, 2019	1423	1338	Birth/hatch	Aug 04, 2019	MONTGOMRY	4180
						Transfer	Jul 09, 2020	METRORICH	120010
1706	METRORICH	Female	Dec 06, 2022	1498	1213	Birth/hatch	Dec 06, 2022	METRORICH	22133
864	METROZOO	Female	Jun 15, 1992	448	453	Birth/hatch	Jun 15, 1992	BATONROUG	M2542
						Transfer	Jan 01, 1993 +/- 15 day	HOLIDAY	UNK
						Transfer	May 11, 1993	METROZOO	M01623

1569	METROZOO	Male	Aug 04, 2018	1422	864	Birth/hatch	Aug 04, 2018	METROZOO	18M107
1117	MONTGOMRY	Male	Jan 15, 2002	521	452	Birth/hatch	Jan 15, 2002	SINGAPORE	G8660
						Transfer	Jun 09, 2005	MONTGOMRY	3446
1252	MONTGOMRY	Female	Nov 13, 2008	1064	938	Birth/hatch	Nov 13, 2008	MARWELL	8258
						Transfer	Sep 19, 2012	MONTGOMRY	3924
1338	MONTGOMRY	Female	Nov 14, 2010	1053	864	Birth/hatch	Nov 14, 2010	METROZOO	10M145
						Transfer	Nov 01, 2014	MONTGOMRY	4000
1423	MONTGOMRY	Male	Feb 22, 2013	1135	1147	Birth/hatch	Feb 22, 2013	BROWNSVIL	11139
						Transfer	Oct 30, 2014	MONTGOMRY	3999
1604	MONTGOMRY	Female	Dec 22, 2019	1423	1252	Birth/hatch	Dec 22, 2019	MONTGOMRY	5050
1689	MONTGOMRY	Male	Feb 03, 2022	1117	1338	Birth/hatch	Feb 03, 2022	MONTGOMRY	4343
880	OMAHA	Male	Jan 13, 1991	341	342	Birth/hatch	Jan 13, 1991	BROWNSVIL	4679
						Transfer	Oct 26, 1991	OMAHA	6209

Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
1063	OMAHA	Female	Mar 01, 2000	521	452	Birth/hatch	Mar 01, 2000	SINGAPORE	G7168
						Transfer	Oct 01, 2003	CHICAGOLP	20943
						Transfer	Nov 23, 2010	OMAHA	20517
444	RUM CREEK	Female	Apr 30, 1976	110	187	Birth/hatch	Apr 30, 1976	NY BRONX	761102
						Transfer	Jul 27, 1982	CHICAGOLP	6811
						Transfer	Oct 27, 2000	SAN FRAN	100047
						Transfer	Mar 17, 2004	NZP-WASH	113871
						Transfer	Jan 10, 2009	LOWRY	102763
						Transfer	Sep 30, 2009	LOWRY	102763
						Transfer	Jul 01, 2010	RUM CREEK	110041
641	RUM CREEK	Female	Aug 01, 1983	448	453	Birth/hatch	Aug 01, 1983	BATONROUG	M1310
						Transfer	Mar 14, 1984	EDMOND	UNK

						Transfer	Mar 14, 1984	HOLIDAY	UNK
						Transfer	Feb 22, 1997	SIX FLAGS	UNK
						GO LTF	Feb 22, 1997	SIX FLAGS	UNK
						Return from LTF	Jun 30, 2000	SIX FLAGS	UNK
						Transfer	Jun 30, 2000	SIX FLAGS	UNK
						Transfer	Jul 01, 2000	MT ULLA	UNK
						Transfer	Sep 10, 2002	PEACE RV	102069
						Transfer	Jan 15, 2007	RUM CREEK	102069
772	RUM CREEK	Female	Feb 19, 1988	400	399	Birth/hatch	Feb 19, 1988	DUISBURG	566
						Transfer	Aug 21, 1989	ZOOANIMAL	1031
						Transfer	Aug 22, 1989	PARIS ZOO	Z89109
						Transfer	Nov 06, 2008	ZURICH	A80536
						Transfer	May 28, 2015	RUM CREEK	115073
817	RUM CREEK	Female	May 02, 1990	310	548	Birth/hatch	May 02, 1990	DVURKRALV	73025
						Transfer	Oct 11, 1999	PEACE RV	990071
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	990071
1017	RUM CREEK	Female	Mar 08, 1998	310	548	Birth/hatch	Mar 08, 1998	DVURKRALV	73031
						Transfer	Oct 11, 1999	PEACE RV	990072
						Transfer	Apr 19, 2002	LOUISVILL	102323

Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
						Transfer	Jan 15, 2007 +/- 15 day	LOUISVILL	102323
						Transfer	Oct 21, 2008	RUM CREEK	990072
1077	RUM CREEK	Female	Nov 26, 2000	746	741	Birth/hatch	Nov 26, 2000	BOISSIERE	HHP7
						Transfer	Mar 31, 2004	LISIEUX Z	M04027
						Transfer	May 28, 2015	RUM CREEK	115075
1096	RUM CREEK	Female	Mar 19, 2001	945	989	Birth/hatch	Mar 19, 2001	HOUSTON	19251
						Transfer	May 02, 2002	PEACE RV	102036
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	102036

1162	RUM CREEK	Female	Jul 01, 1998 +/- 6 month	UND	UND	Birth/hatch	Jul 01, 1998 +/- 6 month	UND	-
						Transfer	UND	BULVERDE	UNK
						Transfer	Mar 20, 2002	PEACE RV	102020
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	102020
1167	RUM CREEK	Female	Apr 08, 2003	1161	817	Birth/hatch	Apr 08, 2003	PEACE RV	103037
						Transfer	Jan 15, 2007 +/- 6 month	RUM CREEK	103037
1169	RUM CREEK	Female	Sep 12, 2004	1161	1162	Birth/hatch	Sep 12, 2004	PEACE RV	104198
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	104198
1170	RUM CREEK	Male	Oct 19, 2004	1161	253	Birth/hatch	Oct 19, 2004	PEACE RV	104213
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	104213
1178	RUM CREEK	Female	May 04, 2005	902	1017	Birth/hatch	May 04, 2005	LOUISVILL	102566
						Transfer	Jan 30, 2008	RUM CREEK	106110
1211	RUM CREEK	Male	May 29, 2006	1161	1096	Birth/hatch	May 29, 2006	PEACE RV	106074
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	106074
1228	RUM CREEK	Male	Oct 14, 2007	1098	1107	Birth/hatch	Oct 14, 2007	ATTICAZOO	MHEL03
						Transfer	Dec 10, 2008	ZURICH	A80554
						Transfer	May 28, 2015	RUM CREEK	115072
1230	RUM CREEK	Female	Dec 02, 2007	1161	817	Birth/hatch	Dec 02, 2007	RUM CREEK	107111
1239	RUM CREEK	Female	Feb 24, 2008	894	1167	Birth/hatch	Feb 24, 2008	RUM CREEK	108024
1249	RUM CREEK	Female	Sep 25, 2008	894	641	Birth/hatch	Sep 25, 2008	RUM CREEK	108095
1255	RUM CREEK	Female	May 12, 2008	894	1096	Birth/hatch	May 12, 2008	RUM CREEK	108046
1288	RUM CREEK	Male	May 31, 2009	928	893	Birth/hatch	May 31, 2009	BOGOR	NONE
						Transfer	Mar 28, 2014	RUM CREEK	114030
1293	RUM CREEK	Female	Jul 24, 2009	1170	1178	Birth/hatch	Jul 24, 2009	RUM CREEK	109050

Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
1308	RUM CREEK	Female	Dec 23, 2009	894	1167	Birth/hatch	Dec 23, 2009	RUM CREEK	109093
1342	RUM CREEK	Female	Apr 08, 2010	1170	1096	Birth/hatch	Apr 08, 2010	RUM CREEK	110028
1389	RUM CREEK	Female	Mar 05, 2012	856	834	Birth/hatch	Mar 05, 2012	LISBON	11409
						Transfer	Jun 04, 2015	RUM CREEK	115079

1392	RUM CREEK	Female	Mar 25, 2012	1161	1162	Birth/hatch	Mar 25, 2012	RUM CREEK	112061
1399	RUM CREEK	Female	Jul 16, 2012	894	1169	Birth/hatch	Jul 16, 2012	RUM CREEK	112127
1405	RUM CREEK	Female	Sep 09, 2012	1161	1178	Birth/hatch	Sep 09, 2012	RUM CREEK	112138
1408	RUM CREEK	Male	Oct 16, 2012	894	1171	Birth/hatch	Oct 16, 2012	RUM CREEK	112148
1409	RUM CREEK	Male	Nov 01, 2012	1170	1017	Birth/hatch	Nov 01, 2012	RUM CREEK	112157
1425	RUM CREEK	Female	Apr 22, 2013	894	1230	Birth/hatch	Apr 22, 2013	RUM CREEK	113051
1427	RUM CREEK	Male	Aug 03, 2013	1170	1213	Birth/hatch	Aug 03, 2013	RUM CREEK	113075
1428	RUM CREEK	Female	Aug 21, 2013	894	1167	Birth/hatch	Aug 21, 2013	RUM CREEK	113129
1430	RUM CREEK	Female	Sep 01, 2013	1170	1096	Birth/hatch	Sep 01, 2013	RUM CREEK	113132
1435	RUM CREEK	Male	Nov 16, 2013	1161	1162	Birth/hatch	Nov 16, 2013	RUM CREEK	113182
1436	RUM CREEK	Female	Nov 24, 2013	1211	1249	Birth/hatch	Nov 24, 2013	RUM CREEK	113183
1441	RUM CREEK	Female	Jan 02, 2014	1197	1177	Birth/hatch	Jan 02, 2014	QUINTASI	2939
						Transfer	Jun 04, 2015	RUM CREEK	115078
1444	RUM CREEK	Female	Jan 24, 2014	1227	623	Birth/hatch	Jan 24, 2014	BRATISLAV	M2444
						Transfer	May 28, 2015	RUM CREEK	115074
1447	RUM CREEK	Female	Mar 23, 2014	1161	817	Birth/hatch	Mar 23, 2014	RUM CREEK	114028
1457	RUM CREEK	Female	Oct 11, 2014	1241	1143	Birth/hatch	Oct 11, 2014	LOWRY	103203
						Transfer	Mar 13, 2017	RUM CREEK	117018
1458	RUM CREEK	Female	Nov 11, 2014	1161	1169	Birth/hatch	Nov 11, 2014	RUM CREEK	114126
1470	RUM CREEK	Male	Feb 28, 2015	894	1171	Birth/hatch	Feb 28, 2015	RUM CREEK	115024
1475	RUM CREEK	Female	May 31, 2015	1170	1096	Birth/hatch	May 31, 2015	RUM CREEK	115076
1480	RUM CREEK	Male	Sep 28, 2015	1170	1213	Birth/hatch	Sep 28, 2015	RUM CREEK	115110
1500	RUM CREEK	Female	Apr 06, 2016	1170	1017	Birth/hatch	Apr 06, 2016	RUM CREEK	116037
1503	RUM CREEK	Male	Jun 18, 2016	1228	1293	Birth/hatch	Jun 18, 2016	RUM CREEK	116060
1510	RUM CREEK	Female	Sep 26, 2016	1359	1178	Birth/hatch	Sep 26, 2016	RUM CREEK	116105
1517	RUM CREEK	Male	Dec 04, 2016	1170	1096	Birth/hatch	Dec 04, 2016	RUM CREEK	116134
1518	RUM CREEK	Female	Dec 11, 2016	1228	1077	Birth/hatch	Dec 11, 2016	RUM CREEK	116137
1523	RUM CREEK	Male	Feb 14, 2016	1161	1255	Birth/hatch	Feb 14, 2016	RUM CREEK	116005
1524	RUM CREEK	Female	Mar 09, 2016	1288	1343	Birth/hatch	Mar 09, 2016	RUM CREEK	116029

Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
1527	RUM CREEK	Female	Jan 27, 2017	894	1171	Birth/hatch	Jan 27, 2017	RUM CREEK	117007

1535	RUM CREEK	Male	Mar 22, 2017	1288	1308	Birth/hatch	Mar 22, 2017	RUM CREEK	117022
1544	RUM CREEK	Female	Jul 04, 2017	1228	1342	Birth/hatch	Jul 04, 2017	RUM CREEK	117058
1565	RUM CREEK	Female	Apr 30, 2018	894	1167	Birth/hatch	Apr 30, 2018	RUM CREEK	118034
1566	RUM CREEK	Female	May 28, 2018	1359	1178	Birth/hatch	May 28, 2018	RUM CREEK	118061
1568	RUM CREEK	Female	Jul 04, 2018	894	1171	Birth/hatch	Jul 04, 2018	RUM CREEK	118073
1571	RUM CREEK	Female	Aug 17, 2018	1170	1017	Birth/hatch	Aug 17, 2018	RUM CREEK	118085
1573	RUM CREEK	Female	Oct 28, 2018	1211	1249	Birth/hatch	Oct 28, 2018	RUM CREEK	118130
1577	RUM CREEK	Female	Nov 11, 2018	1288	1392	Birth/hatch	Nov 11, 2018	RUM CREEK	118110
1579	RUM CREEK	Female	Dec 10, 2018	1170	1096	Birth/hatch	Dec 10, 2018	RUM CREEK	118126
1590	RUM CREEK	Female	May 11, 2019	1211	817	Birth/hatch	May 11, 2019	RUM CREEK	119085
1593	RUM CREEK	Male	Jul 12, 2019	1228	1444	Birth/hatch	Jul 12, 2019	RUM CREEK	119125
1601	RUM CREEK	Female	Sep 10, 2019	1170	1255	Birth/hatch	Sep 10, 2019	RUM CREEK	119156
1620	RUM CREEK	Female	May 01, 2020	1480	1436	Birth/hatch	May 01, 2020	RUM CREEK	120059
1624	RUM CREEK	UND	Jun 21, 2020	1211	1017	Birth/hatch	Jun 21, 2020	RUM CREEK	120076
1625	RUM CREEK	Female	Jun 30, 2020	1470	1096	Birth/hatch	Jun 30, 2020	RUM CREEK	120087
1626	RUM CREEK	UND	Jul 12, 2020	1503	1230	Birth/hatch	Jul 12, 2020	RUM CREEK	120098
1627	RUM CREEK	UND	Jul 14, 2020	894	1077	Birth/hatch	Jul 14, 2020	RUM CREEK	120100
1629	RUM CREEK	UND	Aug 11, 2020	1288	1441	Birth/hatch	Aug 11, 2020	RUM CREEK	120109
1631	RUM CREEK	Male	Aug 27, 2020	1435	1249	Birth/hatch	Aug 27, 2020	RUM CREEK	120116
1632	RUM CREEK	UND	Aug 29, 2020	1288	1405	Birth/hatch	Aug 29, 2020	RUM CREEK	120118
1665	RUM CREEK	UND	Jan 10, 2021	1228	1293	Birth/hatch	Jan 10, 2021	RUM CREEK	121012
1666	RUM CREEK	Female	Jan 20, 2021	894	1475	Birth/hatch	Jan 20, 2021	RUM CREEK	121026
1667	RUM CREEK	UND	Mar 09, 2021	1409	1444	Birth/hatch	Mar 09, 2021	RUM CREEK	121060
1668	RUM CREEK	UND	Mar 19, 2021	1503	1447	Birth/hatch	Mar 19, 2021	RUM CREEK	121066
1669	RUM CREEK	UND	Mar 19, 2021	1517	1308	Birth/hatch	Mar 19, 2021	RUM CREEK	121065
1670	RUM CREEK	UND	Apr 10, 2021	1288	1169	Birth/hatch	Apr 10, 2021	RUM CREEK	121086
1671	RUM CREEK	UND	May 09, 2021	1453	1389	Birth/hatch	May 09, 2021	RUM CREEK	121106
1672	RUM CREEK	UND	Jun 19, 2021	1288	1392	Birth/hatch	Jun 19, 2021	RUM CREEK	121118
1673	RUM CREEK	UND	Jul 08, 2021	1228	1255	Birth/hatch	Jul 08, 2021	RUM CREEK	121129
1674	RUM CREEK	UND	Jul 10, 2021	1170	1255	Birth/hatch	Jul 10, 2021	RUM CREEK	121130
1675	RUM CREEK	UND	Oct 04, 2021	1517	1239	Birth/hatch	Oct 04, 2021	RUM CREEK	121176
1683	RUM CREEK	UND	Aug 20, 2021	1228	1425	Birth/hatch	Aug 20, 2021	RUM CREEK	120199

Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
1699	RUM CREEK	UND	Jul 04, 2022	1170	1482	Birth/hatch	Jul 04, 2022	RUM CREEK	122028
1700	RUM CREEK	UND	May 05, 2022	894	1475	Birth/hatch	May 05, 2022	RUM CREEK	122030
1701	RUM CREEK	UND	May 11, 2022	1435	1249	Birth/hatch	May 11, 2022	RUM CREEK	122031
1702	RUM CREEK	UND	Aug 21, 2022	1503	1527	Birth/hatch	Aug 21, 2022	RUM CREEK	122037
996	SAFARIWIL	Male	Mar 23, 1997	341	362	Birth/hatch	Mar 23, 1997	BROWNSVIL	6354
						Transfer	Jan 06, 1998	BULVERDE	UNK
						Transfer	Jan 06, 1998	FERNDALE	UNK
						Transfer	Jan 07, 1998	GULF BREZ	A2150
						Transfer	Oct 05, 2004	SALISB L	UNK
						Transfer	Mar 09, 2007	LOWRY	102329
						Transfer	Jul 06, 2008	SAFARIWIL	UNK
1138	SAFARIWIL	Female	Nov 24, 2003	996	903	Birth/hatch	Nov 24, 2003	GULF BREZ	A3515
						Transfer	Aug 20, 2004	MONTGOMRY	3322
						Transfer	Jun 06, 2009	SAFARIWIL	UNK
1619	SAN FRAN	Male	Apr 09, 2020	1141	1481	Birth/hatch	Apr 09, 2020	SANDIEGOZ	1001767
						Transfer	Sep 27, 2022	SAN FRAN	122009
1141	SANDIEGOZ	Male	Mar 22, 2003	736	936	Birth/hatch	Mar 22, 2003	PRETORIA	909985
						Transfer	Nov 04, 2004	SANDIEGOZ	504277
1481	SANDIEGOZ	Female	Oct 01, 2015	880	1063	Birth/hatch	Oct 01, 2015	OMAHA	23390
						Transfer	Sep 28, 2017	SANDIEGOZ	517123
1404	SEOUL	Female	Sep 06, 2012	779	1068	Birth/hatch	Sep 06, 2012	COLCHESTR	DLL393
						Transfer	Oct 15, 2015	SEOUL	M11319
1382	TANGAN WP	Male	Jan 27, 2012	1170	1096	Birth/hatch	Jan 27, 2012	RUM CREEK	112008
						Transfer	Mar 28, 2014	TANGAN WP	UNK
1411	TANGAN WP	Female	Nov 16, 2012	1241	1143	Birth/hatch	Nov 16, 2012	LOWRY	103036

						Transfer	Apr 16, 2014	TANGAN WP	UNK
1560	TANGAN WP	Male	Jan 31, 2018	1117	1252	Birth/hatch	Jan 31, 2018	MONTGOMRY	4123
						Transfer	Apr 21, 2019	METRORICH	119023
Studbook ID	**Current Location**	**Sex Type**	**Birth Date**	**Sire**	**Dam**	**Event Type**	**Date**	**Location**	**Local ID**
						Transfer	Apr 26, 2021	TANGAN WP	UND
1589	TANGAN WP	Male	Apr 11, 2019	1382	1411	Birth/hatch	Apr 11, 2019	TANGAN WP	B19903
1688	TANGAN WP	Male	Sep 21, 2021	1382	1411	Birth/hatch	Sep 21, 2021	TANGAN WP	B21121
925	TORONTO	Male	Dec 20, 1994	545	549	Birth/hatch	Dec 20, 1994	WHIPSNADE	L2406
						Transfer	Mar 29, 1996	LANGLEY	H96007
						Transfer	Dec 19, 2006	TORONTO	41348
1192	TORONTO	Female	Jan 30, 2006	830	797	Birth/hatch	Jan 30, 2006	FONTAINE	103C6
						Transfer	Apr 02, 2009	LA FLECHE	1697
						Transfer	Jun 15, 2016	TORONTO	48942
1473	VA SAFARI	Female	Apr 11, 2015	833	815	Birth/hatch	Apr 11, 2015	SINGAPORE	G14172
						Transfer	May 31, 2021	VA SAFARI	IND
1551	VA SAFARI	Female	Nov 07, 2017	833	815	Birth/hatch	Nov 07, 2017	SINGAPORE	G15656
						Transfer	May 31, 2021	VA SAFARI	IND
1597	VA SAFARI	Female	Aug 18, 2019	1229	1182	Birth/hatch	Aug 18, 2019	BASEL	191221
						Transfer	Apr 13, 2021	VA SAFARI	UND
1359	WILD WRLD	Male	May 19, 2011	1161	817	Birth/hatch	May 19, 2011	RUM CREEK	111057
						Transfer	Jan 26, 2020	WILD WRLD	11825
1543	WILD WRLD	Female	Jun 23, 2017	1382	1411	Birth/hatch	Jun 23, 2017	TANGAN WP	B17676
						Transfer	Feb 07, 2019	WILD WRLD	11313

Population Changes Since Last Publication

Date Range: 27 January 2023 – 4 January 2024

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Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
365	FUNDANIMA	Female	Nov 22, 1973	153	96	Birth/hatch	Nov 22, 1973	NZP-WASH	100824
						Transfer	Nov 27, 1974	SAN ANTON	748119
						Transfer	Mar 01, 1994	SANDIEGOZ	594068
						Transfer	Oct 14, 1994	SD-WAP	594068
						Transfer	Oct 30, 1996	STEHLY	UNK
						Transfer	Jan 28, 2002	FUNDANIMA	NONE
444	RUM CREEK	Female	Apr 30, 1976	110	187	Birth/hatch	Apr 30, 1976	NY BRONX	761102
						Transfer	Jul 27, 1982	CHICAGOLP	6811
						Transfer	Oct 27, 2000	SAN FRAN	100047
						Transfer	Mar 17, 2004	NZP-WASH	113871
						Transfer	Jan 10, 2009	LOWRY	102763
						Transfer	Sep 30, 2009	LOWRY	102763
						Transfer	Jul 01, 2010	RUM CREEK	110041
641	RUM CREEK	Female	Aug 01, 1983	448	453	Birth/hatch	Aug 01, 1983	BATONROUG	M1310
						Transfer	Mar 14, 1984	EDMOND	UNK
						Transfer	Mar 14, 1984	HOLIDAY	UNK
						Transfer	Feb 22, 1997	SIX FLAGS	UNK
						GO LTF	Feb 22, 1997	SIX FLAGS	UNK
						Return from LTF	Jun 30, 2000	SIX FLAGS	UNK
						Transfer	Jun 30, 2000	SIX FLAGS	UNK

						Transfer	Jul 01, 2000	MT ULLA	UNK
						Transfer	Sep 10, 2002	PEACE RV	102069
						Transfer	Jan 15, 2007	RUM CREEK	102069
772	RUM CREEK	Female	Feb 19, 1988	400	399	Birth/hatch	Feb 19, 1988	DUISBURG	566

Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
						Transfer	Aug 21, 1989	ZOOANIMAL	1031
						Transfer	Aug 22, 1989	PARIS ZOO	Z89109
						Transfer	Nov 06, 2008	ZURICH	A80536
						Transfer	May 28, 2015	RUM CREEK	115073
817	RUM CREEK	Female	May 02, 1990	310	548	Birth/hatch	May 02, 1990	DVURKRALV	73025
						Transfer	Oct 11, 1999	PEACE RV	990071
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	990071
864	METROZOO	Female	Jun 15, 1992	448	453	Birth/hatch	Jun 15, 1992	BATONROUG	M2542
						Transfer	Jan 01, 1993 +/- 15 day	HOLIDAY	UNK
						Transfer	May 11, 1993	METROZOO	M01623
872	FRANKLINP	Female	Nov 24, 1992	464	289	Birth/hatch	Nov 24, 1992	EDINBURGH	9KB02
						Transfer	Apr 11, 1995	TORONTO	30650
						Transfer	Aug 08, 2007	FRANKLINP	A07023
880	OMAHA	Male	Jan 13, 1991	341	342	Birth/hatch	Jan 13, 1991	BROWNSVIL	4679
						Transfer	Oct 26, 1991	OMAHA	6209
894	RUM CREEK	Male	Mar 10, 1993	310	548	Birth/hatch	Mar 10, 1993	DVURKRALV	73029
						Transfer	Oct 11, 1999	PEACE RV	990070
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	990070
						Death	Jul 18, 2023	RUM CREEK	990070
902	LOUISVILL	Male	Sep 16, 1993	421	438	Birth/hatch	Sep 16, 1993	CHICAGOLP	9751
						Transfer	Nov 23, 1994	NZP-WASH	111532
						Transfer	Apr 18, 2002	LOUISVILL	102319
919	BATONROUG	Male	Jun 25, 1994	448	453	Birth/hatch	Jun 25, 1994	BATONROUG	M2739
925	TORONTO	Male	Dec 20, 1994	545	549	Birth/hatch	Dec 20, 1994	WHIPSNADE	L2406

						Transfer	Mar 29, 1996	LANGLEY	H96007
						Transfer	Dec 19, 2006	TORONTO	41348
996	SAFARIWIL	Male	Mar 23, 1997	341	362	Birth/hatch	Mar 23, 1997	BROWNSVIL	6354
						Transfer	Jan 06, 1998	BULVERDE	UNK
						Transfer	Jan 06, 1998	FERNDALE	UNK
						Transfer	Jan 07, 1998	GULF BREZ	A2150
						Transfer	Oct 05, 2004	SALISB L	UNK
						Transfer	Mar 09, 2007	LOWRY	102329
						Transfer	Jul 06, 2008	SAFARIWIL	UNK

Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
1017	RUM CREEK	Female	Mar 08, 1998	310	548	Birth/hatch	Mar 08, 1998	DVURKRALV	73031
						Transfer	Oct 11, 1999	PEACE RV	990072
						Transfer	Apr 19, 2002	LOUISVILL	102323
						Transfer	Jan 15, 2007 +/- 15 day	LOUISVILL	102323
						Transfer	Oct 21, 2008	RUM CREEK	990072
1053	CHICAGOLP	Male	Sep 02, 1999	330	872	Birth/hatch	Sep 02, 1999	TORONTO	34919
						Transfer	Nov 19, 2003	NZP-WASH	113860
						Transfer	Jun 05, 2009	METROZOO	M90043
						Transfer	Mar 13, 2017	LOWRY	103376
						Transfer	Oct 12, 2021	CHICAGOLP	UND
1063	OMAHA	Female	Mar 01, 2000	521	452	Birth/hatch	Mar 01, 2000	SINGAPORE	G7168
						Transfer	Oct 01, 2003	CHICAGOLP	20943
						Transfer	Nov 23, 2010	OMAHA	20517
1077	RUM CREEK	Female	Nov 26, 2000	746	741	Birth/hatch	Nov 26, 2000	BOISSIERE	HHP7
						Transfer	Mar 31, 2004	LISIEUX Z	M04027
						Transfer	May 28, 2015	RUM CREEK	115075
1093	LOWRY	Male	Dec 01, 2001	460	931	Birth/hatch	Dec 01, 2001	OKLAHOMA	770103
						Transfer	Apr 17, 2003	CHICAGOLP	20764

						Transfer	Oct 14, 2021	LOWRY	103586
1096	RUM CREEK	Female	Mar 19, 2001	945	989	Birth/hatch	Mar 19, 2001	HOUSTON	19251
						Transfer	May 02, 2002	PEACE RV	102036
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	102036
1117	MONTGOMRY	Male	Jan 15, 2002	521	452	Birth/hatch	Jan 15, 2002	SINGAPORE	G8660
						Transfer	Jun 09, 2005	MONTGOMRY	3446
1135	BROWNSVIL	Male	Nov 16, 2003	341	362	Birth/hatch	Nov 16, 2003	BROWNSVIL	8444
1138	SAFARIWIL	Female	Nov 24, 2003	996	903	Birth/hatch	Nov 24, 2003	GULF BREZ	A3515
						Transfer	Aug 20, 2004	MONTGOMRY	3322
						Transfer	Jun 06, 2009	SAFARIWIL	UNK
1141	SANDIEGOZ	Male	Mar 22, 2003	736	936	Birth/hatch	Mar 22, 2003	PRETORIA	909985
						Transfer	Nov 04, 2004	SANDIEGOZ	504277
1143	LOWRY	Female	Nov 26, 2003	521	452	Birth/hatch	Nov 26, 2003	SINGAPORE	G9799
						Transfer	Apr 04, 2006	LOWRY	102184
						Transfer	Jun 30, 2006	SALISB L	NONE

Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
						Transfer	Mar 09, 2007	LOWRY	102184
1147	BROWNSVIL	Female	Mar 17, 2004	460	931	Birth/hatch	Mar 17, 2004	OKLAHOMA	772404
						Transfer	Oct 24, 2006	BROWNSVIL	9796
1162	RUM CREEK	Female	Jul 01, 1998 +/- 6 month	UND	UND	Birth/hatch	Jul 01, 1998 +/- 6 month	UND	-
						Transfer	UND	BULVERDE	UNK
						Transfer	Mar 20, 2002	PEACE RV	102020
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	102020
1167	RUM CREEK	Female	Apr 08, 2003	1161	817	Birth/hatch	Apr 08, 2003	PEACE RV	103037
						Transfer	Jan 15, 2007 +/- 6 month	RUM CREEK	103037
1169	RUM CREEK	Female	Sep 12, 2004	1161	1162	Birth/hatch	Sep 12, 2004	PEACE RV	104198
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	104198
1170	RUM CREEK	Male	Oct 19, 2004	1161	253	Birth/hatch	Oct 19, 2004	PEACE RV	104213
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	104213

1171	JOHNSON L	Female	Dec 13, 2004	1161	817	Birth/hatch	Dec 13, 2004	PEACE RV	104244
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	104244
						Transfer	Oct 13, 2023	JOHNSON L	UND
1178	RUM CREEK	Female	May 04, 2005	902	1017	Birth/hatch	May 04, 2005	LOUISVILL	102566
						Transfer	Jan 30, 2008	RUM CREEK	106110
1192	TORONTO	Female	Jan 30, 2006	830	797	Birth/hatch	Jan 30, 2006	FONTAINE	103C6
						Transfer	Apr 02, 2009	LA FLECHE	1697
						Transfer	Jun 15, 2016	TORONTO	48942
1201	GULF BREZ	Female	May 10, 2006	1064	938	Birth/hatch	May 10, 2006	MARWELL	7425
						Transfer	Feb 26, 2009	BRISTOL	10628
						Transfer	May 12, 2021	VA SAFARI	UND
						Transfer	Nov 30, 2022	GULF BREZ	G21128
1208	BATONROUG	Female	Dec 25, 2006	902	1017	Birth/hatch	Dec 25, 2006	LOUISVILL	102739
						Transfer	Apr 04, 2011	BATONROUG	10578
1211	RUM CREEK	Male	May 29, 2006	1161	1096	Birth/hatch	May 29, 2006	PEACE RV	106074
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	106074
1213	METRORICH	Female	Oct 11, 2006	894	1162	Birth/hatch	Oct 11, 2006	PEACE RV	106125
						Transfer	Jan 15, 2007 +/- 15 day	RUM CREEK	106125
						Transfer	May 28, 2018	METRORICH	118019
1228	RUM CREEK	Male	Oct 14, 2007	1098	1107	Birth/hatch	Oct 14, 2007	ATTICAZOO	MHEL03

Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
						Transfer	Dec 10, 2008	ZURICH	A80554
						Transfer	May 28, 2015	RUM CREEK	115072
1230	RUM CREEK	Female	Dec 02, 2007	1161	817	Birth/hatch	Dec 02, 2007	RUM CREEK	107111
1239	RUM CREEK	Female	Feb 24, 2008	894	1167	Birth/hatch	Feb 24, 2008	RUM CREEK	108024
1241	JACKSON	Male	Mar 20, 2008	1161	1162	Birth/hatch	Mar 20, 2008	RUM CREEK	108031
						Transfer	Mar 08, 2012	LOWRY	102983
						Transfer	Mar 20, 2017	JACKSON	201312
1247	CHICAGOLP	Female	Aug 26, 2008	996	1143	Birth/hatch	Aug 26, 2008	LOWRY	102631
						Transfer	May 03, 2011	CHICAGOLP	22702

1249	RUM CREEK	Female	Sep 25, 2008	894	641	Birth/hatch	Sep 25, 2008	RUM CREEK	108095
1252	MONTGOMRY	Female	Nov 13, 2008	1064	938	Birth/hatch	Nov 13, 2008	MARWELL	8258
						Transfer	Sep 19, 2012	MONTGOMRY	3924
1255	RUM CREEK	Female	May 12, 2008	894	1096	Birth/hatch	May 12, 2008	RUM CREEK	108046
1283	JACKSON	Female	Jan 24, 2009	1135	1147	Birth/hatch	Jan 24, 2009	BROWNSVIL	10292
						Transfer	Jan 25, 2011	JACKSON	201031
1288	RUM CREEK	Male	May 31, 2009	928	893	Birth/hatch	May 31, 2009	BOGOR	NONE
						Transfer	Mar 28, 2014	RUM CREEK	114030
1293	RUM CREEK	Female	Jul 24, 2009	1170	1178	Birth/hatch	Jul 24, 2009	RUM CREEK	109050
1308	RUM CREEK	Female	Dec 23, 2009	894	1167	Birth/hatch	Dec 23, 2009	RUM CREEK	109093
1338	MONTGOMRY	Female	Nov 14, 2010	1053	864	Birth/hatch	Nov 14, 2010	METROZOO	10M145
						Transfer	Nov 01, 2014	MONTGOMRY	4000
1342	RUM CREEK	Female	Apr 08, 2010	1170	1096	Birth/hatch	Apr 08, 2010	RUM CREEK	110028
1343	JOHNSON L	Female	Apr 16, 2010	894	1171	Birth/hatch	Apr 16, 2010	RUM CREEK	110029
						Transfer	Oct 13, 2023	JOHNSON L	UND
1359	WILD WRLD	Male	May 19, 2011	1161	817	Birth/hatch	May 19, 2011	RUM CREEK	111057
						Transfer	Jan 26, 2020	WILD WRLD	11825
1375	FRANKLINP	Male	Dec 28, 2011	1347	969	Birth/hatch	Dec 28, 2011	BUIN ZOO	NONE
						Transfer	Dec 20, 2013	FRANKLINP	A13045
1382	TANGAN WP	Male	Jan 27, 2012	1170	1096	Birth/hatch	Jan 27, 2012	RUM CREEK	112008
						Transfer	Mar 28, 2014	TANGAN WP	UNK
1389	RUM CREEK	Female	Mar 05, 2012	856	834	Birth/hatch	Mar 05, 2012	LISBON	11409
						Transfer	Jun 04, 2015	RUM CREEK	115079
1392	RUM CREEK	Female	Mar 25, 2012	1161	1162	Birth/hatch	Mar 25, 2012	RUM CREEK	112061

Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
1399	RUM CREEK	Female	Jul 16, 2012	894	1169	Birth/hatch	Jul 16, 2012	RUM CREEK	112127
1404	SEOUL	Female	Sep 06, 2012	779	1068	Birth/hatch	Sep 06, 2012	COLCHESTR	DLL393
						Transfer	Oct 15, 2015	SEOUL	M11319
1405	RUM CREEK	Female	Sep 09, 2012	1161	1178	Birth/hatch	Sep 09, 2012	RUM CREEK	112138
1408	RUM CREEK	Male	Oct 16, 2012	894	1171	Birth/hatch	Oct 16, 2012	RUM CREEK	112148

1409	RUM CREEK	Male	Nov 01, 2012	1170	1017	Birth/hatch	Nov 01, 2012	RUM CREEK	112157
1411	TANGAN WP	Female	Nov 16, 2012	1241	1143	Birth/hatch	Nov 16, 2012	LOWRY	103036
						Transfer	Apr 16, 2014	TANGAN WP	UNK
1422	GREEN NSC	Male	Feb 22, 2013	880	1063	Birth/hatch	Feb 22, 2013	OMAHA	22000
						Transfer	Jul 13, 2014	JACKSON	201214
						Transfer	Mar 13, 2017	METROZOO	17M016
						Transfer	Mar 14, 2021	GREEN NSC	UND
1423	MONTGOMRY	Male	Feb 22, 2013	1135	1147	Birth/hatch	Feb 22, 2013	BROWNSVIL	11139
						Transfer	Oct 30, 2014	MONTGOMRY	3999
1425	RUM CREEK	Female	Apr 22, 2013	894	1230	Birth/hatch	Apr 22, 2013	RUM CREEK	113051
1427	RUM CREEK	Male	Aug 03, 2013	1170	1213	Birth/hatch	Aug 03, 2013	RUM CREEK	113075
1428	RUM CREEK	Female	Aug 21, 2013	894	1167	Birth/hatch	Aug 21, 2013	RUM CREEK	113129
1430	RUM CREEK	Female	Sep 01, 2013	1170	1096	Birth/hatch	Sep 01, 2013	RUM CREEK	113132
1435	RUM CREEK	Male	Nov 16, 2013	1161	1162	Birth/hatch	Nov 16, 2013	RUM CREEK	113182
1436	RUM CREEK	Female	Nov 24, 2013	1211	1249	Birth/hatch	Nov 24, 2013	RUM CREEK	113183
1441	RUM CREEK	Female	Jan 02, 2014	1197	1177	Birth/hatch	Jan 02, 2014	QUINTASI	2939
						Transfer	Jun 04, 2015	RUM CREEK	115078
1444	RUM CREEK	Female	Jan 24, 2014	1227	623	Birth/hatch	Jan 24, 2014	BRATISLAV	M2444
						Transfer	May 28, 2015	RUM CREEK	115074
1447	RUM CREEK	Female	Mar 23, 2014	1161	817	Birth/hatch	Mar 23, 2014	RUM CREEK	114028
1453	JOHNSON L	Male	Aug 20, 2014	1161	1178	Birth/hatch	Aug 20, 2014	RUM CREEK	114108
						Transfer	Oct 13, 2023	JOHNSON L	UND
1455	JOHN BALL	Male	Aug 28, 2014	902	931	Birth/hatch	Aug 28, 2014	LOUISVILL	103441
						Transfer	Jun 07, 2016	PITTSBURG	103037
						Transfer	Mar 09, 2023	JOHN BALL	UND
1457	RUM CREEK	Female	Oct 11, 2014	1241	1143	Birth/hatch	Oct 11, 2014	LOWRY	103203
						Transfer	Mar 13, 2017	RUM CREEK	117018
1458	RUM CREEK	Female	Nov 11, 2014	1161	1169	Birth/hatch	Nov 11, 2014	RUM CREEK	114126

Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
1470	RUM CREEK	Male	Feb 28, 2015	894	1171	Birth/hatch	Feb 28, 2015	RUM CREEK	115024

1473	VA SAFARI	Female	Apr 11, 2015	833	815	Birth/hatch	Apr 11, 2015	SINGAPORE	G14172
						Transfer	May 31, 2021	VA SAFARI	IND
1475	RUM CREEK	Female	May 31, 2015	1170	1096	Birth/hatch	May 31, 2015	RUM CREEK	115076
1480	RUM CREEK	Male	Sep 28, 2015	1170	1213	Birth/hatch	Sep 28, 2015	RUM CREEK	115110
1481	SANDIEGOZ	Female	Oct 01, 2015	880	1063	Birth/hatch	Oct 01, 2015	OMAHA	23390
						Transfer	Sep 28, 2017	SANDIEGOZ	517123
1482	JOHNSON L	Female	Oct 18, 2015	894	1167	Birth/hatch	Oct 18, 2015	RUM CREEK	115113
						Transfer	Oct 13, 2023	JOHNSON L	UND
1488	GULF BREZ	Male	Dec 15, 2015	1274	1332	Birth/hatch	Dec 15, 2015	TAIPEI	7253
						Transfer	Jul 14, 2021	VA SAFARI	UND
						Transfer	Nov 30, 2022	GULF BREZ	G21165
1498	METRORICH	Male	Apr 03, 2016	1117	1252	Birth/hatch	Apr 03, 2016	MONTGOMRY	4056
						Transfer	Jun 14, 2017	METRORICH	117042
1500	RUM CREEK	Female	Apr 06, 2016	1170	1017	Birth/hatch	Apr 06, 2016	RUM CREEK	116037
1503	RUM CREEK	Male	Jun 18, 2016	1228	1293	Birth/hatch	Jun 18, 2016	RUM CREEK	116060
1505	JOHNSON L	Female	Jul 02, 2016	894	1230	Birth/hatch	Jul 02, 2016	RUM CREEK	116065
						Transfer	Oct 13, 2023	JOHNSON L	UND
1510	RUM CREEK	Female	Sep 26, 2016	1359	1178	Birth/hatch	Sep 26, 2016	RUM CREEK	116105
1517	RUM CREEK	Male	Dec 04, 2016	1170	1096	Birth/hatch	Dec 04, 2016	RUM CREEK	116134
1518	RUM CREEK	Female	Dec 11, 2016	1228	1077	Birth/hatch	Dec 11, 2016	RUM CREEK	116137
1522	LOUISVILL	Female	Dec 24, 2016	1422	1283	Birth/hatch	Dec 24, 2016	JACKSON	201303
						Transfer	May 24, 2022	LOUISVILL	103820
1523	RUM CREEK	Male	Feb 14, 2016	1161	1255	Birth/hatch	Feb 14, 2016	RUM CREEK	116005
1524	RUM CREEK	Female	Mar 09, 2016	1288	1343	Birth/hatch	Mar 09, 2016	RUM CREEK	116029
1527	RUM CREEK	Female	Jan 27, 2017	894	1171	Birth/hatch	Jan 27, 2017	RUM CREEK	117007
1535	RUM CREEK	Male	Mar 22, 2017	1288	1308	Birth/hatch	Mar 22, 2017	RUM CREEK	117022
1537	JOHNSON L	Female	May 13, 2017 +/- 1 day	1211	817	Birth/hatch	May 13, 2017 +/- 1 day	RUM CREEK	117046
						Transfer	Oct 13, 2023	JOHNSON L	UND
1543	WILD WRLD	Female	Jun 23, 2017	1382	1411	Birth/hatch	Jun 23, 2017	TANGAN WP	B17676
						Transfer	Feb 07, 2019	WILD WRLD	11313
1544	RUM CREEK	Female	Jul 04, 2017	1228	1342	Birth/hatch	Jul 04, 2017	RUM CREEK	117058

Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
1546	GREEN NSC	Female	Dec 01, 2017	1053	1143	Birth/hatch	Dec 01, 2017	LOWRY	103409
						Transfer	Mar 14, 2021	GREEN NSC	UND
1551	VA SAFARI	Female	Nov 07, 2017	833	815	Birth/hatch	Nov 07, 2017	SINGAPORE	G15656
						Transfer	May 31, 2021	VA SAFARI	IND
1560	TANGAN WP	Male	Jan 31, 2018	1117	1252	Birth/hatch	Jan 31, 2018	MONTGOMRY	4123
						Transfer	Apr 21, 2019	METRORICH	119023
						Transfer	Apr 26, 2021	TANGAN WP	UND
1565	RUM CREEK	Female	Apr 30, 2018	894	1167	Birth/hatch	Apr 30, 2018	RUM CREEK	118034
1566	RUM CREEK	Female	May 28, 2018	1359	1178	Birth/hatch	May 28, 2018	RUM CREEK	118061
1568	RUM CREEK	Female	Jul 04, 2018	894	1171	Birth/hatch	Jul 04, 2018	RUM CREEK	118073
1569	METROZOO	Male	Aug 04, 2018	1422	864	Birth/hatch	Aug 04, 2018	METROZOO	18M107
1570	JOHN BALL	Female	Aug 10, 2018	925	1192	Birth/hatch	Aug 10, 2018	TORONTO	50332
						Transfer	Jun 20, 2023	JOHN BALL	UND
1571	RUM CREEK	Female	Aug 17, 2018	1170	1017	Birth/hatch	Aug 17, 2018	RUM CREEK	118085
1573	RUM CREEK	Female	Oct 28, 2018	1211	1249	Birth/hatch	Oct 28, 2018	RUM CREEK	118130
1574	BROWNSVIL	Female	Oct 30, 2018	1135	1147	Birth/hatch	Oct 30, 2018	BROWNSVIL	11951
1577	RUM CREEK	Female	Nov 11, 2018	1288	1392	Birth/hatch	Nov 11, 2018	RUM CREEK	118110
1579	RUM CREEK	Female	Dec 10, 2018	1170	1096	Birth/hatch	Dec 10, 2018	RUM CREEK	118126
1589	TANGAN WP	Male	Apr 11, 2019	1382	1411	Birth/hatch	Apr 11, 2019	TANGAN WP	B19903
1590	RUM CREEK	Female	May 11, 2019	1211	817	Birth/hatch	May 11, 2019	RUM CREEK	119085
1591	GULF BREZ	Male	Jun 06, 2019	1274	975	Birth/hatch	Jun 06, 2019	TAIPEI	8786
						Transfer	Jul 14, 2021	VA SAFARI	UND
						Transfer	Nov 30, 2022	GULF BREZ	G21164
1593	RUM CREEK	Male	Jul 12, 2019	1228	1444	Birth/hatch	Jul 12, 2019	RUM CREEK	119125
1595	METRORICH	Female	Aug 04, 2019	1423	1338	Birth/hatch	Aug 04, 2019	MONTGOMRY	4180
						Transfer	Jul 09, 2020	METRORICH	120010
1597	VA SAFARI	Female	Aug 18, 2019	1229	1182	Birth/hatch	Aug 18, 2019	BASEL	191221
						Transfer	Apr 13, 2021	VA SAFARI	UND
1600	CHICAGOBR	Female	Aug 27, 2019	1288	1389	Birth/hatch	Aug 27, 2019	RUM CREEK	119155
						Transfer	May 20, 2022	CHICAGOBR	10492

1601	RUM CREEK	Female	Sep 10, 2019	1170	1255	Birth/hatch	Sep 10, 2019	RUM CREEK	119156
1604	MONTGOMRY	Female	Dec 22, 2019	1423	1252	Birth/hatch	Dec 22, 2019	MONTGOMRY	5050
1608	JOHNSON L	Male	Dec 12, 2019	894	1167	Birth/hatch	Dec 12, 2019	RUM CREEK	119213

Studbook ID	Current Location	Sex Type	Birth Date	Sire	Dam	Event Type	Date	Location	Local ID
						Transfer	Oct 13, 2023	JOHNSON L	UND
1619	SAN FRAN	Male	Apr 09, 2020	1141	1481	Birth/hatch	Apr 09, 2020	SANDIEGOZ	1001767
						Transfer	Sep 27, 2022	SAN FRAN	122009
1620	RUM CREEK	Female	May 01, 2020	1480	1436	Birth/hatch	May 01, 2020	RUM CREEK	120059
1624	RUM CREEK	UND	Jun 21, 2020	1211	1017	Birth/hatch	Jun 21, 2020	RUM CREEK	120076
1625	RUM CREEK	Female	Jun 30, 2020	1470	1096	Birth/hatch	Jun 30, 2020	RUM CREEK	120087
1626	RUM CREEK	UND	Jul 12, 2020	1503	1230	Birth/hatch	Jul 12, 2020	RUM CREEK	120098
1627	RUM CREEK	UND	Jul 14, 2020	894	1077	Birth/hatch	Jul 14, 2020	RUM CREEK	120100
1628	CHITTENAN	Female	Jul 26, 2020	1498	1213	Birth/hatch	Jul 26, 2020	METRORICH	20084
						Transfer	Nov 09, 2021	CHITTENAN	UND
1629	RUM CREEK	UND	Aug 11, 2020	1288	1441	Birth/hatch	Aug 11, 2020	RUM CREEK	120109
1631	RUM CREEK	Male	Aug 27, 2020	1435	1249	Birth/hatch	Aug 27, 2020	RUM CREEK	120116
1632	RUM CREEK	UND	Aug 29, 2020	1288	1405	Birth/hatch	Aug 29, 2020	RUM CREEK	120118
1633	JOHNSON L	Female	Sep 04, 2020	894	1457	Birth/hatch	Sep 04, 2020	RUM CREEK	120120
						Transfer	Oct 13, 2023	JOHNSON L	UND
1635	FRANKLINP	Male	Oct 05, 2020	1375	872	Birth/hatch	Oct 05, 2020	FRANKLINP	F20043
1649	BROWNSVIL	Female	Mar 03, 2021	1135	1147	Birth/hatch	Mar 03, 2021	BROWNSVIL	12191
1665	RUM CREEK	UND	Jan 10, 2021	1228	1293	Birth/hatch	Jan 10, 2021	RUM CREEK	121012
1666	RUM CREEK	Female	Jan 20, 2021	894	1475	Birth/hatch	Jan 20, 2021	RUM CREEK	121026
1667	RUM CREEK	UND	Mar 09, 2021	1409	1444	Birth/hatch	Mar 09, 2021	RUM CREEK	121060
1668	RUM CREEK	UND	Mar 19, 2021	1503	1447	Birth/hatch	Mar 19, 2021	RUM CREEK	121066
1669	RUM CREEK	UND	Mar 19, 2021	1517	1308	Birth/hatch	Mar 19, 2021	RUM CREEK	121065
1670	RUM CREEK	UND	Apr 10, 2021	1288	1169	Birth/hatch	Apr 10, 2021	RUM CREEK	121086
1671	RUM CREEK	UND	May 09, 2021	1453	1389	Birth/hatch	May 09, 2021	RUM CREEK	121106
1672	RUM CREEK	UND	Jun 19, 2021	1288	1392	Birth/hatch	Jun 19, 2021	RUM CREEK	121118
1673	RUM CREEK	UND	Jul 08, 2021	1228	1255	Birth/hatch	Jul 08, 2021	RUM CREEK	121129
1674	RUM CREEK	UND	Jul 10, 2021	1170	1255	Birth/hatch	Jul 10, 2021	RUM CREEK	121130

1675	RUM CREEK	UND	Oct 04, 2021	1517	1239	Birth/hatch	Oct 04, 2021	RUM CREEK	121176
1683	RUM CREEK	UND	Aug 20, 2021	1228	1425	Birth/hatch	Aug 20, 2021	RUM CREEK	120199
1688	TANGAN WP	Male	Sep 21, 2021	1382	1411	Birth/hatch	Sep 21, 2021	TANGAN WP	B21121
1689	MONTGOMRY	Male	Feb 03, 2022	1117	1338	Birth/hatch	Feb 03, 2022	MONTGOMRY	4343
1699	RUM CREEK	UND	Jul 04, 2022	1170	1482	Birth/hatch	Jul 04, 2022	RUM CREEK	122028
1700	RUM CREEK	UND	May 05, 2022	894	1475	Birth/hatch	May 05, 2022	RUM CREEK	122030
Studbook ID	**Current Location**	**Sex Type**	**Birth Date**	**Sire**	**Dam**	**Event Type**	**Date**	**Location**	**Local ID**
1701	RUM CREEK	UND	May 11, 2022	1435	1249	Birth/hatch	May 11, 2022	RUM CREEK	122031
1702	RUM CREEK	UND	Aug 21, 2022	1503	1527	Birth/hatch	Aug 21, 2022	RUM CREEK	122037
1706	METRORICH	Female	Dec 06, 2022	1498	1213	Birth/hatch	Dec 06, 2022	METRORICH	22133
1713	OMAHA	Male	Apr 17, 2023	880	1063	Birth/hatch	Apr 17, 2023	OMAHA	27932
						Death	Apr 19, 2023	OMAHA	27932
1714	GREEN NSC	Female	May 24, 2023	1422	1546	Birth/hatch	May 24, 2023	GREEN NSC	2023201
1717	BROWNSVIL	Female	Jul 26, 2023	1135	1147	Birth/hatch	Jul 26, 2023	BROWNSVIL	12429
						Death	Nov 18, 2023	BROWNSVIL	12429

Current Institutions

Institution Name	Mnemonic	Country	Association
BREC's Baton Rouge Zoo	BATONROUG	United States	
Gladys Porter Zoo	BROWNSVIL	United States	WAZA, AZA
Chicago Zoological Park / Brookfield Zoo	CHICAGOBR	United States	WAZA, AZA, AMMPA
Lincoln Park Zoological Gardens	CHICAGOLP	United States	WAZA, AZA
The Wild Animal Park	CHITTENAN	United States	
Zoo New England, Franklin Park Zoo	FRANKLINP	United States	AZA
The Fund for Animals Wildlife Center	FUNDANIMA	United States	
Greensboro Science Center	GREEN NSC	United States	AZA
Gulf Breeze Zoo	GULF BREZ	United States	ZAAUS
Jackson Zoological Park	JACKSON	United States	ZAAUS
John Ball Zoo	JOHN BALL	United States	AZA
Safari Enterprises (Larry Johnson)	JOHNSON L	United States	
Louisville Zoological Garden	LOUISVILL	United States	AZA
ZooTampa at Lowry Park	LOWRY	United States	FAZA, C2S2, WAZA, AZA
Metro Richmond Zoo	METRORICH	United States	ZAAUS
Zoo Miami	METROZOO	United States	WAZA, FAZA, SEZARC, AZA
Montgomery Zoo	MONTGOMRY	United States	ZAAUS
Omaha's Henry Doorly Zoo	OMAHA	United States	C2S2, WAZA, AZA
Center for Conservation of Tropical Ungulates	RUM CREEK	United States	ZAAUS, SEZARC, C2S2
Safari Wilderness (Lex Salisbury)	SAFARIWIL	United States	
San Francisco Zoological Gardens	SAN FRAN	United States	WAZA, AZA
San Diego Zoo	SANDIEGOZ	United States	AZA, WAZA
Seoul Zoo	SEOUL	Republic Of Korea	KAZA, WAZA, AZA
Tanganyika Wildlife Park	TANGAN WP	United States	ZAAUS
Toronto Zoo	TORONTO	Canada	AZA, WPC, WAZA
Virginia Safari Park	VA SAFARI	United States	ZAAUS
Wildlife World Zoo	WILD WRLD	United States	ZAAUS, AMMPA

Permit to Possess 26 or More Class I and Class II Animals for Commercial Use (ESB)

Florida Fish Wildlife Conservation Commission
PO BOX 6150, Tallahassee, FL 32314-6150
850-488-6253

For LE Use Only

CustomerID:	1005668995	Permit #	Effective Date:	Expiration Date:
		000015	10/06/2023	10/06/2024

Authorized Persons / Locations

Permittee: CENTER FOR THE CONSERVATION OF TROPICAL UNGULATES, LLC

DBA/Alias: N/A

Responsible Party: Larry Johnson

Facility Address: 46470 Farabee Rd
Punta Gorda FL, 33982 - 9538

Authorized Wildlife

Class I

Rhinocerotidae

Hippopotamidae

Class II

Tapiridae

Bovidae

Permit Conditions

ESA/B #1 Wildlife maintained under this permit at this facility shall be subject to inspection by Commission personnel, pursuant to Section 379.304, F.S., and Rule 68A-4.006, F.A.C.
ESA/B #2 This permit does not authorize the importation of nonnative wildlife. A separate importation permit must be acquired for importation of any nonnative wildlife into Florida.
ESA/B #3 This permit does not authorize the possession of species listed in Chapter 68-5, F.A.C., as Conditional or Prohibited.
ESA/B #4 Permittee shall comply with the standard caging requirements for all wildlife authorized and housed under this permit, pursuant to Chapter 68A-6, F.A.C., unless otherwise authorized or regulated by other rules of the Commission.
ESA/B #5 Permittee shall comply with facility requirements for all wildlife authorized and housed under this permit, pursuant to Chapter 68A-6, F.A.C.
ESA/B #6 Permittee shall comply with record keeping requirements as specified in Chapter 68A-6, F.A.C., for wildlife authorized or possessed under this permit.
ESA/B #7 Permittees in possession of Class I wildlife shall demonstrate consistent and sustained commercial activity, in accordance with Rule 68A-6.005, F.A.C.
ESA/B #8 Permittees shall report required escapes of wildlife, in accordance with Rule 68A-6.018, F.A.C.
ESA/B #9 Permittees shall report required injuries from wildlife, in accordance with Rule 68A-6.018, F.A.C.
ESA/B #10 Permittee shall comply with transportation requirements for all wildlife authorized under this permit when away from permitted facility, in accordance with Rule 68A-6.014, F.A.C.
ESA/B #11 Wildlife used for public contact shall be exhibited in a manner that prevents injury to the public and the wildlife, pursuant to Rule 68A-6.016, F.A.C.
ESA/B #12 Any species requiring a permit for possession shall only be transported in the state of Florida by an individual permitted for possession of the wildlife being transported. Such permit shall be in possession of the individual(s) engaging in activity authorized by this permit and shall be available upon request by Commission personnel.
ESA/B #13 Any employee in possession of wildlife away from permitted facility shall comply with experience requirements for such wildlife, in accordance with Rule 68A-6.004, F.A.C.

Class II

Felidae

Crocodylia

Cercopithecidae

Giraffidae

Tapiridae

Bovidae

Atelidae

Pitheciidae

Indriidae

Canidae

Mustelidae

Viverridae

Ratites

Permit Specifications

•No permanent facility. Authorized for transport only.

LICENSE TO POSSESS CLASS III WILDLIFE FOR EXHIBITION OR PUBLIC SALE

Florida Fish and Wildlife Conservation Commission
PO Box 6150, Tallahassee, FL 32314-6150
(850) 488-6253

ESC 26853 **Cost: $50.00** **Issued: 05/02/2023**
Applicant ID: 75708 License ID: 403-163076 **Expires: 02/14/2024**

CCTU-CENTER FOR THE CONSERVATION OF TROPICAL UNGULATES, LLC
46470 FARABEE ROAD
PUNTA GORDA, FL 33982

Location Address:
LOVE, DAVID
46470 FARABEE ROAD
PUNTA GORDA, FL 33982

LICENSEE AUTHORIZATIONS

This license DOES NOT authorize the sale of federally-designated Endangered and Threatened species, state-designated Threatened species or state-designated Species of Special Concern, per Rule 68A-27.003 and 68A-27.005 F.A.C., respectively, or the possession of more than the limit, per Rule 68A-25.002 F.A.C.

CLASS 3

ALL CLASS III MAMMALS EXCEPT CAPUCHIN, SPIDER AND WOOLLY MONKEYS
BIRDS
Amphibians and Reptiles (Non-Venomous, Non-ROC and Non-Conditional)

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AZA Regional Studbook
Lowland Anoa (*Bubalus depressicornis*)

Photo Credit: Point Defiance Zoo and Aquarium

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Scope

This studbook, updated in 2022, includes all lowland anoa that have resided in North American facilities starting in the early 1900's as reported by participating facilities. The North American population consists of seven founders what were imported from the European zoo population. The regional zoo population has a 96.4% known pedigree.

Data Field Descriptions

Studbook #: Unique identification number assigned to each individual in the studbook

Sex: Gender of individual; listed as either male, female or unknown

Indicators of lineage

Sire: Studbook number of male parent

Dam: Studbook number of female parent

WILD: Indicates anoa that never entered captivity; wild caught anoa have WILD parents

UNK: Indicates that the parents are unknown

MULT: Indicates more than one possible sire or dam

Location: Facility in physical possession of that individual at a given time

LTF: Lost to follow up; indicates unknown fate during indicated time frame

Date: Date of event occurrence; estimates are noted with a +/- symbol

Local ID: Accession or other identification number assigned by a facility (facility specific). If local ID is not known, it will be listed as 'UNK'.

Taxonomic Status

The taxonomic status of anoa is still being reviewed and debated. Current research is attempting to determine whether the Lowland Anoa (*Bubalus depressicornis*) and Mountain Anoa (*Bubalus quarlesi*) are distinct species (Burton *et al*. 2005). There are known to be differences in body size, horn shape, color, and hair texture between different groups and geographic locations which have led anoa to be considered by some as two separate species. There is other information that suggests this may not represent distinct species, but be related to age or environment. Preliminary results show that a) the current taxonomy is not correct, and b) the population structure is more complex than 2 populations /species. (Burton et al. 2005) The unconfirmed taxonomic status has been discussed both on a regional and global level (by the Global Species Management Plan Committee) and it was determined that the most appropriate approach at this time is the ex situ conservation of all individuals in a single population. That being said, management strategies may change in the future if distinct species are confirmed.

Status in the Wild

The lowland anoa has been classified as Endangered by the IUCN (International Union for Conservation of Nature) since 1985. Anoa in the wild are considered to be in decline and it is estimated that there are less than 2,500 adults within their current range. Obtaining accurate numbers on wild anoa populations is challenging given the dense and isolated forests in which they live. It is uncommon to see anoa in the wild; the most substantial threats are hunting (primarily with the use of dogs) and habitat destruction. The populations that remain on Sulawesi are severely fragmented. It is estimated that the population is declining at a rate of 20% over two generations (14-18 years).

Global Species Management Plan

A Global Species Management Plan (GSMP) is a way of managing a particular taxa, or group of taxa, with a globally agreed upon set of goals and a collaborative approach. In March of 2016, the World Association of Zoos and Aquaria (WAZA) approved the establishment of the first ungulate GSMP, which includes Lowland anoa, babirusa and banteng.
The committee for the Lowland anoa GSMP is comprised of colleagues from the Association of Zoos and Aquariums (AZA), Indonesia Aquarium and Zoo Association (PKBSI), European Association of Zoos and Aquaria (EAZA), World Association of Zoos and Aquaria (WAZA), International Union for Conservation of Nature (IUCN), species specialists and representatives from the Indonesian government.

Natural History

Classification:
Phylum: Chordata
Class: Mammalia
Order: Artiodactyla
Family: Bovidae

Description:
Body Length: 160-180 cm
Height: 90-180 cm at shoulder
Weight: 200-500 pounds
Horn Length: 11-15 inches

General: The smallest of the wild cattle species, anoa are stocky animals with short, stubby legs. The adults range in color from light to dark brown while the young are sometimes yellowish in color. Some anoa have white spots on their heads, chests or legs. Their horns are triangular shaped and slope backwards on the head.

Range: Found on the Indonesian islands of Sulawesi and Buton.

Habitat: Shaded, swampy, lowland forest.

Diet: Grasses, ferns, palm, ginger, fallen fruit, aquatic plants, leaves.

Reproduction: Sexual maturity is attained at 2 years for the female anoa and 3 years for the male. There is no known breeding season; however, the female's estrous cycle is 22-23 days, with the duration of estrus being around 24 hours. Gestation is 275-315 days and usually results in one calf, although twins have been born in captivity.

Lifespan: 15-20 years in the wild, 20-30 years in captivity

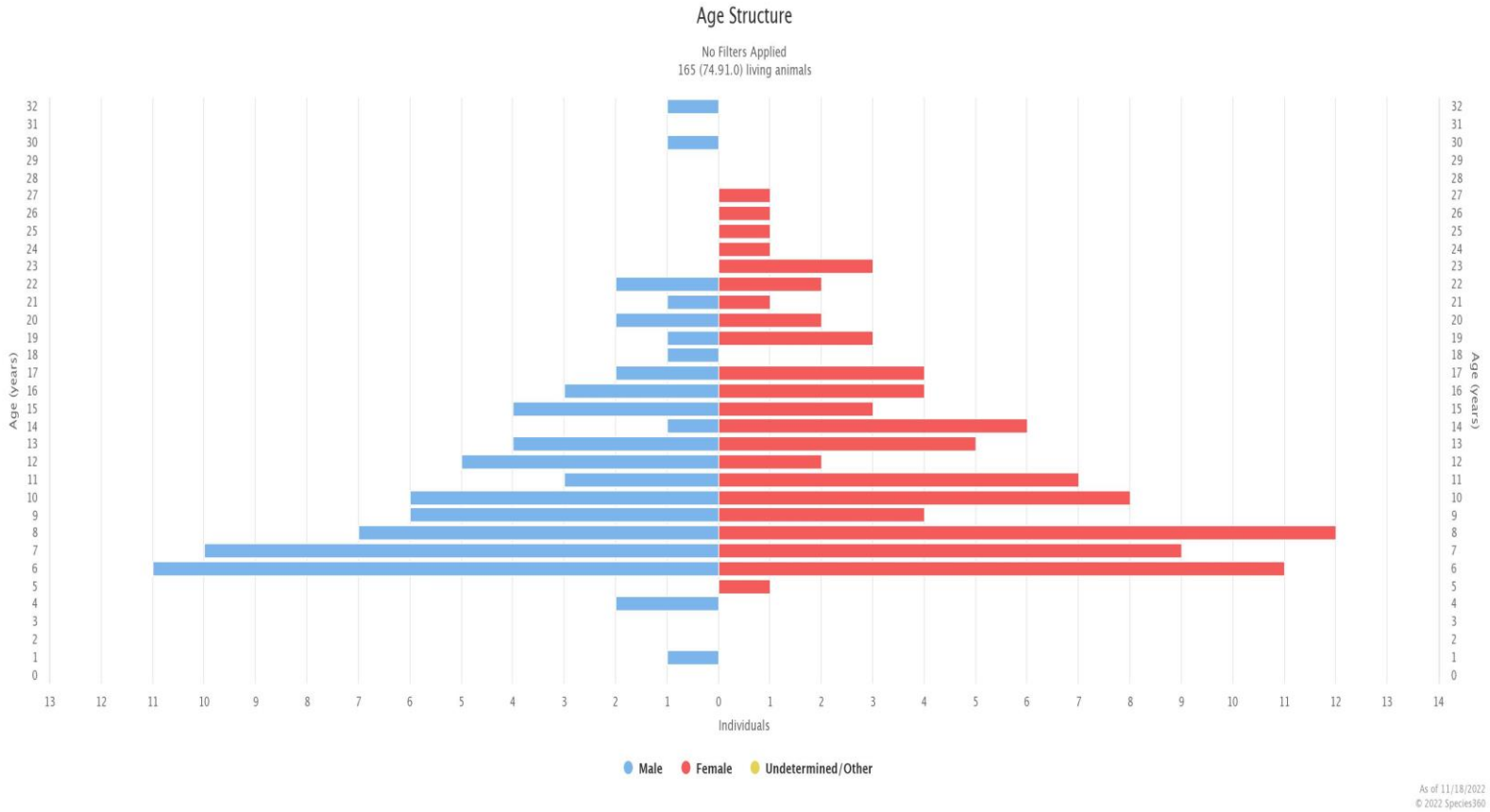
Behavior: The lowland anoa is largely a solitary animal but is sometimes found in pairs or very small groups. They are most active during the early morning and early evening but sometimes exhibit nocturnal tendencies. In their native habitat, they are known to be aggressive towards humans.

Status of North American Population

The North American population consists of 165 Anoa found in 10 different institutions, five of which are accredited by AZA. Most individuals are housed at non-AZA private facilities.

The sex distribution is skewed towards females, at 74.91 (0 are unknown at the time of this publication).

The age pyramid below shows the age distribution for all individuals in the current poulation. Blue indicates male and red indicates female. The general shape of the age pyrmid shows a well balanced population with positive potential growth for the future.



CHALLENGES TO SSP POPULATION SUSTAINABILITY
(Copied from the AZA Anoa Sustainability Report)

Challenge	Goal	Action	Need
Genetics	Avoid loss of gene diversity	Improve institutional cooperation or communication	As the management for this population evolves, institutions are asked to communicate with the SSP Coordinator regarding transfers and breeding recommendations. Genetic management is not possible without up-to-date information and breeding based on individual relatedness.
Population Size	Import reproductively viable individuals	Pursue inter-regional or global management plan	The GSMP is actively working on a long term sustainability plan that would involve cooperative breeding and transport between all vested parties.
	Increase available space	Collaborate with non-AZA facilities	The SSP plans to increase exchange of animals with non-AZA facilities, to increase the space available for genetically valuable individuals in breeding situations.
		Promote inclusion in multi-species enclosures	The most critical need in this population is for more space. Adding space or recruiting new institutions to hold or breed this species is needed to move this population into a more stable situation, and the SSP can relatively quickly supply individuals to interested institutions. Inclusion in multispecies exhibits is particularly recommended, as this becomes an efficient use of a space as well as a dynamic exhibit for visitors.

Living Population
74.91 At 10 Institutions

ALAMO / Tennessee Safari Park - Total: 1 (1.0.0)							
Studbook ID	**Current Location**	**Current Local ID**	**Sex Type**	**Birth Date**	**Sire**	**Dam**	**Age**
656	ALAMO	00192	Male	20-Jan-08	577	572	14Y,9M,29D
ALEXANDRI / Alexandria Zoological Park - Total: 1 (1.0.0)							
Studbook ID	**Current Location**	**Current Local ID**	**Sex Type**	**Birth Date**	**Sire**	**Dam**	**Age**
577	ALEXANDRI	M00144	Male	27-Nov-01	514	522	20Y,11M,22D
FORTWORTH / Fort Worth Zoological Park - Total: 1 (1.0.0)							
Studbook ID	**Current Location**	**Current Local ID**	**Sex Type**	**Birth Date**	**Sire**	**Dam**	**Age**
626	FORTWORTH	204624	Male	31-Jul-06	479	495	16Y,3M,18D
FOUTS J / Jim Fouts Wildlife Co (animal supply) - Total: 3 (2.1.0)							
Studbook ID	**Current Location**	**Current Local ID**	**Sex Type**	**Birth Date**	**Sire**	**Dam**	**Age**
708	FOUTS J	A13365	Female	26-Feb-12	587	585	10Y,8M,23D
709	FOUTS J	A13366	Male	3-Dec-11	596	595	10Y,11M,15D
710	FOUTS J	B15367	Male	6-Aug-15	709	708	7Y,3M,12D
JOHNSON L / Safari Enterprises (Larry Johnson) - Total: 87 (35.52.0)							
Studbook ID	**Current Location**	**Current Local ID**	**Sex Type**	**Birth Date**	**Sire**	**Dam**	**Age**
515	JOHNSON L	UNDETERMINED	Female	24-Oct-98	UND	467	24Y,0M,25D

571	JOHNSON L	UNDETERMINED	Female	25-Sep-99	479	495	23Y,1M,24D
573	JOHNSON L	UNDETERMINED	Male	23-Jul-00	367	463	22Y,3M,26D
575	JOHNSON L	UNDETERMINED	Female	22-Jul-01	424	426	21Y,3M,27D
578	JOHNSON L	UNDETERMINED	Female	18-Apr-02	481	485	20Y,7M,0D
579	JOHNSON L	UNDETERMINED	Female	19-Jul-00	317	325	22Y,3M,30D
589	JOHNSON L	Undetermined	Female	7-Sep-03	569	480	19Y,2M,11D
595	JOHNSON L	UNDETERMINED	Female	13-Nov-03	514	522	19Y,0M,5D
611	JOHNSON L	UNDETERMINED	Male	24-Dec-03	569	565	18Y,10M,25D
628	JOHNSON L	UNDETERMINED	Female	18-Sep-05	568	575	17Y,2M,0D
629	JOHNSON L	UNDETERMINED	Male	27-Nov-05	569	522	16Y,11M,22D
630	JOHNSON L	UNDETERMINED	Female	13-Dec-05	347	463	16Y,11M,5D
631	JOHNSON L	UNDETERMINED	Male	24-Apr-06	581	570	16Y,6M,25D
634	JOHNSON L	UNDETERMINED	Female	5-Oct-06	573	515	16Y,1M,13D
635	JOHNSON L	UNDETERMINED	Female	21-Jul-06	587	585	16Y,3M,28D
636	JOHNSON L	UNDETERMINED	Female	19-Jun-06	405	467	16Y,4M,30D
640	JOHNSON L	UNDETERMINED	Male	2-Mar-07	423	578	15Y,8M,16D
641	JOHNSON L	UNDETERMINED	Male	16-Mar-07	568	575	15Y,8M,2D
649	JOHNSON L	UNDETERMINED	Female	8-Oct-07	596	589	15Y,1M,10D
652	JOHNSON L	UNDETERMINED	Female	15-Jan-08	568	571	14Y,10M,3D

654	JOHNSON L	UNDETERMINED	Female	30-Jan-08	514	515	14Y,9M,19D
658	JOHNSON L	UNDETERMINED	Female	18-Apr-08	588	565	14Y,7M,0D
662	JOHNSON L	UNDETERMINED	Female	11-Oct-08	573	575	14Y,1M,7D
663	JOHNSON L	UNDETERMINED	Female	1-Nov-08	596	594	14Y,0M,17D
668	JOHNSON L	UNDETERMINED	Female	4-Mar-09	423	579	13Y,8M,14D
672	JOHNSON L	UNDETERMINED	Female	11-Jul-09	625	620	13Y,4M,7D
673	JOHNSON L	UNDETERMINED	Male	16-Jul-09	514	571	13Y,4M,2D
674	JOHNSON L	UNDETERMINED	Female	19-Jul-09	627	628	13Y,3M,30D
675	JOHNSON L	UNDETERMINED	Male	2-Aug-09	514	515	13Y,3M,16D
680	JOHNSON L	UNDETERMINED	Female	22-Nov-09	580	463	12Y,11M,27D
684	JOHNSON L	UNDETERMINED	Male	30-Jun-10	631	634	12Y,4M,19D
689	JOHNSON L	UNDETERMINED	Male	10-Aug-10	611	502	12Y,3M,8D
690	JOHNSON L	UNDETERMINED	Male	11-Aug-10	514	515	12Y,3M,7D
697	JOHNSON L	UNDETERMINED	Female	3-Jan-11	568	522	11Y,10M,15D
703	JOHNSON L	UNDETERMINED	Female	5-Jun-11	625	620	11Y,5M,13D
704	JOHNSON L	UNDETERMINED	Female	25-Jul-11	514	571	11Y,3M,24D
705	JOHNSON L	UNDETERMINED	Female	26-Jul-11	596	589	11Y,3M,23D
715	JOHNSON L	UNDETERMINED	Male	24-Sep-11	588	565	11Y,1M,25D
716	JOHNSON L	UNDETERMINED	Male	1-Nov-11	611	502	11Y,0M,17D

718	JOHNSON L	UNDETERMINED	Female	21-Nov-11	423	579	10Y,11M,28D
719	JOHNSON L	UNDETERMINED	Female	7-Feb-12	653	649	10Y,9M,11D
721	JOHNSON L	UNDETERMINED	Female	19-Mar-12	568	522	10Y,7M,30D
724	JOHNSON L	UNDETERMINED	Male	13-Jul-12	627	628	10Y,4M,5D
727	JOHNSON L	UNDETERMINED	Female	29-Aug-12	514	515	10Y,2M,20D
728	JOHNSON L	UNDETERMINED	Female	31-Aug-12	651	652	10Y,2M,18D
729	JOHNSON L	UNDETERMINED	Male	25-Sep-12	653	654	10Y,1M,24D
733	JOHNSON L	UNDETERMINED	Male	10-Nov-12	514	571	10Y,0M,8D
736	JOHNSON L	UNDETERMINED	Male	28-Dec-12	665	565	9Y,10M,21D
745	JOHNSON L	UNDETERMINED	Male	8-May-13	629	674	9Y,6M,10D
748	JOHNSON L	UNDETERMINED	Female	22-Jul-13	684	685	9Y,3M,27D
751	JOHNSON L	UNDETERMINED	Male	28-Aug-13	684	682	9Y,2M,21D
753	JOHNSON L	UNDETERMINED	Female	19-Sep-13	568	570	9Y,1M,30D
754	JOHNSON L	UNDETERMINED	Male	6-Oct-13	423	579	9Y,1M,12D
756	JOHNSON L	UNDETERMINED	Male	3-Nov-13	627	628	9Y,0M,15D
759	JOHNSON L	UNDETERMINED	Female	18-Dec-13	596	595	8Y,11M,0D
761	JOHNSON L	UNDETERMINED	Male	16-Feb-14	684	691	8Y,9M,2D
762	JOHNSON L	UNDETERMINED	Female	21-Feb-14	651	649	8Y,8M,28D
765	JOHNSON L	UNDETERMINED	Female	4-Mar-14	514	571	8Y,8M,14D

767	JOHNSON L	UNDETERMINED	Female	16-Apr-14	573	575	8Y,7M,2D
771	JOHNSON L	UNDETERMINED	Female	1-Jul-14	627	638	8Y,4M,17D
774	JOHNSON L	UNDETERMINED	Female	12-Jul-14	580	565	8Y,4M,6D
778	JOHNSON L	UNDETERMINED	Female	25-Sep-14	684	682	8Y,1M,24D
780	JOHNSON L	UNDETERMINED	Male	5-Oct-14	629	674	8Y,1M,13D
783	JOHNSON L	UNDETERMINED	Female	7-Dec-14	596	595	7Y,11M,11D
787	JOHNSON L	UNDETERMINED	Female	10-Dec-14	580	463	7Y,11M,8D
789	JOHNSON L	UNDETERMINED	Male	7-Feb-15	622	636	7Y,9M,11D
792	JOHNSON L	UNDETERMINED	Male	4-Apr-15	514	571	7Y,7M,14D
800	JOHNSON L	UNDETERMINED	Female	10-Aug-15	639	704	7Y,3M,8D
801	JOHNSON L	UNDETERMINED	Female	4-Sep-15	684	693	7Y,2M,14D
802	JOHNSON L	UNDETERMINED	Male	13-Sep-15	514	658	7Y,2M,5D
803	JOHNSON L	UNDETERMINED	Male	14-Sep-15	684	682	7Y,2M,4D
805	JOHNSON L	UNDETERMINED	Female	4-Nov-15	701	705	7Y,0M,14D
806	JOHNSON L	UNDETERMINED	Female	21-Nov-15	514	515	6Y,11M,28D
807	JOHNSON L	UNDETERMINED	Male	23-Dec-15	629	672	6Y,10M,26D
808	JOHNSON L	UNDETERMINED	Female	26-Dec-15	596	595	6Y,10M,23D
812	JOHNSON L	UNDETERMINED	Male	9-Sep-16	627	628	6Y,2M,9D
814	JOHNSON L	UNDETERMINED	Male	21-Jul-16	625	620	6Y,3M,28D

817	JOHNSON L	UNDETERMINED	Male	10-Apr-16	716	671	6Y,7M,8D
818	JOHNSON L	UNDETERMINED	Female	22-Aug-16	568	570	6Y,2M,27D
819	JOHNSON L	UNDETERMINED	Female	6-Apr-16	568	662	6Y,7M,12D
821	JOHNSON L	UNDETERMINED	Male	19-Mar-16	580	463	6Y,7M,30D
822	JOHNSON L	UNDETERMINED	Female	16-Nov-16	573	575	6Y,0M,2D
824	JOHNSON L	UNDETERMINED	Male	22-Mar-16	629	680	6Y,7M,27D
827	JOHNSON L	UNDETERMINED	Female	22-Jul-16	622	636	6Y,3M,27D
828	JOHNSON L	UNDETERMINED	Female	3-Mar-16	695	694	6Y,8M,15D
829	JOHNSON L	UNDETERMINED	Male	28-Sep-16	695	697	6Y,1M,21D
838	JOHNSON L	UNDETERMINED	Male	25-May-14	670	696	8Y,5M,24D

LOWRY / ZooTampa at Lowry Park - Total: 2 (1.1.0)

Studbook ID	Current Location	Current Local ID	Sex Type	Birth Date	Sire	Dam	Age
585	LOWRY	102046	Female	9-Sep-03	405	467	19Y,2M,9D
587	LOWRY	102045	Male	2-Oct-03	479	495	19Y,1M,16D

METROZOO / Zoo Miami - Total: 5 (3.2.0)

Studbook ID	Current Location	Current Local ID	Sex Type	Birth Date	Sire	Dam	Age
720	METROZOO	16M029	Male	12-Mar-12	622	616	10Y,8M,6D
757	METROZOO	17M032	Female	26-Nov-13	627	630	8Y,11M,23D
776	METROZOO	17M029	Male	4-Aug-14	622	616	8Y,3M,14D

832	METROZOO	21M029	Male	22-Apr-21	776	757	1Y,6M,27D
835	METROZOO	17M070	Female	8-Sep-17	756	757	5Y,2M,10D

MICANOPY / Micanopy Zool. Preserve (Rhudy Holly) - Total: 19 (11.8.0)							
Studbook ID	**Current Location**	**Current Local ID**	**Sex Type**	**Birth Date**	**Sire**	**Dam**	**Age**
405	MICANOPY	MZP #1	Male	12-Sep-90	347	353	32Y,2M,6D
480	MICANOPY	UNDETERMINED	Female	9-Jun-96	423	414	26Y,5M,9D
614	MICANOPY	MZP#3	Female	2-Mar-05	479	495	17Y,8M,16D
615	MICANOPY	MZP #2	Male	25-Apr-05	405	467	17Y,6M,24D
627	MICANOPY	UNDETERMINED	Male	22-Aug-05	580	578	17Y,2M,27D
638	MICANOPY	UNDETERMINED	Female	27-Nov-06	581	565	15Y,11M,22D
650	MICANOPY	MZP#6	Male	24-Oct-07	587	585	15Y,0M,25D
657	MICANOPY	MZP#5	Female	22-Jul-08	405	467	14Y,3M,27D
669	MICANOPY	1	Female	26-Apr-09	587	585	13Y,6M,23D
676	MICANOPY	MZP #7	Male	13-Sep-09	405	467	13Y,2M,5D
681	MICANOPY	-	Male	16-Jul-10	569	642	12Y,4M,2D
700	MICANOPY	111043	Female	13-Mar-11	573	578	11Y,8M,5D
750	MICANOPY	AZA750	Female	16-Aug-13	580	463	9Y,3M,2D
769	MICANOPY	UNDETERMINED	Male	18-May-14	695	694	8Y,6M,0D
784	MICANOPY	UNDETERMINED	Male	9-Dec-14	629	672	7Y,11M,9D

788	MICANOPY	UNDETERMINED	Male	24-Dec-14	629	680	7Y,10M,25D
797	MICANOPY	UNDETERMINED	Female	12-Jul-15	573	575	7Y,4M,6D
833	MICANOPY	985114000054127	Male	14-Nov-18	769	750	4Y,0M,4D
834	MICANOPY	985113001917132	Male	19-Sep-18	776	757	4Y,1M,30D

RUM CREEK / Center for Conservation of Tropical Ungulates - Total: 45 (19.26.0)

Studbook ID	Current Location	Current Local ID	Sex Type	Birth Date	Sire	Dam	Age
423	RUM CREEK	UNDETERMINED	Male	7-Feb-92	313	336	30Y,9M,11D
463	RUM CREEK	103126	Female	1-Mar-95	371	336	27Y,8M,17D
502	RUM CREEK	100013	Female	23-Sep-97	313	336	25Y,1M,26D
522	RUM CREEK	100032	Female	18-Apr-99	367	463	23Y,7M,0D
565	RUM CREEK	990094	Female	21-May-99	374	439	23Y,5M,28D
568	RUM CREEK	100097	Male	11-Feb-00	423	414	22Y,9M,7D
570	RUM CREEK	102113	Female	22-Jul-00	374	439	22Y,3M,27D
580	RUM CREEK	102098	Male	17-Nov-01	405	467	21Y,0M,1D
581	RUM CREEK	104140	Male	13-Apr-02	423	414	20Y,7M,5D
616	RUM CREEK	105064	Female	12-May-05	577	572	17Y,6M,6D
620	RUM CREEK	105007	Female	10-Jan-05	347	515	17Y,10M,8D
639	RUM CREEK	107001	Male	26-Jan-07	580	502	15Y,9M,23D
647	RUM CREEK	-	Female	4-Jul-07	584	576	15Y,4M,14D

670	RUM CREEK	-	Male	27-Jun-09	577	572	13Y,4M,22D
671	RUM CREEK	109046	Female	8-Jul-09	568	570	13Y,4M,10D
679	RUM CREEK	109080	Male	21-Nov-09	573	578	12Y,11M,28D
691	RUM CREEK	110053	Female	10-Sep-10	568	570	12Y,2M,8D
694	RUM CREEK	110073	Female	28-Nov-10	622	616	11Y,11M,21D
702	RUM CREEK	111056	Female	16-May-11	651	655	11Y,6M,2D
717	RUM CREEK	111110	Male	9-Nov-11	631	634	11Y,0M,9D
723	RUM CREEK	112070	Male	25-Apr-12	588	463	10Y,6M,24D
725	RUM CREEK	112126	Female	15-Jul-12	625	620	10Y,4M,3D
726	RUM CREEK	112131	Female	6-Aug-12	627	630	10Y,3M,12D
739	RUM CREEK	113010	Female	1-Mar-13	631	634	9Y,8M,17D
741	RUM CREEK	113016	Male	27-Mar-13	611	502	9Y,7M,22D
758	RUM CREEK	113203	Female	26-Nov-13	622	636	8Y,11M,23D
764	RUM CREEK	114025	Female	3-Mar-14	653	652	8Y,8M,15D
766	RUM CREEK	114029	Male	25-Mar-14	651	655	8Y,7M,24D
775	RUM CREEK	114104	Male	3-Aug-14	573	578	8Y,3M,15D
781	RUM CREEK	114115	Female	18-Oct-14	653	654	8Y,1M,0D
782	RUM CREEK	114116	Female	18-Oct-14	514	515	8Y,1M,0D
785	RUM CREEK	114147	Female	18-Dec-14	568	570	7Y,11M,0D

786	RUM CREEK	114148	Male	19-Dec-14	423	671	7Y,10M,30D
790	RUM CREEK	115025	Female	28-Feb-15	701	703	7Y,8M,21D
794	RUM CREEK	115087	Male	25-Jun-15	625	620	7Y,4M,24D
798	RUM CREEK	115097	Female	31-Jul-15	695	697	7Y,3M,18D
804	RUM CREEK	115112	Male	11-Oct-15	653	654	7Y,1M,7D
809	RUM CREEK	116004	Male	1-Feb-16	631	634	6Y,9M,17D
810	RUM CREEK	116006	Male	14-Feb-16	627	630	6Y,9M,4D
811	RUM CREEK	116008	Male	17-Feb-16	573	578	6Y,9M,1D
813	RUM CREEK	116052	Female	27-May-16	596	589	6Y,5M,22D
815	RUM CREEK	116126	Female	16-Nov-16	514	515	6Y,0M,2D
820	RUM CREEK	116035	Female	4-Apr-16	639	674	6Y,7M,14D
823	RUM CREEK	116068	Male	10-Jul-16	715	718	6Y,4M,8D
825	RUM CREEK	116096	Female	31-Aug-16	684	682	6Y,2M,18D

TACOMA / Point Defiance Zoo & Aquarium - Total: 1 (0.1.0)

Studbook ID	Current Location	Current Local ID	Sex Type	Birth Date	Sire	Dam	Age
576	TACOMA	T04M10	Female	2-Apr-02	479	495	20Y,7M,16D

Current Institutions

Institution Name	Mnemonic	Country	State/Province
Alexandria Zoological Park	ALEXANDRI	United States	Louisiana
Center for Conservation of Tropical Ungulates	RUM CREEK	United States	Florida
Fort Worth Zoological Park	FORTWORTH	United States	Texas
Jim Fouts Wildlife Co (animal supply)	FOUTS J	United States	Kansas
Micanopy Zool. Preserve (Rhudy Holly)	MICANOPY	United States	Florida
Point Defiance Zoo & Aquarium	TACOMA	United States	Washington
Safari Enterprises (Larry Johnson)	JOHNSON L	United States	Texas
Tennessee Safari Park	ALAMO	United States	Tennessee
Zoo Miami	METROZOO	United States	Florida
ZooTampa at Lowry Park	LOWRY	United States	Florida

Historical Population

Studbook Animals						
Studbook ID	**Current Location**	**Sex Type**	**Birth Date**	**Current Status**	**Sire**	**Dam**
205	NZP-WASH	Male	9-May-1952	Dead	UND	UND
208	NZP-WASH	Female	19-Nov-1953	Dead	UND	UND
218	UNDETERMI	Female	12-Sep-1956	Dead	205	208
225	CINCINNAT	Male	4-May-1958	Dead	205	208
248	LEIPZIG	Female	1-Jan-1968	Dead	WILD	WILD
249	LEIPZIG	Male	1-Jan-1968	Dead	WILD	WILD
253	LEIPZIG	Male	1-Jan-1969	Dead	WILD	WILD
264	TOMIOKA	Female	Undetermined	Dead	WILD	WILD
265	KATSUURA	Male	1-Jan-1972	Dead	WILD	WILD
269	LEIPZIG	Female	5-Nov-1972	Dead	249	248
278	ROTTERDAM	Female	1-Jan-1975	Dead	WILD	WILD
279	ROTTERDAM	Male	1-Jan-1975	Dead	WILD	WILD
284	LEIPZIG	Female	23-Dec-1976	Dead	249	269
290	KANAZAWA	Female	15-Apr-1978	Dead	265	264

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
294	KANAZAWA	Male	20-Jun-1979	Dead	265	264
297	BERLINZOO	Male	3-Aug-1979	Dead	249	248
302	KANAZAWA	Female	12-May-1983	Undetermined (Lost to follow up)	265	264
303	BERLINZOO	Female	29-May-1980	Dead	253	269
310	MEMPHIS	Female	4-Aug-1981	Dead	516	517
312	TOMIOKA	Male	11-Sep-1981	Dead	265	290
313	RUM CREEK	Male	16-Sep-1981	Dead	253	284
317	RUM CREEK	Male	4-May-1982	Dead	253	269
325	MEMPHIS	Female	28-Nov-1982	Dead	253	284
336	RUM CREEK	Female	19-Feb-1984	Dead	253	284
347	RUM CREEK	Male	7-Jul-1985	Dead	297	303
353	MICANOPY	Female	5-Dec-1985	Dead	294	290
358	SANDIEGOZ	Female	9-Apr-1986	Dead	317	325
363	MEMPHIS	Female	12-Feb-1987	Dead	313	336
367	SANDIEGOZ	Male	3-Apr-1987	Dead	279	278
369	MEMPHIS	Male	18-Jun-1987	Dead	317	325

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
371	MEMPHIS	Male	25-Aug-1987	Dead	312	302
374	SEATTLE	Male	26-Dec-1987	Dead	313	336
381	MEMPHIS	Male	23-Dec-1988	Dead	317	325
388	MEMPHIS	Female	29-Apr-1989	Dead	313	336
391	RUM CREEK	Male	5-Oct-1989	Dead	317	358
397	OKLAHOMA	Male	9-Feb-1990	Dead	317	325
400	MEMPHIS	Male	18-Apr-1990	Dead	313	336
405	MICANOPY	Male	12-Sep-1990	Alive	347	353
410	OKLAHOMA	Female	3-Jan-1991	Dead	374	358
413	RUM CREEK	Female	16-Mar-1991	Dead	313	336
414	RUM CREEK	Female	4-Apr-1991	Dead	317	325
423	RUM CREEK	Male	7-Feb-1992	Alive	313	336
424	METROZOO	Male	29-May-1992	Dead	371	358
426	RUM CREEK	Female	18-Jul-1992	Dead	317	325
439	SEATTLE	Female	26-Aug-1993	Dead	371	336
440	MEMPHIS	Female	29-Aug-1993	Dead	317	325

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
454	YULEE	Male	12-Jul-1994	Dead	317	325
463	RUM CREEK	Female	1-Mar-1995	Alive	371	336
465	YULEE	Female	7-Mar-1995	Dead	423	414
467	MICANOPY	Female	18-May-1995	Dead	367	358
470	OKLAHOMA	Female	11-Jun-1995	Dead	424	426
474	MEMPHIS	Female	29-Sep-1995	Dead	317	325
479	FORTWORTH	Male	2-Jun-1996	Dead	371	336
480	MICANOPY	Female	9-Jun-1996	Alive	423	414
481	LOSANGELE	Male	4-Jul-1996	Dead	424	426
482	RUM CREEK	Female	18/Jul/1996	Dead	391	413
485	LOSANGELE	Female	10-Oct-1996	Dead	374	439
492	RUM CREEK	Female	10-Feb-1997	Undetermined (Lost to follow up)	317	325
495	FORTWORTH	Female	18-Mar-1997	Dead	367	358
498	ST LOUIS	Male	08/Aug/1997	Dead	423	414
499	METROZOO	Female	23-Aug-1997	Dead	374	439
502	RUM CREEK	Female	23-Sep-1997	Alive	313	336

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
511	MEMPHIS	Male	13-May-1998	Dead	317	325
514	RUM CREEK	Male	7-Oct-1998	Dead	313	336
515	JOHNSON L	Female	24-Oct-1998	Alive	UND	467
516	ANTWERP	Male	1-Jan-1973	Dead	UND	UND
517	ANTWERP	Female	19-Mar-1975	Dead	516	UND
518	ANTWERP	Male	1-Jan-1973	Dead	UND	UND
519	NAM DINH: Invalid use of GeoRef	Female	1-Jan-1972	Undetermined (Lost to follow up)	WILD	WILD
520	LOSANGELE	Female	21-Mar-1999	Dead	481	485
521	SD-WAP	Male	20-Mar-1957	Dead	UND	UND
522	RUM CREEK	Female	18-Apr-1999	Alive	367	463
523	SANDIEGOZ	Female	1-Jan-1910	Dead	WILD	WILD
524	NZP-WASH	Female	1-Jan-1924	Dead	UND	UND
525	SANDIEGOZ	Male	1-Jan-1935	Dead	WILD	WILD
526	SANDIEGOZ	Female	1-Jan-1935	Dead	WILD	WILD
527	CHICAGOLP	Male	1-Jan-1940	Dead	WILD	WILD
528	CHICAGOLP	Female	1-Jan-1940	Dead	WILD	WILD

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
529	SANDIEGOZ	Undetermined	31-Dec-1944	Dead	525	526
530	SANDIEGOZ	Male	13-Mar-1942	Dead	525	526
531	SANDIEGOZ	Male	1-Mar-1944	Dead	525	526
532	SANDIEGOZ	Male	10-Mar-1945	Dead	525	526
533	UNDETERMI	Female	7-May-1947	Dead	525	526
534	PITTSBURG	Male	20-May-1946	Dead	525	UND
535	CATSKILL	Female	19-Feb-1947	Dead	525	526
536	PITTSBURG	Female	7-May-1947	Dead	525	UND
537	PITTSBURG	Female	18-Feb-1948	Dead	UND	UND
538	SANDIEGOZ	Female	5-Mar-1951	Dead	UND	UND
539	SANDIEGOZ	Male	20-May-1951	Dead	UND	UND
540	SANDIEGOZ	Undetermined	8-Nov-1954	Dead	UND	UND
541	SANDIEGOZ	Undetermined	13-Oct-1955	Dead	UND	UND
542	SANDIEGOZ	Male	2-Apr-1956	Dead	UND	UND
543	SANDIEGOZ	Male	6-May-1957	Dead	UND	UND
544	SANDIEGOZ	Male	1-Jan-1958	Dead	539	538

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
545	BERLINZOO	Male	27-Apr-1959	Dead	539	538
546	SANDIEGOZ	Female	11-Jun-1960	Dead	539	538
547	SANDIEGOZ	Female	17-Jul-1961	Dead	539	538
548	SANDIEGOZ	Female	6-Jul-1962	Dead	539	538
549	SANDIEGOZ	Female	23-Jul-1963	Dead	539	538
550	SANDIEGOZ	Female	6-Nov-1964	Dead	539	538
551	SANDIEGOZ	Male	3-Mar-1965	Dead	539	538
552	SANDIEGOZ	Female	16-Oct-1965	Dead	539	538
553	SANDIEGOZ	Undetermined	10-May-1966	Dead	UND	UND
554	SANDIEGOZ	Male	1-Jan-1952	Dead	527	528
555	SANDIEGOZ	Undetermined	19-Aug-1967	Dead	554	550
556	SANDIEGOZ	Male	5-Jun-1955	Dead	UND	UND
557	SANDIEGOZ	Female	1-Nov-1968	Dead	554	550
558	SANDIEGOZ	Male	2-Feb-1969	Dead	554	550
559	SANDIEGOZ	Female	9-Dec-1969	Dead	556	550
560	SANDIEGOZ	Female	19-May-1970	Dead	556	538

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
561	MEMPHIS	Male	26-Aug-1987	Dead	UND	UND
562	SANDIEGOZ	Male	14-Nov-1991	Dead	347	353
563	SANDIEGOZ	Male	8-Sep-1989	Dead	347	353
564	SANDIEGOZ	Female	1-Apr-1993	Dead	347	353
565	RUM CREEK	Female	21-May-1999	Alive	374	439
566	NZP-WASH	Undetermined	4-Oct-1955	Dead	205	208
567	NZP-WASH	Male	1-Jan-1905	Dead	UND	UND
568	RUM CREEK	Male	11-Feb-2000	Alive	423	414
569	METROZOO	Male	11-May-2000	Dead	481	485
570	RUM CREEK	Female	22-Jul-2000	Alive	374	439
571	JOHNSON L	Female	25-Sep-1999	Alive	479	495
572	ALEXANDRI	Female	23-Oct-2000	Dead	479	495
573	JOHNSON L	Male	23-Jul-2000	Alive	367	463
574	OKLAHOMA	Male	25-Sep-1999	Dead	424	426
575	JOHNSON L	Female	22-Jul-2001	Alive	424	426
576	TACOMA	Female	2-Apr-2002	Alive	479	495

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
577	ALEXANDRI	Male	27-Nov-2001	Alive	514	522
578	JOHNSON L	Female	18-Apr-2002	Alive	481	485
579	JOHNSON L	Female	19-Jul-2000	Alive	317	325
580	RUM CREEK	Male	17-Nov-2001	Alive	405	467
581	RUM CREEK	Male	13-Apr-2002	Alive	423	414
582	RUM CREEK	Female	20/Sep/2001	Dead	367	463
583	SANDIEGOZ	Female	6-Dec-2001	Dead	405	515
584	TACOMA	Male	26/Dec/2002	Dead	367	463
585	LOWRY	Female	9-Sep-2003	Alive	405	467
586	SANDIEGOZ	Male	17-Sep-2003	Dead	405	515
587	LOWRY	Male	02/Oct/2003	Alive	479	495
588	RUM CREEK	Male	29-Mar-2003	Dead	391	499
589	JOHNSON L	Female	7-Sep-2003	Alive	569	480
590	ALEXANDRI	Undetermined	24-Apr-2004	Dead	577	572
591	ALEXANDRI	Undetermined	24-Apr-2004	Dead	577	572
592	SANDIEGOZ	Undetermined	31-Dec-1944	Dead	525	526

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
593	MEMPHIS	Female	03/Jul/1999	Dead	317	325
594	RUM CREEK	Female	27-Sep-2003	Dead	391	502
595	JOHNSON L	Female	13-Nov-2003	Alive	514	522
596	RUM CREEK	Male	14/Aug/2004	Dead	573	570
597	PITTSBURG	Male	Undetermined	Dead	UND	UND
598	PITTSBURG	Female	18-Jul-1952	Dead	597	537
599	PITTSBURG	Female	26/Feb/1953	Dead	597	537
600	PITTSBURG	Male	16-Feb-1955	Dead	597	537
601	PITTSBURG	Male	6-Jun-1955	Dead	597	537
602	PITTSBURG	Undetermined	5-Jan-1956	Dead	597	537
603	PITTSBURG	Female	23-Dec-1956	Dead	597	537
604	PITTSBURG	Male	Undetermined	Dead	UND	UND
605	UNDETERMI	Female	9-Sep-1956	Dead	604	537
606	UNDETERMI	Male	19/Jan/1954	Dead	604	537
607	UNDETERMI	Male	6-Nov-1951	Dead	604	537
608	PITTSBURG	Female	13-Apr-1958	Dead	604	537

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
609	UNDETERMI	Female	Undetermined	Dead	UND	UND
610	SD-WAP	Male	20-Mar-1957	Dead	UND	UND
611	JOHNSON L	Male	24/Dec/2003	Alive	569	565
612	RUM CREEK	Female	6-Feb-2005	Dead	391	499
613	RUM CREEK	Female	04/Nov/2004	Dead	481	485
614	MICANOPY	Female	2-Mar-2005	Alive	479	495
615	MICANOPY	Male	25-Apr-2005	Alive	405	467
616	RUM CREEK	Female	12-May-2005	Alive	577	572
617	RUM CREEK	Undetermined	19-Jan-2005	Dead	514	463
618	RUM CREEK	Undetermined	29-Mar-2005	Dead	573	579
620	RUM CREEK	Female	10-Jan-2005	Alive	347	515
621	RUM CREEK	Female	19-Jan-2005	Dead	514	463
622	RUM CREEK	Male	18-Feb-2005	Dead	347	571
623	RUM CREEK	Female	29-Mar-2005	Dead	573	579
624	RUM CREEK	Female	21-Apr-2005	Dead	569	565
625	RUM CREEK	Male	24-May-2005	Dead	569	480

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
626	FORTWORTH	Male	31-Jul-2006	Alive	479	495
627	MICANOPY	Male	22-Aug-2005	Alive	580	578
628	JOHNSON L	Female	18-Sep-2005	Alive	568	575
629	JOHNSON L	Male	27-Nov-2005	Alive	569	522
630	JOHNSON L	Female	13-Dec-2005	Alive	347	463
631	JOHNSON L	Male	24-Apr-2006	Alive	581	570
632	RUM CREEK	Male	4-Jun-2006	Dead	581	579
633	RUM CREEK	Male	22-Sep-2006	Dead	514	571
634	JOHNSON L	Female	5-Oct-2006	Alive	573	515
635	JOHNSON L	Female	21-Jul-2006	Alive	587	585
636	JOHNSON L	Female	19-Jun-2006	Alive	405	467
637	RUM CREEK	Female	10-Mar-2007	Dead	569	499
638	MICANOPY	Female	27-Nov-2006	Alive	581	565
639	RUM CREEK	Male	26-Jan-2007	Alive	580	502
640	JOHNSON L	Male	2-Mar-2007	Alive	423	578
641	JOHNSON L	Male	16-Mar-2007	Alive	568	575

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
642	METROZOO	Female	3-Jul-2007	Dead	405	467
643	SANDIEGOZ	Male	1-Dec-2005	Dead	367	492
644	ALEXANDRI	Male	16-Feb-2007	Dead	577	572
645	RUM CREEK	Male	6-Jun-2007	Dead	581	579
646	RUM CREEK	Male	29-Jun-2007	Dead	514	463
647	RUM CREEK	Female	4-Jul-2007	Alive	584	576
648	SANDIEGOZ	Male	13-Aug-2007	Dead	367	492
649	JOHNSON L	Female	8-Oct-2007	Alive	596	589
650	MICANOPY	Male	24-Oct-2007	Alive	587	585
651	RUM CREEK	Male	30-Dec-2007	Dead	580	570
652	JOHNSON L	Female	15-Jan-2008	Alive	568	571
653	RUM CREEK	Male	17-Jan-2008	Dead	596	595
654	JOHNSON L	Female	30-Jan-2008	Alive	514	515
655	RUM CREEK	Female	30-Jan-2008	Dead	423	522
656	ALAMO	Male	20-Jan-2008	Alive	577	572
657	MICANOPY	Female	22-Jul-2008	Alive	405	467

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
658	JOHNSON L	Female	18-Apr-2008	Alive	588	565
659	RUM CREEK	Female	29-Jun-2008	Dead	625	620
660	RUM CREEK	Female	8-Aug-2008	Dead	573	578
661	RUM CREEK	Female	18-Sep-2008	Dead	622	616
662	JOHNSON L	Female	11-Oct-2008	Alive	573	575
663	JOHNSON L	Female	1-Nov-2008	Alive	596	594
664	RUM CREEK	Male	6-Nov-2008	Dead	588	463
665	RUM CREEK	Male	25-Nov-2008	Dead	580	502
666	RUM CREEK	Female	12-Feb-2009	Dead	596	589
667	RUM CREEK	Female	3-Mar-2009	Dead	596	595
668	JOHNSON L	Female	4-Mar-2009	Alive	423	579
669	MICANOPY	Female	26-Apr-2009	Alive	587	585
670	RUM CREEK	Male	27-Jun-2009	Alive	577	572
671	RUM CREEK	Female	8-Jul-2009	Alive	568	570
672	JOHNSON L	Female	11-Jul-2009	Alive	625	620
673	JOHNSON L	Male	16-Jul-2009	Alive	514	571

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
674	JOHNSON L	Female	19-Jul-2009	Alive	627	628
675	JOHNSON L	Male	2-Aug-2009	Alive	514	515
676	MICANOPY	Male	13-Sep-2009	Alive	405	467
677	RUM CREEK	Female	9-Aug-2009	Dead	580	480
678	RUM CREEK	Male	26-Oct-2009	Dead	627	630
679	RUM CREEK	Male	21-Nov-2009	Alive	573	578
680	JOHNSON L	Female	22-Nov-2009	Alive	580	463
681	MICANOPY	Male	16-Jul-2010	Alive	569	642
682	RUM CREEK	Female	7-Mar-2010	Dead	580	565
683	RUM CREEK	Undetermined	6-May-2010	Dead	596	589
684	JOHNSON L	Male	30-Jun-2010	Alive	631	634
685	RUM CREEK	Female	3-Jul-2010	Dead	596	589
686	RUM CREEK	Male	9-Jul-2010	Dead	514	571
687	RUM CREEK	Female	22-Jul-2010	Dead	625	620
688	RUM CREEK	Female	28-Jul-2010	Dead	596	595
689	JOHNSON L	Male	10-Aug-2010	Alive	611	502

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
690	JOHNSON L	Male	11-Aug-2010	Alive	514	515
691	RUM CREEK	Female	10-Sep-2010	Alive	568	570
692	RUM CREEK	Male	10/Oct/2010	Dead	423	579
693	RUM CREEK	Female	22-Nov-2010	Dead	653	652
694	RUM CREEK	Female	28-Nov-2010	Alive	622	616
695	RUM CREEK	Male	19-Dec-2010	Dead	622	636
696	RUM CREEK	Female	13-Jun-2011	Undetermined (Lost to follow up)	367	647
697	JOHNSON L	Female	3-Jan-2011	Alive	568	522
698	RUM CREEK	Male	19-Feb-2011	Dead	588	463
699	RUM CREEK	Female	24-Feb-2011	Dead	627	628
700	MICANOPY	Female	13-Mar-2011	Alive	573	578
701	RUM CREEK	Male	17-Apr-2011	Dead	423	480
702	RUM CREEK	Female	16-May-2011	Alive	651	655
703	JOHNSON L	Female	5-Jun-2011	Alive	625	620
704	JOHNSON L	Female	25-Jul-2011	Alive	514	571
705	JOHNSON L	Female	26-Jul-2011	Alive	596	589

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
706	RUM CREEK	Male	30-Jul-2011	Dead	514	515
707	RUM CREEK	Male	5-Aug-2011	Dead	646	638
708	FOUTS J	Female	26-Feb-2012	Alive	587	585
709	FOUTS J	Male	3-Dec-2011	Alive	596	595
710	FOUTS J	Male	6-Aug-2015	Alive	709	708
711	LOSANGELE	Female	4-Sep-2014	Dead	587	585
712	RUM CREEK	Male	1-Mar-2011	Dead	627	630
713	RUM CREEK	Male	11-Sep-2011	Dead	653	654
714	RUM CREEK	Female	19-Sep-2011	Dead	568	570
715	JOHNSON L	Male	24-Sep-2011	Alive	588	565
716	JOHNSON L	Male	1-Nov-2011	Alive	611	502
717	RUM CREEK	Male	9-Nov-2011	Alive	631	634
718	JOHNSON L	Female	21-Nov-2011	Alive	423	579
719	JOHNSON L	Female	7-Feb-2012	Alive	653	649
720	METROZOO	Male	12-Mar-2012	Alive	622	616
721	JOHNSON L	Female	19-Mar-2012	Alive	568	522

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
722	RUM CREEK	Female	24-Apr-2012	Dead	573	575
723	RUM CREEK	Male	25-Apr-2012	Alive	588	463
724	JOHNSON L	Male	13-Jul-2012	Alive	627	628
725	RUM CREEK	Female	15-Jul-2012	Alive	625	620
726	RUM CREEK	Female	6-Aug-2012	Alive	627	630
727	JOHNSON L	Female	29-Aug-2012	Alive	514	515
728	JOHNSON L	Female	31-Aug-2012	Alive	651	652
729	JOHNSON L	Male	25-Sep-2012	Alive	653	654
730	RUM CREEK	Undetermined	19-Oct-2012	Dead	568	570
731	RUM CREEK	Male	25-Oct-2012	Dead	651	655
732	RUM CREEK	Female	5-Nov-2012	Dead	622	636
733	JOHNSON L	Male	10-Nov-2012	Alive	514	571
734	RUM CREEK	Male	2-Dec-2012	Dead	665	666
735	RUM CREEK	Female	17-Dec-2012	Dead	596	595
736	JOHNSON L	Male	28-Dec-2012	Alive	665	565
737	RUM CREEK	Female	7-Jan-2013	Dead	596	589

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
738	RUM CREEK	Female	21-Feb-2013	Dead	514	658
739	RUM CREEK	Female	1-Mar-2013	Alive	631	634
740	RUM CREEK	Female	15-Mar-2013	Dead	629	677
741	RUM CREEK	Male	27-Mar-2013	Alive	611	502
742	RUM CREEK	Undetermined	2-Apr-2013	Dead	629	672
743	RUM CREEK	Female	23-Apr-2013	Dead	573	575
744	RUM CREEK	Female	1-May-2013	Dead	573	578
745	JOHNSON L	Male	8-May-2013	Alive	629	674
746	RUM CREEK	Male	30-Jun-2013	Dead	622	616
747	RUM CREEK	Male	21-Jul-2013	Dead	629	671
748	JOHNSON L	Female	22-Jul-2013	Alive	684	685
749	RUM CREEK	Male	12-Aug-2013	Dead	625	620
750	MICANOPY	Female	16-Aug-2013	Alive	580	463
751	JOHNSON L	Male	28-Aug-2013	Alive	684	682
752	RUM CREEK	Female	16-Sep-2013	Dead	653	654
753	JOHNSON L	Female	19-Sep-2013	Alive	568	570

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
754	JOHNSON L	Male	6-Oct-2013	Alive	423	579
755	RUM CREEK	Female	31-Oct-2013	Dead	514	571
756	JOHNSON L	Male	3-Nov-2013	Alive	627	628
757	METROZOO	Female	26-Nov-2013	Alive	627	630
758	RUM CREEK	Female	26-Nov-2013	Alive	622	636
759	JOHNSON L	Female	18-Dec-2013	Alive	596	595
760	RUM CREEK	Male	7-Feb-2014	Dead	596	589
761	JOHNSON L	Male	16-Feb-2014	Alive	684	691
762	JOHNSON L	Female	21-Feb-2014	Alive	651	649
763	RUM CREEK	Female	27-Feb-2014	Dead	695	697
764	RUM CREEK	Female	3-Mar-2014	Alive	653	652
765	JOHNSON L	Female	4-Mar-2014	Alive	514	571
766	RUM CREEK	Male	25-Mar-2014	Alive	651	655
767	JOHNSON L	Female	16-Apr-2014	Alive	573	575
768	RUM CREEK	Undetermined	4-May-2014	Dead	629	UND
769	MICANOPY	Male	18-May-2014	Alive	695	694

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
770	Undetermined	Male	29-Jun-2014	Undetermined (Lost to follow up)	631	634
771	JOHNSON L	Female	1-Jul-2014	Alive	627	638
772	RUM CREEK	Male	4-Jul-2014	Dead	679	668
773	RUM CREEK	Female	9-Jul-2014	Dead	514	658
774	JOHNSON L	Female	12-Jul-2014	Alive	580	565
775	RUM CREEK	Male	3-Aug-2014	Alive	573	578
776	METROZOO	Male	4-Aug-2014	Alive	622	616
777	RUM CREEK	Female	5-Aug-2014	Dead	625	620
778	JOHNSON L	Female	25-Sep-2014	Alive	684	682
779	RUM CREEK	Undetermined	3-Oct-2014	Dead	684	693
780	JOHNSON L	Male	5-Oct-2014	Alive	629	674
781	RUM CREEK	Female	18-Oct-2014	Alive	653	654
782	RUM CREEK	Female	18-Oct-2014	Alive	514	515
783	JOHNSON L	Female	7-Dec-2014	Alive	596	595
784	MICANOPY	Male	9-Dec-2014	Alive	629	672
785	RUM CREEK	Female	18-Dec-2014	Alive	568	570

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
786	RUM CREEK	Male	19-Dec-2014	Alive	423	671
787	JOHNSON L	Female	10-Dec-2014	Alive	580	463
788	MICANOPY	Male	24-Dec-2014	Alive	629	680
789	JOHNSON L	Male	7-Feb-2015	Alive	622	636
790	RUM CREEK	Female	28-Feb-2015	Alive	701	703
791	RUM CREEK	Female	18-Mar-2015	Dead	596	589
792	JOHNSON L	Male	4-Apr-2015	Alive	514	571
793	RUM CREEK	Male	13-Apr-2015	Dead	627	630
794	RUM CREEK	Male	25-Jun-2015	Alive	625	620
795	RUM CREEK	Female	8-Jul-2015	Dead	653	652
796	RUM CREEK	Male	11-Jul-2015	Dead	715	718
797	MICANOPY	Female	12-Jul-2015	Alive	573	575
798	RUM CREEK	Female	31-Jul-2015	Alive	695	697
799	RUM CREEK	Male	7-Aug-2015	Dead	679	649
800	JOHNSON L	Female	10-Aug-2015	Alive	639	704
801	JOHNSON L	Female	4-Sep-2015	Alive	684	693

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
802	JOHNSON L	Male	13-Sep-2015	Alive	514	658
803	JOHNSON L	Male	14-Sep-2015	Alive	684	682
804	RUM CREEK	Male	11-Oct-2015	Alive	653	654
805	JOHNSON L	Female	4-Nov-2015	Alive	701	705
806	JOHNSON L	Female	21-Nov-2015	Alive	514	515
807	JOHNSON L	Male	23-Dec-2015	Alive	629	672
808	JOHNSON L	Female	26-Dec-2015	Alive	596	595
809	RUM CREEK	Male	1-Feb-2016	Alive	631	634
810	RUM CREEK	Male	14-Feb-2016	Alive	627	630
811	RUM CREEK	Male	17-Feb-2016	Alive	573	578
812	JOHNSON L	Male	9-Sep-2016	Alive	627	628
813	RUM CREEK	Female	27-May-2016	Alive	596	589
814	JOHNSON L	Male	21-Jul-2016	Alive	625	620
815	RUM CREEK	Female	16-Nov-2016	Alive	514	515
816	RUM CREEK	Male	2-Jul-2016	Dead	514	571
817	JOHNSON L	Male	10-Apr-2016	Alive	716	671

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
818	JOHNSON L	Female	22-Aug-2016	Alive	568	570
819	JOHNSON L	Female	6-Apr-2016	Alive	568	662
820	RUM CREEK	Female	4-Apr-2016	Alive	639	674
821	JOHNSON L	Male	19-Mar-2016	Alive	580	463
822	JOHNSON L	Female	16-Nov-2016	Alive	573	575
823	RUM CREEK	Male	10-Jul-2016	Alive	715	718
824	JOHNSON L	Male	22-Mar-2016	Alive	629	680
825	RUM CREEK	Female	31-Aug-2016	Alive	684	682
826	RUM CREEK	Female	4-Sep-2016	Dead	701	703
827	JOHNSON L	Female	22-Jul-2016	Alive	622	636
828	JOHNSON L	Female	3-Mar-2016	Alive	695	694
829	JOHNSON L	Male	28-Sep-2016	Alive	695	697
830	PITTSBURG	Male	20-May-1946	Dead	UND	UND
831	Undetermined	Female	7-May-1947	Undetermined (Lost to follow up)	UND	UND
832	METROZOO	Male	22-Apr-2021	Alive	776	757
833	MICANOPY	Male	14-Nov-2018	Alive	769	750

Studbook ID	Current Location	Sex Type	Birth Date	Current Status	Sire	Dam
834	MICANOPY	Male	19-Sep-2018	Alive	776	757
835	METROZOO	Female	8-Sep-2017	Alive	756	757
836	SANDIEGOZ	Female	17-Feb-2015	Dead	670	647
837	TACOMA	Female	2-Oct-2014	Dead	584	576
838	JOHNSON L	Male	25-May-2014	Alive	670	696
839	PHILADELP	Male	Undetermined	Dead	WILD	WILD

Historic Institutions

Institution Name	Mnemonic	Country	State/Province
Alexandria Zoological Park	ALEXANDRI	United States	Louisiana
Bronx Zoo/Wildlife Conservation Society	NY BRONX	United States	New York
Catskill Game Farm (New York)	CATSKILL	United States	New York
Center for Conservation of Tropical Ungulates	RUM CREEK	United States	Florida
Cincinnati Zoo & Botanical Garden	CINCINNAT	United States	Ohio
Fort Worth Zoological Park	FORTWORTH	United States	Texas
Gunma Safari Park	TOMIOKA	Japan	Gunma (ja) (prefecture) (JP)
Jim Fouts Wildlife Co (animal supply)	FOUTS J	United States	Kansas
Kanazawa Zoological Gardens of Yokohama	KANAZAWA	Japan	Kanagawa (ja) (prefecture) (JP)
Kebung Binatang Surabaya	SURABAYA	Indonesia	Jawa Timur (id) (province) (ID)
Lincoln Park Zoological Gardens	CHICAGOLP	United States	Illinois
Los Angeles Zoo & Botanical Gardens	LOSANGELE	United States	California
Louis Ruhe GmbH (1860-1995)	L RUHE	Germany	Niedersachsen
Memphis Zoological Garden & Aquarium	MEMPHIS	United States	Tennessee
Micanopy Zool. Preserve (Rhudy Holly)	MICANOPY	United States	Florida

NAM DINH: Invalid use of GeoRef			
Namegawa Island (extinct 2001)	KATSUURA	Japan	Tiba (ja) [Chiba] (prefecture) (JP)
Oklahoma City Zoological Park	OKLAHOMA	United States	Oklahoma
Peace River Center (extinct Jan 2007)	PEACE RV	United States	Florida
Philadelphia Zoo	PHILADELP	United States	Pennsylvania
Pittsburgh Zoo & PPG Aquarium	PITTSBURG	United States	Pennsylvania
Point Defiance Zoo & Aquarium	TACOMA	United States	Washington
Rotterdam Zoo	ROTTERDAM	Netherlands	Zuid-Holland
Safari Enterprises (Larry Johnson)	JOHNSON L	United States	Texas
Saint Louis Zoological Park	ST LOUIS	United States	Missouri
San Diego Zoo	SANDIEGOZ	United States	California
San Diego Zoo Safari Park	SD-WAP	United States	California
Smithsonian National Zoological Park	NZP-WASH	United States	District of Columbia
Tennessee Safari Park	ALAMO	United States	Tennessee
Undetermined Location	UNDETERMI		
White Oak Conservation Center	YULEE	United States	Florida
Wild Animal Park Mechelen Planckendael	PLANCKNDL	Belgium	Antwerpen
Woodland Park Zoo	SEATTLE	United States	Washington
Zoo Leipzig	LEIPZIG	Germany	Sachsen

Zoo Miami	METROZOO	United States	Florida
Zoo of Antwerp	ANTWERP	Belgium	Antwerpen
Zoologischer Garten Berlin AG	BERLINZOO	Germany	Berlin
Zoologischer Garten Magdeburg	MAGDEBURG	Germany	Sachsen-Anhalt
ZooTampa at Lowry Park	LOWRY	United States	Florida

Population Analysis & Breeding and Transfer Plan

Banteng (*Bos javanicus*)
AZA Species Survival Plan®
Red Program

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22 June 2021

PMC Population Management Center
LINCOLN PARK ZOO. ASSOCIATION OF ZOOS & AQUARIUMS
San Diego Zoo Wildlife Alliance

Executive Summary

Banteng (*Bos javanicus)*

The current population of banteng is 36 animals (11 males, 25 females) held by five AZA facilities. The Antelope, Cattle, Giraffid and Camelid Taxon Advisory Group set the five-year target size for the population to be 50 animals in its 2021 Regional Collection Plan. At present, the banteng program qualifies as a Red SSP Program (20–50 animals at three or more facilities).

Genetic and demographic analyses of the AZA Regional Studbook for Banteng (current to 18 March 2021) were performed using ZIMS for Studbooks 3.0 and PMx 1.6.2.20200804, resulting in the current Breeding and Transfer Plan. Recommendations contained in this plan supersede those made by earlier plans. The Breeding and Transfer Plan also was developed under the auspices of the Banteng Global Species Management Plan (GSMP) and compliant with global management recommendations for the species.

Demography

Current Population Size (males.females.unknowns)	36 (11.25.0)
# Animals Excluded From Analyses	12 (6.6.0)
Population Size Following Exclusions	24 (5.19.0)
Target Population Size (2019 TAG Annual Report)	50
Mean Generation Time (T; in years)	6.0
Projected Population Growth Rate (λ) – from life tables (Appendix C)	1.106
Historic Population Growth Rate (average λ 1960 – 2019)	1.041
Recent Population Growth Rate (average λ 2016 – 2020)	1.046

Genetics

	2020	Current Potential
Founders	12	0 additional
Founder Genome Equivalents (FGE)	2.08	3.16
Current Gene Diversity (GD %)	75.98	84.18
Population Mean Kinship (MK)	0.2402	-----
Mean Inbreeding (F)	0.2466	-----
% Pedigree Known Before / After Assumptions and Exclusions	8.2 / 97.8	-----
% Pedigree Certain Before / After Assumptions and Exclusions	8.2 / 97.8	-----
Effective Population Size / Census Size Ratio (Ne / N)	0.39	-----
Projections		
Years To 90% Gene Diversity	-----	-----
Years To 10% Loss of GD	31[a]	-----
Gene Diversity at 100 Years From Present (%)	49[a]	-----

[a]Projections based on the current analytical population of 36 animals (λ = 1.106, T = 6.0 years, target size = 50 animals)

Demographic analyses suggest that recent reproduction should be sufficient to maintain the current population size, but may need to be at least minimally improved to confidently grow the population. The population averaged ~5 births per year from 2016 – 2020; projections suggest that ~12 births are needed over the next three years (4 births per year) to maintain the population at its current size while ~29 births would be needed (9 or 10 births per year) to grow the population at its projected 10.6% growth rate to a size of ~48 animals. The number of breeding recommendations is intended to very slowly grow the population towards its target size as space becomes available. Gene diversity in the analytical population is 75.98%, which is below the 90% threshold commonly thought to represent genetic vigor. Gene diversity is projected to decline to ~49% over the next 100 years if the analytical population grows at its projected growth rate of 10.6% to a target size of 50 animals. The current genetic management strategy for the population includes 1) prioritizing animals with low mean kinships for breeding and 2) regularly rotating breeding bulls to support a high effective population size (Ne). Breeding recommendations seek to minimize inbreeding and, when possible, minimize differences between sire and dam kinships.

Summary Actions: This is a 3-year plan (2021 – 2023). The Program recommends 19 females to breed at four facilities. A total of five transfers are recommend to meet facility needs and establish new breeding pairs.

This Animal Program is currently a Red SSP Program and recommendations proposed are non-binding – Participation is voluntary. Transfers to non-AZA facilities must comply with each facility's acquisition/transfer policy, in accordance with the AZA policy on Responsible Population Management. APM Committee-approved Sustainability Partners are expected to agree and abide by AZA's Code of Professional Ethics, SSP Full Participation Policy, Policy on Responsible Population Management, and Accreditation Standards related to animal care and welfare.

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Report and Analyses prepared by:
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Planning occurred via email and through video conference on 9 April 2021.
Participating: Steve Metzler, Jamie Ivy, invited attendees

Cover Photo Credit: Steve Metzler, San Diego Zoo Safari Park

This plan was reviewed and distributed with the assistance of the Population Management Center (pmc@lpzoo.org).

Description of Population Status

Introduction: The banteng (*Bos javanicus*) is an endangered species of wild bovid endemic to Southeast Asia. Due in part to its conservation status, the species was one of three Indonesian species to be approved in 2016 for management under a Global Species Management Plan (GSMP). This Breeding and Transfer Plan was developed under the auspices of that GSMP and compliant with global management recommendations for the species. The SSP population currently includes 36 animals (11 males, 25 females) held by five AZA facilities. The Antelope, Cattle, Giraffid and Camelid Taxon Advisory Group set the five-year target size for the population to be 50 animals in its 2021 Regional Collection Plan. At present, the program qualifies as a Red SSP Program (20–50 animals at three or more facilities).

Genetic and demographic analyses of the AZA Regional Studbook for Banteng (current to 18 March 2021) were performed using ZIMS for Studbooks 3.0 and PMx 1.6.2.20200804, resulting in the current Breeding and Transfer Plan. This is the second formal Breeding and Transfer Plan for this species following the recent reestablishment of the SSP; recommendations supersede those made by earlier plans.

Conservation Status: IUCN Red List – Endangered; USFWS – Endangered; CITES – not listed

Pedigree Assumptions and Exclusions: The population size at the time of analyses was 36 animals (11 males, 25 females); the population's pedigree was 8.2% known/certain. Substantial pedigree assumptions were necessary to facilitate genetic analyses (Appendix A), given the poorly known pedigree. A total of 12 animals (6 males, 6 females; Appendix D) were excluded from the breeding population and all genetic analyses (but included in life table calculations) due to advanced age (n = 3), sterilization (n = 6), or due to being non-reproductive (n = 3). Following all assumptions and exclusions, the analytical population of 24 animals (5 males, 19 females) was 97.8% known and 53.8% certain.

Demography: Studbook records indicate that banteng have been consistently held in AZA facilities since 1959, when the Philadelphia Zoo imported a captive-born breeding pair from the Netherlands (SB#s 1 and 2). The population steadily grew in size for the next 30 years (Figure 1; average λ 1960 – 1992 = 1.10), due to a combination of successful captive breeding and continued imports. No wild-caught animals have ever been imported; all imports originated from other regional captive breeding facilities. After an initial period of growth, the population's size fluctuated for about 10 years (1992 – 2003) then experienced a quick decline starting in 2004 when 22 animals were transferred outside the SSP (Figure 1). The population subsequently continued to slowly decline due to a general lack of interest in the species, with an average decline in size of ~4% per year observed from 2005 through 2016 (average λ 2005 – 2016 = 0.96). Following the reestablishment of the SSP and the 2018 Breeding and Transfer Plan, the population has begun to again grow in size (Figures 1 and 2; average λ 2017-2020 = 1.07) with births and imports (n = 24 and 7, respectively; 31 total) exceeding deaths and exports (n = 15 and 8, respectively; 23 total). In fact, current life tables (Appendix C) suggest that the SSP may still harbor substantial demographic potential, with the analytical population having a projected growth rate of 10.6% per year (projected λ = 1.106).

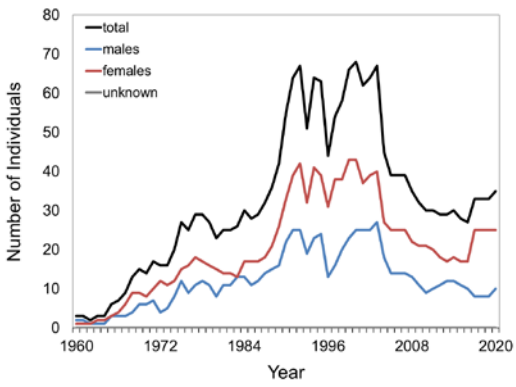

Figure 1. Census (on 31 December) of banteng in current AZA facilities from 1960 to 220, by sex.

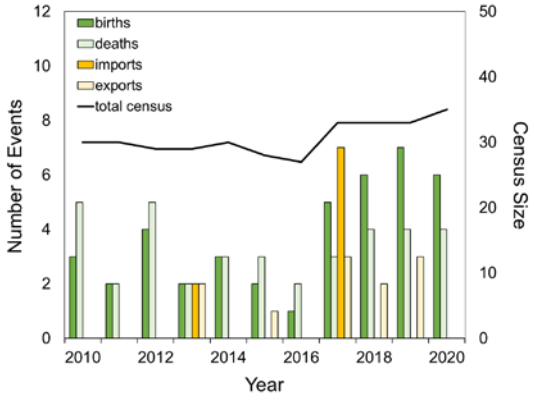

Figure 2. Census (on 31 December) and census details of banteng in current AZA facilities from 2010 to 2020.

According to current studbook data, banteng can live into their 20s; the oldest recorded male lived to 26 years of age (SB# 159) and the oldest recorded female (without a suspect transaction record) lived to 27 years of age (SB# 211). Current life tables used for demographic analyses (Appendix C) indicate first-year mortality is 30% for males and 26% for females. Survival statistics (www.aza.org/species-survival-statistics) indicate that median life expectancy, assuming first-year survival, is 10.3 years for males and 14.9 years for females (50% of animals die before these ages and 50% die after). The difference observed between the sexes is likely a statistical artifact of the analysis and is not believed to be biologically relevant at this time. Both sexes are reproductive by the time they are one year old, and both sexes can generally reproduce throughout their entire lives. The oldest age classes may exhibit a drop in reproduction due to declining health and starting in their late teens, females in particular may not receive breeding recommendations for age-related reasons. Like other bovids, females typically produce a single calf per year (gestation is ~285 days). Twins are possible but uncommon; if twins of mixed sexes are produced, the female twin can be expected to be a freemartin (imperfect sterile female due to male sibling's hormonal influence during gestation).

The age structure of the banteng population is roughly columnar, with irregular gaps and few individuals in any given age class (Figure 3). This type of structure is currently expected, given the life span of the species and the population's small size. Recent offspring are depicted by the animals present in the youngest age classes. The sex ratio of the population is currently skewed towards females, with 2.27 females present for every male in the population. The breeding population exhibits an even stronger skew, with 3.80 females present for every male. Although this age structure may be compatible with the breeding and social system of this species, a biased sex ratio can have negative genetic implications if few males breed; a small number of breeding males reduces the effective population size (Ne) and increases the rate at which gene diversity is lost. Furthermore, at the current small population size, having only five reproductively intact males in the population limits breeding choices and fails to provide a demographic buffer if the population should stochastically suffer unexpectedly high morality in a given year. As management of this population recommences, a priority is to ensure sufficient numbers of reproductively intact males remain in the population to support demographic and genetic goals.

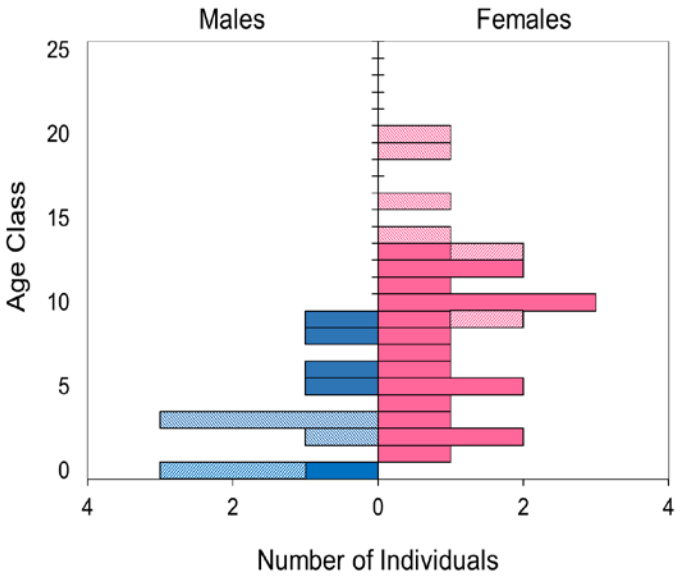

Figure 3. Age distribution of the banteng population. The population currently includes 11 males and 25 females (36 animals total). One female of unknown age is not included in the distribution. Animals marked by light hatches are excluded from the breeding population (Appendix D).

Demographic analyses based on current life tables indicate that ~12 births are needed over the next three years (4 births per year) to maintain the banteng population at its current size of 36 animals. If the full population could grow at the analytical population's projected 10.6% growth rate, ~29 births (9 or 10 births per year) would be needed to grow the population to ~48 animals over the next three years. The population averaged ~5 births per year from 2016 – 2020, suggesting that recent reproduction is approximately sufficient for maintaining the population at its current size but may need to be minimally increased to confidently grow the population. However, because reproduction is still being somewhat limited due to a lack of space, there is actually little concern that reproduction could be improved if more space were available to grow the population towards a larger target size.

Genetics: The studbook pedigree indicates that the analytical banteng population is descended from 12 founders with no potential founders still remaining (Figure 4). The gene diversity of the population is 75.98%, which is equivalent to that found in approximately two unrelated animals (FGE = 2.08). The current mean kinship in the population is 0.2402. Full-siblings and parent-offspring pairs have a kinship of 0.25, which means that the average

relationship across the population is nearing that of first-order relatives. This is further supported by the average inbreeding coefficient observed in the population, which is 0.2466. Although genetic analyses have relied on a notable number of pedigree assumptions, those assumptions are not believed to be overly conservative. In fact, they are more likely than not to be overly generous. Thus, all summary statistics indicate that the long-term genetic viability of this population is in question.

Genetics Summary

	2019	2020	Current Potential
Number of Founders	*11*	12	0 additional
Founder Genome Equivalents (FGE)	*2.07*	2.08	3.16
Gene Diversity Retained (%)	*75.85*	75.98	84.18
Population Mean Kinship	*0.2415*	0.2402	-----
Mean Inbreeding (F)	*0.2554*	0.2466	-----
% Known Pedigree Before/After Assumptions and Exclusions	*10.3 / 100*	8.2 / 97.8	-----
% Certain Pedigree Before/After Assumptions and Exclusions	*10.3 / 63.9*	8.2 / 53.8	-----
Effective Size / Census Size Ratio (Ne / N)	*0.26*	0.39	-----
Projections			
Years To 90% Gene Diversity	-----	-----	-----
Years To 10% Loss of GD	*17*[a]	31[b]	-----
Gene Diversity at 100 Years From Present (%)	*38*[a]	49[b]	-----

[a]Projections based on the 2018 analytical population of 24 animals (λ = 1.10, T = 6.1 years, target size = 50 animals)
[b]Projections based on the current analytical population of 36 animals (λ = 1.106, T = 6.0 years, target size = 50 animals)

The standard goal for gene diversity loss over time, as outlined by AZA, is 90% gene diversity retention for 100 years. Decreases in gene diversity below 90% of that in the founding population have been associated with reproduction being increasingly compromised by, among other factors, lower birth weights, smaller litter sizes, and greater neonatal mortality. With a current gene diversity of 75.98%, the banteng population is already below the diversity threshold thought to confer genetic vigor. Given current population parameters (starting GD = 75.98%, T = 6.0 years, Ne/N = 0.39), gene diversity across the population is projected to decline to ~49% over the next 100 years (λ = 1.106; target size = 50).

The population parameters that currently have the greatest negative impact on gene diversity projections are low starting gene diversity, a small target size, and a relatively short generation length (the population's Ne/N ratio and projected growth rate are already quite reasonable). Generation length is largely a product of species' biology and can only be manipulated within narrow margins, providing little opportunity to meaningfully improve gene diversity projections. Furthermore, given the population's low starting gene diversity, increasing the target size alone is also projected to fail to notably improve long-term viability; given current population parameters, doubling the population's target size to 100 animals only improves gene diversity retention at 100 years to ~60%. Thus, future imports of unrelated animals, or even distantly related animals harboring higher amounts of genetic diversity, will be required to improve long-term genetic viability.

The best genetic management strategy to maximize a population's long-term gene diversity retention is typically managed breeding targeted at equalizing founder representations, by breeding animals with low and well-matched mean kinships. Founder representations in the banteng population are currently skewed (Figure 4); representations that are more equal would retain more gene diversity. Unfortunately, although there appears to be a notable amount of potential gene diversity within the current population ($GD_{potential}$ = 84.18%), that theoretically latent diversity will be effectively impossible to capture due to the distribution of founder representations among living individuals. For example, critically under-represented founder 662 is represented by only ~0.1% of the genomes of eight living animals (total representation across the population is only 0.01%). Therefore, there is no way to effectively increase that founder's representation by a meaningful amount. Although notably more equal founder representations may not ultimately be achievable, breeding animals with low mean kinships will slow gene diversity loss to the extent possible by helping to prevent the development of even more widely skewed founder representations in the future. The loss of gene diversity can be further slowed by regularly rotating breeding bulls to support a high effective population size (Ne). Gene diversity loss is slowed as both the overall proportion of breeding animals increases and the sex ratio among breeding animals becomes more even. Thus, even if all females in the population regularly receive breeding recommendations, frequently rotating breeding bulls will reduce the skew in sex ratio among breeders and produce offspring that retain more genetic diversity.

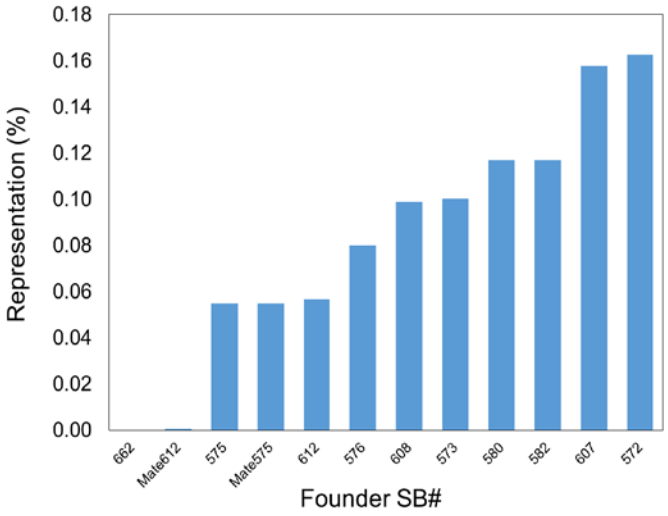

Figure 4. Distribution of founder representations in the analytical banteng population.

Management Strategy: The current SSP population of banteng is 36 animals (11 males, 25 females) distributed among five AZA facilities. Demographic analyses suggest that recent reproduction should be sufficient to maintain the current population size, but may need to be at least minimally improved to confidently grow the population towards its target size (should more space become available to accommodate growth). The population averaged ~5 births per year from 2016-2020; projections suggest that ~12 births are needed over the next three years (4 births per year) to maintain the population at its current size while ~29 births would be needed (9 or 10 births per year) to grow the population at its projected 10.6% growth rate to a size of ~48 animals. At this time, the number of breeding recommendations is intended to very slowly grow the population towards its target size as space becomes available. Gene diversity in the analytical population is 75.98%, which is below the 90% threshold commonly thought to represent genetic vigor. Gene diversity is projected to decline to ~49% over the next 100 years if the analytical population grows at its projected growth rate of 10.6% to a target size of 50 animals. At this time, the best management strategy for maintaining gene diversity in the banteng population includes 1) prioritizing animals with low mean kinships for breeding and 2) regularly rotating breeding bulls to support a high effective population size (Ne). Unfortunately, these standard management practices are only expected to offer marginal improvements in gene diversity retention over no genetic management at all, due to the population's critically low starting gene diversity. Furthermore, although the population's target size has been set at only 50 individuals, increasing the target size within reasonable limits does not significantly improve long-term gene diversity projections. Thus, future imports of unrelated animals, or even distantly related animals harboring higher amounts of genetic diversity, will be required to improve the long-term genetic viability of this population. To support both genetic and demographic goals, nearly all reproductive females in the population have been given breeding recommendations with particular attention paid to animals with low mean kinships. When possible, breeding recommendations also aim to limit inbreeding and minimize differences between sire and dam kinships.

This is a 3-year plan (2020 – 2022). Although another full set of recommendations will not be produced until early 2023, interim recommendations will continue to be made as needed. Recommendations contained in this plan supersede all previous recommendations.

At this time, the program:

1. **Recommends 19 females to breed at four facilities.** Five of these 19 females will be bred through AI and may not be as regularly successful as naturally bred females.

2. **Recommends five transfers to meet facility needs and establish new breeding pairs.**

3. **Requests that all holding facilities submit blood samples for future DNA work (Appendix F).** The genetic management of this population is severely hampered by a poorly known pedigree. The proposed DNA work would notably improve the program's ability to prioritize animals with low mean kinships for breeding.

4. **Requests that any facility holding an intact bull consider semen banking.** There is a growing artificial insemination program for banteng in the SSP and bolstering the semen bank available would facilitate future efforts. Please contact Linda Penfold (linda.penfold@sezarc.com) or Karen Bauman (kbauman@stlzoo.org) for additional details.

Summary of Breeding and Transfer Recommendations

ID	Location	Sex	Age	Disposition	Location	Breeding	With	Notes
372	WILDS	F	20	HOLD	WILDS	DO NOT BREED		age exclusion
390	GARDENCTY	F	19	HOLD	GARDENCTY	DO NOT BREED		age exclusion
432	SD-WAP	F	16	HOLD	SD-WAP	DO NOT BREED		age exclusion
478	WILDS	F	14	HOLD	WILDS	SEE NOTES		not reproductive
493	ST LOUIS	F	13	HOLD	ST LOUIS	BREED WITH	561	
502	SD-WAP	F	13	HOLD	SD-WAP	SEE NOTES		not reproductive
518	WILDS	F	12	HOLD	WILDS	BREED WITH	SEE NOTES	
539	ST LOUIS	F	12	HOLD	ST LOUIS	BREED WITH	561	
547	ST LOUIS	F	10	HOLD	ST LOUIS	BREED WITH	561	
548	WILDS	F	10	HOLD	WILDS	BREED WITH	SEE NOTES	
550	SD-WAP	F	9	HOLD	SD-WAP	BREED WITH	632, 554	
551	GARDENCTY	M	9	HOLD	GARDENCTY	DO NOT BREED		
552	METROZOO	M	8	HOLD	METROZOO	BREED WITH	567, 638	
556	WILDS	F	8	HOLD	WILDS	BREED WITH	SEE NOTES	
559	SD-WAP	F	7	SEND TO	ST LOUIS	BREED WITH	632	
561	ST LOUIS	M	5	HOLD	ST LOUIS	BREED WITH	493, 539, 547, 631	
562	WILDS	F	5	HOLD	WILDS	BREED WITH	SEE NOTES	
563	SD-WAP	F	6	SEND TO	ST LOUIS	BREED WITH	632	
565	SD-WAP	F	5	SEND TO	ST LOUIS	BREED WITH	632	
567	METROZOO	F	4	HOLD	METROZOO	BREED WITH	552	
569	SD-WAP	F	9	HOLD	SD-WAP	SEE NOTES		not reproductive
570	SD-WAP	F	10	HOLD	SD-WAP	BREED WITH	632, 554	
571	SD-WAP	F	11	HOLD	SD-WAP	BREED WITH	632, 554	
631	ST LOUIS	F	10	HOLD	ST LOUIS	BREED WITH	561	
632	SD-WAP	M	6	SEND TO	ST LOUIS	BREED WITH	550, 570, 571, 559, 563, 565	see notes
634	SD-WAP	M	3	HOLD	SD-WAP	DO NOT BREED		sterile
635	WILDS	F	3	HOLD	WILDS	BREED WITH	SEE NOTES	
636	WILDS	M	3	HOLD	WILDS	DO NOT BREED		to be sterilized
637	SD-WAP	M	3	HOLD	SD-WAP	DO NOT BREED		sterile
638	METROZOO	F	2	HOLD	METROZOO	BREED WITH	552	
640	SD-WAP	F	2	HOLD	SD-WAP	BREED WITH	554	
643	SD-WAP	M	2	HOLD	SD-WAP	DO NOT BREED		sterile
648	SD-WAP	F	1	HOLD	SD-WAP	BREED WITH	554	
659	SD-WAP	M	0	HOLD	SD-WAP	DO NOT BREED		sterile
660	SD-WAP	M	0	HOLD	SD-WAP	DO NOT BREED		sterile
T01	SD-WAP	M	0	HOLD	SD-WAP	DO NOT BREED		

Recommendations by Institution

GARDENCTY

Lee Richardson Zoo
Garden City, KS

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
390	117021	F	19	HOLD	GARDENCTY	DO NOT BREED		age exclusion
551	117020	M	9	HOLD	GARDENCTY	DO NOT BREED		

METROZOO

Zoo Miami
Miami, FL

Facility notes: Please submit blood samples from all animals for DNA work (Appendix F).

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
552	18M165	M	8	HOLD	METROZOO	BREED WITH	567, 638	
567	19M054	F	4	HOLD	METROZOO	BREED WITH	552	
638	19M055	F	2	HOLD	METROZOO	BREED WITH	552	

SD-WAP

San Diego Zoo Safari Park
Escondido, CA

Facility notes: The females of highest priority for breeding at SD-WAP are F550, F570, and F571. The following females can be bred at ST LOUIS after transfer (i.e., they do not need to be bred at SD-WAP): F559, F563, and F565. M554 should be transferred into the SSP as your next breeding bull, after the transfer of M632 to ST LOUIS. F502 and F569 have not yet produced offspring and may now not be reproductively successful given their ages; both females are genetically underrepresented and can be bred to either recommended breeding bull at facility discretion.

Please submit blood samples from the following animals for DNA work (Appendix F): F550, F559, F563, F565, F570, F571, M632, F640, F648, and M554.

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
432	614006	F	16	HOLD	SD-WAP	DO NOT BREED		age exclusion
502	617215	F	13	HOLD	SD-WAP	SEE NOTES		not reproductive
550	612401	F	9	HOLD	SD-WAP	BREED WITH	632, 554	
559	614247	F	7	SEND TO	ST LOUIS	BREED WITH	632	
563	616031	F	6	SEND TO	ST LOUIS	BREED WITH	632	
565	616063	F	5	SEND TO	ST LOUIS	BREED WITH	632	
569	617213	F	9	HOLD	SD-WAP	SEE NOTES		not reproductive
570	617214	F	10	HOLD	SD-WAP	BREED WITH	632, 554	
571	617216	F	11	HOLD	SD-WAP	BREED WITH	632, 554	
632	617662	M	6	SEND TO	ST LOUIS	BREED WITH	550, 570, 571, 559, 563, 565	see notes
634	618036	M	3	HOLD	SD-WAP	DO NOT BREED		sterile
637	618076	M	3	HOLD	SD-WAP	DO NOT BREED		sterile
640	618475	F	2	HOLD	SD-WAP	BREED WITH	554	
643	4000098	M	2	HOLD	SD-WAP	DO NOT BREED		sterile
648	4001599	F	1	HOLD	SD-WAP	BREED WITH	554	
659	4002080	M	0	HOLD	SD-WAP	DO NOT BREED		sterile
660	4002106	M	0	HOLD	SD-WAP	DO NOT BREED		sterile
T01	4003039	M	0	HOLD	SD-WAP	DO NOT BREED		
554		M	8	RECEIVE FROM	SEE NOTES	BREED WITH	550, 570, 571, 640, 648	

ST LOUIS

Saint Louis Zoo
St. Louis, MO

Facility notes: Please submit blood samples from all animals for future DNA work (Appendix F).

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
493	121448	F	13	HOLD	ST LOUIS	BREED WITH	561	
539	107796	F	12	HOLD	ST LOUIS	BREED WITH	561	
547	108745	F	10	HOLD	ST LOUIS	BREED WITH	561	
561	122755	M	5	HOLD	ST LOUIS	BREED WITH	493, 539, 547, 631	

The following animals are intended to be received by the Saint Louis Zoo WildCare Park. Please coordinate sample collection for DNA work (Appendix F) with sending facility (only one sample from each animal is needed). Females can be bred through artificial insemination at facility discretion. Of the donors currently available, the following banked bulls would be of most value to the SSP and could be used for any of these three females: M112, M316, M333. If further discussion is warranted, please contact the program's Population Biologist.

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
559	614247	F	7	RECEIVE FROM	SD-WAP	BREED WITH	632	
563	616031	F	6	RECEIVE FROM	SD-WAP	BREED WITH	632	
565	616063	F	5	RECEIVE FROM	SD-WAP	BREED WITH	632	
632	617662	M	6	RECEIVE FROM	SD-WAP	BREED WITH	559, 563, 565	

WILDS

The Wilds
Cumberland, OH

Facility notes: Females are expected to be bred through artificial insemination at facility discretion. Of the donors currently available, the following banked bulls would be of most value to the SSP and could be used for any of these females: M112, M333, M197, M153, M316. Preferred donors for each female are listed below. If further discussion is warranted, please contact the program's Population Biologist.

F548 and F562: M112 (first priority), M333 and M197 (second priorities), M153 and M316 (if needed)
F556, F518, F635: M153 and M316 (first priority), M333 and M197 (second priorities), M112 (if needed)
F478: not believed to be reproductive but can be bred to M153 or M316 if desired

Please submit blood samples from all animals except M636 for future DNA work (Appendix F).

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
372	MM1006	F	20	HOLD	WILDS	DO NOT BREED		age exclusion
478	106053	F	14	HOLD	WILDS	SEE NOTES		not reproductive
518	108008	F	12	HOLD	WILDS	BREED WITH	SEE NOTES	
548	110043	F	10	HOLD	WILDS	BREED WITH	SEE NOTES	
556	112030	F	8	HOLD	WILDS	BREED WITH	SEE NOTES	
562	115055	F	5	HOLD	WILDS	BREED WITH	SEE NOTES	
635	117056	F	3	HOLD	WILDS	BREED WITH	SEE NOTES	
636	117042	M	3	HOLD	WILDS	DO NOT BREED		to be sterilized

Appendix A
Analytical Assumptions

Hypothetical Animals

SB#	Sire ID	Dam ID	Sex	Notes
Hypothetical1	WILD	612	F	Hypothetical1 is listed in the EAZA studbook as EAZA 689 and assigned as the dam of EAZA 805 (which is AZA 624). EAZA 689 has been added as a hypothetical animal until it can be added to the AZA studbook. Dam of EAZA 689 is listed as EAZA 604 (AZA 612) in the EAZA studbook. Possible sires at GELSNKRKN are EAZA 180, 253, 255, and 258. As of the 2018 Breeding and Transfer Plan, Hypothetical1 impacted ~0.4% of the living pedigree and wasn't worth resolving further; sire has therefore been assigned WILD. This pedigree assumption should be reevaluated when an international studbook is available.

Pedigree Assumptions

SB#	Sire	New Sire	Dam	New Dam	Notes
14 17	6	-	UNK	MULT3	Animals born at CATSKILL in the 1960s. Dam is a MULT of two females imported by CATSKILL from MUNICH in 1962. **Additional Information:** AZA studbook lists CATSKILL as importing 1.1 animals in 1959 (AZA 3 and 4); Clifton Quarantine records list CATKILL as importing 2.2 animals that year. The two animals listed in the AZA studbook died in 1961 (before any relevant offspring were born) and CATSKILL records from that time appear reasonably reliable. They are assigned no offspring in the AZA studbook and are assumed to have not contributed to the living population. There is a chance that the additional 1.1 animals seemingly imported in 1959 could have contributed to the living population, but that's believed to be unlikely and corresponding pedigree assumptions have not been made at this time. MULT3 = 10, 11
18 22 37	UNK	6	UNK	MULT3	Animals born at CATSKILL in the 1960s. Dam is a MULT of two females imported by CATSKILL from MUNICH in 1962. See above for additional information. Sire assumed to be AZA 6; other animals born during the same time period have AZA 6 assigned as the sire in the AZA studbook. MULT3 = 10, 11

SB#	Sire	New Sire	Dam	New Dam	Notes
580	UNK	WILD	UNK	WILD	Recorded as being born at CHERIBON, which is not a recognized mnemonic but is assumed to have been in Indonesia. This animal doesn't seem to be included in the Indonesian studbook but is included in the EAZA studbook (EAZA 19). No other animals in any studbook are recorded as originating from CHERIBON. Given all available information, this animal is currently assumed to be unrelated. This pedigree assumption should be reevaluated when an international studbook is available, particularly because this animal was transferred to JAKARTA after birth.
607 608	UNK	WILD	UNK	WILD	This is a male/female pair transferred from JAKARTA to MUNICH. These are the only animals relevant to the current SSP population originating from JAKARTA. They are represented in the SSP population by a single import (AZA 162), so their relationship to each other only impacts kinship-to-self for AZA 162. Assumed to be unrelated to each other and to other AZA founders. This pedigree assumption should be reevaluated when an international studbook is available.
572 573 575 576	UNK	WILD	UNK	WILD	All animals originated from SURABAYA and transferred to ROTTERDAM. They are represented in the SSP population by four imports (AZA 1, 2, 112, 162) already known to be fairly related. Little more is gained by making these pedigree terminals related, so they are assumed to be unrelated. This pedigree assumption should be reevaluated when an international studbook is available.
574	UNK	WILD	575	-	Born to AZA 575 shortly after she was imported from ROTTERDAM; conceived in ROTTERDAM, presumably from SURABAYA stock. Sire assumed unrelated; see previous assumption notes.
624	606	-	UNK	HYP01	Parentage recorded in EAZA studbook. See notes for Hypothetical1 above.
612	UNK	WILD	UNK	WILD	Animal acquired by GELSNKRKN from unknown origin. Pedigree assumptions are impossible; assumed unrelated to take advantage of more recently known pedigree among descendants.

SB#	Sire	New Sire	Dam	New Dam	Notes
124	UNK	64	37	-	Born at FERNDALE. AZA 64 and 37 were transferred to FERNDALE together from AUDUBON. AZA 64 is the only male known to have been at FERNDALE at the time and is assumed the sire.
86	22	-	UNK	18	Born at FRANKLINP; AZA 18 is the only female known to be present at the time.
171	UNK	MULT4	81	-	Born at SD-WAP. MULT created from only two males present at SD-WAP on conception date. MULT4 = 94, 149
402	UNK	266	321	-	Born at SD-WAP. Sire assumed to be AZA 266 because all other offspring born around the same time at SD-WAP were assigned that sire.
396	UNK	206	361	-	Conceived at DISNEY AK; AZA 206 was the only male present at the time.
404	UNK	MULT5	359	-	Born at PEACE RV. MULT created from animals known to have been transferred in prior to conception date. MULT5 = 348, 349, 376
502 569 570 571	UNK	MULT6	UNK	MULT7	Born at RUM CREEK. MULT created from animals known to have been transferred in (from PEACE RV) prior to conception dates. MULT6 = 329, 338, 349, 376, 393, 423, 424 MULT7 = 158, 170, 172, 182, 183, 278, 284, 308, 342, 345, 350, 359, 361, 363, 366, 377, 378, 382
493 502 571	UNK UNK UNK	MULT8 MULT10 MULT10	MULT9 MULT11 MULT11	UNK UNK UNK	Born at RUM CREEK. All animals reported as being at either PEACE RV or RUM CREEK are assumed to belong to a single herd. MULT created from animals with birth locations outside of RUM CREEK or PEACE RV that are known to have been transferred into RUM CREEK or PEACE RV prior to conception dates (so MULT represents “founder lineages” for the herd). MULT8 = 161, 329, 338, 348, 517 MULT9 = 158, 164, 170, 172, 278, 284, 308, 361, 363

SB#	Sire	New Sire	Dam	New Dam	Notes
502 571	UNK	MULT10	MULT11	UNK	Born at RUM CREEK. All animals reported as being at either PEACE RV or RUM CREEK are assumed to belong to a single herd. MULT created from animals with birth locations outside of RUM CREEK or PEACE RV that are known to have been transferred into RUM CREEK or PEACE RV prior to conception dates (so MULT represents “founder lineages” for the herd). MULT10 = 161, 329, 338, 348, 349, 376, 393, 423, 424, 449, 517 MULT11 = 158, 164, 170, 172, 182, 183, 278, 284, 308, 342, 345, 350, 359, 361, 363, 366, 377, 378, 382, 450
570 631 569 632	UNK	MULT12	MULT13	UNK	Born at RUM CREEK. All animals reported as being at either PEACE RV or RUM CREEK are assumed to belong to a single herd. MULT created from animals with birth locations outside of RUM CREEK or PEACE RV that are known to have been transferred into RUM CREEK or PEACE RV prior to conception dates (so MULT represents “founder lineages” for the herd). MULT12 = 161, 329, 338, 348, 349, 376, 393, 423, 424, 449, 497, 517 MULT13 = 158, 164, 170, 172, 182, 183, 278, 284, 308, 342, 345, 350, 359, 361, 363, 366, 377, 378, 382, 430, 450

Additional Notes: Remaining unknown pedigree is due to SB#s 517 and 430, which are included in the RUM CREEK MULTs; further resolution is difficult. SB# 517 originated at BULVERDE and there is little data on which to base origin/parentage assumptions. SB# 430 was born at SD-WAP but there were a large number of males present at the time (sire is UNK) and creating a large MULT to resolve the small amount of pedigree that descends from this individual was not currently deemed worthwhile.

Appendix B
Summary of Data Exports

Report compiled under ZIMS for Studbooks 3.0 and PMx 1.6.2.20200804
Project: Banteng_April2021
Created: 2021-04-08

Studbook information:
Data compiled by: Curt Coleman
Data current thru: 2021-03-18
Scope of data: AZA Regional

Primary data file:
zims.zims
Filter conditions:
Dates: 1965-01-01 to 2021-04-08
Locations: AZA
Other Filters: Status = Living

Moves data files:
genetic.csv
demographic.csv

Filter conditions:
Dates: 1965-01-01 to 2021-04-08
Locations: AZA
Other Filters: Status = Living

13 births to parents with unknown ages have been added in proportion to known aged parents. This is 3% of TOTAL births (N = 389).

Additional Notes: T01 was added to the PMx project at the time of planning (SD-WAP local ID 4003039); this new calf has not yet been added to the studbook.

Sustainability Partners: None

Appendix C
Life Tables

MALES											
Age	**Px**	**Mid Px**	**Qx**	**Risk Qx**	**Lx**	**Mid Lx**	**Mx**	**Risk Mx**	**Ex**	**Vx**	**Cx**
0	0.70	0.79	0.30	130.23	1.00	0.85	0.00	130.23	---	1.18	0.21
1	0.92	0.94	0.08	100.26	0.70	0.67	0.01	100.26	---	1.70	0.15
2	0.97	0.95	0.04	84.34	0.64	0.63	0.09	84.34	---	2.04	0.12
3	0.93	0.93	0.07	73.71	0.62	0.60	0.16	73.71	---	2.33	0.10
4	0.93	0.95	0.07	56.20	0.58	0.56	0.35	56.21	---	2.64	0.08
5	0.96	0.93	0.04	48.45	0.54	0.53	0.53	48.46	---	2.75	0.07
6	0.91	0.92	0.09	40.85	0.52	0.49	0.70	40.86	---	2.70	0.06
7	0.94	0.93	0.06	34.93	0.47	0.46	0.64	34.94	---	2.46	0.05
8	0.91	0.91	0.09	30.17	0.44	0.42	0.58	30.18	---	2.24	0.04
9	0.92	0.91	0.08	23.05	0.40	0.38	0.71	23.06	---	2.07	0.03
10	0.91	0.95	0.09	20.54	0.37	0.35	0.68	20.54	---	1.70	0.02
11	1.00	0.92	0.00	19.00	0.33	0.33	0.47	19.01	---	1.21	0.02
12	0.84	0.80	0.16	17.32	0.33	0.31	0.41	17.32	---	0.91	0.02
13	0.75	0.82	0.25	13.74	0.28	0.25	0.18	13.75	---	0.72	0.01
14	0.92	0.91	0.08	11.27	0.21	0.20	0.39	11.27	---	0.74	0.01
15	0.91	0.87	0.09	10.43	0.19	0.18	0.19	10.43	---	0.44	0.01
16	0.82	0.70	0.18	10.17	0.18	0.16	0.10	10.18	---	0.32	0.01
17	0.56	0.57	0.44	7.32	0.14	0.11	0.28	7.32	---	0.35	0.00
18	0.60	0.50	0.40	3.61	0.08	0.06	0.00	3.61	---	0.14	0.00
19	0.33	0.33	0.67	1.64	0.05	0.03	0.26	1.64	---	0.32	0.00
20	0.33	0.50	0.67	0.92	0.02	0.01	0.00	0.92	---	0.20	0.00
21	1.00	1.00	0.00	0.00	0.01	0.01	0.00	0.00	---	0.47	0.00
22	1.00	1.00	0.00	0.00	0.01	0.01	0.00	0.00	---	0.53	0.00
23	1.00	1.00	0.00	0.00	0.01	0.01	0.00	0.00	---	0.60	0.00
24	1.00	1.00	0.00	0.00	0.01	0.01	0.00	0.00	---	0.68	0.00
25	1.00	1.00	0.00	0.00	0.01	0.01	0.00	0.00	---	0.77	0.00
26	1.00	1.00	0.00	0.00	0.01	0.01	0.00	0.00	---	0.88	0.00
27	1.00	1.00	0.00	0.00	0.01	0.01	1.00	0.00	---	1.00	0.00
28	1.00	1.00	0.00	0.00	0.01	0.01	0.00	0.00	---	0.00	0.00
29	---	---	---	---	---	---	---	---	---	---	---

Px = survival; Qx = mortality; lx = cumulative survivorship; Mx = fecundity
Ex = life expectancy; Vx = reproductive value; Cx = stable age distribution
At Risk (Qx and Mx) = number of animals corresponding values are estimated from
r = 0..125; lambda = 1.140; T = 6.7

It is not immediately obvious why Ex not calculated; may be a result of MULTs in pedigree assumptions.
Qx for age class 22 changed to 1.0 for all analyses, with no notable impact.

FEMALES											
Age	**Px**	**Mid Px**	**Qx**	**Risk Qx**	**Lx**	**Mid Lx**	**Mx**	**Risk Mx**	**Ex**	**Vx**	**Cx**
0	0.74	0.84	0.26	141.11	1.00	0.87	0.00	141.11	12.23	1.15	0.14
1	0.98	0.99	0.02	117.46	0.74	0.74	0.09	117.46	13.31	1.47	0.11
2	0.99	0.99	0.01	106.69	0.73	0.73	0.27	106.69	12.47	1.52	0.10
3	0.98	0.97	0.02	99.47	0.72	0.71	0.28	99.48	11.64	1.38	0.09
4	0.96	0.95	0.04	89.42	0.71	0.69	0.27	89.42	10.99	1.22	0.08
5	0.94	0.96	0.06	80.13	0.68	0.66	0.24	80.13	10.54	1.09	0.07
6	0.99	0.98	0.01	76.30	0.64	0.63	0.23	76.31	9.91	0.96	0.06
7	0.97	0.96	0.03	70.79	0.63	0.62	0.19	70.79	9.10	0.81	0.06
8	0.94	0.96	0.06	67.67	0.61	0.59	0.15	67.68	8.46	0.70	0.05
9	0.98	0.97	0.02	62.49	0.57	0.57	0.18	62.49	7.76	0.62	0.04
10	0.95	0.97	0.05	59.06	0.57	0.55	0.17	59.07	6.98	0.50	0.04
11	0.98	0.94	0.02	54.47	0.54	0.53	0.12	54.48	6.19	0.37	0.04
12	0.90	0.89	0.10	50.14	0.53	0.50	0.09	50.14	5.51	0.28	0.03
13	0.88	0.89	0.12	40.60	0.48	0.45	0.10	40.60	5.04	0.24	0.03
14	0.89	0.84	0.11	35.11	0.42	0.40	0.06	35.11	4.56	0.17	0.02
15	0.78	0.84	0.22	28.22	0.37	0.33	0.07	28.22	4.25	0.14	0.02
16	0.91	0.83	0.09	22.46	0.29	0.28	0.04	22.46	3.89	0.09	0.01
17	0.74	0.82	0.26	16.68	0.27	0.23	0.03	16.68	3.48	0.06	0.01
18	0.93	0.84	0.07	13.05	0.20	0.19	0.04	13.05	3.02	0.04	0.01
19	0.75	0.71	0.25	11.76	0.18	0.16	0.00	11.77	2.40	0.00	0.01
20	0.65	0.69	0.35	6.71	0.14	0.11	0.00	6.71	1.98	0.00	0.00
21	0.75	0.43	0.25	4.36	0.09	0.08	0.00	4.36	1.43	0.00	0.00
22	0.00	0.00	1.00	0.74	0.07	0.03	0.00	0.74	1.00	0.00	0.00

Px = survival; Qx = mortality; lx = cumulative survivorship; Mx = fecundity
Ex = life expectancy; Vx = reproductive value; Cx = stable age distribution
At Risk (Qx and Mx) = number of animals corresponding values are estimated from
r = 0.080; lambda = 1.080; T = 5.2

Appendix D

Individuals Excluded from Breeding and Analytical Population

Studbook ID	Sex	Age	Location	Reason for Exclusion
372	F	20	WILDS	age
390	F	19	GARDENCTY	age
432	F	16	SD-WAP	age
478	F	14	WILDS	not reproductive
502	F	13	SD-WAP	not reproductive
569	F	9	SD-WAP	not reproductive
634	M	3	SD-WAP	sterile
636	M	3	WILDS	to be sterilized
637	M	3	SD-WAP	sterile
643	M	2	SD-WAP	sterile
659	M	0	SD-WAP	sterile
660	M	0	SD-WAP	sterile

Appendix E

Ordered Mean Kinships

Note: This list is current to April 2021 and based on an analytical dataset. Values are subject to change with any birth, death, import, export, inclusion, or exclusion. **Average Population MK = 0.2402**

MALES					FEMALES				
SB#	MK	% Known	Age	Location	SB#	MK	% Known	Age	Location
552	0.2144	100	8	METROZOO	493	0.2022	90	13	ST LOUIS
632	0.2302	92.93	6	SD-WAP	571	0.2072	93.58	11	SD-WAP
561	0.2466	100	5	ST LOUIS	631	0.2072	92.93	10	ST LOUIS
T01	0.2547	96.46	0	SD-WAP	548	0.2144	100	10	WILDS
551	0.2645	100	9	GARDENCTY	562	0.2144	100	5	WILDS
					570	0.2149	92.93	10	SD-WAP
					550	0.2404	100	9	SD-WAP
					547	0.2459	100	10	ST LOUIS
					556	0.2466	100	8	WILDS
					638	0.2490	96.46	2	METROZOO
					518	0.2493	100	12	WILDS
					635	0.2516	100	3	WILDS
					539	0.2525	100	12	ST LOUIS
					640	0.2547	96.46	2	SD-WAP
					648	0.2569	96.46	1	SD-WAP
					565	0.2570	100	5	SD-WAP
					559	0.2582	100	7	SD-WAP
					567	0.2610	100	4	METROZOO
					563	0.2612	100	6	SD-WAP

Appendix F
Sample Collection Protocol for DNA Analysis

Blood Sampling:

- Approximately 3–5 milliliters of whole blood is requested from adults. As little as 1–2 milliliters is acceptable if collecting during a neonatal exam.
- Collect blood in a vacutainer containing an anti-coagulant; EDTA (purple top) or ACD (yellow top) vacutainers are preferred.
- Invert vacutainer to make sure blood and anti-coagulant are thoroughly mixed. Blood samples can be stored in the refrigerator at 4 degrees Celsius until ready to ship.

Labeling:

- Please label collection tubes with institution name, species, ZIMS#, and collection date.

Shipping:

Blood Samples: Please ship samples within 1–2 days of collection.

- All samples should be sent at room temperature via **overnight courier** to:

San Diego Zoo Institute for Conservation Research
Attn: Jamie Ivy / Genetics
15600 San Pasqual Valley Road
Escondido, CA 92027

- Please DO NOT ship packages on FRIDAYS.

Appendix G

Management Terms

Green Species Survival Plan® (Green SSP) Program – A Green SSP Program has a population size of 50 or more animals and is projected to retain 90% gene diversity for a minimum of 100 years or 10 generations. Green SSP Programs are subject to AZA's Full Participation and Non–Member Participation Policies.

Yellow Species Survival Plan® (Yellow SSP) Program – A Yellow SSP Program has a population size of 50 or more animals but cannot retain 90% gene diversity for 100 years or 10 generations. Yellow SSP participation by AZA institutions is voluntary.

Red Species Survival Plan® (Red SSP) Program – A Red SSP has a population size of greater than 20 but fewer than 50 animals, at least three AZA member institutions, and a published studbook. Animal Programs that manage species designated as Extinct in the Wild, Critically Endangered, or Endangered (IUCN) do not need to meet minimum population size and number of participating institution criteria to be designated as an SSP Program. Red Program participation by AZA institutions is voluntary.

Full Participation – AZA policy stating that all AZA accredited institutions and certified related facilities having a Green SSP animal in their collection are required to participate in the collaborative SSP planning process (e.g., provide relevant animal data to the AZA Studbook Keeper, assign an Institutional Representative who will communicate institutional wants and needs to the SSP Coordinator and comment on the draft plan during the 30-day review period, and abide by the recommendations agreed upon in the final plan).

All AZA member institutions and Animal Programs, regardless of management designation, must adhere to the AZA Policy on Responsible Population Management and the AZA Code of Professional Ethics. For more information on AZA policies, see http://www.aza.org/board-policies/.

Demographic Terms

Age Distribution – A two-way classification showing the numbers or percentages of individuals in various age and sex classes.

Ex, Life Expectancy – Average years of further life for an animal in age class x.

Lambda (λ) or Population Growth Rate – The proportional change in population size from one year to the next. Lambda can be based on life-table calculations (the expected lambda) or from observed changes in population size from year to year. A lambda of 1.11 means an 11% per year increase; lambda of 0.97 means a 3% decline in size per year.

lx, Age-Specific Survivorship – The probability that a new individual (e.g., age 0) is alive at the *beginning* of age *x*. Alternatively, the proportion of individuals which survive from birth to the beginning of a specific age class.

Mean Generation Time (T) – The average time elapsing from reproduction in one generation to the time the next generation reproduces. Also, the average age at which a female (or male) produces offspring. It is not the age of first reproduction. Males and females often have different generation times.

Mx, **Fecundity** – The average number of same-sexed young born to animals in that age class. Because studbooks typically have relatively small sample sizes, studbook software calculate Mx as 1/2 the average number of young born to animals in that age class. This provides a somewhat less "noisy" estimate of Mx, though it does not allow for unusual sex ratios. The fecundity rates provide information on the age of first, last, and maximum reproduction.

Px, Age-Specific Survival – The probability that an individual of age *x* survives one time period; is conditional on an individual being alive at the beginning of the time period. Alternatively, the proportion of individuals which survive from the beginning of one age class to the next.

Qx, Mortality – Probability that an individual of age *x* dies during time period. Qx = 1-Px. Alternatively, the proportion of individuals that die during an age class. It is calculated from the number of animals that die during an age class divided by the number of animals that were alive at the beginning of the age class (i.e.-"at risk").

Risk (Qx or Mx) – The number of individuals that have lived during an age class. The number at risk is used to calculate Mx and Qx by dividing the number of births and deaths that occurred during an age class by the number of animals at risk of dying and reproducing during that age class.

Vx, **Reproductive Value** – The expected number of offspring produced this year and in future years by an animal of age x.

Genetic Terms

Allele Retention – The probability that a gene present in a founder individual exists in the living, descendant population.

Current Gene Diversity (GD) -- The proportional gene diversity (as a proportion of the source population) is the probability that two alleles from the same locus sampled at random from the population will not be identical by descent. Gene diversity is calculated from allele frequencies, and is the heterozygosity expected in progeny produced by random mating, and if the population were in Hardy-Weinberg equilibrium.

Effective Population Size (Inbreeding N_e) -- The size of a randomly mating population of constant size with equal sex ratio and a Poisson distribution of family sizes that would (a) result in the same mean rate of inbreeding as that observed in the population, or (b) would result in the same rate of random change in gene frequencies (genetic drift) as observed in the population. These two definitions are identical only if the population is demographically stable (because the rate of inbreeding depends on the distribution of alleles in the parental generation, whereas the rate of gene frequency drift is measured in the current generation).

Founder – An individual obtained from a source population (often the wild) that has no known relationship to any individuals in the derived population (except for its own descendants).

Founder Genome Equivalents (FGE) – The number wild-caught individuals (founders) that would produce the same amount of gene diversity as does the population under study. The gene diversity of a population is 1 - 1 / (2 * FGE).

Founder Representation -- Proportion of the genes in the living, descendant population that are derived from that founder.

Inbreeding Coefficient (F) – Probability that the two alleles at a genetic locus are identical by descent from an ancestor common to both parents. The mean inbreeding coefficient of a population will be the proportional decrease in observed heterozygosity relative to the expected heterozygosity of the founder population.

Mean Kinship (MK) – The mean kinship coefficient between an animal and all animals (including itself) in the living, captive-born population. The mean kinship of a population is equal to the proportional loss of gene diversity of the descendant (captive-born) population relative to the founders and is also the mean inbreeding coefficient of progeny produced by random mating. Mean kinship is also the reciprocal of two times the founder genome equivalents: MK = 1 / (2 * FGE). MK = 1 - GD.

Percent Known – Percent of an animal's genome that is traceable to known founders. Thus, if an animal has an UNK sire, the % Known = 50. If it has an UNK grandparent, % Known = 75.

Percent Certain -- The percentage of the living individuals' pedigree that can be completely identified as *certain:* (exact identity of both parents is known) and traceable back to known founders. Individuals that are 100% *certain* do not have any MULTs or UNKs in their pedigree. *Certainty* represents a higher degree of knowledge than *Known* and therefore is always less than or equal to *Known*.

Prob Lost – Probability that a random allele from the individual will be lost from the population in the next generation, because neither this individual nor any of its relatives pass on the allele to an offspring. Assumes that each individual will produce a number of future offspring equal to its reproductive value, Vx.

Appendix H

Directory of Institutional Representatives

Contact Name (IR)	Institution	Phone Number	Email Address
Kristi Newland	GARDENCTY Lee Richardson Zoo	620-276-1250	kristi.newland@gadencityks.us
JT Svoke	METROZOO Zoo Miami	248-762-9721	joseph.svoke@miamidade.gov
Steve Metzler	SD-WAP San Diego Zoo Safari Park	760-473-6993	smetzler@sdzwa.org
Tim Their	ST LOUIS Saint Louis Zoo	314-646-4647	tthier@stlzoo.org
Martha Fischer	ST LOUIS Saint Louis Zoo WildCare Park	314-646-4610	fischer@stlzoo.org
Dan Beetem	WILDS The Wilds	740-638-5030 x 2110	dbeetem@thewilds.org

Breeding Centers, Private Ranches, and Genomics for Creating Sustainable Wildlife Populations

DAVID WILDT, PHILIP MILLER, KLAUS-PETER KOEPFLI, BUDHAN PUKAZHENTHI, KATY PALFREY, GAVIN LIVINGSTON, DAN BEETEM, STEPHEN SHURTER, JIMMY GREGORY, MICHAEL TAKÁCS, AND KELLEY SNODGRASS

*Human-induced changes to environments are causing species declines. Beyond preserving habitat (*in situ*), insurance (*ex situ*) populations are essential to prevent species extinctions. The Conservation Centers for Species Survival (C2S2) is leveraging space of breeding centers and private ranches to produce "source populations"—genetically diverse reservoirs that also support research and reintroductions. The initial focus is on four African antelopes. C2S2 has developed a program, the Source Population Alliance, that emphasizes animals living in spacious, naturalistic conditions in greater numbers than can be accommodated by urban zoos. Simulation modeling demonstrates how herds can rapidly increase population abundance and retain genetic diversity. Advances in genomics and resulting DNA data allow monitoring of genetic diversity and parentage as well as refined decision-making. This approach, neither pure in situ nor ex situ, but rather "sorta situ", is an innovative way of linking public and private sector resources to ensure that endangered species survive.*

Keywords: conservation, species, endangered, herds, sustainability

> Like the resource it seeks to protect, wildlife conservation must be dynamic, changing as conditions change, seeking always to become more effective.
>
> Rachel Carson (http/www.thoughtco.com; Lewis, J.J., updated February 6, 2019)

The International Union for Conservation of Nature (IUCN) indicates that ~25% of vertebrate species are at risk of extinction (http://www.iucnredlist.org/about/summary-statistics#How_many_threatened) from human overpopulation, habitat loss, exploitation, pollution, disease, alien species, and climate change. Among the most concerning threats are global greenhouse emissions predicted to cause the eventual disappearance of at least 50% of animal species in certain locales (www.worldwildlife.org/publications/wildlife-in-a-warming-world-the-effects-of-climate-change-on-biodiversity). Although all species are susceptible to environmental disruptions, larger animals requiring more space and complex ecosystems are most vulnerable. Ripple et al. (2015) have reported the collapse of the world's 74 wild herbivore species ≥100 kg comprising 11 families (Elephantidae, Rhinocerotidae, Hippopotamindae, Giraffae, Bovidae, Camelidae, Tapiridae, Equidae, Cervidae, Suidae, and Hominidae). Approximately 60% of these species are threatened due to killing for bush meat/body parts, land-use change, and resource competition by livestock. The result is demographically impoverished populations, lost gene diversity, fewer large carnivores and scavengers, and altered ecosystem services (Ripple et al. 2015).

Historically, preserving biodiversity has focused on saving habitat and, by default, protecting all species living in that native environment (*in situ*). Although always the priority, this goal is outpaced by reality. Few wilderness areas are unaffected by human influence (Watson et al. 2018), and more and more wildlife is confined behind fences (Minter 2018), sometimes with military-level security. Although a conservation success story, there is a global tendency for protected areas to be <10,125 hectares, too small for sustainable herbivore populations (Cantú-Salazar and Gaston 2010). Besides competing demands for always too few resources (Watson et al. 2014), there is also concern about enough safeguarded wild space to assure viability. One analysis of ~4000 threatened mammals, birds, and amphibians revealed that 17% of species are absent in protected areas, and 85% are of insufficient population abundance to ensure survival (Venter et al. 2014).

Therefore, there is a growing loss of confidence that wild populations can continue existing in relevant numbers in

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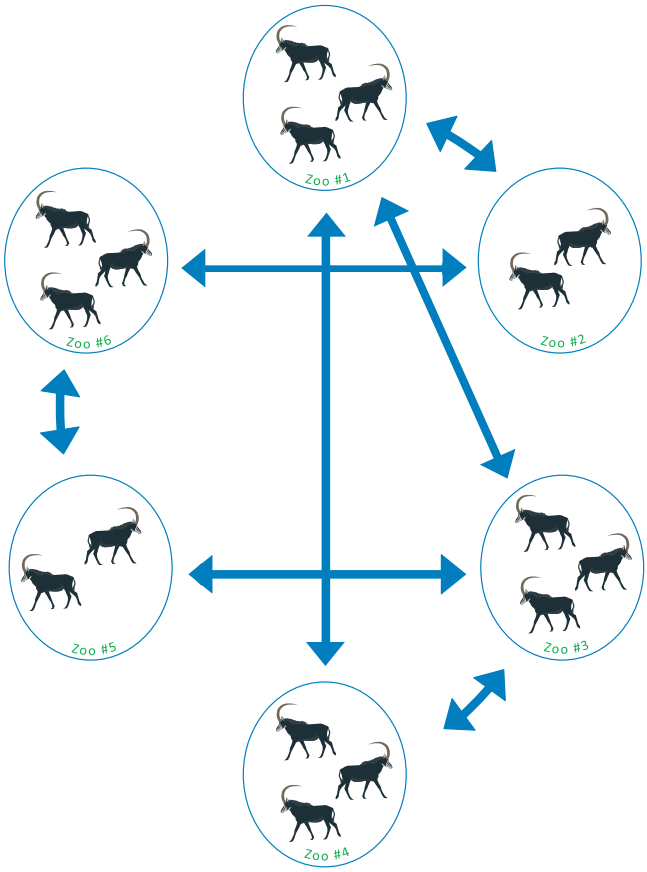

Figure 1. ***Typical intensive management scenario for zoos, requiring transfer of animals between institutions (arrows) for matings to retain gene diversity.***

native ranges (Conway 2010). This is our concern, especially for large vertebrates. In the absence of assurance of survival in the wild, there is an increasing need for threatened species to be sustained under some form of human care. This *ex situ* management is recognized by the IUCN as a legitimate, feasible conservation tool (McGowan et al. 2016). Besides serving as insurance in safe havens, such a resource allows (1) learning about basic species biology (studies challenging to do in elusive wild counterparts), (2) raising public awareness and inspiring financial support of field conservation, and (3) recovering species from the edge of extinction. There are iconic examples of *ex situ* breeding and then successful reintroductions to the wild, including the black-footed ferret (*Mustela nigripes*), California condor (*Gymnogyps californianus*), golden lion tamarin (*Leontopithecus rosalia*), Mexican gray wolf (*Canis lupus baileyi*), Iberian lynx (*Lynx pardinus*), Przewalski's horse (*Equus ferus przewalskii*), and scimitar-horned oryx (*Oryx dammah*) (Soorae 2008; Wildt et al. 2009, 2010; World Association of Zoos and Aquariums 2005; Traylor-Holzer et al. 2018).

Ex situ programs and zoos

Most *ex situ* programs require a long-term commitment—perhaps in perpetuity—to maintain and propagate target species sustainably. For a carefully managed program with adequate founders, population abundance increases over time without the need for removing more animals from the wild. The population also retains a high level of genetic diversity to avoid inbreeding depression while remaining adaptable and resilient to environmental change (Frankham et al. 2017).

The idea for creating sustainable insurance populations for rare species was pioneered nearly 40 years ago by zoos (Conway 1980). In this "ark" paradigm, certain species are intensively managed by cooperating institutions that share individuals (figure 1), or occasionally germplasm (Santymire et al. 2018), in a "metapopulation" (Long et al. 2011). A pedigree is maintained and relatedness among animals (mean kinship) used to determine best matings to retain gene diversity (Ballou and Lacy 1995). Individual animals are identifiable (via ear tag, transponder, tattoo) and then moved between institutions to avoid inbreeding that can lead to infertility, disease susceptibility, morphological defects, and mortalities (Frankham et al. 2017). Mostly, the goal is to retain 90% of existing genetic diversity for 100 to 200 years (Soulé et al. 1986), a level predicted to preserve species integrity and evolutionary potential (Lacy 2013).

An effective population size (N_e) describes a genetically idealized population that displays the same rate of loss of genetic variation and increase in inbreeding as a natural wild population. Frankham et al. (2017) proposed that N_e for a typical wildlife population should be at least 500 individuals to minimize loss of genetic variation while also retaining long-term adaptability to continued environmental change. Because N_e is usually only a small proportion of the total census population size, a genetically viable *ex situ* population may require thousands of individuals (Ballou and Traylor-Holzer 2011). Although these specific recommended abundances remain open to scrutiny (Jamieson and Allendorf 2012), it is important to recognize that large *ex situ* populations of endangered species are necessary to ensure long-term viability.

There have been significant lessons learned from zoo breeding programs, especially new information on natural history, animal husbandry, welfare, record keeping, and mating recommendations (Lacy 2013). There are a few species, such as the African penguins (*Spheniscus* spp.), giraffe (*Giraffa* spp.), and Western lowland gorilla (*Gorilla gorilla*) where demographic and genetic stability are being maintained (Lacy 2013). But despite good intentions, accredited zoos hold only ~15% of the world's threatened terrestrial vertebrates and in small-sized populations (Conde et al. 2013). The Association of Zoos and Aquariums (AZA), which accredits North American zoos, reports that only 44 of 622 managed species programs are self-sustaining (https://www.aza.org/animal-program-sustainability-designations). Of 428 species with studbooks, the median population is only 66 individuals (Long et al. 2011). Approximately 39% of all mammal, bird, reptile, and amphibian zoo populations are comprised of 50 or fewer individuals, and only 25% of these

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are successful breeders. Results from the European zoo community are similar. Of 31 carnivore, 37 primate, 12 ungulate, and 7 rodent species, 48% of populations have bred to replacement, and only 55% are retaining gene diversity at or above the 90% retention value (Lees and Wilcken 2009).

Zoos are challenged in providing safe havens for more species in larger numbers due to insufficient resources (Monfort and Christen 2018; Powell 2018). Most significant is a lack of space. Zoos are complex, expensive operations, often existing on prime real estate in bustling cities. A dominant mission is attracting the public to share stories on hundreds of species. There is growing concern to promote welfare, which has led to elaborate exhibits that accommodate fewer animals, which may be one cause for the 45% size decline in zoo mammal populations (Long et al. 2011). We assessed AZA data available to members and ascertained that the 158 accredited urban institutions averaged only 27.3 hectares each. This translates into a modest 4306 total "zoo hectares" in all of North America to meet the needs of thousands of wildlife species for breeding, exhibition, education, merchandizing, and other zoo-related functions. Therefore, sustaining rare species in secure populations—to prevent extinction, generate new knowledge, and as a source for reintroductions—requires many times more animals than can be produced by typical zoo programs (Conway 2010; Lacy 2013). William Conway, pioneer in conservation breeding, noted 40 years ago that, because city zoos are "land poor", "rural breeding farms and ranches will be needed" (Conway 1980).

Species conservation using land resources of breeding centers and private citizens

The Conservation Centers for Species Survival. As a complementary tactic, we created the Conservation Centers for Species Survival (C2S2; www.conservationcenters.org), a consortium of many of the world's top endangered species facilities. This non-profit entity is dedicated to cooperatively applying its collective space to conserve species that require large areas, natural group sizes, minimal public disturbance, and scientific research. The full and affiliate C2S2 members in the USA, Canada, and Australia collectively manage >17,000 hectares for species propagation, study, recovery, and reintroduction. C2S2 also pools its expertise, specialized facilities, and network to implement new ways to build populations on a scale ensuring demographic and genetic security.

C2S2 embraces a "*sorta situ*" philosophy (Wolfe et al. 2012) where wildlife populations are grown in large, protected spaces under conditions reminiscent of the wild, and managed less intensively than zoos. A priority is managing wildlife in simple, spacious, and naturalistic areas (figure 2) with less emphasis on the individual animal and more value on the collective group. Because C2S2 institutions maintain more individuals per species (table 1), animals generally live in normal social groupings, interacting with conspecifics of diverse ages and both sexes, often with limited exposure to the public.

Ungulates and the Source Population Alliance

C2S2 and wild ungulates. C2S2 uses a programmatic approach for various taxa, from carnivores to passerine songbirds. Its focus on ungulates, specifically African antelopes, is driven by three factors. First, many of the world's wild herbivore populations are in severe decline (Ripple et al. 2015). Forty-four of 74 (59.4%) of the largest species are threatened with extinction (12 are classified as "Critically Endangered" http://www.iucnredlist.org/about/summary-statistics). Primary threats are hunting, livestock competition, and habitat loss from cultivation, deforestation, and forces associated with climate change (Payne and Bro-Jorgensen 2016). Second, zoos are not providing sustainable insurance populations or expanding exhibit space. On the contrary, only two of 89 ungulate species managed in AZA institutions meet sustainability goals, and 42% are in decline (AZA 2009; https://www.aza.org/animal-program-sustainability-designations).

The third reason for C2S2's interest in ungulates is member capacity in breeding and studying these species for decades. The Smithsonian Conservation Biology Institute (SCBI; Virginia) is comprised of barns constructed in the early 1900s to produce horses and mules for the US military. Now modernized, these facilities are used for conservation breeding of scimitar-horned oryx (*Oryx dammah*) and dama gazelle (*Nanger dama ruficollis*). The Fossil Rim Wildlife Center (Texas), with landscapes and climate similar to African savannahs, has produced prodigious numbers of scimitar-horned oryx as well as addax (*Addax nasomaculatus*) and sable antelope (*Hippotragus niger*). The Wilds (Ohio), set on vast reclaimed mining lands, reproduces these antelopes as well as southern white rhinoceroses (*Ceratotherium simum simum*), the latter through four successive generations. White Oak Conservation (Florida) has a similar success with antelopes, rhinoceroses, giraffe as well as the okapi (*Okapia johnstoni*). Among the successes for African Lion Safari (Ontario, Canada) is the Asian elephant (*Elephas maximus*), including a multi-generational herd with semi-free-ranging opportunities. Austin Savanna (Texas) manages its wildlife in combination with its waste management and recycling business, an innovative way of linking conservation and industry. These institutions also facilitate research by having (1) chutes and restraint devices for safe animal handling and sample collection (figure 3), and (2) significant animal numbers to permit robust research, ranging from understanding a species' natural history (Koester et al. 2015) to facilitating recovery through assisted breeding (Schook et al. 2013).

Private ranchers and wild ungulates

Animal resources in C2S2 breeding centers pale compared to those in the private sector. Texas, New Mexico, Oklahoma, Arizona, and Florida, among other states, have ranches with

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Figure 2. ***Scimitar-horned oryx living in a naturalistic herd structure at The Wilds, Ohio, USA (*****Photograph*****: Budhan Pukazhenthi).***

significant non-native wildlife populations (figure 4). Texas alone has more than 5000 such ranches (www.texaslandconservancy.org/about-tic) where wild ungulates thrive in climates and terrains often analogous to range countries. It is common that these operations exceed 2000–4000 hectares each (table 1), a vastness where animals can go unseen for weeks, which contributes to truly wild behaviors (Mungall 2018a).

Such ranches exist for personal and/or professional use, from hobbies, to ecotourism, to hunting. As with commercial livestock, prime, genetically under-represented individuals are retained for breeding and herd improvement. Animals with many descendants are hunted/culled, sold, or traded. Revenue generation is important because generally there are no gate fees, government subsidies, or philanthropic donations (Mungall 2018a). Proceeds are re-purposed to reimburse operational costs, make capital improvements, purchase unrelated stock, and/or expand to other species. Remaining costs often are offset by the owner's private business and/or investments. Generally, wildlife ranch operators manage for full production, do not mark animals for identification, and occasionally rotate bulls to maintain herd heterozygosity (Mungall and Sheffield 1994). Ranchers are independent, generally operating with little or no connectivity to traditional conservation or research communities.

Value proposition of a Source Population Alliance

Given the under-appreciated contributions and potential of the private wildlife sector, C2S2 established a program called the Source Population Alliance (SPA; www.sourcepopulation.org). Participants with significant land and animal resources collaborate with an aim of producing sustainable populations of rare species. We define a source population as a dependable reservoir for *ex situ* or *in situ* conservation and utilization, including insurance, research, awareness, exhibition, raising funds for conservation, trade, and reintroductions into the wild. Although most SPA participants are ranches or C2S2 breeding centers, zoos are encouraged to join. Our goals are to (1) recruit qualified alliance participants to establish demographically sound metapopulations, (2) model the predicted impact of herd type (smaller versus larger) and number of herds to achieve ideal population growth, and (3) demonstrate how advances in genomics can be used practically for management.

Species targets

We identified the scimitar-horned oryx, dama gazelle, addax, and sable antelope for initial study, all having high conservation value (figure 5). Named for its long, backward sweeping, blade-like horns, the scimitar-horned oryx

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Table 1. ***General modes of operations for zoos, breeding centers, and private ranches involved in conservation breeding of rare wildlife species.***

	Urban-Based Zoos	C2S2 Breeding Centers	Private Ranches
Purpose	Public awareness, research, entertainment	Animal production, research, some awareness	Hobby, pleasure, ecotourism, hunting
Infrastructure/size	Elaborate, simulated habitat, limited space	Simple, semi-naturalistic, expansive	Simple, near natural, large to vast
Visitor numbers	Millions	Usually modest or few	Few, none
Species/animals	Many/few	Few/more	Least/more
Management/estimated cost	Intensive, expensive	Less intensive, less expensive	Least intensive, least expensive
Perception of animals	Focus on individual	Less emphasis on individual, more on group	Least emphasis on individual, most on group
Research	Yes, with limited animals	Yes, with many animals	No, with excellent potential

Figure 3. ***Restraint device for safe, hands-on sample and data collection from wild ungulates. Photograph: John Newby/Environment Agency-Abu Dhabi/Sahara Conservation Fund.***

(figure 5a) is the largest mammal to disappear from the wild in the last 35 years. The tall, elegant dama gazelle (figure 5b) once inhabited 13 North African countries (Jebali 2018), but now is restricted to three tiny fragments of <300 individuals in Niger and Chad (Mungall 2018a). Likewise, perhaps only 300 addax (figure 5c) remain in vestigial pockets, mostly within Niger (Wacher et al. 2008). Each of these desert species has been hunted relentlessly, and relict populations have been pushed into marginal habitat with scarce grasses and shade critical to survival. Our fourth species is the sable antelope (figure 5d), endemic to southern Africa. Although designated by the IUCN as "Least Concern" the sable antelope is adversely impacted by human population growth that has increased poaching and caused significant grassland and savannah losses (e.g., Butynski et al. 2015).

What is unknown to the general public, and even some conservation experts, is that numbers of scimitar-horned oryx, dama gazelle, and addax in the private sector far exceed numbers in the wild (figure 6). Stunningly, there are >5000 scimitar-horned oryx and >2800 addax in Texas alone (Mungall 2018b), most on private lands. All four target species are candidates for reintroduction. Captive born scimitar-horned oryx, dama gazelle, and addax have been returned to Tunisia, Senegal, and Morocco with mixed success (Iyengar et al. 2007; IUCN 2009; Mungall 2018a). Since 2016, there have been serial reintroductions of scimitar-horned oryx into the Ouadi-Rimé-Ouadi Achim Wildlife Reserve of Chad, a cooperative venture of the Chadian government, the Environment Agency-Abu Dhabi, and the Sahara Conservation Fund (Catherine Mertes, personal communication). This program, initiated in 2016, has included the release of more than 150 oryx – with some originating from Texas ranches. In turn, many of these animals have mated and produced calves.

SPA principles and participant demographics

The SPA emerged from a C2S2 leaders meeting with credible representatives from the private sector. An Executive Committee produced guidelines, describing expectations for highest quality animal care, mutual cooperation, and, if interested, becoming involved in research. The SPA's emphasis on simplicity has incentivized private landowner involvement. A key tenet is that each participant retains ownership and control of their animals, husbandry protocols, and all terms of transactions. The SPA encourages animal exchange to ensure gene diversity retention, but each owner

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Figure 4. ***Addax living in a naturalistic herd structure on a private ranch in Texas*** *(Photograph:* ***Ten Triple X Ranch).***

determines the preferred partner(s) for stock acquisition or dispersal. Informed decision-making to protect heterozygosity and species integrity is encouraged. There are three mandates for formal SPA participation: (1) manage animals in suitable enclosures that prevent escape, meet biological needs, encourage natural behaviors, and protect against injury and ill health; (2) complete an annual survey of total numbers of owned animals; and (3) abide by all laws, including those regulating animal welfare, animal transactions, and transportation. Candidates for inclusion in SPA undergo a nomination and rigorous evaluation. All programmatic activities are overseen by an SPA manager. Currently, there are 37 participants, 60% being private sector facilities, 20% C2S2 breeding centers, and 20% public zoos. Collectively, these institutions have >32 000 hectares and maintain more than 1500 animals of the four target species (figure 7).

Simulation modeling to demonstrate value of herd management

Most wild ungulates live in polygamous, multi-generational herds where one male mates with multiple females. Offspring develop with age-matched cousins, a survival adaptation conferring social, behavioral, and reproductive benefits to the young (Walther 1984; Estes 1991). Compared to zoos, our *sorta situ* herds model offers more opportunities for normal behaviors related to development, courtship, mating, and parturition. Under herd management, adult males typically are rotated from the population every 2 to 3 years to avoid inbreeding. By contrast, AZA managed breeding programs emphasize the use of mean kinship to identify individuals with the fewest relatives in the population (Ballou and Lacy 1995). The concept of increasing contributions from the most genetically under-represented individuals is sound, but complicated by the need to translocate individuals between zoos, often long distances. Resulting pairs can be sexually incompatible and, even when pairing occurs, offspring are never guaranteed. For example, only 50% of female addax exposed to a male in zoos conceive, and calf mortality is 16% to 20% by 1 year (Houston et al. 2017).

We examined the potential demographic and genetic benefits from managing wild ungulates using an SPA herd approach compared to a traditional zoo program. We used the software package Vortex (Lacy and Pollak 2017) to model population dynamics across two alternative scenarios featuring population-specific input parameters (Table 2). We assumed that a population managed under a typical zoo

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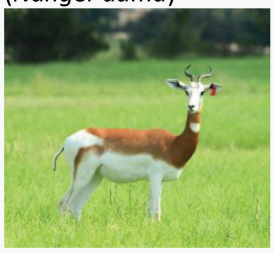
a) Scimitar-horned oryx
(*Oryx dammah*)

IUCN Red List: 'Extinct in the Wild'

Habitat: Sahelian grasslands, sparse acacia woodlands

Threats: unregulated hunting, civil war, drought, expansion of pastoralism

b) Dama gazelle
(*Nanger dama*)



IUCN Red List: 'Critically Endangered'

Habitat: Sahelian grasslands, sub-desert steppes

Threats: unregulated hunting, civil war, habitat loss, drought, expansion of pastoralism

c) Addax
(*Addax nasomaculatus*)

IUCN Red List: 'Critically Endangered'

Habitat: desert

Threats: unregulated hunting, habitat loss, drought

d) Sable antelope
(*Hippotragus niger*)

IUCN Red List: 'Conservation Dependent/ Least Concern'

Habitat: wooded savannah

Threats: habitat loss and degradation, drought, disease

Figure 5. ***Four antelope species comprising the Source Population Alliance and associated IUCN status, habitat preference, and species threats (Photographs: Gavin Livingston).***

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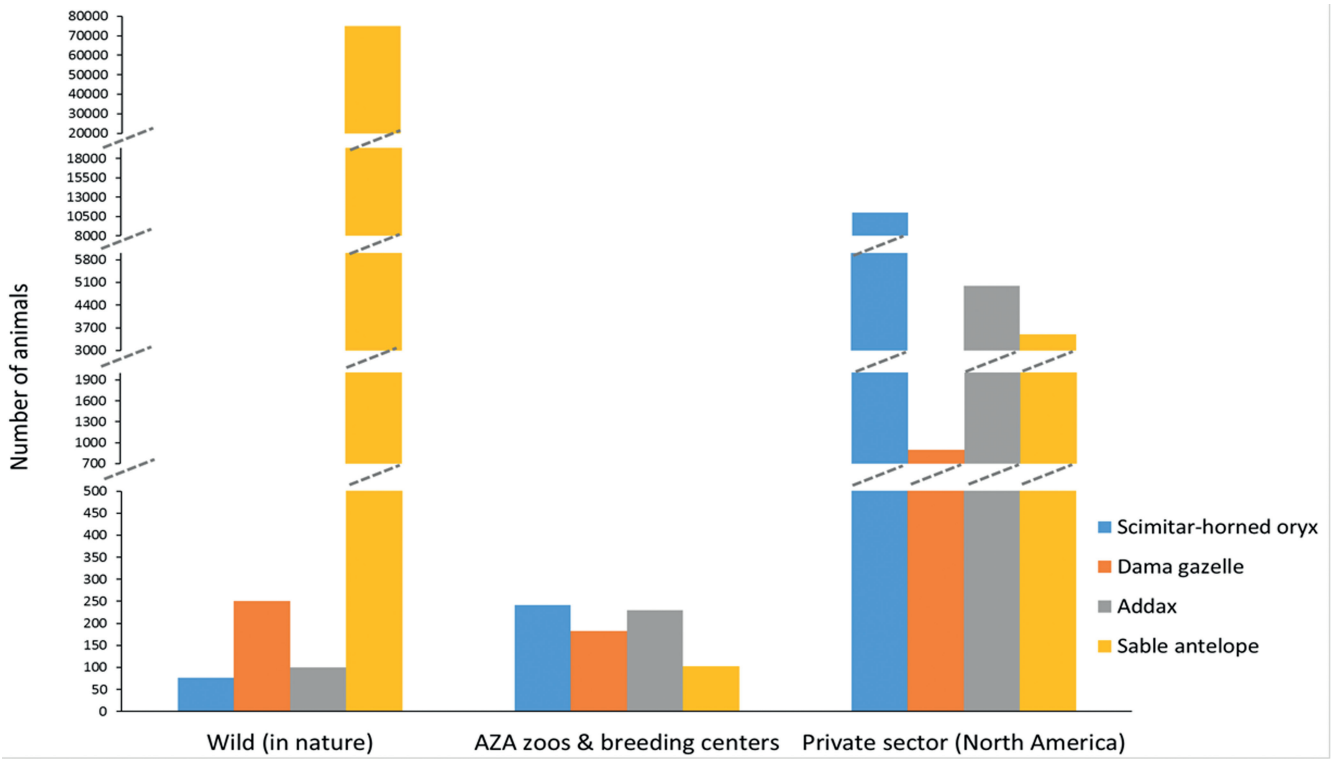

Figure 6. ***Estimated numbers of the four target antelope species in the wild in Africa (nature), in AZA-accredited zoos and breeding centers, or in the North American private sector. Number estimates are derived from the IUCN/SSC Antelope Specialist Group (2016a, b, c; 2017) or the Exotic Wildlife Association (Mungall 2018a).***

approach would have: (a) A smaller, long-term, maximal abundance (i.e., carrying capacity) due to less space. (b) More intensive reproductive management whereby available breeding males and females are chosen for pairing based on mean kinship values to reduce average relatedness among individuals to avoid high inbreeding. (c) Lower rates of reproductive success due to a higher frequency of institutions unable to comply with mating recommendations. (d) Lower calf mortality because of more thorough post-natal care. By contrast, the simulated SPA population would have: (a) A larger long-term carrying capacity due to more space. (b) Breeding management via periodic bull rotations or as guided by genomic assessments. (c) Enhanced reproductive success because animals would be living in a more natural environment that would promote normal herd behaviors. (d) Modest increases in calf mortality due to less intensive oversight post-birth.

We discovered that the simulated urban zoo population grew ~5.5% per year for the first decade of model projections, but this increase quickly faded as the population filled available space (figure 8). After reaching maximal abundance within 25 years, population abundance began to decline because of the (1) negative impact of random variation in reproductive success and survival across years, and (2) gradual accumulation in inbreeding that occurs in persistently small populations. Genetic impacts can occur even in zoo populations that are properly managed by mean kinship-based metrics (e.g., Santymire et al. 2018). In contrast, the SPA population continued to grow ~6% annually for almost 40 years before slowing (figure 8).

Our analysis also revealed improved gene diversity retention for the SPA compared to the zoo-based program. After 100 years, the larger SPA population retained ~94% of the variation at simulation onset compared to ~88% for the mean-kinship approach (figure 8). Importantly, the zoo population showed a slightly enhanced retention of gene diversity early in the simulation, largely because of more intensive management and selection of under-represented individuals for breeding. After ~35 years, however, the fourfold larger SPA population was losing gene diversity at a slower rate, largely because of less genetic drift (Lacy 2000). Similar models could be structured to examine other SPA scenarios, including: (1) threshold size of component populations required to maintain demographic and genetic viability; (2) the ideal rate and magnitude of demographic connectivity (typically through bull rotation); and (3) levels of tolerable inbreeding before population stability is compromised.

Genomics for understanding ungulate herd genetics

One priority for improving SPA's ability to manage herds is a better understanding of population and individual animal genetics. Levels of heterozygosity, ancestry, and population

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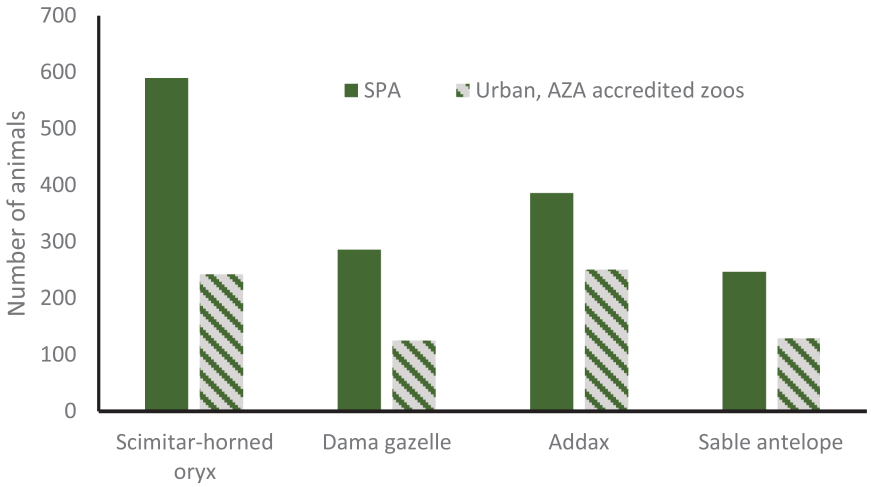

Figure 7. ***Animal numbers from each of the four African antelope species within the Source Population Alliance (SPA) compared to those living in North American urban zoos.***

structure are almost completely unknown in ranch herds due to lack of pedigrees, presence of multiple sires, and inconsistent re-stocking schedules. We predict the genetic status of these less intensively managed populations can be resolved by applying advanced genomic tools.

Estimates of genetic diversity for most endangered species have been limited to a few putatively neutral (i.e., microsatellites) or adaptive (e.g., the major histocompatibility complex) loci (Ouborg et al. 2010). Next-generation sequencing allows determining the quantity and distribution of variation across the genome as well as relatedness and inbreeding (Allendorf et al. 2010; Kardos et al. 2016). Practical applications are increasingly impressive, including for personalized human health care (Snyder 2016) and improved livestock production and food quality (e.g., Hayes et al. 2013). Genomic data may also revolutionize how endangered species are managed under human care. In the case of the SPA, genomic evaluations will be invaluable for herds with unknown pedigrees. In the presence of multiple males and perhaps even mate selection, it is essential to determine paternity to select appropriate new breeding stock to ensure long-term heterozygosity and adaptive potential.

There are two broad categories for characterizing genetic variation across the genome, one being a whole genome approach and the other by reduced representation (Fuentes-Pardo and Ruzzante 2017). The former includes sequencing the whole genome of multiple conspecifics and then comparing results to a reference genome. By contrast, reduced representation allows high-throughput characterization of variation in only a subset of loci that may be restricted to specific genomic components containing protein-coding genes, ultraconserved elements, or on restriction sites. A major advantage of whole genome sequencing is the ability to design a customized, species-specific array to capture single nucleotide polymorphisms (or SNPs) through targeted enrichment (Fuentes-Pardo and Ruzzante 2017). This array can then be used to collect genotypes across thousands of loci from hundreds of individuals simultaneously using next-generation sequencing methods (Jones and Good 2016).

Genomics utility in the SPA approach

Applying genomics to the SPA model offers opportunities to produce sustainable populations by estimating genetic diversity, inbreeding status, lineage integrity, ancestry, and kinship. Computer simulations and empirical evidence demonstrate that evaluations based on a large sampling of genomic markers provide more precise measures of inbreeding and relatedness than pedigrees (Kardos et al. 2015; Kardos et al. 2018). Genomic assessments offer enormous information useful for decision-making by wildlife managers. Of particular relevance is the utility of this tool to ranchers who have little knowledge about their animals' genetic health or relatedness within their own herds or to the larger conservation breeding community.

To date, we have generated reference genomes and additional whole genome resources for the sable antelope (Koepfli et al. 2019), dama gazelle, and scimitar-horned oryx. Briefly, this is accomplished by sequencing and assembling a reference genome from a single individual that is then annotated to characterize the gene and repeat DNA content. Genomes of additional individuals are re-sequenced and mapped to the reference to identify millions of SNPs. A subset is then used to design a species-specific SNP array (figure 9).

In a recent extensive study of the sable antelope, we demonstrated the power of genomics for generating high-resolution, conservation-relevant information. A sable antelope-specific in-solution capture array containing 5000 SNPs was used to genotype 40 individuals from two C2S2 breeding centers (Fossil Rim Wildlife Center, Texas and The Wilds, Ohio; n = 21 and 9 animals, respectively) and from two other SPA participants, both Texas ranches (n = 10 animals). Estimates revealed heterozygosity values of <0.3 to 0.45, indicating that genetic diversity fell within a narrow margin within this mixed source population (figure 9, lower left panel).

Most interesting was the analyses of genetic structure and ancestry. Nine sable antelope from C2S2 member The Wilds formed a distinctive genetic cluster according to principal component analyses (figure 9, lower middle panel) and assessment of genetic ancestry using the program ADMIXTURE (Alexander et al. 2009; figure 9, lower right panel). It was clear that animals in Ohio bunched separately from the Texas cohort. A closer analysis revealed that The Wilds' herd had been isolated for multiple generations, which stimulated acquiring an unrelated sable antelope sire

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Table 2. Summary of demographic model input parameters used in simulation models of alternative population management approaches.

Model Input Parameter	Urban-Based Zoo Population	Breeding Center/Ranch (SPA) Population
Initial abundance	50	50
Carrying capacity	100	500
Age of first breeding (years)	2	2
Adult females reproducing annually (%)	50	60
Adult males in the breeding pool (%)	20	20
Annual calf mortality (%)	20	25
Annual adult mortality (%)	8	8
Severity of inbreeding depression[a]	4.5	4.5
Mean initial inbreeding coefficient	0.1	0.1
Genetic management protocol	MK; F < 0.25[b]	F < 0.25
Demographic management protocol[c]	Breeding constrained to maintain population at K[c]	Breeding constrained to maintain population at K

[a]Number of lethal equivalents (Ralls et al. 1988).
[b]MK, choose breeding pairs to reduce mean kinship (average relatedness) in the population; F < 0.25, restrict pair selection to an inbreeding coefficient (F) among offspring of <0.25 (as occurs with full-sibling or parent-offspring pairings).
[c]K, population carrying capacity.

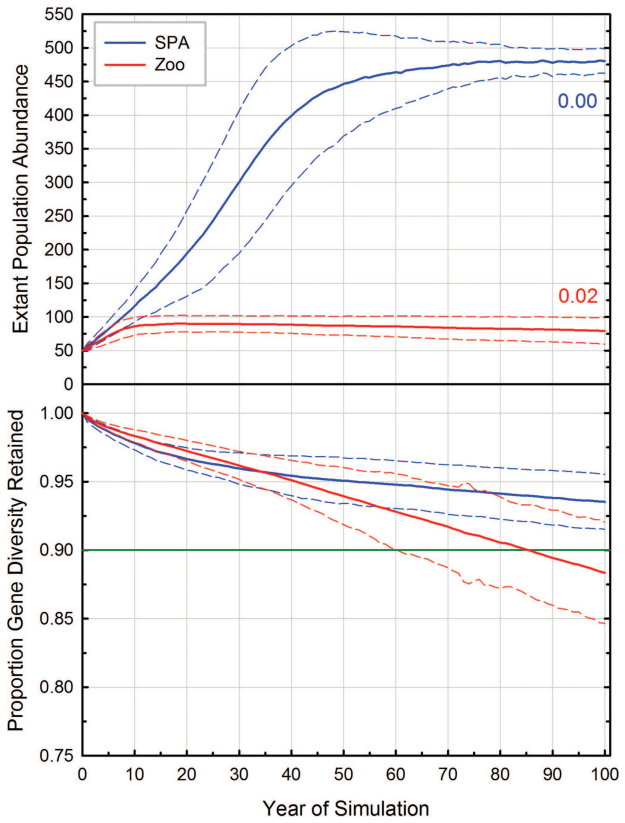

Figure 8. Simulation modeling results depicting future dynamics of a typical wild ungulate population managed according to a traditional urban zoo (mean kinship) versus the Source Population Alliance (SPA herd) approach. Top panel: Mean population abundance trajectories (±1 standard deviation [SD]) with extinction probabilities over 100 years for the two alternatives. Bottom panel: Proportional gene diversity retained (±1 SD) for each alternative. Green horizontal line represents gene diversity retention typically targeted in conservation breeding programs for endangered species (e.g., Lees and Wilcken 2009).

from the Fossil Rim Wildlife Center to infuse new genetic diversity.

None of the sable antelope in AZA-accredited urban zoos has been genetically analyzed, and only 27% of the pedigree is known (Piltz et al. 2016). These obscurities can be eliminated via genomic assessment with a high likelihood of identifying valuable and under-represented individuals in both the public and private sectors. Such discoveries can be integrated into modeling (as demonstrated above using Vortex) to better inform breeding male selection and animal exchanges in all directions (figure 10).

Conclusions and perspectives for the future

C2S2 and its SPA program connects breeding centers, the private sector, and zoos to fill a gap not addressed by the purely *in situ* or *ex situ* communities. Although the preference always is to maintain wild species in wild places, accelerated human population growth, habitat loss, and climate change require more options. The intensive management practiced in urban zoos for large-sized species cannot meet well-established demographic and genetic goals. Although the infrastructure and expertise in breeding centers and zoos are important, that capacity also is inadequate when thousands of animals of many species are required to achieve sustainability. That is the reason for adding credible private landowners to the mix, a novel way that brings diversity, resources, and new approaches for the greater good of species conservation.

There now are several areas for priority attention. Our simple, yet realistic modeling exercise demonstrated clear demographic and genetic advantages of the SPA herd approach over a traditional zoo breeding program. There also are likely to be financial benefits due to operational scale and the use of cheaper, rural land that includes spacious pastures requiring less supplemental feeding and a smaller labor-force. As more data are collected, such factors can be incorporated into more complex models to identify

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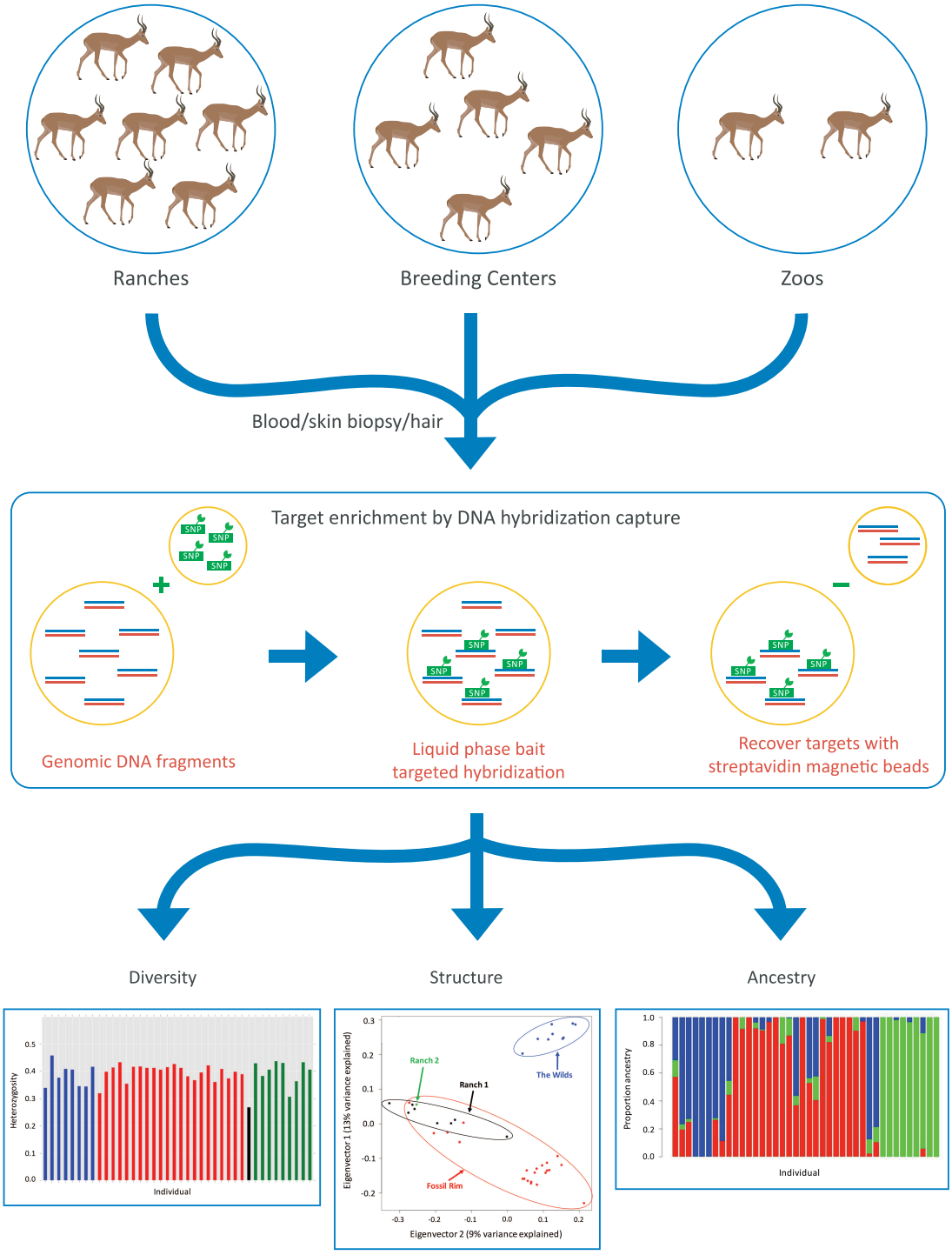

Figure 9. ***Illustrations of value of genomic data for identifying differences or similarities among wild ungulates in genetic diversity, population structure, or admixture/ancestry to make more informed management decisions. Top: Blood, skin biopsy, and/or hairs are collected from animals managed on ranches, breeding centers, or zoos from which genomic DNA is isolated. Middle: The DNA of each individual is fragmented and prepared into a genomic library to which in-solution biotinylated probes complementary to specific single nucleotide polymorphisms (SNPs) are bound to allow target enrichment of these parts of the genome. Bound fragments are recovered with magnetic beads, and the enrichment is prepared for next-generation sequencing. This process can be applied to 100 or more individuals simultaneously. Bottom: Sampled individuals are genotyped at thousands of SNPs from across the genome. Resulting data can be used to estimate individual or population-level heterozygosity (left panel), genetic structure (middle panel), and genetic ancestry (right). Each point or bar represents a single sable antelope genotyped at 5000 SNPs.***

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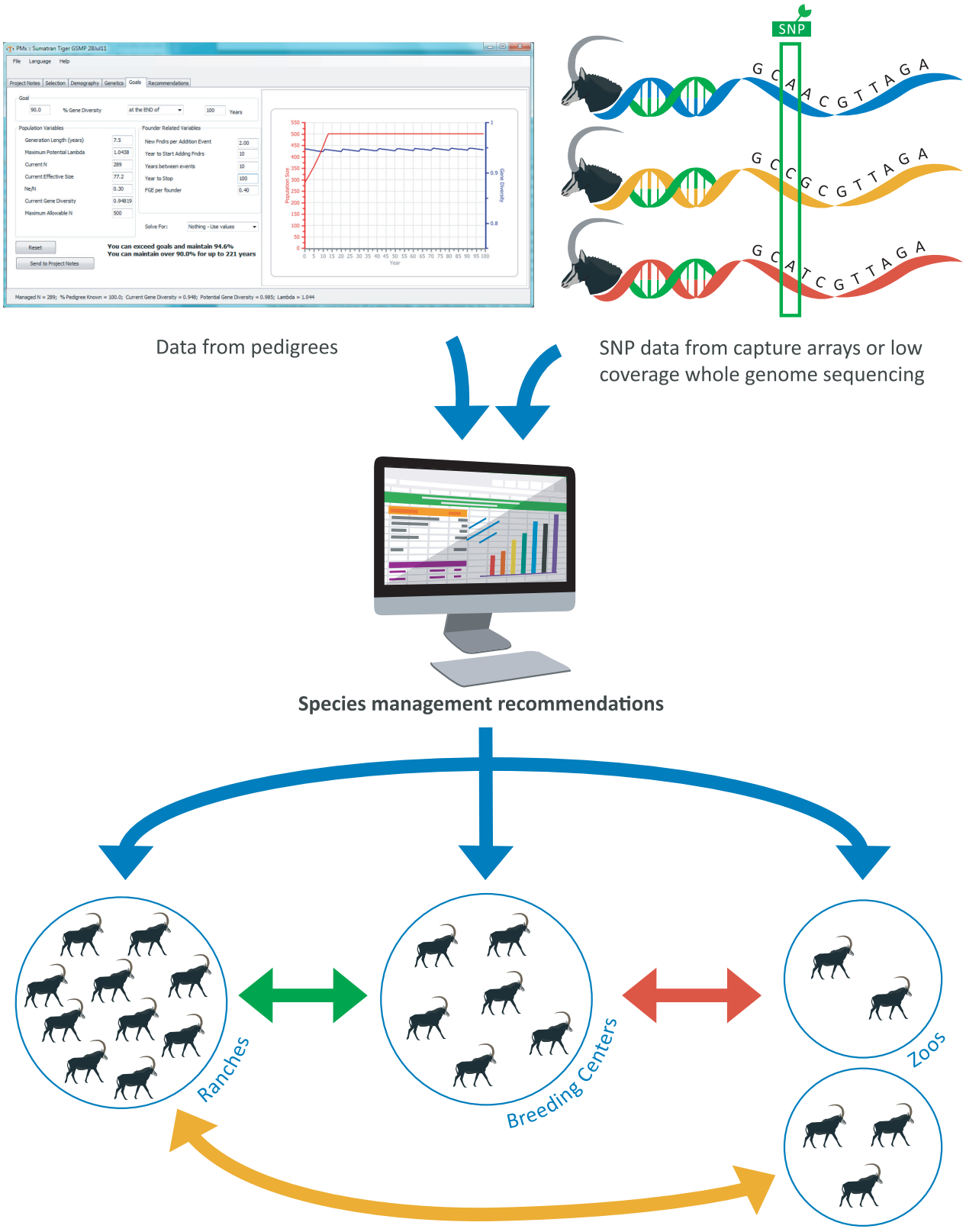

Figure 10. ***Conventional information gleaned from Vortex modeling will be enhanced by supplementing with genomic data to further guide species management across the metapopulation, especially animal translocations in all directions to achieve demographic and genetic security. Arrows at the bottom of the figure represent recommended animal translocations among ranches, breeding centers, and zoos based on empirically derived results from combined demographic modeling and genomic data.***

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Figure 11. ***Species (or subspecies) recently added to the Source Population Alliance for public–private sector conservation breeding (Photographs: Gavin Livingston).***

other potential advantages and improvements to herd management. There also is a need for definitive evidence that calves developing in herds in naturalistic, expansive areas express social behaviors comparable to their wild counterparts. This is essential for individuals and populations to thrive, not only in a *sorta situ* environment, but also for successful reintroductions. Indeed, it would be challenging to prepare large-sized animals to withstand the rigors of wild habitats when raised with only a few conspecifics in an urban zoo. Furthermore, these long-held captive populations generally are not exposed to predation, forage limitations, interspecific competitions, and other elements that no doubt influence adaptability to surviving in nature. We would argue, however, that specimens managed under *sorta situ* conditions may be more adaptive to change than zoo counterparts. There already is early evidence in that scimitar-horned oryx produced in extensive, semi-wild conditions with little or no supplemental feeding and watering appear to perform better when returned to nature compared to those reared under more confined conditions (Catherine Mertes, personal communication). Therefore, we expect that the SPA model can influence not only efficiency of production and genetic health, but also retaining behavioral integrity, all translating into more robust, adaptable animals. These risks can be mitigated through the use of genomic data to ensure that diverse genetic lineages have equal representation in captive populations and to monitor reintroduced populations to assess how founders are contributing to overall genetic diversity across successive generations.

Finally, there is a need to determine if DNA analytical costs can be sufficiently low to ensure widespread utilization

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by the wildlife managers. Genomic assessments are likely to become more economical based on experiences from human and livestock applications. However, there are far fewer wild animal specimens to assess, even from combined *ex situ*, *sorta situ*, and *in situ* populations. Therefore, it may be necessary to expect a higher evaluative cost for this service, which is essential given that maintaining gene diversity and minimizing deleterious variation are core principles of species conservation. Regardless, as biosamples have been solicited for this project, we have experienced enthusiasm from private and public sector owners, all of whom realize that a confirmed pedigree increases the conservation (and financial) value of these resources. C2S2 is considering developing a DNA service that includes guidance on practical use of data for SPA participants.

The SPA recently has expanded its portfolio to include more ungulates from the IUCN Red List, including more antelopes, an equid, and two caprids (figure 11). C2S2 also has combined forces with the International Rhino Foundation (IRF) to develop a security population of the southern black rhinoceros (*Diceros bicornis minor*), no longer in an AZA managed program due to lack of space. The struggle to keep rhinos secure within their range in South Africa (Harper et al. 2018) is incentive for establishing insurance populations in other countries where climate, terrain, and natural browse are available. C2S2 and IRF are cooperating with breeding centers, private ranchers, and zoos keen to acquire and establish breeding pairs where this black rhino subspecies is most likely to thrive, especially Texas, Florida, and New South Wales, Australia.

There is no one solution for ensuring species persistence. Rather, preventing extinction must be viewed across a continuum, ranging from protecting large landscapes with a wealth of biodiversity to zoos exhibiting amazing species to inspire awareness and financial contributions for conservation. We as authors leave to others how to protect enough intact ecosystems to sustain viable populations *in situ*, especially given the >10 billion humans expected on the planet by century's end. This alone mandates the investment of more people in these initiatives beyond traditional, professional conservationists. Zoos formulated a terrific idea in the 1980s—organized conservation breeding programs for endangered species. The concept is sound, but the resources for achieving the sustainability goal for large species is wanting. This is where C2S2 and SPA lie on the conservation spectrum—to recruit, coordinate, and implement significant new resources and opportunities. Of course, the charitable environmental organization, The Nature Conservancy (www.nature.org) has long recognized the value of private landowners for promoting local biodiversity. In a way, the SPA program of C2S2 is thinking similarly, but through linking private landholders to conservationists and scientists to ensure survival of the world's rarest wild ungulates. Lastly, we are confident that this concept can be scaled to other taxa, including carnivores and birds, especially those requiring significant space and expertise to produce sustainable populations.

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References cited

Alexander DH, Novembre J, Lange K. 2009. Fast model-based estimation of ancestry in unrelated individuals. Genome Research 19: 1655–1664.

Allendorf FW, Hohenlohe PA, Luikart G. 2010. Genomics and the future of conservation genetics. Nature Reviews Genetics 11: 697–709.

Association of Zoos and Aquariums. 2009. Antelope and Giraffe Taxon Advisory Group Regional Collection Plan, 5th Edition. Silver Spring.

Ballou JD, Traylor-Holzer K. 2011. Captive populations and genetic stability. World Association of Zoos and Aquariums Magazine 12: 19–22.

Ballou JD, Lacy RC. 1995. Identifying genetically important individuals for management of genetic diversity in pedigreed populations. Pages 76–111 in Ballou JD, Gilpin M, Foose TJ, eds. Population Management for Species Survival and Recovery. Columbia Press.

Butynski TM, Parker I, de Jong YA. 2015. Historic and current distribution, abundance, and habitats of Roosevelt's sable antelope *Hippotragus niger roosevelti* (Heller, 1910) (Cerartiodactyla: Bovidae) in Kenya. Journal of East African Natural History 104: 41–77.

Cantú Salazar L, Gaston KJ. 2010. Very large protected areas and their contribution to terrestrial biological conservation. BioScience 60: 808–818.

Conde DA, Colchero F, Gusset M, Pearce-Kelly P., Byers O, Flesness, N., Browne RK, Jones OR. 2013. Zoos through the lens of the IUCN Red List: A global metapopulation approach to support conservation breeding programs. PLoS One 8. doi.org/10.1371/journal.pone.0080311.

Conway WG. 1980. An overview of captive propagation. Pages 199–208 in Soulé ME, Wilcox BA, eds. Conservation Biology: An Evolutionary-Ecological Perspective. Sinauer Associates.

Conway WG. 2010. Buying time for wild animals with zoos. Zoo Biology 29: 1–8.

Estes R. 1991. The Behavior Guide to African Mammals, Including Hoofed Mammals, Carnivores, and Primates. University of California Press, Berkeley.

Frankham R, Ballou JD, Ralls K, Eldridge MDB, Dudash MR, Fenster CB, Lacy RC, Sunnucks. 2017. Genetic Management of Fragmented Animal and Plant Populations. Pages 41–86. Cambridge University Press.

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Fuentes-Pardo AP, Ruzzante DE. 2017. Whole-genome sequencing approaches for conservation biology: advantages, limitations, and practical recommendations. Molecular Ecology 26: 5369–5406.

Harper CK, et al. 2018. Robust forensic matching of confiscated horns and tissues to individual poached African rhinoceros. Current Biology 28: R13-R14.

Hayes BJ, Lewin HA, Goddard ME. 2013. The future of livestock breeding: Genomic selection for efficiency, reduced emissions intensity, and adaptation. Trends in Genetics 29: 206–214.

Houston W, Their T, Enright W, Spevak E. 2017. Population Analysis and Breeding and Transfer Plan: Addax (*Addax nasomasculatus*) AZA Species Survival Plan Yellow Program. AZA Population Management Center.

IUCN. 2009. One-Fourth of Antelope Species are Threatened with Extinction in the World; available from http://cmsdata.iucn.org/downloads/antelope_report.pdf.

IUCN/SSC. 2014. Guidelines on the Use of *Ex Situ* Management for Species Conservation. Version 2.0. IUCN Species Survival Commission.

IUCN/SSC Antelope Specialist Group. 2016a. Addax, *Addax nasomaculatus*. The IUCN Red List of Threatened Species 2016: e.T512A50180603. http://dx.doi.org/10.2305/IUCN.UK.2016-2.RLTS.T512A50180603.en. Downloaded on 30 January 2019.

IUCN SSC/Antelope Specialist Group. 2016b. Addra, *Nanger dama*. The IUCN Red List of Threatened Species 2016: e.T8968A50186128. http://dx.doi.org/10.2305/IUCN.UK.2016-2.RLTS.T8968A50186128.en. Downloaded on 30 January 2019.

IUCN/SSC Antelope Specialist Group. 2016c. Scimitar-horned oryx, *Oryx dammah*. The IUCN Red List of Threatened Species 2016: e.T15568A50191470. http://dx.doi.org/10.2305/IUCN.UK.2016-2.RLTS.T15568A50191470.en. Downloaded on 30 January 2019.

IUCN/SSC Antelope Specialist Group. 2017. Sable antelope, *Hippotragus niger*. The IUCN Red List of Threatened Species 2017: e.T10170A50188654. http://dx.doi.org/10.2305/IUCN.UK.2017-2.RLTS.T10170A50188654.en. Downloaded on 30 January 2019.

Iyengar A, Gilbert J., Woodfine T, Knowles JM, Diniz FM, Brenneman RA, Louis EE, Maclean M. 2007. Remnants of ancient genetic diversity preserved within captive groups of scimitar-horned oryx (*Oryx dammah*). Molecular Ecology 16: 2436–2449.

Jamieson IG, Allendorf FW. 2012. How does the 50/500 rule apply to MVPs? Trends in Ecology and Evolution 27: 578–584.

Jebali A. 2018. Path to endangered status. Pages 3–8 in Mungall EC, ed. The Dama Gazelles: Last Members of a Critically Endangered Species. Texas A&M University Press.

Jones MR, Good JM. 2016. Targeted capture in evolutionary and ecological genomics. Molecular Ecology 25: 185–202.

Kardos M, Luikart G, Allendorf FW. 2015. Measuring individual inbreeding in the age of genomics: marker-based measures are better than pedigrees. Heredity 115: 63–72.

Kardos M, Taylor HR, Ellegren H, Luikart G, Allendorf FW. 2016. Genomics advances the study of inbreeding depression in the wild. Evolutionary Applications 9: 1205–1218.

Kardos M, Åkesson M, Fountain T, Flagstad Ø, Liberg O, Olason P, Sand H, Wabakken P, Wikenros C, Ellegran H. 2018. Genomic consequences of intensive inbreeding in an isolated wolf population. Nature Ecology and Evolution 2: 124–131.

Koepfli KP, et al. Whole genome sequencing and re-sequencing of the sable antelope (Hippotragus niger): A resource for monitoring diversity in ex situ and in situ populations. G3: Genes, Genomes, Genetics 9: 1785–1793.

Koester DC, Freeman EW, Wildt DE, Terrell KA, Franklin AD, Meeks K, Crosier AE. 2015. Group management influences reproductive function of the male cheetah (*Acinonyx jubatus*). Reproduction, Fertility, and Development 29: 496-508.

Lacy RC. 2000. Considering threats to the viability of small populations using individual-based models. Ecological Bulletins 48: 39–51.

Lacy RC. 2013. Achieving true sustainability of zoo populations. Zoo Biology 32: 19–26.

Lacy RC, Pollak JP. 2017. Vortex: A Stochastic Simulation of the Extinction Process. Version 10. Chicago Zoological Society.

Lees CM and Wilcken J. 2009. Sustaining the ark: The challenges faced by zoos in maintaining viable populations. International Zoo Yearbook 43: 6–18.

Long S, Dorsey C, Boyle P. 2011. Status of Association of Zoos and Aquariums cooperatively managed populations. World Association of Zoos and Aquariums Magazine 12: 15–18.

McGowan PJK, Traylor-Holzer K, Leus K. 2016. IUCN guidelines for determining when and how ex situ management should be used for species conservation. Conservation Letters 10: 361-366.

Minter BA. 2018. The parallax zoo. Pages 370–381 in Minter BA, Maienschein J, Collins JP, eds. The Ark and Beyond: The Evolution of Zoo and Aquarium Conservation. The University of Chicago Press.

Monfort SLM, Christen CA. 2018. Sustaining wildlife populations in human care: An existential value proposition for zoos. Pages 313–319 in Minter BA, Maienschein J, Collins JP, eds. The Ark and Beyond: The Evolution of Zoo and Aquarium Conservation. The University of Chicago Press.

Mungall EC. 2018a. The Dama Gazelles: Last Members of a Critically Endangered Species. Texas A&M University Press.

Mungall EC. 2018b. Species numbers throughout the years. Exotic Wildlife 6: 61–62.

Mungall EC, Sheffield WJ. 1994. Exotics on the Range: The Texas Example. Texas A&M University Press.

Ouborg NJ, Pertoldi C, Loeschcke V, Bijlsma RK, Hedrick PW. 2010. Conservation genetics in transition to conservation genomics. Trends in Genetics 26: 177–187.

Payne BL, Bro-Jorgensen J. 2016. Disproportionate climate-induced range loss forecast for the most threatened African antelopes. Current Biology 26: 1200–1205.

Piltz J, Sorensen T, Ferrie GM. 2016. Population Analysis and Breeding and Transfer Plan: Sable Antelope (*Hippotragus niger*) AZA Species Survival Plan Yellow Program. AZA Population Management Center.

Powell DM. 2018. Collection planning for the next 100 years: What will we commit to save in zoos and aquariums? Zoo Biology 38: 139–148.

Ralls K, Ballou JD, Templeton AR. 1988. Estimates of lethal equivalents and the cost of inbreeding in mammals. Conservation Biology 2: 185–193.

Ripple WJ, et al. 2015. Collapse of the world's largest herbivores. Science Advances 1:e1400103.

Santymire RM, Lonsdorf EV, Lynch CM, Wildt DE, Marinari PE, Kreeger JS, Howard JG. 2018. Inbreeding causes decreased seminal quality affecting pregnancy and litter size in the endangered black-footed ferret. Animal Conservation 22: 331–340.

Schook MW, Wildt DE, Weiss RA, Wolfe BA, Archibald KE, Pukazhenthi BA. 2013. Fundamental studies of the reproductive biology of the endangered Persian onager (*Equus hemionus onager*) results in the first wild equid offspring from artificial insemination. Biology of Reproduction 89: 1–13.

Snyder M. 2016. Genomics and Personalized Medicine: What Everyone Needs to Know. Oxford University Press.

Soorae PS. (ed.). 2008. Global Re-Introduction Perspectives: Re-Introduction Case Studies from Around the Globe. IUCN/SSC Re-Introduction Specialist Group, Abu Dhabi.

Soulé M, Gilpin M, Conway W, Foose T. 1986. The millennium ark: How long a voyage, how many staterooms, how many passengers? Zoo Biology 5: 101–113.

Traylor-Holzer K, Leus K, Byers O. 2018. Integrating *ex situ* management options as part of a one plan approach to species conservation. Pages 129–141 in Minter BA, Maienschein J, Collins JP, eds. The Ark and Beyond: The Evolution of Zoo and Aquarium Conservation. The University of Chicago Press.

Venter O, et al. 2014. Targeting global protected area expansion for imperiled biodiversity. PloS Biology 12: e1001891.

Wacher T, Rabeil T, Newby J. 2008. Monitoring survey of Termit and Tin Toumma (Niger). https://www.saharaconservation.org/sites/

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default/files/2017-02/Monitoring_Survey_Termit-Tin_Toumma_December_2008.pdf

Walther FR. 1984. Communication and Expression in Hoofed Mammals. Indiana University Press.

Watson JEM, Dudley N, Segan DB, Hockings M. 2014. The performance and potential of protected areas. Nature 515: 67–73.

Watson JEM, Venter O, Lee J, Jones KR, Robinson JG, Possingham HP, Allan JR. 2018. Protect the last of the wild. Nature 563:27–30.

Wildt DE, Comizzoli P, Pukazhenthi BS, Songsasen N. 2009. Lessons from biodiversity – the value of non-traditional species to advance reproductive science, conservation, and health. Molecular Reproduction and Development 77: 397–409.

Wildt DE, Swanson WF, Brown J, Sliwa A, Vargas A. 2010. Felids *ex situ*: Managed programs, research, and species recovery. Pages 217–235 in Macdonald DW, Loveridge AJ, eds. Biology and Conservation of Wild Felids. Oxford University Press.

Wolfe BA, Aguilar RF, Aguirre AA, Olsen GH, Blumer E. 2012. *Sorta situ*: The new reality of management conditions for wildlife populations in the absence of 'wild' spaces. Pages 576–589 in Aguirre AA, Ostfeld RS, Daszak P, eds. New Directions in Conservation Medicine: Applied Cases of Ecological Health. Oxford University Press.

World Association of Zoos and Aquariums (WAZA). 2005. Population management. Pages 28–36 in Olney PJS, ed. Building a Future for Wildlife – the World Zoo and Aquarium Conservation Strategy. WAZA Executive Office, Bern.

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Population Analysis & Breeding and Transfer Plan

Greater One-Horned Rhinoceros (*Rhinoceros unicornis*)
AZA Species Survival Plan®
Signature Program

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6 June 2023

PMC Population Management Center
LINCOLN PARK ZOO. ASSOCIATION OF ZOOS & AQUARIUMS
WHITE OAK CONSERVATION

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This plan was prepared and distributed with the assistance of the Planning Coordinator and Program Assistant at the AZA Population Management Center (pmc@lpzoo.org).

Description of Population Status

Species Survival Plan® for the Greater One-horned Rhinoceros (*Rhinoceros unicornis*)

Introduction: The greater one-horned (GOH) rhinoceros is one of three Asian rhino species. The species represents one of the greatest success stories in rhino conservation – although populations declined to fewer than 200 animals in the early 20th century, there are now more than 3,000 GOH rhinos in Asia due to strict protection measures in India and Nepal. While populations continue to recover, poaching pressure remains high and the species' continued persistence still depends on range-wide conservation efforts. The current SSP population is comprised of 80 animals (36 males, 44 females) distributed among 19 AZA facilities (57 total; 24 males, 33 females) and one Sustainability Partner (23 total; 12 males, 11 females). The Rhinoceros Taxon Advisory Group has set the target population size for this population to be 85 animals (2021 Regional Collection Plan). Under AZA's new sustainability designations, as of 6 February 2023, this Animal Program has been designated a Signature SSP.

Analytical Assumptions and Exclusions: The pedigree of the population, both prior to and after analytical exclusions, was 100% known and 100% certain. A total of three animals were excluded (Appendix C; 1 male and 2 females) from the potential breeding population and all genetic analyses (but included in life table calculations) due primarily to age and/or non-fertility (n = 2) or medical concerns (n = 1).

Demography: The earliest studbook records for GOH rhinos date back to 1875, but the species has only been consistently held by current management facilities since 1923. The population has steadily grown since that time due to a combination of successful captive breeding and continuing imports (Figures 1 and 2; average λ 1924-2022 = 1.049). The first captive birth occurred in 1967 and the captive-born portion of the population has grown by ~4.4% per year since that time (average λ 1967-2022 = 1.044). Although a small number (n = 3) of wild-caught animals remain in the population, the last import of wild-caught animals occurred in 1990 (SB#s 190 and 191) and no additional imports are currently planned. The population has increased on average over the past five years by 3.5% (λ=1.035).

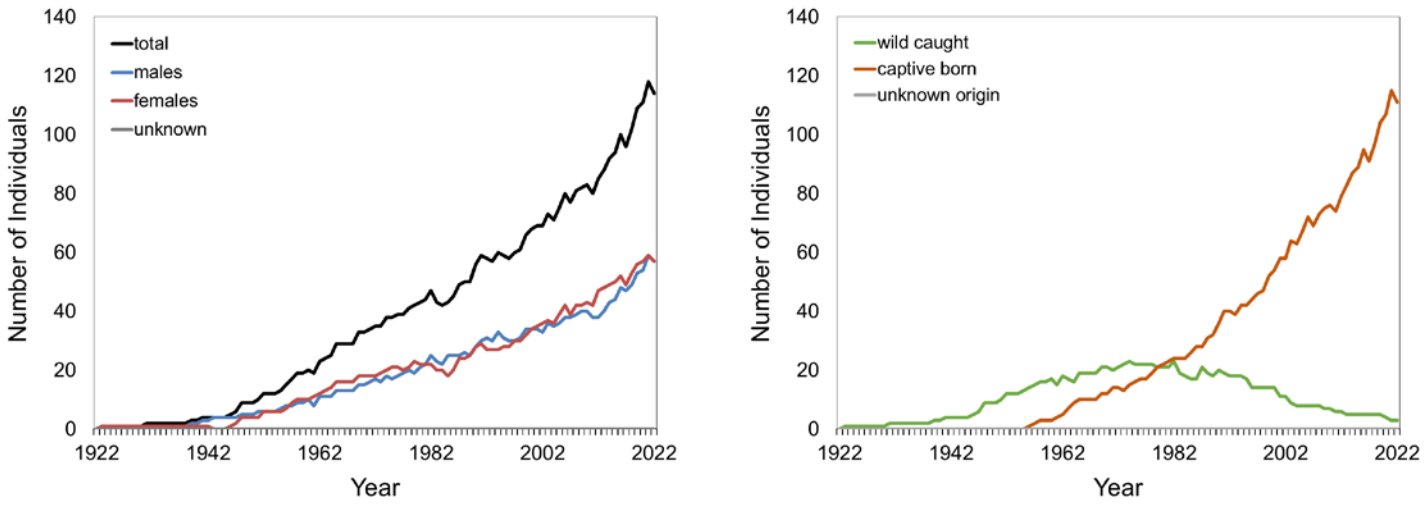

Figure 1. *Census of the Greater One-horned Rhinoceros SSP from 1922 to 2022 by sex (left) and birth type (right)*

The age structure illustrates the numbers of males and females in each age class; the age structure of the GOH rhino population is generally columnar, which is common for a long-lived species (Figure 2). The successful reproduction that has occurred since the late 1980s is evident in the number of animals in the younger age classes. The small cluster of older animals at the top of the age structure is from sporadic reproduction that occurred in the 1970s and early 1980s. The sex ratio of the population is currently skewed towards females, with 1.22 females present for every male in the population. Although a single bull can be bred to multiple females, producing large cohorts of half-siblings reduces the population's effective size (Ne) and retains less gene diversity when compared to a more monogamous breeding strategy. Thus, for long-term genetic management, maximizing the number the breeding bulls across the population continues to be an important goal. Based on its current age structure and life tables (Appendix D), this population is expected to increase over time (Table 1).

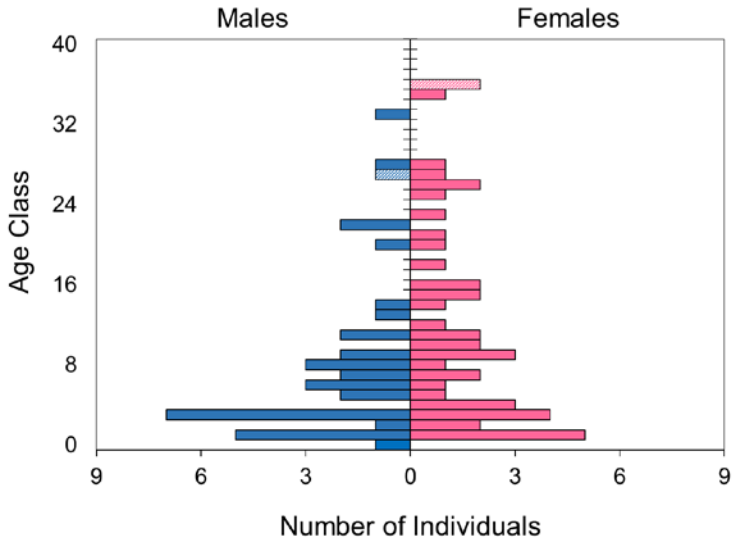

Figure 2. *Age distribution of the Greater One-horned Rhinoceros SSP, N=80 (36.44.0). Animals marked with light hatches were excluded from the breeding population and genetic analyses (N=3; 1.2.0).*

Table 1: *Demographic status of SSP population, according to studbook.*

Demography Summary		
Current size of SSP population (N) – Total (Males.Females.Unknown Sex)	80 (36.44.0)	
Number of individuals excluded from genetic analyses	3 (1.2.0)	
Population size following exclusions	77 (35.42.0)	
Target population size (Kt) from Rhinoceros TAG 2021 RCP	85	
Mean generation time (T, years)	15.2	
Population growth rates (λ; lambda)*: Life Table / 5-year / Projected	1.040 / 1.035 / 1.034	
Percentage (%) of living population born ex situ	96.25	
Survival/Mortality	**Males**	**Females**
Observed first year mortality rate (Q_x; from life tables)	0.255	0.198
Median life expectancy (MLE), excluding first year mortalities (years; from PopLink Survival Statistics Report https://www.aza.org/species-survival-statistics)	30.4	30.4
Observed maximum longevity (L_x; among captive-born records in studbook)	41 (SB # 69)	48 (SB # 45)
Reproduction		
Observed reproductive age range (from life tables)	7-42	4-35
Gestation length (from Studbook)	475 days	
Median litter size hatched (from Studbook; life table filters applied)	1	

* Life table (AZA+RUM CREEK, 1964-01-01 to 2023-03-13); 5-year from studbook census; Projected from PMx stochastic 20-year projections

Genetics: The studbook pedigree following analytical exclusions indicates that the SSP is descended from 25 founders with no potential founders remaining (Table 2). The gene diversity of the analytical population is 94.67%, which is equivalent to that found in just over nine founders (FGE = 9.37). The current mean kinship is 0.0533. First cousins have a kinship of 0.0625, which means the average relationship across the population is just below this relationship category. Typical AZA program goals include thresholds for tolerance of gene diversity loss over time; 90% gene diversity retention for 100 years is a common management goal. Decreases in gene diversity below 90% of that in the founding population have been associated with reproduction being increasingly compromised by, among other factors, lower birth weights, smaller litter sizes, and greater neonatal mortality in some species. With a current gene diversity of 94.67%, this SSP population continues to remain above the diversity threshold thought to confer genetic vigor. Based on current population parameters (starting GD = 94.67%, T = 15.2 years, Ne/N = 0.2727), gene diversity is projected to decline to 82.0% over the next 100 years if the current analytical population grows to the RCP target size of 85 animals at its projected growth rate of 3.4%.

The best genetic management strategy to maximize a population's long-term gene diversity retention is typically managed breeding targeted at equalizing founder representations, by breeding animals with low and well-matched mean kinships. Founder representations in the GOH rhino population are currently skewed (Figure 3); more equal representations would retain more gene diversity. It also should be noted that changes in the analytical population's Ne/N ratio, which

encompasses both number and sex ratio of breeding individuals, are currently the primary driver of the population's gene diversity projections (with all other parameters influencing those projections having remained largely the same over the last decade). Although the analytical population's Ne/N ratio remains modestly high, it is currently the lowest ever reported (dating back to the earliest documents available for comparison from 2000). Recent Breeding and Transfer Plans have reported instability in the population's Ne/N ratio and cautioned that particular attention should continue to be paid to this important genetic parameter to determine if the overall decline over the last decade represents a concerning trend. The 2021 Breeding and Transfer Plan suggested that recent changes in the Ne/N ratio could be due to a combination of older breeding animals being excluded or lost due to mortality while a cohort of younger animals are just reaching reproductive age and beginning to breed. This seems likely to be the case, as the proportion of the analytical population under eight years of age was just 35.8% in 2011 compared to 50.6% today (with corresponding Ne/N ratios of 0.40 vs 0.27). Given the distribution of animals across the youngest age classes, lower Ne/N ratios are expected to persist over the short term as it will take some time for the current large cohort of young animals to receive breeding recommendations and successfully produce offspring. Therefore, because Ne/N is one of the primary drivers of this population's gene diversity projections, more pessimistic gene diversity projections also should be expected to persist for the immediate future.

Table 2: *Genetic status and projections for the Greater One-horned Rhinoceros SSP population.*

Genetics Summary*					
	2011	***2019***	***2021***	**2023**	**Potential**
Founders	*23*	*25*	*25*	25	0
Founder genome equivalents (FGE)	*9.28*	*9.37*	*9.35*	9.37	13.55
Gene diversity (GD %)	*94.61*	*94.66*	*94.65*	94.67	96.31
Population mean kinship (MK)	*0.0539*	*0.0534*	*0.0535*	0.0533	--
Mean inbreeding (F)	*0.0082*	*0.0175*	*0.0167*	0.0099	--
Effective population size relative to population size (N_e/N)	*0.40*	*0.31*†	*0.35*†	0.2727†	--
Percentage of pedigree known before / after assumptions and exclusions	*100% / 100%*	*100% / 100%*	*100% / 100%*	100% / 100%	--
Percentage pedigree certain after assumptions and exclusions	*100% / 100%*	*100% / 100%*	*100% / 100%*	100% / 100%	--
Projections					
Years to 90% gene diversity	*41*	*42*	*45*	35	--
Years to 10% loss of gene diversity	*97*	*93*	*100*	77	--
Gene diversity at 100 years (%)	*85%*	*84%*	*84.7%*	82.0%	--
	Assuming λ = 1.02, Target size = 75, Generation length = 16.3, Starting population size = 49	*Assuming λ = 1.03, Target size = 85, Generation length = 16.1, Starting population size = 71*	*Assuming λ = 1.04, Target size = 85, Generation length = 15.3, Starting population size = 73*	Assuming λ = 1.034, Target size = 85, Generation length = 15.2, Starting population size = 77	

*Genetic statistics may not be comparable across years due to changes in software and parameters used for projections from year to year.
†Includes founders

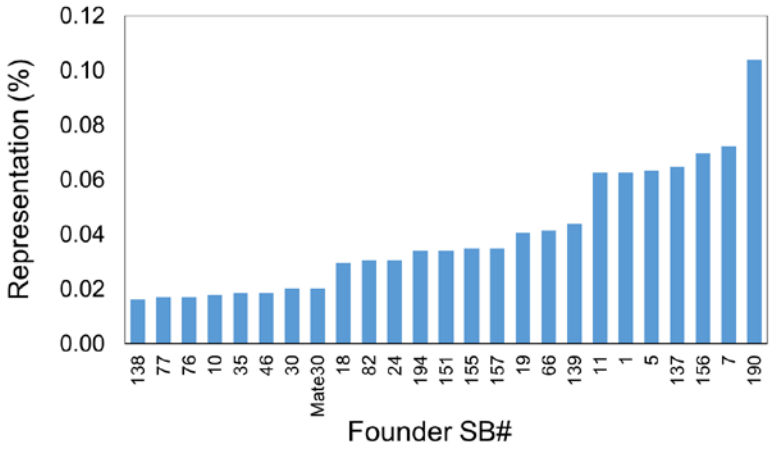

Figure 3. *Founder representation distribution of the analytical Greater One-horned Rhinoceros SSP population.*

Recommendation Outcomes: The website PMCTrack calculates the outcomes fo SSP recommendations by comparing Breeding and Transfer Plan recommendations to births and transfers recorded in the studbook (Figure 4). There are many reasons that recommendations might not be fulfilled, including interim recommendations issued by the SSP Coordinator;

these reasons can be captured using PMCTrack Outcomes Surveys. Note that starting in 2022, SSP Coordinators can directly add interim recommendations to PMCTrack to improve the accuracy of recommendation outcomes. The fulfillment rates of any plan that had outcomes calculated in 2022 or after may reflect inclusion of these interim rates; in the graph, this may include the last plan before 2022, plus any plans with a date of 2022 or after.

Of the recommendations proprosed in the 2021 Breeding and Transfer Plan, 71% of the SEND TO recommendations and 8% of the BREED WITH recommendations were fulfilled as requested by 30 March 2023. Note that fulfillment rates for breeding recommendaitons are artificially low, due the species' long gestation and the program's short Breeding and Transfer Plan cycle. SSP participants are always encouraged to attempt to fulfill recommendations and communicate sucesses and challenges to the SSP Coordinator.

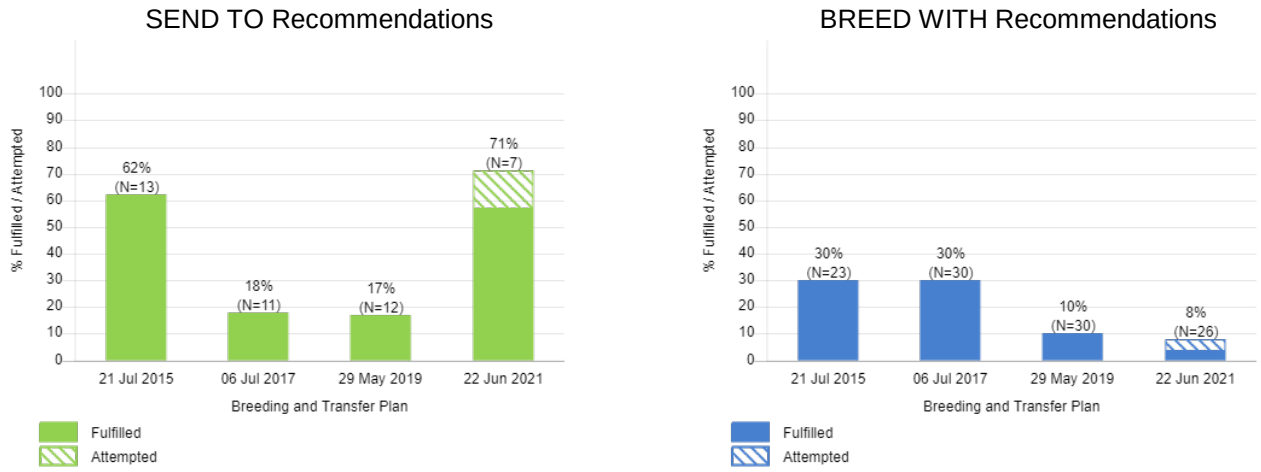

Figure 4. Recommendation outcomes for transfers (left) and breeding (right) for the past Greater One-horned Rhinoceros SSP Breeding and Transfer Plans. *N* represents the number of recommendations scored for each recommendation type, per plan, and the number represents the percentage recommendations fulfilled. Please visit PMCTrack.org or contact pmctrack@lpzoo.org for more information or with any questions.

Management Strategy: Demographic analyses indicate that ~4 births are needed over the next two years (2 births per year) to maintain the population at its current size. Recent reproduction (7 to 8 births per year over the last five years) is likely to be sufficient to grow the population to its target size within the next two years. The number of breeding recommendations is intended to meet this goal.

Table 3: *Historic reproduction and future population goals.*

Current Reproductive Goals Summary		
	Number of Births Needed per Year over the next 2 Years	**Target Population Size**
To maintain current population size (λ = 1.00)	0 – 5	80
To grow to the TAG's recommended target population size in 5 years (Kt = 85; λ = 1.012)	1 – 6	85
Reproductive Goals Summary from the Last BTP (2021)		
Number of females recommended to breed	26	
Number of births since then (26 April 2021 to 30 March 2023)*	24	
Average Number of Events in the SSP Population per Year over the Last Five Years (2018 – 2022)		
Average number of births per year	7.4	
Average number of deaths per year	2.2	
Average number of imports per year	0.0	
Average number of exports per year	0.0	

*includes births recommended in previous BTPs, due to the species long gestation

Gene diversity in the analytical population is 94.67%, which is above the 90% threshold commonly thought to represent genetic vigor. Gene diversity is projected to decline to approximately 82.0% over the next 100 years if the analytical population grows at its projected growth rate of 3.4% to a target size of 85 animals. Pairings have been prioritized to maintain or increase gene diversity through considerations of mean kinship, avoidance of inbreeding, and differences in sire and dam mean kinships. Although individual reproductive success has been quite high, some animals with mean kinships higher than the population average continue to receive breeding recommendations with genetically appropriate mates (those with similar mean kinships that minimize inbreeding) to support demographic goals.

This is a 2-year plan (2023 – 2024). Interim recommendations will continue to be made as needed until another full set of recommendations are produced. Recommendations contained in this plan supersede all previous recommendations.

At this time, the SSP:

1. **Recommends 23 females to breed at 9 facilities.** An additional 9 females can be bred at the discretion of the program's Sustainability Partner, depending on that facility's space. Two more additional females are expected to participate in AI research and could also produce calves, while one more additional female can be bred at facility discretion but is unlikely to be successful.

2. **Recommends 16 transfers to establish new breeding pairs and meet facility requests; one of these transfers will be provided as an interim recommendation.** Three facilities that don't currently have GOH rhinos are acquiring animals; two have intermittently held GOH rhinos in the past (LOSANGELE and SANDIEGOZ) and one is a new holding facility for this species (EL PASO). One facility is phasing the species out of their current collection (COLUMBUS).

Breeding and Transfer Recommendations by Facility

BUFFALO
Buffalo Zoo
Buffalo, NY

Facility Note: Please contact the SSP Coordinator for an interim transfer recommendation for F510.

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
241	98M146	F	26	HOLD	BUFFALO	BREED WITH	439	
493	M19003	M	3	SEND TO	OKLAHOMA	BREED WITH	375	
510	M21015	F	1	SEND TO	TBD	SEE NOTES		
439	11H144	M	11	RECEIVE FROM	SANFORD	BREED WITH	241	

COLUMBUS
Columbus Zoo and Aquarium
Powell, OH

Facility Note: M481 can be used as an AI donor at OMAHA if desired.

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
481	221012	M	6	SEND TO	OMAHA	SEE NOTES		

DENVER
Denver Zoo
Denver, CO

Facility Note: Please discuss AI options for F396 with the Population Biologist.

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
396	A11302	F	15	HOLD	DENVER	SEE NOTES		breed via AI
406	A11305	M	13	SEND TO	EVANSVLLE	DO NOT BREED		
497	A20013	F	3	SEND TO	SD-WAP	BREED WITH	465	

EL PASO
El Paso Zoo
El Paso, TX

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
477	206610	M	6	RECEIVE FROM	SEATTLE	DO NOT BREED		

EVANSVLLE
Mesker Park Zoo & Botanic Garden
Evansville, IN

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
465	117017	M	8	SEND TO	SD-WAP	BREED WITH	346, 369, 475, 497, 451	
406	A11305	M	13	RECEIVE FROM	DENVER	DO NOT BREED		

FORTWORTH
Fort Worth Zoo
Fort Worth, TX

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
446	207594	F	10	HOLD	FORTWORTH	BREED WITH	460	
460	212689	M	9	HOLD	FORTWORTH	BREED WITH	446	

LOSANGELE
Los Angeles Zoo and Botanical Gardens
Los Angeles, CA

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
494	25949	M	3	RECEIVE FROM	OMAHA	DO NOT BREED		

LOWRY
Zoo Tampa at Lowry Park
Tampa, FL

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
180	103162	M	33	HOLD	LOWRY	BREED WITH	276	
276	101757	F	21	HOLD	LOWRY	BREED WITH	180	
500	103530	M	2	SEND TO	SANFORD	DO NOT BREED		

METROZOO
Zoo Miami
Miami, FL

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
443	15M090	F	11	HOLD	METROZOO	BREED WITH	482	
492	19M050	F	3	HOLD	METROZOO	BREED WITH	482	
482	50000	M	5	RECEIVE FROM	TORONTO	BREED WITH	443, 492	

NY BRONX
Bronx Zoo/Wildlife Conservation Society
Bronx, NY

Facility Note: M508 is expected to be transferred in spring 2024. F223 is very genetically valuable (low mk; most genetically valuable female in the population) and a high priority for breeding. Although she's produced calves in the past, she currently doesn't show signs of cycling regularly; she can be bred with M222 at facility discretion.

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
139	981044	F	36	HOLD	NY BRONX	DO NOT BREED		excluded
222	M04180	M	28	HOLD	NY BRONX	BREED WITH	467	
223	M01136	F	28	HOLD	NY BRONX	SEE NOTES		
467	13195	F	9	HOLD	NY BRONX	BREED WITH	222	
508	M21060	M	1	SEND TO	PHOENIX	DO NOT BREED		

OKLAHOMA
Oklahoma City Zoo and Botanical Garden
Oklahoma City, OK

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
137	774813	F	36	HOLD	OKLAHOMA	DO NOT BREED		excluded
375	774210	F	16	HOLD	OKLAHOMA	BREED WITH	493	
501	774914	F	2	SEND TO	YULEE	DO NOT BREED		
493	M19003	M	3	RECEIVE FROM	BUFFALO	BREED WITH	375	

OMAHA
Omaha's Henry Doorly Zoo & Aquarium
Omaha, NE

Facility Note: Continue artificial insemination work with F395; M481 can be used as a donor if desired. Please discuss additional AI options with the Population Biologist. Any bulls with mean kinships lower than the population average (Appendix E), would be valuable to consider banking for future work with other females.

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
395	21444	F	15	HOLD	OMAHA	SEE NOTES		breed via AI
494	25949	M	3	SEND TO	LOSANGELE	DO NOT BREED		
481	221012	M	6	RECEIVE FROM	COLUMBUS	SEE NOTES		

PHOENIX
Phoenix Zoo
Phoenix, AZ

Facility Note: M507 and M508 are expected to be transferred in spring 2024.

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
470	14717	M	8	HOLD	PHOENIX	DO NOT BREED		
507	4003172	M	1	RECEIVE FROM	SD-WAP	DO NOT BREED		
508	M21060	M	1	RECEIVE FROM	NY BRONX	DO NOT BREED		

RUM CREEK
Center for the Conservation of Tropical Ungulates
Arcadia, FL

Facility Note (Sustainability Partner): The following animals have low mean kinships and are of high genetic value to the population: M440 and M473. The following animals are over-represented but have mean kinships that are closer to the population average (therefore of moderate genetic value): M506, F488, and F517. The following animals are over-represented (high mean kinships) and currently of little genetic value to the population: M351, M487, M502, M503, M504, M505, M513, M514, M519, F143, F230, F288, F402, F436, F444, F466, F486, F516. Please refer to Appendix E to review mean kinships in the context of the full population. Breed your animals at your discretion, while considering the following caveats about inbreeding:

Avoid breeding the following pairs due to high inbreeding:
M440 should not be bred with F230
M473 should not be bred with F230
M351 should not be bred with F436 or F466

Juveniles have not yet been given breeding recommendation due to their age; if those animals reach reproductive maturity before the next Breeding and Transfer Plan, please contact the SSP Coordinator for interim breeding recommendations if needed.

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
143	109090	F	35	HOLD	RUM CREEK	SEE NOTES		
230	115060	F	27	HOLD	RUM CREEK	SEE NOTES		
288	109091	F	20	HOLD	RUM CREEK	SEE NOTES		
351	122009	M	22	HOLD	RUM CREEK	SEE NOTES		
402	115083	F	14	HOLD	RUM CREEK	SEE NOTES		
436	110065	F	12	HOLD	RUM CREEK	SEE NOTES		
440	121182	M	11	HOLD	RUM CREEK	SEE NOTES		
444	112051	F	11	HOLD	RUM CREEK	SEE NOTES		
466	117042	F	8	HOLD	RUM CREEK	SEE NOTES		
473	115115	M	7	HOLD	RUM CREEK	SEE NOTES		
486	118002	F	5	HOLD	RUM CREEK	SEE NOTES		
487	118008	M	5	HOLD	RUM CREEK	DO NOT BREED		juvenile
488	118089	F	4	HOLD	RUM CREEK	SEE NOTES		
502	119147	M	3	HOLD	RUM CREEK	DO NOT BREED		juvenile
503	119148	M	3	HOLD	RUM CREEK	DO NOT BREED		juvenile
504	119169	M	3	HOLD	RUM CREEK	DO NOT BREED		juvenile
505	120001	M	3	HOLD	RUM CREEK	DO NOT BREED		juvenile
506	120027	M	3	HOLD	RUM CREEK	DO NOT BREED		juvenile
513	121094	M	1	HOLD	RUM CREEK	DO NOT BREED		juvenile
514	121178	M	1	HOLD	RUM CREEK	DO NOT BREED		juvenile
516	121207	F	1	HOLD	RUM CREEK	DO NOT BREED		juvenile
517	122010	F	1	HOLD	RUM CREEK	DO NOT BREED		juvenile
519	122046	M	0	HOLD	RUM CREEK	DO NOT BREED		juvenile

SAN FRAN
San Francisco Zoological Gardens
San Francisco, CA

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
227	197006	M	27	HOLD	SAN FRAN	DO NOT BREED		excluded

SANDIEGOZ
San Diego Zoo
San Diego, CA

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
410	617290	M	7	RECEIVE FROM	SD-WAP	DO NOT BREED		

SANFORD
Central Florida Zoo & Botanical Gardens
Sanford, FL

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
439	11H144	M	11	SEND TO	BUFFALO	BREED WITH	241	
500	103530	M	2	RECEIVE FROM	LOWRY	DO NOT BREED		

SD-WAP
San Diego Zoo Safari Park
Escondido, CA

Facility Note: M507 is expected to be transferred in spring 2024. Transfer of F451 from YULEE will occur after her calf is weaned.

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
346	608199	F	18	HOLD	SD-WAP	BREED WITH	465	
369	606309	F	16	HOLD	SD-WAP	BREED WITH	465	
410	617290	M	7	SEND TO	SANDIEGOZ	DO NOT BREED		
475	616044	F	7	HOLD	SD-WAP	BREED WITH	465	
507	4003172	M	1	SEND TO	PHOENIX	DO NOT BREED		
465	117017	M	8	RECEIVE FROM	EVANSVLLE	BREED WITH	346, 369, 475, 497, 451	
497	A20013	F	3	RECEIVE FROM	DENVER	BREED WITH	465	
451	174301	F	10	RECEIVE FROM	YULEE	BREED WITH	465	see notes

SEATTLE
Woodland Park Zoo
Seattle, WA

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
477	206610	M	6	SEND TO	EL PASO	DO NOT BREED		
478	206623	M	6	HOLD	SEATTLE	DO NOT BREED		

TOLEDO
Toledo Zoo & Aquarium
Toledo, OH

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
468	13285	M	8	HOLD	TOLEDO	DO NOT BREED		

TORONTO
Toronto Zoo
Scarborough, Ontario (Canada)

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
332	39770	M	20	HOLD	TORONTO	DO NOT BREED		
482	50000	M	5	SEND TO	METROZOO	BREED WITH	443, 492	

WILDS
The Wilds
Cumberland, OH

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
264	104020	F	23	HOLD	WILDS	BREED WITH	273	pregnant
273	121021	M	22	HOLD	WILDS	BREED WITH	264, 469, 496	
469	121024	F	9	HOLD	WILDS	BREED WITH	273	
496	119057	F	3	HOLD	WILDS	BREED WITH	273	
509	121061	F	1	HOLD	WILDS	DO NOT BREED		

YULEE
White Oak Conservation
Yulee, FL

Facility Note: Transfer of F451 will occur after her calf is weaned.

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
238	Y94307	F	26	HOLD	YULEE	DO NOT BREED		
244	Y94309	F	25	HOLD	YULEE	BREED WITH	403	pregnant
403	214303	M	14	HOLD	YULEE	BREED WITH	244, 454, 472, 479	
451	174301	F	10	SEND TO	SD-WAP	BREED WITH	465	see notes
454	134028	F	9	HOLD	YULEE	BREED WITH	403	pregnant
459	134054	M	9	HOLD	YULEE	BREED WITH	484, 491, 495, 499	
472	154052	F	7	HOLD	YULEE	BREED WITH	403	pregnant
479	164084	F	6	HOLD	YULEE	BREED WITH	403	pregnant
484	214306	F	4	HOLD	YULEE	BREED WITH	459	
491	184073	F	4	HOLD	YULEE	BREED WITH	459	
495	214307	F	3	HOLD	YULEE	BREED WITH	459	
499	224318	F	2	HOLD	YULEE	BREED WITH	459	
511	214061	F	1	HOLD	YULEE	DO NOT BREED		
512	214064	M	1	HOLD	YULEE	DO NOT BREED		
501	774914	F	2	RECEIVE FROM	OKLAHOMA	DO NOT BREED		

Appendices

A. Analytical Assumptions

No pedigree assumptions were necessary.

B. Summary of Data Exports

Studbook Name	One-horned Rhinoceros (Rhinoceros unicornis); AZA
Studbook Currentness Date	30 January 2023
Studbook Software and version #	ZIMS for Studbooks 3.0
Overlay Name	none
PMx version #	1.6.5.20220325
.fed file	AZA.fed; RUM CREEK
Descriptive Survival Statistics Report	Report is archived with PMC/AZA and Median Life Expectancy can be viewed here: https://www.aza.org/species-survival-statistics

PMx Project: RhinoGOH_March2023

Primary data file
Data File Name: zims.zims
Dates: 1964-01-01 to 2023-03-13
Location: RUM CREEK / Center for Conservation of Tropical Ungulates
Association: AZA / Association of Zoos & Aquariums (AZA)
Other Filters: Status = Living
User: Jamie Ivy

Moves data file
Data File Name: genetic.csv and demographic.csv
Dates: 1964-01-01 to 2023-03-13
Location: RUM CREEK / Center for Conservation of Tropical Ungulates
Association: AZA / Association of Zoos & Aquariums (AZA)
Other Filters: Status = None
User: Jamie Ivy

M400 died during plan development and was removed from all analyses.

C. Animals Excluded from Genetic Analyses

ID	Location	Sex	Age	Reason for Exclusion
137	OKLAHOMA	F	36	not cycling
139	NY BRONX	F	36	non-reproductive / age
227	SAN FRAN	M	27	medical

D. Life Tables

Px = survival; Qx = mortality; Lx = cumulative survivorship; Mx = fecundity; Ex = life expectancy; Vx = expected future reproduction, Cx = proportion in stable age distribution, At Risk (Qx and Mx) = number of animals corresponding values are estimated from.

MALES													
Age	**Px**	**Mid Px**	**Qx**	**Risk Qx**	**Lx**	**Mid Lx**	**Mx**	**Risk Mx**	**Ex**	**Vx**	**Cx**	**Births**	**Deaths**
0	0.745	0.831	0.255	72.781	1.000	0.872	0.000	72.781	22.539	1.146	0.077	0	25
1	0.946	0.965	0.054	71.030	0.745	0.725	0.000	71.030	25.931	1.438	0.061	0	4
2	0.985	0.992	0.015	62.879	0.704	0.699	0.000	62.879	25.845	1.553	0.057	0	1
3	1.000	0.990	0.000	54.882	0.694	0.694	0.000	54.882	25.039	1.631	0.054	0	0
4	0.980	0.970	0.020	51.567	0.694	0.687	0.000	51.567	24.277	1.716	0.051	0	1
5	0.959	0.979	0.041	47.570	0.680	0.666	0.000	47.570	24.000	1.843	0.048	0	2
6	1.000	1.000	0.000	43.942	0.652	0.652	0.000	43.942	23.489	1.961	0.045	0	0
7	1.000	1.000	0.000	42.734	0.652	0.652	0.012	42.734	22.489	2.043	0.043	0.5	0
8	1.000	1.000	0.000	39.677	0.652	0.652	0.076	39.677	21.489	2.116	0.041	3	0
9	1.000	0.986	0.000	36.430	0.652	0.652	0.068	36.430	20.489	2.126	0.040	2.5	0
10	0.972	0.986	0.028	35.507	0.652	0.643	0.182	35.507	19.763	2.174	0.037	6.5	1
11	1.000	0.970	0.000	34.468	0.634	0.634	0.203	34.468	19.031	2.106	0.035	7	0
12	0.939	0.969	0.061	32.323	0.634	0.615	0.187	32.323	18.595	2.044	0.033	6	2
13	1.000	1.000	0.000	30.184	0.596	0.596	0.199	30.184	18.163	1.998	0.031	6	0
14	1.000	0.981	0.000	28.496	0.596	0.596	0.211	28.496	17.163	1.873	0.029	6	0
15	0.963	0.981	0.037	27.452	0.596	0.585	0.180	27.452	16.467	1.765	0.028	5	1
16	1.000	0.981	0.000	26.485	0.574	0.574	0.341	26.485	15.765	1.683	0.026	9	0
17	0.963	0.942	0.037	25.819	0.574	0.563	0.175	25.819	15.044	1.425	0.025	4.5	1
18	0.920	0.938	0.080	24.304	0.552	0.530	0.349	24.304	14.910	1.382	0.022	8.5	2
19	0.957	0.978	0.043	22.970	0.508	0.497	0.174	22.970	14.837	1.148	0.020	4	1
20	1.000	1.000	0.000	21.055	0.486	0.486	0.214	21.055	14.152	1.038	0.019	4.5	0
21	1.000	1.000	0.000	21.000	0.486	0.486	0.048	21.000	13.152	0.858	0.018	1	0
22	1.000	0.974	0.000	19.682	0.486	0.486	0.053	19.682	12.152	0.845	0.017	1	0
23	0.947	0.946	0.053	18.389	0.486	0.473	0.028	18.389	11.453	0.847	0.016	0.5	1
24	0.944	0.943	0.056	17.321	0.461	0.448	0.088	17.321	11.051	0.903	0.015	1.5	1
25	0.941	0.970	0.059	16.542	0.435	0.422	0.094	16.542	10.660	0.900	0.013	1.5	1
26	1.000	1.000	0.000	16.000	0.409	0.409	0.031	16.000	9.962	0.866	0.012	0.5	0
27	1.000	1.000	0.000	14.975	0.409	0.409	0.067	14.975	8.962	0.870	0.012	1	0
28	1.000	1.000	0.000	13.523	0.409	0.409	0.038	13.523	7.962	0.837	0.011	0.5	0
29	1.000	0.923	0.000	13.000	0.409	0.409	0.154	13.000	6.962	0.832	0.011	2	0
30	0.846	0.875	0.154	12.175	0.409	0.378	0.133	12.175	6.458	0.765	0.010	1.5	2
31	0.909	0.952	0.091	10.016	0.346	0.331	0.100	10.016	6.238	0.754	0.008	1	1
32	1.000	0.786	0.000	10.000	0.315	0.315	0.050	10.000	5.500	0.715	0.007	0.5	0
33	0.571	0.727	0.429	6.307	0.315	0.247	0.250	6.307	5.727	0.882	0.006	1.5	4
34	1.000	0.900	0.000	5.000	0.180	0.180	0.000	5.000	6.500	0.905	0.004	0	0
35	0.800	0.889	0.200	4.942	0.180	0.162	0.000	4.942	6.111	1.048	0.003	0	1
36	1.000	1.000	0.000	4.000	0.144	0.144	0.125	4.000	5.750	1.228	0.003	0.5	0
37	1.000	1.000	0.000	4.000	0.144	0.144	0.375	4.000	4.750	1.150	0.003	1.5	0
38	1.000	1.000	0.000	4.000	0.144	0.144	0.000	4.000	3.750	0.807	0.003	0	0
39	1.000	0.875	0.000	4.000	0.144	0.144	0.500	4.000	2.750	0.841	0.003	2	0
40	0.750	0.571	0.250	3.888	0.144	0.126	0.000	3.888	2.000	0.406	0.002	0	1
41	0.333	0.500	0.667	1.773	0.108	0.072	0.500	1.773	1.750	0.740	0.001	0.5	2
42	1.000	0.500	0.000	1.000	0.036	0.036	0.500	1.000	1.500	0.500	0.001	0.5	0
43	0.000	0.000	1.000	0.636	0.036	0.018	0.000	0.636	1.000	0.000	0.000	0	1

FEMALES													
Age	**Px**	**Mid Px**	**Qx**	**Risk Qx**	**Lx**	**Mid Lx**	**Mx**	**Risk Mx**	**Ex**	**Vx**	**Cx**	**Births**	**Deaths**
0	0.802	0.878	0.198	71.093	1.000	0.901	0.000	71.093	25.292	1.110	0.067	0	17
1	0.973	0.986	0.027	73.597	0.802	0.792	0.000	73.597	27.654	1.311	0.057	0	2
2	1.000	0.985	0.000	72.781	0.781	0.781	0.000	72.781	27.019	1.379	0.054	0	0
3	0.970	0.976	0.030	66.400	0.781	0.769	0.000	66.400	26.414	1.453	0.051	0	2
4	0.983	0.991	0.017	59.888	0.758	0.751	0.099	59.888	26.030	1.544	0.048	6	1
5	1.000	0.991	0.000	55.589	0.745	0.745	0.027	55.589	25.249	1.513	0.046	1.5	0
6	0.981	0.991	0.019	53.422	0.745	0.738	0.093	53.422	24.476	1.556	0.044	5	1
7	1.000	1.000	0.000	50.551	0.731	0.731	0.139	50.551	23.697	1.533	0.042	7	0
8	1.000	1.000	0.000	49.622	0.731	0.731	0.080	49.622	22.697	1.447	0.040	4	0
9	1.000	1.000	0.000	48.255	0.731	0.731	0.104	48.255	21.697	1.418	0.039	5	0
10	1.000	1.000	0.000	43.995	0.731	0.731	0.089	43.995	20.697	1.365	0.037	4	0
11	1.000	1.000	0.000	40.471	0.731	0.731	0.173	40.471	19.697	1.324	0.036	7	0
12	1.000	1.000	0.000	41.082	0.731	0.731	0.098	41.082	18.697	1.195	0.035	4	0
13	1.000	0.976	0.000	41.093	0.731	0.731	0.146	41.093	17.697	1.139	0.034	6	0
14	0.951	0.975	0.049	41.068	0.731	0.713	0.123	41.068	17.115	1.056	0.032	5	2
15	1.000	0.986	0.000	36.762	0.695	0.695	0.068	36.762	16.529	0.994	0.030	2.5	0
16	0.972	0.941	0.028	34.041	0.695	0.685	0.148	34.041	15.748	0.974	0.028	5	1
17	0.909	0.936	0.091	31.614	0.676	0.645	0.140	31.614	15.671	0.912	0.026	4.5	3
18	0.966	0.964	0.034	29.222	0.614	0.604	0.086	29.222	15.674	0.856	0.023	2.5	1
19	0.963	0.962	0.037	27.419	0.593	0.582	0.200	27.419	15.218	0.829	0.021	5.5	1
20	0.962	0.961	0.038	24.882	0.571	0.560	0.080	24.882	14.776	0.678	0.020	2	1
21	0.960	0.937	0.040	23.926	0.549	0.538	0.148	23.926	14.338	0.646	0.018	3.5	1
22	0.913	0.932	0.087	21.315	0.527	0.504	0.117	21.315	14.235	0.552	0.017	2.5	2
23	0.952	0.976	0.048	19.729	0.481	0.470	0.101	19.729	14.203	0.485	0.015	2	1
24	1.000	0.974	0.000	19.000	0.458	0.458	0.105	19.000	13.533	0.408	0.014	2	0
25	0.947	0.973	0.053	18.411	0.458	0.446	0.082	18.411	12.872	0.322	0.013	1.5	1
26	1.000	1.000	0.000	15.948	0.434	0.434	0.065	15.948	12.202	0.256	0.012	1	0
27	1.000	1.000	0.000	14.227	0.434	0.434	0.000	14.227	11.202	0.199	0.012	0	0
28	1.000	0.923	0.000	13.458	0.434	0.434	0.036	13.458	10.202	0.207	0.011	0.5	0
29	0.846	0.917	0.154	11.901	0.434	0.401	0.042	11.901	9.969	0.192	0.010	0.5	2
30	1.000	0.909	0.000	11.000	0.368	0.368	0.000	11.000	9.784	0.170	0.009	0	0
31	0.818	0.900	0.182	10.359	0.368	0.334	0.050	10.359	9.663	0.195	0.008	0.5	2
32	1.000	0.938	0.000	8.362	0.301	0.301	0.056	8.362	9.625	0.167	0.007	0.5	0
33	0.875	0.867	0.125	7.732	0.301	0.282	0.071	7.732	9.200	0.123	0.006	0.5	1
34	0.857	0.769	0.143	6.299	0.263	0.244	0.000	6.299	9.462	0.062	0.005	0	1
35	0.667	0.800	0.333	5.304	0.226	0.188	0.083	5.304	11.000	0.083	0.004	0.5	2
36	1.000	1.000	0.000	2.364	0.150	0.150	0.000	2.364	12.500	0.000	0.003	0	0
37	1.000	1.000	0.000	1.000	0.150	0.150	0.000	1.000	11.500	0.000	0.003	0	0
38	1.000	1.000	0.000	1.000	0.150	0.150	0.000	1.000	10.500	0.000	0.003	0	0
39	1.000	1.000	0.000	1.000	0.150	0.150	0.000	1.000	9.500	0.000	0.003	0	0
40	1.000	1.000	0.000	1.000	0.150	0.150	0.000	1.000	8.500	0.000	0.003	0	0
41	1.000	1.000	0.000	1.000	0.150	0.150	0.000	1.000	7.500	0.000	0.002	0	0
42	1.000	1.000	0.000	1.000	0.150	0.150	0.000	1.000	6.500	0.000	0.002	0	0
43	1.000	1.000	0.000	1.000	0.150	0.150	0.000	1.000	5.500	0.000	0.002	0	0
44	1.000	1.000	0.000	1.000	0.150	0.150	0.000	1.000	4.500	0.000	0.002	0	0
45	1.000	1.000	0.000	1.000	0.150	0.150	0.000	1.000	3.500	0.000	0.002	0	0
46	1.000	1.000	0.000	1.000	0.150	0.150	0.000	1.000	2.500	0.000	0.002	0	0
47	1.000	0.500	0.000	1.000	0.150	0.150	0.000	1.000	1.500	0.000	0.002	0	0
48	0.000	0.000	1.000	0.000	0.150	0.075	0.000	0.000	1.000	0.000	0.001	0	1

E. Ordered Mean Kinship List

These lists are current to March 2023 and values are subject to change with any birth, death, import, export, inclusion, exclusion, or changes in pedigree or pedigree assumptions.

Population MK = 0.0533
(as indicated by the black line)

MALES					FEMALES				
ID	**MK**	**Known**	**Age**	**Location**	**ID**	**MK**	**Known**	**Age**	**Location**
273	0.0313	100	22	WILDS	223	0.0275	100	28	NY BRONX
465	0.0363	100	8	EVANSVLLE	241	0.0350	100	26	BUFFALO
493	0.0364	100	3	BUFFALO	276	0.0358	100	21	LOWRY
403	0.0410	100	14	YULEE	238	0.0382	100	26	YULEE
482	0.0433	100	5	TORONTO	510	0.0412	100	1	BUFFALO
500	0.0463	100	2	LOWRY	454	0.0426	100	9	YULEE
439	0.0466	100	11	SANFORD	472	0.0426	100	7	YULEE
459	0.0466	100	9	YULEE	469	0.0441	100	9	WILDS
468	0.0480	100	8	TOLEDO	244	0.0461	100	25	YULEE
478	0.0480	100	6	SEATTLE	479	0.0466	100	6	YULEE
440	0.0491	100	11	RUM CREEK	446	0.0471	100	10	FORTWORTH
180	0.0504	100	33	LOWRY	375	0.0474	100	16	OKLAHOMA
473	0.0505	100	7	RUM CREEK	346	0.0483	100	18	SD-WAP
332	0.0510	100	20	TORONTO	492	0.0485	100	3	METROZOO
222	0.0542	100	28	NY BRONX	511	0.0488	100	1	YULEE
481	0.0559	100	---	COLUMBUS	369	0.0503	100	16	SD-WAP
506	0.0559	100	3	RUM CREEK	467	0.0521	100	9	NY BRONX
508	0.0564	100	1	NY BRONX	396	0.0529	100	15	DENVER
406	0.0567	100	13	DENVER	501	0.0529	100	2	OKLAHOMA
494	0.0570	100	3	OMAHA	264	0.0542	100	23	WILDS
460	0.0577	100	9	FORTWORTH	496	0.0548	100	3	WILDS
507	0.0577	100	1	SD-WAP	509	0.0548	100	1	WILDS
477	0.0587	100	6	SEATTLE	395	0.0554	100	15	OMAHA
504	0.0588	100	3	RUM CREEK	497	0.0558	100	3	DENVER
514	0.0588	100	1	RUM CREEK	488	0.0559	100	4	RUM CREEK
505	0.0595	100	3	RUM CREEK	517	0.0559	100	1	RUM CREEK
512	0.0595	100	1	YULEE	484	0.0571	100	4	YULEE
351	0.0607	100	22	RUM CREEK	475	0.0577	100	7	SD-WAP
410	0.0616	100	7	SD-WAP	495	0.0577	100	3	YULEE
502	0.0616	100	3	RUM CREEK	466	0.0587	100	8	RUM CREEK
513	0.0616	100	1	RUM CREEK	499	0.0587	100	2	YULEE
519	0.0616	100	0	RUM CREEK	230	0.0591	100	27	RUM CREEK
487	0.0647	100	5	RUM CREEK	486	0.0593	100	5	RUM CREEK
503	0.0655	100	3	RUM CREEK	443	0.0594	100	11	METROZOO
470	0.0691	100	8	PHOENIX	491	0.0595	100	4	YULEE
					451	0.0596	100	10	YULEE
					444	0.0605	100	11	RUM CREEK
					288	0.0635	100	20	RUM CREEK
					516	0.0647	100	1	RUM CREEK
					402	0.0710	100	14	RUM CREEK
					436	0.0725	100	12	RUM CREEK
					143	0.0758	100	35	RUM CREEK

F. Definitions

Management Terms (as of December 2021)

Green Species Survival Plan® (Green SSP) Program – A Green SSP Program has a population size of 50 or more animals and is projected to retain 90% gene diversity for a minimum of 100 years or 10 generations. Green SSP Programs are subject to AZA's Full Participation and Sustainability Partner Policies.

Yellow Species Survival Plan® (Yellow SSP) Program – A Yellow SSP Program has a population size of 50 or more animals but cannot retain 90% gene diversity for 100 years or 10 generations. Yellow SSP participation by AZA facilities is voluntary. Yellow SSP Programs are subject to AZA's Sustainability Partner Policy.

Red Species Survival Plan® (Red SSP) Program – A Red SSP Program has a population size of twenty or more animals managed among three or more participating AZA facilities. If a population does not meet these minimum criteria, but has an IUCN designation of Critically Endangered, Endangered, or Extinct in the Wild, and the TAG has developed three goals to sustain this population, then the population will be considered a Red SSP Program. Red SSPs cannot retain 90% gene diversity for 100 years or 10 generations and participation by AZA facilities is voluntary. Red SSP Programs are subject to AZA's Sustainability Partner Policy.

Candidate Program – A Candidate Program either has a population size of fewer than twenty individuals and/or found at fewer than three AZA facilities or it does not yet have a completed studbook so the population size is unclear. A Candidate Program is overseen by the TAG, with no additional AZA accountability requirements.

Sustainability Partners – AZA Animal Population Management (APM) Committee approved wildlife facilities that regularly exchange animals with AZA-accredited facilities and certified related facilities, typically as part of the Species Survival Plan® (SSP) Program Breeding and Transfer Plan or other SSP Program management process.

Full Participation – AZA policy stating that all AZA accredited facilities and certified related facilities having a Green SSP animal in their collection are required to participate in the collaborative SSP planning process (e.g., provide relevant animal data to the AZA Studbook Keeper, assign an Institutional Representative who will communicate facility wants and needs to the SSP Coordinator and comment on the draft plan during the 30-day review period, and abide by the recommendations agreed upon in the final plan).

All AZA member facilities and Animal Programs, regardless of management designation, must adhere to the AZA Policy on Responsible Population Management and the AZA Code of Professional Ethics. For more information on AZA policies, see https://www.aza.org/board-approved-policies-and-position-statements.

Currentness Date – The date when the entire studbook is updated. This equates to the first date you received an update after requesting updates from all the facilities included in your studbook.

Demographic Terms

Age Distribution – A visual representation of the numbers or percentages of individuals in various age and sex classes.

Ex, Life Expectancy – The average years of further life for an animal in age class x.

Lambda (λ) or Population Growth Rate – The proportional change in population size from one year to the next. A lambda of 1.11 means an 11% per year increase; a lambda of 0.97 means a 3% decline in size per year. The lambdas highlighted in this BTP are: 1) Life Table, from the PMx life tables, the change in the population based on the demographic regional and date window exported from the studbook, the life table lambda is the rate at which the population would be expected to grow (in the future) given the birth and death rates reported in the life tables and assuming a stable age distribution (does NOT factor in imports or exports); 2) 5-year, from the studbook census, the 5-year lambda is calculated from observed changes in population size over the last 5 years and includes births, deaths, imports and exports; and 3) Projected, from the PMx stochastic 20-year projections (includes confidence intervals), models how the population is predicted to grow or decline over the next 20 years given the birth and death rates from the life tables and the current age structure.

lx, Age-Specific Survivorship – The probability that a new individual (e.g., age 0) is alive at the *beginning* of age *x*. Alternatively, the proportion of individuals which survive from birth to the beginning of a specific age class.

Mean Generation Time (T) – The average time elapsing from reproduction in one generation to the time the next generation reproduces. Also, the average age at which a female (or male) produces offspring. It is not the age of first reproduction. Males and females often have different generation times.

Median Life Expectancy (MLE) – The 'typical' age at which an average animal is expected to live; 50% will die before the median life expectancy and 50% die after. The MLE reported in Breeding and Transfer Plans (BTPs) and Survival Stats Reports, does excludes individuals that did not survive to their first birthday. The MLE obtained from population management software (PM2000, PMx, ZooRisk) or from life tables in BTPs (e.g., where Lx = 0.5) will be lower because they include those individuals that did not survive to their first birthday in order to project the correct number of births needed. A Survival Statistics Library is maintained for most AZA Animal Programs on the AZA website: https://www.aza.org/species-survival-statistics.

Maximum Longevity – The maximum age at which we have observed a species to live. If the oldest observed animal is currently living, we do not yet know the maximum longevity.

Mx, Fecundity – The average number of same-sexed offspring born to animals in that age class. Because studbooks typically have relatively small sample sizes, studbook software calculates Mx as 1/2 the average number of offspring born to animals in that age class. This provides a somewhat less "noisy" estimate of Mx, though it does not allow for unusual sex ratios. The fecundity rates provide information on the age of first, last, and maximum reproduction.

Px, Age-Specific Survival – The probability that an individual of age *x* survives an age class; is conditional on an individual being alive at the beginning of the age class. Alternatively, the proportion of individuals that survive from the beginning of one age class to the next.

Qx, Mortality – The probability that an individual of age *x* dies during an age class (Qx = 1-Px). Alternatively, the proportion of individuals that die during an age class. It is calculated from the number of animals that die during an age class divided by the number of animals that were alive at the beginning of the age class (i.e., "at risk").

Risk (Qx or Mx) – The number of individuals that have lived during an age class. The number “at risk” is used to calculate Mx and Qx by dividing the number of births and deaths that occurred during an age class by the number of animals at risk of dying and reproducing during that age class.

Target Population Size (TPS) – The desired number of SSP animals to be held across AZA and approved partner facilities over a specific, stated timeframe. This number is determined with consideration for program roles and goals (genetic, demographic, and others), logistical constraints, spatial competition with other TAG-managed species, and other population-specific concerns. Target Population Size is determined by the Taxon Advisory Group (TAG) and published in their Regional Collection Plan (RCP).

Vx, **Reproductive Value –** The expected number of offspring produced this year and in future years by an animal of age *x*.

Genetic Terms

Allele – Alternate forms of DNA at a position in a genome (genetic locus). Alleles represent the most basic form of genetic diversity.

Gene Diversity (GD) – The probability that two alleles randomly sampled from the same genetic locus across a population are not identical by descent. Gene diversity is calculated relative to a population’s founders, which are assumed to be unrelated and not inbred, and is the proportional diversity retained by the current, descendant population.

Effective Population Size (N_e) – The size of a randomly mating population of constant size with equal sex ratio and a Poisson distribution of family sizes that would (a) result in the same mean rate of inbreeding as that observed in the population, or (b) would result in the same rate of random change in allele frequencies (genetic drift) as observed in the population. These two definitions are identical only if the population is demographically stable (because the rate of inbreeding depends on the distribution of alleles in the parental generation, whereas the rate of allele frequency drift is measured in the current generation). More specifically, PMx software uses the definition as the size of the current population that have produced offspring, assuming that there are current breeders, that these current breeders have a Poisson distribution of family sizes, that none of the current breeders are now post-reproductive, and none of the not-yet-breeding adults will breed.

Founder – An individual obtained from a source population (often the wild) that has no known relationship to any individuals in the derived population (except for its own descendants).

Founder Genome Equivalents (FGE) – The number of wild-caught individuals (founders) that represent the same amount of gene diversity as does the population under study. The gene diversity of a population is 1 - 1 / (2 * FGE).

Founder Representation – The proportion of the alleles in the living, descendant population that are derived from that founder.

Inbreeding Coefficient (F) – The probability that the two alleles present at an individual’s genetic locus are identical by descent (i.e., both alleles originated from an ancestor common to both the individual’s parents).

Mean Kinship (MK) – The mean (or average) kinship coefficient between an animal and all animals (including itself) in the living, captive-born population. An individual’s mean kinship is a measure of how well its alleles are represented within a population. Animals with low mean kinships have few relatives, are from under-represented founder lineages, and have transmitted few of their alleles to the next generation; these individuals should be prioritized for breeding to slow a population’s gene diversity loss.

Percent Known – The percentage of an animal's genome that is traceable to known founders. Thus, if an animal has an UNK sire, its % Known = 50. If it has an UNK grandparent, its % Known = 75.

Percent Certain – The percentage of the living individuals’ pedigree that can be completely identified as *certain:* (exact identity of both parents is known) and traceable back to known founders. Individuals that are 100% *certain* do not have any MULTs or UNKs in their pedigree. *Certainty* represents a higher degree of knowledge than *Known* and therefore is always less than or equal to *Known.*

G. AZA Animal Population Management (APM) Committee Disclaimers

as of June 2019

This Animal Program is currently a Signature SSP and recommendations proposed are non-binding – participation is voluntary. Transfers to non-AZA facilities must comply with each facility's acquisition/transfer policy, in accordance with the AZA Policy on Responsible Population Management. APM Committee-approved Sustainability Partners are expected to agree and abide by AZA's Code of Professional Ethics, SSP Full Participation Policy, Policy on Responsible Population Management, and Accreditation Standards related to animal care and welfare.

H. Directory of Institutional Representatives

Facility Name	Mnemonic	Contact Name (IR or Advisor)	Email
Buffalo Zoo	BUFFALO	Lisa Smith	lsmith@buffalozoo.org
Columbus Zoo and Aquarium	COLUMBUS	Adam Felts	adam.felts@columbuszoo.org
Denver Zoo	DENVER	Rachael Chappell	rchappell@denverzoo.org
El Paso Zoo	EL PASO	John Kiseda	kisedajj@elpasotexas.gov
Mesker Park Zoo & Botanic Garden	EVANSVLLE	Erik Beck	ebeck@meskerparkzoo.com
Fort Worth Zoo	FORTWORTH	Don Nevitt	dnevitt@fortworthzoo.org
Los Angeles Zoo and Botanical Gardens	LOSANGELE	Dorothy Belanger	dorothy.belanger@lacity.org
ZooTampa at Lowry Park	LOWRY	Angela Belcher	angela.belcher@zootampa.org
Zoo Miami	METROZOO	Joseph Svoke	joseph.svoke@miamidade.gov
Bronx Zoo/Wildlife Conservation Society	NY BRONX	Donna Doherty	ddoherty@wcs.org
Oklahoma City Zoo and Botanical Garden	OKLAHOMA	Rachel Emory	remory@okczoo.org
Omaha's Henry Doorly Zoo & Aquarium	OMAHA	Jack Hetherington	hoofstock@omahazoo.com
Phoenix Zoo	PHOENIX	Heather Wright	hwright@phoenixzoo.org
Center for the Conservation of Tropical Ungulates	RUM CREEK	Jeff Holland	jeffhollandcctu@gmail.com
San Francisco Zoological Gardens	SAN FRAN	Seth Clem	sethc@sfzoo.org
San Diego Zoo	SANDIEGOZ	Curby Simerson	csimerson@sdzwa.org
Central Florida Zoo & Botanical Gardens	SANFORD	Christopher Torge	christophert@centralfloridazoo.org
San Diego Zoo Safari Park	SD-WAP	Gavin Livingston	galivingston@sdzwa.org
Woodland Park Zoo	SEATTLE	Patrick Owen	pat.owen@zoo.org
Toledo Zoo & Aquarium	TOLEDO	Michael Frushour	Michael.Frushour@Toledozoo.org
Toronto Zoo	TORONTO	Brent Huffman	bhuffman@torontozoo.ca
The Wilds	WILDS	Daniel Beetem	dbeetem@thewilds.org
White Oak Conservation	YULEE	Scotty Wade	swade@white-oak.org

Exported from PMCTrack as of 30 March 2023

AZA Regional Studbook

Nile Lechwe (*Kobus megaceros*)

AZA Regional Studbook Keeper
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Photo Credit: Brent Huffman, Ultimate Ungulate

Standard Data Conventions

Studbook ID – unique number assigned to each individual in the studbook. The studbook number is a permanent number.
Birth Date – This field indicates the date of an animal's birth. There is a birth date for every individual. Please check the next column "Birth Date Est." to judge the accuracy of that date.
Birth Date Est. – Indicated if the Birth Date field is an estimate.
None = No estimation
Day = The day is estimated
Month = The month is estimated
Year = The actual birth date is within the year of the Birth Date field
Sire/Dam–
Numbers indicate the Studbook ID of the parents of the zoo born animals
WILD indicates that an animal was wild caught and its parents are unknown wild individuals
UNK indicates that the animal was zoo-born but identification of the parents is not known
MULT indicates that there are several possible parents in zoos, but the specific one could not be determined. A parental assumptions note in the Specimen Notes field is included with this parental designation to indicate which animals could be the potential parent.
Sex – male, female, unknown
Event – This field documents the movements of individual animals from the first location to the current or last known location. This includes Birth/Hatch, Transfer, Death, Go LTF (Lost to Follow up), Return from LTF, and Release. UNKNOWN indicates that the animal exists or existed, but its location cannot be reliably confirmed.
Location – This field indicates the location where the event took place.
Local ID – This is the number assigned by the institution in which the event took place. UNKNOWN indicates that either an ID was not assigned or no information exists to indicate that an ID was assigned.
Date – This field documents the date that events occurred. Each event has a date associated with it. Also, check the adjacent column (Date Est.) to determine the accuracy of this date.
Date Est. – Indicates if the adjacent Date field is an estimate.
None = No estimation
Day = The day is estimated
Month = The month is estimated
Year = The actual date is within the year of the Event Date field
House Name – This field indicates the name given to the animal at a specific location. Individuals may be given a different house name each time they move to a different location.

Living Population

51.57.0 (108) At 8 Institutions

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1336	FOSSILRIM	1625	Male	Nov 19, 2015	Alive	1127	1282	Captive Birth/Hatch	Birth/Hatch	Nov 19, 2015	W PALM BE
									Transfer	Mar 11, 2017	BATONROUG
									Transfer	Oct 12, 2019	FOSSILRIM
1539	FOSSILRIM	1627	Female	Nov 16, 2018	Alive	1319	1126	Captive Birth/Hatch	Birth/Hatch	Nov 16, 2018	YULEE
									Transfer	Oct 11, 2019	FOSSILRIM
1718	FOSSILRIM	1632	Male	Dec 25, 2021	Alive	1336	1539	Captive Birth/Hatch	Birth/Hatch	Dec 25, 2021	FOSSILRIM
1381	HEMKER TX	UNDETERMINED	Male	Oct 26, 2016	Alive	MULT9	1089	Captive Birth/Hatch	Birth/Hatch	Oct 26, 2016	SD-WAP
									Transfer	Apr 04, 2018	FORTWORTH
									Transfer	Apr 07, 2020	HEMKER TX
1588	HEMKER TX	17	Male	Jul 06, 2018	Alive	1127	1362	Captive Birth/Hatch	Birth/Hatch	Jul 06, 2018	W PALM BE
									Transfer	Mar 01, 2020	HEMKER TX
1536	HEMKER TX	694	Male	Sep 22, 2018	Alive	1319	1364	Captive Birth/Hatch	Birth/Hatch	Sep 22, 2018	YULEE
									Transfer	Nov 04, 2020	HEMKER TX
1594	HEMKER TX	16	Male	Dec 10, 2018	Alive	1127	1357	Captive Birth/Hatch	Birth/Hatch	Dec 10, 2018	W PALM BE
									Transfer	Mar 01, 2020	HEMKER TX
1548	HEMKER TX	690	Female	May 02, 2019	Alive	1319	1524	Captive Birth/Hatch	Birth/Hatch	May 02, 2019	YULEE
									Transfer	Nov 04, 2020	HEMKER TX
1608	HEMKER TX	695	Female	Oct 19, 2019	Alive	1319	1532	Captive Birth/Hatch	Birth/Hatch	Oct 19, 2019	YULEE
									Transfer	Nov 04, 2020	HEMKER TX
1635	HEMKER TX	UNDETERMINED	Female	Apr 26, 2021	Alive	1565	1578	Captive Birth/Hatch	Birth/Hatch	Apr 26, 2021	SD-WAP
									Transfer	Jun 08, 2022	HEMKER TX
1716	HEMKER TX	Indeterminate	Female	Nov 02, 2021	Alive	1519	1548	Captive Birth/Hatch	Birth/Hatch	Nov 02, 2021	HEMKER TX
1717	HEMKER TX	Indeterminate	Male	Jan 15, 2022	Alive	1519	1608	Captive Birth/Hatch	Birth/Hatch	Jan 15, 2022	HEMKER TX
1609	MONTGOMRY	4365	Male	Oct 30, 2019	Alive	1319	1298	Captive Birth/Hatch	Birth/Hatch	Oct 30, 2019	YULEE
									Transfer	May 05, 2022	MONTGOMRY
1612	MONTGOMRY	4363	Male	Nov 08, 2019	Alive	1319	1327	Captive Birth/Hatch	Birth/Hatch	Nov 08, 2019	YULEE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	May 05, 2022	MONTGOMRY
1614	MONTGOMRY	4364	Male	Nov 24, 2019	Alive	1319	1325	Captive Birth/Hatch	Birth/Hatch	Nov 24, 2019	YULEE
									Transfer	May 05, 2022	MONTGOMRY
1617	MONTGOMRY	4366	Male	Dec 05, 2019	Alive	1319	1526	Captive Birth/Hatch	Birth/Hatch	Dec 05, 2019	YULEE
									Transfer	May 05, 2022	MONTGOMRY
1714	SD-WAP	UNK	Male	Feb 18, 1979	Alive	DRAFT 94	DRAFT 93	Captive Birth/Hatch	Birth/Hatch	Feb 18, 1979	HANNOVER
									Transfer	Apr 18, 1980	SD-WAP
1269	SD-WAP	0611406	Female	Nov 21, 2011	Alive	1094	1089	Captive Birth/Hatch	Birth/Hatch	Nov 21, 2011	SD-WAP
1344	SD-WAP	615022	Female	Jan 21, 2015	Alive	1094	1092	Captive Birth/Hatch	Birth/Hatch	Jan 21, 2015	SD-WAP
1347	SD-WAP	615075	Female	Mar 24, 2015	Alive	1094	1088	Captive Birth/Hatch	Birth/Hatch	Mar 24, 2015	SD-WAP
1374	SD-WAP	615582	Male	Dec 30, 2015	Alive	1094	1276	Captive Birth/Hatch	Birth/Hatch	Dec 30, 2015	SD-WAP
1375	SD-WAP	616001	Male	Jan 07, 2016	Alive	UND	1088	Captive Birth/Hatch	Birth/Hatch	Jan 07, 2016	SD-WAP
1379	SD-WAP	616289	Female	May 29, 2016	Alive	1094	1344	Captive Birth/Hatch	Birth/Hatch	May 29, 2016	SD-WAP
1565	SD-WAP	618141	Male	Dec 05, 2016	Alive	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 05, 2016	RUM CREEK
									Transfer	Apr 19, 2018	SD-WAP
1558	SD-WAP	617641	Female	Nov 17, 2017	Alive	1342	1347	Captive Birth/Hatch	Birth/Hatch	Nov 17, 2017	SD-WAP
1559	SD-WAP	617646	Male	Nov 22, 2017	Alive	1342	1276	Captive Birth/Hatch	Birth/Hatch	Nov 22, 2017	SD-WAP
1569	SD-WAP	618232	Female	Jun 16, 2018	Alive	1342	1081	Captive Birth/Hatch	Birth/Hatch	Jun 16, 2018	SD-WAP
1570	SD-WAP	618291	Female	Jul 25, 2018	Alive	1342	1092	Captive Birth/Hatch	Birth/Hatch	Jul 25, 2018	SD-WAP
1576	SD-WAP	4000296	Female	Apr 18, 2019	Alive	MULT1	1379	Captive Birth/Hatch	Birth/Hatch	Apr 18, 2019	SD-WAP
1577	SD-WAP	4000363	Female	Apr 30, 2019	Alive	MULT1	1081	Captive Birth/Hatch	Birth/Hatch	Apr 30, 2019	SD-WAP
1578	SD-WAP	4000691	Female	Jul 05, 2019	Alive	MULT2	1092	Captive Birth/Hatch	Birth/Hatch	Jul 05, 2019	SD-WAP
1580	SD-WAP	4001040	Female	Sep 02, 2019	Alive	MULT2	1551	Captive Birth/Hatch	Birth/Hatch	Sep 02, 2019	SD-WAP
1607	SD-WAP	4001179	Female	Oct 28, 2019	Alive	MULT2	1347	Captive Birth/Hatch	Birth/Hatch	Oct 28, 2019	SD-WAP
1619	SD-WAP	4001490	Female	Dec 30, 2019	Alive	1374	1376	Captive Birth/Hatch	Birth/Hatch	Dec 30, 2019	SD-WAP
1631	SD-WAP	4001830	Female	Apr 15, 2020	Alive	1565	1569	Captive Birth/Hatch	Birth/Hatch	Apr 15, 2020	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1630	SD-WAP	4001835	Female	Apr 17, 2020	Alive	1565	1558	Captive Birth/Hatch	Birth/Hatch	Apr 17, 2020	SD-WAP
1628	SD-WAP	4001870	Male	Apr 28, 2020	Alive	1565	1562	Captive Birth/Hatch	Birth/Hatch	Apr 28, 2020	SD-WAP
1626	SD-WAP	4002064	Female	Jul 07, 2020	Alive	1565	1100	Captive Birth/Hatch	Birth/Hatch	Jul 07, 2020	SD-WAP
1625	SD-WAP	4002362	Female	Oct 03, 2020	Alive	1565	1376	Captive Birth/Hatch	Birth/Hatch	Oct 03, 2020	SD-WAP
1624	SD-WAP	4002469	Male	Dec 17, 2020	Alive	1565	1577	Captive Birth/Hatch	Birth/Hatch	Dec 17, 2020	SD-WAP
1623	SD-WAP	4003030	Male	Mar 29, 2021	Alive	1565	1580	Captive Birth/Hatch	Birth/Hatch	Mar 29, 2021	SD-WAP
1636	SD-WAP	4003179	Male	Apr 21, 2021	Alive	1565	1569	Captive Birth/Hatch	Birth/Hatch	Apr 21, 2021	SD-WAP
1660	SD-WAP	4003219	Male	May 01, 2021	Alive	1565	1379	Captive Birth/Hatch	Birth/Hatch	May 01, 2021	SD-WAP
1659	SD-WAP	4003250	Male	May 05, 2021	Alive	1565	1558	Captive Birth/Hatch	Birth/Hatch	May 05, 2021	SD-WAP
1657	SD-WAP	4003275	Female	May 11, 2021	Alive	1565	1570	Captive Birth/Hatch	Birth/Hatch	May 11, 2021	SD-WAP
1661	SD-WAP	4003675	Male	Nov 11, 2021	Alive	1565	1577	Captive Birth/Hatch	Birth/Hatch	Nov 11, 2021	SD-WAP
1675	SD-WAP	4003788	Male	Mar 07, 2022	Alive	1565	1569	Captive Birth/Hatch	Birth/Hatch	Mar 07, 2022	SD-WAP
1674	SD-WAP	4003793	Male	Mar 08, 2022	Alive	1565	1607	Captive Birth/Hatch	Birth/Hatch	Mar 08, 2022	SD-WAP
1673	SD-WAP	4003808	Male	Mar 11, 2022	Alive	1565	1580	Captive Birth/Hatch	Birth/Hatch	Mar 11, 2022	SD-WAP
1672	SD-WAP	4003825	Male	Mar 18, 2022	Alive	1565	1569	Captive Birth/Hatch	Birth/Hatch	Mar 18, 2022	SD-WAP
1671	SD-WAP	4003827	Female	Mar 19, 2022	Alive	1565	1619	Captive Birth/Hatch	Birth/Hatch	Mar 19, 2022	SD-WAP
1670	SD-WAP	4003955	Male	Mar 24, 2022	Alive	1565	1625	Captive Birth/Hatch	Birth/Hatch	Mar 24, 2022	SD-WAP
1668	SD-WAP	4004057	Male	Apr 10, 2022	Alive	1565	1626	Captive Birth/Hatch	Birth/Hatch	Apr 10, 2022	SD-WAP
1666	SD-WAP	4004138	Male	~ from Apr 25, 2022 to Apr 26, 2022	Alive	1565	1631	Captive Birth/Hatch	Birth/Hatch	~ from Apr 25, 2022 to Apr 26, 2022	SD-WAP
1665	SD-WAP	4004134	Female	Apr 26, 2022	Alive	1565	1570	Captive Birth/Hatch	Birth/Hatch	Apr 26, 2022	SD-WAP
1664	SD-WAP	4004137	Female	Apr 27, 2022	Alive	1565	1576	Captive Birth/Hatch	Birth/Hatch	Apr 27, 2022	SD-WAP
1690	SD-WAP	4004294	Female	May 21, 2022	Alive	1565	1376	Captive Birth/Hatch	Birth/Hatch	May 21, 2022	SD-WAP
1695	SD-WAP	4004621	Female	Aug 14, 2022	Alive	1565	1577	Captive Birth/Hatch	Birth/Hatch	Aug 14, 2022	SD-WAP
1348	ST LOUIS	UNDETERMINED	Male	Nov 05, 2015	Alive	1094	1092	Captive Birth/Hatch	Birth/Hatch	Nov 05, 2015	SD-WAP
									Transfer	Apr 25, 2022	ST LOUIS

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1127	W PALM BE	M11222	Male	Dec 02, 2010	Alive	977	1118	Captive Birth/Hatch	Birth/Hatch	Dec 02, 2010	YULEE
									Transfer	Dec 15, 2011	W PALM BE
1581	W PALM BE	M17064	Female	Apr 26, 2014 +/- 3 month	Alive	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 26, 2014 +/- 3 month	RUM CREEK
									Transfer	Apr 26, 2017	W PALM BE
1582	W PALM BE	M17065	Female	Apr 26, 2014 +/- 3 month	Alive	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 26, 2014 +/- 3 month	RUM CREEK
									Transfer	Apr 26, 2017	W PALM BE
1360	W PALM BE	M16276	Female	Nov 07, 2016	Alive	MULT7	MULT8	Captive Birth/Hatch	Birth/Hatch	Nov 07, 2016	W PALM BE
1591	W PALM BE	M18233	Female	Nov 19, 2018	Alive	1127	1582	Captive Birth/Hatch	Birth/Hatch	Nov 19, 2018	W PALM BE
1595	W PALM BE	M19126	Female	May 15, 2019	Alive	1127	1587	Captive Birth/Hatch	Birth/Hatch	May 15, 2019	W PALM BE
1596	W PALM BE	M19136	Female	Jun 29, 2019	Alive	1127	1362	Captive Birth/Hatch	Birth/Hatch	Jun 29, 2019	W PALM BE
1605	W PALM BE	M19178	Female	Nov 14, 2019	Alive	1127	1582	Captive Birth/Hatch	Birth/Hatch	Nov 14, 2019	W PALM BE
1618	W PALM BE	M21004	Male	Dec 10, 2019	Alive	1319	1370	Captive Birth/Hatch	Birth/Hatch	Dec 10, 2019	YULEE
									Transfer	Jan 16, 2021	W PALM BE
1641	W PALM BE	M20024	Female	Mar 21, 2020	Alive	1127	1593	Captive Birth/Hatch	Birth/Hatch	Mar 21, 2020	W PALM BE
1640	W PALM BE	M20025	Female	Apr 11, 2020	Alive	1127	1362	Captive Birth/Hatch	Birth/Hatch	Apr 11, 2020	W PALM BE
1639	W PALM BE	M20060	Female	Oct 30, 2020	Alive	1127	1582	Captive Birth/Hatch	Birth/Hatch	Oct 30, 2020	W PALM BE
1637	W PALM BE	M20067	Female	~ from Dec 09, 2020 to Dec 10, 2020	Alive	1127	1596	Captive Birth/Hatch	Birth/Hatch	~ from Dec 09, 2020 to Dec 10, 2020	W PALM BE
1677	W PALM BE	M22010	Female	Feb 14, 2022	Alive	1618	1593	Captive Birth/Hatch	Birth/Hatch	Feb 14, 2022	W PALM BE
1676	W PALM BE	M22012	Female	Feb 19, 2022	Alive	1618	1589	Captive Birth/Hatch	Birth/Hatch	Feb 19, 2022	W PALM BE
1373	WILD WRLD	11332	Male	Dec 28, 2015	Alive	1094	1081	Captive Birth/Hatch	Birth/Hatch	Dec 28, 2015	SD-WAP
									Transfer	Jan 20, 2018	WILD WRLD
1383	WILD WRLD	11333	Female	Oct 28, 2016	Alive	MULT9	1092	Captive Birth/Hatch	Birth/Hatch	Oct 28, 2016	SD-WAP
									Transfer	Jan 20, 2018	WILD WRLD
1552	WILD WRLD	11334	Female	Feb 14, 2017	Alive	1318	1100	Captive Birth/Hatch	Birth/Hatch	Feb 14, 2017	SD-WAP
									Transfer	Jan 20, 2018	WILD WRLD
1288	YULEE	114045	Female	Dec 10, 2011	Alive	977	823	Captive Birth/Hatch	Birth/Hatch	Dec 10, 2011	YULEE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1298	YULEE	134050	Female	Oct 06, 2013	Alive	977	834	Captive Birth/Hatch	Birth/Hatch	Oct 06, 2013	YULEE
1323	YULEE	144001	Female	Jan 01, 2014	Alive	977	1288	Captive Birth/Hatch	Birth/Hatch	Jan 01, 2014	YULEE
1325	YULEE	144017	Female	Apr 12, 2014	Alive	977	1095	Captive Birth/Hatch	Birth/Hatch	Apr 12, 2014	YULEE
1327	YULEE	144041	Female	Nov 18, 2014	Alive	977	1118	Captive Birth/Hatch	Birth/Hatch	Nov 18, 2014	YULEE
1319	YULEE	174304	Male	Mar 14, 2015	Alive	899	913	Captive Birth/Hatch	Birth/Hatch	Mar 14, 2015	BATONROUG
									Transfer	Apr 17, 2017	YULEE
1364	YULEE	164061	Female	Oct 29, 2016	Alive	1333	1118	Captive Birth/Hatch	Birth/Hatch	Oct 29, 2016	YULEE
1368	YULEE	164067	Female	Nov 04, 2016	Alive	1333	922	Captive Birth/Hatch	Birth/Hatch	Nov 04, 2016	YULEE
1370	YULEE	164078	Female	Nov 19, 2016	Alive	1333	1323	Captive Birth/Hatch	Birth/Hatch	Nov 19, 2016	YULEE
1524	YULEE	164088	Female	Dec 06, 2016	Alive	1333	1291	Captive Birth/Hatch	Birth/Hatch	Dec 06, 2016	YULEE
1542	YULEE	184069	Male	Dec 05, 2018	Alive	1319	1288	Captive Birth/Hatch	Birth/Hatch	Dec 05, 2018	YULEE
1543	YULEE	184070	Male	Dec 06, 2018	Alive	1319	1291	Captive Birth/Hatch	Birth/Hatch	Dec 06, 2018	YULEE
1544	YULEE	184071	Male	Dec 10, 2018	Alive	1319	1325	Captive Birth/Hatch	Birth/Hatch	Dec 10, 2018	YULEE
1547	YULEE	194013	Male	Apr 15, 2019	Alive	1319	1368	Captive Birth/Hatch	Birth/Hatch	Apr 15, 2019	YULEE
1610	YULEE	194053	Male	Nov 05, 2019	Alive	1319	1291	Captive Birth/Hatch	Birth/Hatch	Nov 05, 2019	YULEE
1616	YULEE	194061	Male	Dec 01, 2019	Alive	1319	1288	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2019	YULEE
1642	YULEE	204005	Male	Jan 24, 2020	Alive	1319	1126	Captive Birth/Hatch	Birth/Hatch	Jan 24, 2020	YULEE
1650	YULEE	214031	Female	Jul 12, 2021	Alive	1319	1288	Captive Birth/Hatch	Birth/Hatch	Jul 12, 2021	YULEE
1648	YULEE	214029	Male	Jul 12, 2021	Alive	1319	1327	Captive Birth/Hatch	Birth/Hatch	Jul 12, 2021	YULEE
1651	YULEE	214032	Female	Jul 12, 2021	Alive	1319	1298	Captive Birth/Hatch	Birth/Hatch	Jul 12, 2021	YULEE
1649	YULEE	214030	Male	Jul 12, 2021	Alive	1319	1524	Captive Birth/Hatch	Birth/Hatch	Jul 12, 2021	YULEE
1646	YULEE	214033	Female	Jul 20, 2021	Alive	1319	1325	Captive Birth/Hatch	Birth/Hatch	Jul 20, 2021	YULEE
1645	YULEE	214035	Male	Jul 23, 2021	Alive	1319	1323	Captive Birth/Hatch	Birth/Hatch	Jul 23, 2021	YULEE
1644	YULEE	214041	Male	Aug 08, 2021	Alive	1319	1364	Captive Birth/Hatch	Birth/Hatch	Aug 08, 2021	YULEE
1667	YULEE	224026	Male	Apr 13, 2022	Alive	1319	1524	Captive Birth/Hatch	Birth/Hatch	Apr 13, 2022	YULEE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1663	YULEE	224029	Female	May 10, 2022	Alive	1319	1327	Captive Birth/Hatch	Birth/Hatch	May 10, 2022	YULEE
1715	YULEE	224031	Male	May 16, 2022	Alive	1319	1370	Captive Birth/Hatch	Birth/Hatch	May 16, 2022	YULEE
1694	YULEE	224033	Male	May 20, 2022	Alive	1319	1364	Captive Birth/Hatch	Birth/Hatch	May 20, 2022	YULEE
1693	YULEE	224034	Female	May 21, 2022	Alive	1319	1323	Captive Birth/Hatch	Birth/Hatch	May 21, 2022	YULEE
1692	YULEE	224035	Male	May 23, 2022	Alive	1319	1368	Captive Birth/Hatch	Birth/Hatch	May 23, 2022	YULEE
1691	YULEE	224038	Male	May 25, 2022	Alive	1319	1325	Captive Birth/Hatch	Birth/Hatch	May 25, 2022	YULEE

Historical Population

740.738.121 (1599)

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1	NZP-WASH	32725B	Female	Undetermined	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Undetermined	WILD
									Wild Capture	Undetermined	WILD
									Transfer	Undetermined	V.D.BRINK
									Transfer	Feb 23, 1968	NZP-WASH
									Death	Aug 04, 1970	NZP-WASH
2	OMAHA	215	Male	Jul 01, 1962	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Jul 01, 1962	WILD
									Wild Capture	Jul 01, 1962	WILD
									Transfer	Jan 01, 1964 +/- 2 year	SOEST
									Transfer	Aug 06, 1966	OMAHA
									Death	Feb 25, 1974	OMAHA
3	OMAHA	276	Female	Mar 01, 1964	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Mar 01, 1964	E.AFRICA
									Wild Capture	Mar 01, 1964	E.AFRICA
									Transfer	Mar 01, 1964	DIRE UNIV
									Transfer	Jan 01, 1965 +/- 1 year	ZEEHANDLR
									Transfer	Sep 23, 1966	OMAHA
									Death	Nov 22, 1982	OMAHA
4	OMAHA	275	Male	Sep 01, 1964 +/- 6 month	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Sep 01, 1964 +/- 6 month	WILD
									Wild Capture	Sep 01, 1964 +/- 6 month	WILD
									Transfer	Jan 01, 1965 +/- 1 year	ZEEHANDLR
									Transfer	Sep 23, 1966	OMAHA
									Death	Jan 07, 1974	OMAHA
5	OMAHA	116	Female	Nov 01, 1964	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Nov 01, 1964	E.AFRICA
									Wild Capture	Nov 01, 1964	E.AFRICA
									Transfer	Nov 01, 1964	DIRE UNIV
									Transfer	Jan 01, 1965 +/- 6 month	SOEST
									Transfer	Dec 03, 1965	OMAHA

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Nov 22, 1982	OMAHA
6	SANDIEGOZ	004479	Male	Jan 01, 1965 +/- 6 month	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Jan 01, 1965 +/- 6 month	WILD
									Wild Capture	Jan 01, 1965 +/- 6 month	WILD
									Transfer	Undetermined	SOEST
									Transfer	Undetermined	UNDETERMI
									Transfer	Aug 05, 1966	SANDIEGOZ
									Death	Jul 10, 1969	SANDIEGOZ
7	SANDIEGOZ	004480	Female	Jan 01, 1965 +/- 6 month	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Jan 01, 1965 +/- 6 month	WILD
									Wild Capture	Jan 01, 1965 +/- 6 month	WILD
									Transfer	Undetermined	SOEST
									Transfer	Undetermined	UNDETERMI
									Transfer	Aug 05, 1966	SANDIEGOZ
									Death	Jul 24, 1969	SANDIEGOZ
8	LOSANGELE	08442	Female	Jan 01, 1966 +/- 6 month	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Jan 01, 1966 +/- 6 month	Undetermined
									Wild Capture	Jan 01, 1966 +/- 6 month	Undetermined
									Transfer	Jan 01, 1966 +/- 6 month	ALGIERS
									Transfer	Jan 01, 1967 +/- 6 month	CHICAGOBR
									Transfer	Sep 28, 1971	FRANKLINP
									Transfer	Apr 27, 1976	LOSANGELE
									Death	Jan 04, 1984	LOSANGELE
9	DALLAS	001195	Male	Oct 23, 1966 +/- 6 month	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Oct 23, 1966 +/- 6 month	WILD
									Wild Capture	Oct 23, 1966 +/- 6 month	WILD
									Transfer	Jan 01, 1967 +/- 1 year	SOEST
									Transfer	Feb 23, 1968	NZP-WASH
									Transfer	Mar 23, 1972	DALLAS
									Death	Jan 09, 1981	DALLAS
10	SAN ANTON	690513	Male	Jan 01, 1967 +/- 6 month	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Jan 01, 1967 +/- 6 month	WILD
									Wild Capture	Jan 01, 1967 +/- 6 month	WILD
									Transfer	Jan 01, 1967 +/- 6 month	GERMANY: Invalid use of GeoRef

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	May 02, 1969	SAN ANTON
									Death	Dec 24, 1976	SAN ANTON
11	SAN ANTON	690514	Female	Jan 01, 1967 +/- 6 month	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Jan 01, 1967 +/- 6 month	WILD
									Wild Capture	Jan 01, 1967 +/- 6 month	WILD
									Transfer	Jan 01, 1967 +/- 6 month	GERMANY: Invalid use of GeoRef
									Transfer	May 02, 1969	SAN ANTON
									Death	May 31, 1973	SAN ANTON
12	NZP-WASH	32725C	Female	Undetermined	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Undetermined	WILD
									Wild Capture	Undetermined	WILD
									Transfer	Undetermined	V.D.BRINK
									Transfer	Feb 23, 1968	NZP-WASH
									Death	Aug 09, 1970	NZP-WASH
13	SANDIEGOZ	004481	Male	Oct 23, 1967	Dead	6	7	Captive Birth/Hatch	Birth/Hatch	Oct 23, 1967	SANDIEGOZ
									Death	Nov 28, 1967	SANDIEGOZ
14	NZP-WASH	32725D	Female	Jan 15, 1968	Dead	UND	1	Captive Birth/Hatch	Birth/Hatch	Jan 15, 1968	NZP-WASH
									Death	Aug 11, 1970	NZP-WASH
15	NZP-WASH	32747	Female	Mar 03, 1968	Dead	UND	12	Captive Birth/Hatch	Birth/Hatch	Mar 03, 1968	NZP-WASH
									Death	Mar 03, 1968	NZP-WASH
16	OMAHA	564	Male	Sep 03, 1968	Dead	2	3	Captive Birth/Hatch	Birth/Hatch	Sep 03, 1968	OMAHA
									Death	Jul 30, 1969	OMAHA
17	SANDIEGOZ	004482	Male	Oct 16, 1968	Dead	6	7	Captive Birth/Hatch	Birth/Hatch	Oct 16, 1968	SANDIEGOZ
									Death	Oct 16, 1968	SANDIEGOZ
18	NZP-WASH	33816	Female	Mar 30, 1969	Dead	UND	12	Captive Birth/Hatch	Birth/Hatch	Mar 30, 1969	NZP-WASH
									Death	Mar 30, 1969	NZP-WASH
19	NZP-WASH	34658	Undetermined	Jul 25, 1969	Dead	UND	1	Captive Birth/Hatch	Birth/Hatch	Jul 25, 1969	NZP-WASH
									Death	Jul 25, 1969	NZP-WASH
20	OMAHA	693	Female	Sep 01, 1969	Dead	2	3	Captive Birth/Hatch	Birth/Hatch	Sep 01, 1969	OMAHA
									Death	Sep 06, 1980	OMAHA
21	DALLAS	001166	Female	Sep 20, 1969 +/- 6 month	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Sep 20, 1969 +/- 6 month	WILD

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Wild Capture	Sep 20, 1969 +/- 6 month	WILD
									Transfer	Sep 20, 1969	HANNOVER
									Transfer	Jan 01, 1970 +/- 6 month	ZEEHANDLR
									Transfer	Dec 01, 1970	DALLAS
									Death	Nov 27, 1985	DALLAS
22	NZP-WASH	35179	Undetermined	Feb 22, 1970	Dead	UND	14	Captive Birth/Hatch	Birth/Hatch	Feb 22, 1970	NZP-WASH
									Death	Feb 22, 1970	NZP-WASH
23	NZP-WASH	35257	Male	Apr 03, 1970	Dead	UND	12	Captive Birth/Hatch	Birth/Hatch	Apr 03, 1970	NZP-WASH
									Death	Apr 05, 1970	NZP-WASH
24	NZP-WASH	35482	Male	May 23, 1970	Dead	UND	1	Captive Birth/Hatch	Birth/Hatch	May 23, 1970	NZP-WASH
									Death	Aug 09, 1970	NZP-WASH
25	SAN ANTON	700614	Male	Jun 06, 1970	Dead	10	11	Captive Birth/Hatch	Birth/Hatch	Jun 06, 1970	SAN ANTON
									Death	Jun 07, 1970	SAN ANTON
26	OMAHA	942	Female	Oct 17, 1970	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 17, 1970	OMAHA
									Death	Jul 09, 1973	OMAHA
27	SAN ANTON	722056	Female	Jan 01, 1970 +/- 6 month	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Jan 01, 1970 +/- 6 month	WILD
									Wild Capture	Jan 01, 1970 +/- 6 month	WILD
									Transfer	Jan 01, 1970 +/- 6 month	GERMANY: Invalid use of GeoRef
									Transfer	Jan 01, 1972 +/- 6 month	ZEEHANDLR
									Transfer	Oct 31, 1972	SAN ANTON
									Death	Sep 15, 1981	SAN ANTON
28	SAN ANTON	710310	Female	Mar 13, 1971	Dead	10	11	Captive Birth/Hatch	Birth/Hatch	Mar 13, 1971	SAN ANTON
									Death	Jul 25, 1978	SAN ANTON
29	SAN ANTON	720306	Female	Mar 12, 1972	Dead	10	11	Captive Birth/Hatch	Birth/Hatch	Mar 12, 1972	SAN ANTON
									Death	Jun 20, 1983	SAN ANTON
30	OMAHA	1326	Female	Apr 27, 1972	Dead	2	3	Captive Birth/Hatch	Birth/Hatch	Apr 27, 1972	OMAHA
									Death	Feb 22, 1983	OMAHA
31	OMAHA	1327	Female	Apr 27, 1972	Dead	2	5	Captive Birth/Hatch	Birth/Hatch	Apr 27, 1972	OMAHA
									Death	Nov 14, 1986	OMAHA

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
32	OMAHA	1383	Female	May 09, 1972	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	May 09, 1972	OMAHA
									Death	Mar 05, 1973	OMAHA
33	OMAHA	1606	Female	Sep 04, 1972	Dead	UND	26	Captive Birth/Hatch	Birth/Hatch	Sep 04, 1972	OMAHA
									Death	Sep 05, 1972	OMAHA
34	SAN ANTON	730301	Female	Mar 01, 1973	Dead	10	28	Captive Birth/Hatch	Birth/Hatch	Mar 01, 1973	SAN ANTON
									Death	Dec 08, 1976	SAN ANTON
35	BATONROUG	M157	Female	Apr 16, 1973	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 16, 1973	OMAHA
									Transfer	Jul 01, 1973 +/- 15 day	BRADENTON
									Transfer	Jul 23, 1973	BATONROUG
									Transfer	Aug 16, 1974	OMAHA
									Transfer	Nov 24, 1976	BATONROUG
									Death	Oct 31, 1979	BATONROUG
36	OMAHA	1698	Female	Apr 16, 1973	Dead	2	5	Captive Birth/Hatch	Birth/Hatch	Apr 16, 1973	OMAHA
									Death	Mar 03, 1988	OMAHA
37	OMAHA	1431	Female	Apr 21, 1973	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 21, 1973	OMAHA
									Death	May 04, 1973	OMAHA
38	METROZOO	M00075	Male	Apr 29, 1973	Dead	MULT3	MULT4	Captive Birth/Hatch	Birth/Hatch	Apr 29, 1973	OMAHA
									Transfer	Jul 23, 1973	BATONROUG
									Transfer	Aug 16, 1974	OMAHA
									Transfer	Nov 24, 1976	BATONROUG
									Transfer	Nov 30, 1982	METROZOO
									Death	Sep 04, 1987	METROZOO
39	SAN ANTON	730588	Female	May 31, 1973	Dead	10	11	Captive Birth/Hatch	Birth/Hatch	May 31, 1973	SAN ANTON
									Death	May 31, 1973	SAN ANTON
40	DALLAS	001269	Female	Oct 14, 1973	Dead	9	21	Captive Birth/Hatch	Birth/Hatch	Oct 14, 1973	DALLAS
									Death	Jul 20, 1978	DALLAS
41	DALLAS	000F43	Male	Nov 13, 1969	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 13, 1969	HANNOVER
									Transfer	Aug 05, 1970	ZEEHANDLR
									Transfer	Dec 01, 1970	DALLAS
									Death	Nov 08, 1971	DALLAS
42	DALLAS	000F44	Male	Jan 03, 1973	Dead	9	21	Captive Birth/Hatch	Birth/Hatch	Jan 03, 1973	DALLAS

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Jan 03, 1973	DALLAS
60	SD-WAP	102549	Male	Jan 01, 1974	Dead	MULT3	MULT4	Captive Birth/Hatch	Birth/Hatch	Jan 01, 1974	OMAHA
									Transfer	Dec 31, 1974 +/- 4 year	HOLIDAY
									Transfer	Feb 27, 1978	SD-WAP
									Death	Jul 25, 1984	SD-WAP
61	SAN ANTON	740105	Female	Jan 04, 1974	Dead	10	28	Captive Birth/Hatch	Birth/Hatch	Jan 04, 1974	SAN ANTON
									Death	Nov 05, 1978	SAN ANTON
62	SAN ANTON	740302	Male	Mar 02, 1974	Dead	10	29	Captive Birth/Hatch	Birth/Hatch	Mar 02, 1974	SAN ANTON
									Death	Mar 02, 1974	SAN ANTON
63	SAN ANTON	740438	Male	Apr 13, 1974	Dead	10	27	Captive Birth/Hatch	Birth/Hatch	Apr 13, 1974	SAN ANTON
									Death	Feb 22, 1988	SAN ANTON
64	LOSANGELE	08369	Male	Apr 23, 1974	Dead	4	UND	Captive Birth/Hatch	Birth/Hatch	Apr 23, 1974	OMAHA
									Transfer	Feb 16, 1976	ANIMALES
									Transfer	Feb 20, 1976	LOSANGELE
									Death	Dec 10, 1983	LOSANGELE
65	OMAHA	1926	Male	Apr 23, 1974	Dead	4	UND	Captive Birth/Hatch	Birth/Hatch	Apr 23, 1974	OMAHA
									Death	Feb 03, 1983	OMAHA
66	OMAHA	1959	Female	May 20, 1974	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	May 20, 1974	OMAHA
									Death	May 20, 1974	OMAHA
67	OMAHA	1965	Male	May 29, 1974	Dead	4	MULT4	Captive Birth/Hatch	Birth/Hatch	May 29, 1974	OMAHA
									Death	Dec 21, 1983	OMAHA
68	PATIO RCH	_____	Male	Dec 13, 1974	Undetermined (Lost to follow up)	10	29	Captive Birth/Hatch	Birth/Hatch	Dec 13, 1974	SAN ANTON
									Transfer	Aug 29, 1975	PATIO RCH
									GO LTF	Aug 29, 1975	PATIO RCH
69	PATIO RCH	_____	Male	Dec 17, 1974	Undetermined (Lost to follow up)	10	28	Captive Birth/Hatch	Birth/Hatch	Dec 17, 1974	SAN ANTON
									Transfer	Nov 17, 1975	PATIO RCH
									GO LTF	Nov 17, 1975	PATIO RCH
70	SD-WAP	102550	Female	Jan 01, 1975	Dead	MULT3	MULT4	Captive Birth/Hatch	Birth/Hatch	Jan 01, 1975	OMAHA
									Transfer	Jan 01, 1975 +/- 3 year	HOLIDAY

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Feb 27, 1978	SD-WAP
									Death	Oct 31, 1991	SD-WAP
71	SAN ANTON	750164	Male	Jan 27, 1975	Dead	10	27	Captive Birth/Hatch	Birth/Hatch	Jan 27, 1975	SAN ANTON
									Death	Mar 04, 1976	SAN ANTON
72	SAN ANTON	750301	Male	Mar 01, 1975	Dead	10	34	Captive Birth/Hatch	Birth/Hatch	Mar 01, 1975	SAN ANTON
									Death	Mar 03, 1975	SAN ANTON
73	LOSANGELE	08370	Female	May 18, 1975	Dead	9	40	Captive Birth/Hatch	Birth/Hatch	May 18, 1975	DALLAS
									Transfer	Feb 18, 1976	ANIMALES
									Transfer	Feb 20, 1976	LOSANGELE
									Death	Oct 18, 1986	LOSANGELE
74	HOLIDAY	_____	Male	Aug 02, 1975	Undetermined (Lost to follow up)	38	UND	Captive Birth/Hatch	Birth/Hatch	Aug 02, 1975	OMAHA
									Transfer	Nov 20, 1976	BATONROUG
									Transfer	Dec 19, 1976	HOLIDAY
									GO LTF	Dec 19, 1976	HOLIDAY
75	HOLIDAY	_____	Female	Aug 18, 1975	Undetermined (Lost to follow up)	38	MULT4	Captive Birth/Hatch	Birth/Hatch	Aug 18, 1975	OMAHA
									Transfer	Nov 20, 1976	BATONROUG
									Transfer	Dec 19, 1976	HOLIDAY
									GO LTF	Dec 19, 1976	HOLIDAY
76	SAN ANTON	770234	Female	Aug 25, 1975	Dead	9	21	Captive Birth/Hatch	Birth/Hatch	Aug 25, 1975	DALLAS
									Transfer	Feb 14, 1977	ANIMALES
									Transfer	Feb 15, 1977	SAN ANTON
									Death	Feb 17, 1977	SAN ANTON
77	OMAHA	2588	Male	Nov 10, 1975	Dead	10	27	Captive Birth/Hatch	Birth/Hatch	Nov 10, 1975	SAN ANTON
									Transfer	Jul 19, 1976	ANIMALES
									Transfer	Jul 21, 1976	OMAHA
									Death	Dec 20, 1983	OMAHA
78	SAN ANTON	760103	Female	Jan 06, 1976	Dead	10	34	Captive Birth/Hatch	Birth/Hatch	Jan 06, 1976	SAN ANTON
									Death	Sep 12, 1981	SAN ANTON
79	OMAHA	2447	Male	Jan 10, 1976	Dead	38	UND	Captive Birth/Hatch	Birth/Hatch	Jan 10, 1976	OMAHA
									Death	Jan 10, 1976	OMAHA

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
80	OMAHA	2449	Male	Jan 12, 1976	Dead	38	UND	Captive Birth/Hatch	Birth/Hatch	Jan 12, 1976	OMAHA
									Death	Jan 12, 1976	OMAHA
81	SAN ANTON	760242	Female	Feb 26, 1976	Dead	10	28	Captive Birth/Hatch	Birth/Hatch	Feb 26, 1976	SAN ANTON
									Death	Jul 31, 1977	SAN ANTON
82	SAN ANTON	770233	Male	Feb 28, 1976	Dead	9	40	Captive Birth/Hatch	Birth/Hatch	Feb 28, 1976	DALLAS
									Transfer	Feb 14, 1977	ANIMALES
									Transfer	Feb 15, 1977	SAN ANTON
									Death	Nov 21, 1985	SAN ANTON
83	SAN ANTON	760383	Female	Mar 25, 1976	Dead	10	61	Captive Birth/Hatch	Birth/Hatch	Mar 25, 1976	SAN ANTON
									Death	Mar 25, 1976	SAN ANTON
84	OMAHA	2505	Female	Apr 09, 1976	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 09, 1976	OMAHA
									Death	Apr 13, 1976	OMAHA
85	BATONROUG	M424	Female	May 17, 1976 +/- 6 month	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	May 17, 1976 +/- 6 month	WILD
									Wild Capture	May 17, 1976 +/- 6 month	WILD
									Transfer	May 17, 1976	HANNOVER
									Transfer	Jan 01, 1977 +/- 6 month	ZEEHANDLR
									Transfer	Nov 20, 1977	BATONROUG
									Death	Sep 27, 1980	BATONROUG
86	OMAHA	2590	Male	Jul 25, 1976	Dead	38	UND	Captive Birth/Hatch	Birth/Hatch	Jul 25, 1976	OMAHA
									Death	Nov 03, 1976	OMAHA
87	GRND PRAI	755	Male	Aug 03, 1976	Dead	9	21	Captive Birth/Hatch	Birth/Hatch	Aug 03, 1976	DALLAS
									Transfer	Jun 20, 1978	GRND PRAI
									Death	Oct 19, 1983	GRND PRAI
88	METROZOO	M00076	Female	Oct 01, 1976 +/- 6 month	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Oct 01, 1976 +/- 6 month	WILD
									Wild Capture	Oct 01, 1976 +/- 6 month	WILD
									Transfer	Oct 01, 1976	HAMBURG
									Transfer	Jan 01, 1977 +/- 1 year	ZEEHANDLR
									Transfer	Oct 20, 1978	BATONROUG
									Transfer	Nov 30, 1982	METROZOO
									Death	Feb 28, 1984	METROZOO

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
89	SAN ANTON	761102	Female	Nov 01, 1976	Dead	10	29	Captive Birth/Hatch	Birth/Hatch	Nov 01, 1976	SAN ANTON
									Death	Sep 17, 1990	SAN ANTON
90	OMAHA	2632	Male	Nov 07, 1976	Dead	38	UND	Captive Birth/Hatch	Birth/Hatch	Nov 07, 1976	OMAHA
									Death	Dec 02, 1985	OMAHA
91	OMAHA	2636	Female	Nov 10, 1976	Dead	38	MULT4	Captive Birth/Hatch	Birth/Hatch	Nov 10, 1976	OMAHA
									Death	Nov 27, 1982	OMAHA
92	OMAHA	2644	Female	Nov 30, 1976	Dead	38	UND	Captive Birth/Hatch	Birth/Hatch	Nov 30, 1976	OMAHA
									Death	Oct 15, 1981	OMAHA
102	SD-WAP	102551	Female	Jan 01, 1977	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jan 01, 1977	BATONROUG
									Transfer	Jan 01, 1977 +/- 1 year	HOLIDAY
									Transfer	Feb 27, 1978	SD-WAP
									Death	May 03, 1992	SD-WAP
103	LOSANGELE	08732	Female	Mar 10, 1977	Dead	64	73	Captive Birth/Hatch	Birth/Hatch	Mar 10, 1977	LOSANGELE
									Death	Dec 20, 1977	LOSANGELE
104	SAN ANTON	770540	Female	May 17, 1977	Dead	10	28	Captive Birth/Hatch	Birth/Hatch	May 17, 1977	SAN ANTON
									Death	Nov 07, 1984	SAN ANTON
105	BATONROUG	M365	Female	May 18, 1977	Dead	UND	35	Captive Birth/Hatch	Birth/Hatch	May 18, 1977	BATONROUG
									Death	May 24, 1977	BATONROUG
106	OMAHA	2814	Female	Jul 25, 1977	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 25, 1977	OMAHA
									Death	Apr 30, 1990	OMAHA
107	OMAHA	2857	Female	Oct 14, 1977	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 14, 1977	OMAHA
									Death	Oct 14, 1977	OMAHA
108	SAN ANTON	771107	Female	Nov 03, 1977	Dead	82	61	Captive Birth/Hatch	Birth/Hatch	Nov 03, 1977	SAN ANTON
									Death	Nov 05, 1977	SAN ANTON
109	DALLAS	001780	Male	Nov 04, 1977	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 04, 1977	OMAHA
									Transfer	Nov 29, 1979	DALLAS
									Death	Dec 22, 1979	DALLAS
110	DALLAS	002731	Male	Dec 12, 1977	Dead	MULT3	MULT4	Captive Birth/Hatch	Birth/Hatch	Dec 12, 1977	OMAHA
									Transfer	Dec 11, 1980	DALLAS
									Death	Aug 16, 1986	DALLAS

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
111	SD-WAP	103537	Male	Mar 09, 1978	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Mar 09, 1978	BATONROUG
									Transfer	Jan 01, 1979 +/- 1 year	HOLIDAY
									Transfer	Dec 13, 1979	SD-WAP
									Death	Feb 19, 1980	SD-WAP
112	HOLIDAY	_____	Male	Mar 09, 1978	Undetermined (Lost to follow up)	38	35	Captive Birth/Hatch	Birth/Hatch	Mar 09, 1978	BATONROUG
									Transfer	Dec 03, 1979	HOLIDAY
									GO LTF	Dec 03, 1979	HOLIDAY
113	LOSANGELE	09284	Female	Jun 12, 1978	Dead	64	73	Captive Birth/Hatch	Birth/Hatch	Jun 12, 1978	LOSANGELE
									Death	Jun 13, 1978	LOSANGELE
114	SAN ANTON	780756	Female	Jul 08, 1978	Dead	82	28	Captive Birth/Hatch	Birth/Hatch	Jul 08, 1978	SAN ANTON
									Death	Jul 11, 1978	SAN ANTON
115	OMAHA	3190	Male	Jul 20, 1978	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 20, 1978	OMAHA
									Death	Dec 31, 1979	OMAHA
116	OMAHA	3203	Male	Aug 18, 1978	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Aug 18, 1978	OMAHA
									Death	Aug 18, 1978	OMAHA
117	OMAHA	3237	Male	Nov 07, 1978	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 07, 1978	OMAHA
									Death	Apr 20, 1986	OMAHA
118	SAN ANTON	781127	Female	Nov 15, 1978	Dead	82	UND	Captive Birth/Hatch	Birth/Hatch	Nov 15, 1978	SAN ANTON
									Death	Nov 18, 1978	SAN ANTON
119	OMAHA	3257	Female	Dec 17, 1978	Dead	77	UND	Captive Birth/Hatch	Birth/Hatch	Dec 17, 1978	OMAHA
									Death	Feb 10, 1979	OMAHA
120	SAN ANTON	781226	Female	Dec 30, 1978	Dead	82	UND	Captive Birth/Hatch	Birth/Hatch	Dec 30, 1978	SAN ANTON
									Death	Jan 17, 1979	SAN ANTON
121	BATONROUG	M615	Male	Jan 06, 1979	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jan 06, 1979	BATONROUG
									Death	Jan 25, 1979	BATONROUG
122	SD-WAP	103015	Female	Jan 16, 1979	Dead	60	70	Captive Birth/Hatch	Birth/Hatch	Jan 16, 1979	SD-WAP
									Death	Apr 26, 1985	SD-WAP
123	BATONROUG	M623	Male	Feb 16, 1979	Dead	38	85	Captive Birth/Hatch	Birth/Hatch	Feb 16, 1979	BATONROUG
									Death	Sep 03, 1981	BATONROUG

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
124	OMAHA	3583	Male	Mar 01, 1979 +/- 15 day	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Mar 01, 1979 +/- 15 day	WILD
									Wild Capture	Mar 01, 1979 +/- 15 day	WILD
									Transfer	Mar 01, 1979 +/- 15 day	HANNOVER
									Transfer	Jan 01, 1980 +/- 6 month	ZEEHANDLR
									Transfer	Aug 23, 1980	OMAHA
									Death	Dec 22, 1990	OMAHA
125	SAN ANTON	790442	Female	Apr 15, 1979	Dead	82	UND	Captive Birth/Hatch	Birth/Hatch	Apr 15, 1979	SAN ANTON
									Death	Aug 04, 1987	SAN ANTON
126	HOLIDAY	_____	Male	Apr 25, 1979	Undetermined (Lost to follow up)	60	102	Captive Birth/Hatch	Birth/Hatch	Apr 25, 1979	SD-WAP
									Transfer	Jul 01, 1980	HOLIDAY
									GO LTF	Jul 01, 1980	HOLIDAY
127	LOSANGELE	09654	Female	Apr 27, 1979	Dead	64	73	Captive Birth/Hatch	Birth/Hatch	Apr 27, 1979	LOSANGELE
									Death	Apr 29, 1979	LOSANGELE
128	HOUSTON	9768	Male	May 22, 1979	Dead	63	UND	Captive Birth/Hatch	Birth/Hatch	May 22, 1979	SAN ANTON
									Transfer	Jun 20, 1983	LOSANGELE
									Transfer	Apr 18, 1988	HOUSTON
									Death	Aug 23, 1988	HOUSTON
129	SD-WAP	083280	Male	May 25, 1979	Dead	MULT6	UND	Captive Birth/Hatch	Birth/Hatch	May 25, 1979	OMAHA
									Transfer	Feb 04, 1983	SD-WAP
									Transfer	Mar 17, 1983	SANDIEGOZ
									Transfer	Oct 04, 1985	SD-WAP
									Death	Feb 25, 1987	SD-WAP
130	OMAHA	3350	Male	Jun 13, 1979	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jun 13, 1979	OMAHA
									Death	Oct 29, 1979	OMAHA
131	OMAHA	3417	Male	Jun 20, 1979	Dead	9	21	Captive Birth/Hatch	Birth/Hatch	Jun 20, 1979	DALLAS
									Transfer	Nov 30, 1979	OMAHA
									Death	Oct 04, 1990	OMAHA
132	DARBY DAN	_____	Male	Jun 22, 1979	Undetermined (Lost to follow up)	9	21	Captive Birth/Hatch	Birth/Hatch	Jun 22, 1979	DALLAS
									Transfer	Nov 21, 1979	GRND PRAI

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	May 01, 1980 +/- 15 day	DARBY DAN
									GO LTF	May 01, 1980 +/- 15 day	DARBY DAN
133	LOSANGELE	94221	Female	Jul 01, 1979 +/- 6 month	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Jul 01, 1979 +/- 6 month	WILD
									Wild Capture	Jul 01, 1979 +/- 6 month	WILD
									Transfer	Jul 01, 1979	HANNOVER
									Transfer	Jan 01, 1980 +/- 6 month	ZEEHANDLR
									Transfer	Aug 22, 1980	LOSANGELE
									Death	Jan 14, 1985	LOSANGELE
134	OMAHA	3379	Female	Sep 04, 1979	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 04, 1979	OMAHA
									Death	Sep 07, 1979	OMAHA
135	SANDIEGOZ	180292	Male	Sep 25, 1979	Dead	63	UND	Captive Birth/Hatch	Birth/Hatch	Sep 25, 1979	SAN ANTON
									Transfer	Sep 30, 1980	SANDIEGOZ
									Death	Feb 05, 1981	SANDIEGOZ
136	OMAHA	3416	Male	Nov 25, 1979	Dead	77	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 1979	OMAHA
									Death	Nov 25, 1979	OMAHA
137	BATONROUG	M727	Male	Nov 28, 1979	Dead	38	85	Captive Birth/Hatch	Birth/Hatch	Nov 28, 1979	BATONROUG
									Death	Nov 30, 1979	BATONROUG
138	SAN ANTON	791201	Female	Dec 02, 1979	Dead	82	UND	Captive Birth/Hatch	Birth/Hatch	Dec 02, 1979	SAN ANTON
									Death	May 30, 1989	SAN ANTON
139	OMAHA	3424	Female	Dec 05, 1979	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 05, 1979	OMAHA
									Death	Oct 17, 1981	OMAHA
140	SAN ANTON	811247	Male	Jan 10, 1980	Dead	60	70	Captive Birth/Hatch	Birth/Hatch	Jan 10, 1980	SD-WAP
									Transfer	Dec 22, 1981	SAN ANTON
									Death	Dec 31, 1981	SAN ANTON
141	SAN ANTON	800162	Female	Jan 27, 1980	Dead	82	29	Captive Birth/Hatch	Birth/Hatch	Jan 27, 1980	SAN ANTON
									Death	Jan 29, 1980	SAN ANTON
152	SD-WAP	103615	Female	Feb 22, 1980	Dead	60	102	Captive Birth/Hatch	Birth/Hatch	Feb 22, 1980	SD-WAP
									Death	Dec 03, 1986	SD-WAP
153	LOSANGELE	N00094	Female	Mar 05, 1980	Dead	64	73	Captive Birth/Hatch	Birth/Hatch	Mar 05, 1980	LOSANGELE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Mar 05, 1980	LOSANGELE
154	OMAHA	3454	Male	Mar 16, 1980	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Mar 16, 1980	OMAHA
									Death	Jun 10, 1989	OMAHA
155	OMAHA	3511	Female	May 26, 1980	Dead	77	UND	Captive Birth/Hatch	Birth/Hatch	May 26, 1980	OMAHA
									Death	Mar 10, 1982	OMAHA
156	SD-WAP	103847	Female	Jun 01, 1980	Dead	60	122	Captive Birth/Hatch	Birth/Hatch	Jun 01, 1980	SD-WAP
									Death	Jun 01, 1980	SD-WAP
157	SAN ANTON	800601	Female	Jun 01, 1980	Dead	82	UND	Captive Birth/Hatch	Birth/Hatch	Jun 01, 1980	SAN ANTON
									Death	Dec 18, 1993	SAN ANTON
158	OMAHA	3588	Female	Sep 06, 1980	Dead	UND	20	Captive Birth/Hatch	Birth/Hatch	Sep 06, 1980	OMAHA
									Death	Sep 06, 1980	OMAHA
159	OMAHA	3598	Female	Sep 20, 1980	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 20, 1980	OMAHA
									Death	Jun 11, 1983	OMAHA
160	SAN ANTON	800936	Female	Sep 21, 1980	Dead	82	89	Captive Birth/Hatch	Birth/Hatch	Sep 21, 1980	SAN ANTON
									Death	Nov 05, 1984	SAN ANTON
161	HOLIDAY	_____	Female	Oct 12, 1980	Undetermined (Lost to follow up)	60	70	Captive Birth/Hatch	Birth/Hatch	Oct 12, 1980	SD-WAP
									Transfer	Jun 02, 1982	SANDIEGOZ
									Transfer	Jul 10, 1985	HOLIDAY
									GO LTF	Jul 10, 1985	HOLIDAY
162	OMAHA	3635	Male	Oct 29, 1980	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 29, 1980	OMAHA
									Death	Oct 29, 1980	OMAHA
163	DALLAS	002719	Female	Nov 11, 1980	Dead	9	21	Captive Birth/Hatch	Birth/Hatch	Nov 11, 1980	DALLAS
									Death	Mar 19, 1990	DALLAS
164	OMAHA	3655	Female	Nov 24, 1980	Dead	77	UND	Captive Birth/Hatch	Birth/Hatch	Nov 24, 1980	OMAHA
									Death	Oct 13, 1982	OMAHA
165	HOLIDAY	_____	Male	Nov 27, 1980	Undetermined (Lost to follow up)	60	102	Captive Birth/Hatch	Birth/Hatch	Nov 27, 1980	SD-WAP
									Transfer	Jun 12, 1982	HOLIDAY
									GO LTF	Jun 12, 1982	HOLIDAY
166	SAN ANTON	801202	Male	Dec 03, 1980	Dead	82	UND	Captive Birth/Hatch	Birth/Hatch	Dec 03, 1980	SAN ANTON

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Dec 05, 1980	SAN ANTON
167	OMAHA	3668	Undetermined	Dec 23, 1980	Dead	67	UND	Captive Birth/Hatch	Birth/Hatch	Dec 23, 1980	OMAHA
									Death	Dec 25, 1980	OMAHA
168	SAN ANTON	801235	Female	Dec 29, 1980	Dead	82	29	Captive Birth/Hatch	Birth/Hatch	Dec 29, 1980	SAN ANTON
									Death	Dec 31, 1980	SAN ANTON
169	LOSANGELE	N00130	Undetermined	Feb 12, 1981	Dead	64	133	Captive Birth/Hatch	Birth/Hatch	Feb 12, 1981	LOSANGELE
									Death	Feb 12, 1981	LOSANGELE
170	LOSANGELE	000316	Female	Feb 24, 1981	Dead	64	73	Captive Birth/Hatch	Birth/Hatch	Feb 24, 1981	LOSANGELE
									Death	Feb 26, 1981	LOSANGELE
171	HOUSTON	9769	Female	Mar 12, 1981	Dead	63	UND	Captive Birth/Hatch	Birth/Hatch	Mar 12, 1981	SAN ANTON
									Transfer	Jun 20, 1983	LOSANGELE
									Transfer	Apr 18, 1988	HOUSTON
									Death	Nov 04, 1993	HOUSTON
172	SANDIEGOZ	282195	Male	Mar 22, 1981	Dead	60	122	Captive Birth/Hatch	Birth/Hatch	Mar 22, 1981	SD-WAP
									Transfer	Jun 01, 1982	SANDIEGOZ
									Death	Oct 18, 1982	SANDIEGOZ
173	OMAHA	3760	Male	Apr 10, 1981	Dead	77	UND	Captive Birth/Hatch	Birth/Hatch	Apr 10, 1981	OMAHA
									Death	May 25, 1989	OMAHA
174	LOSANGELE	001276	Female	Jul 07, 1981	Dead	63	UND	Captive Birth/Hatch	Birth/Hatch	Jul 07, 1981	SAN ANTON
									Transfer	Jun 20, 1983	LOSANGELE
									Death	Mar 06, 1987	LOSANGELE
175	SD-WAP	681369	Male	Jul 09, 1981	Dead	60	70	Captive Birth/Hatch	Birth/Hatch	Jul 09, 1981	SD-WAP
									Death	Jul 13, 1981	SD-WAP
176	OMAHA	3910	Female	Aug 24, 1981	Dead	67	UND	Captive Birth/Hatch	Birth/Hatch	Aug 24, 1981	OMAHA
									Death	Dec 14, 1986	OMAHA
177	MEMPHIS	6187	Female	Sep 23, 1981	Dead	60	102	Captive Birth/Hatch	Birth/Hatch	Sep 23, 1981	SD-WAP
									Transfer	Jun 01, 1982	SANDIEGOZ
									Transfer	May 15, 1984	MEMPHIS
									Death	May 31, 1994	MEMPHIS
178	SD-WAP	681537	Female	Oct 07, 1981	Dead	60	152	Captive Birth/Hatch	Birth/Hatch	Oct 07, 1981	SD-WAP
									Death	Jul 29, 1997	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
179	OMAHA	3931	Female	Oct 14, 1981	Dead	67	92	Captive Birth/Hatch	Birth/Hatch	Oct 14, 1981	OMAHA
									Death	Oct 14, 1981	OMAHA
180	SAN ANTON	811093	Female	Oct 15, 1981	Dead	82	UND	Captive Birth/Hatch	Birth/Hatch	Oct 15, 1981	SAN ANTON
									Death	Nov 04, 1981	SAN ANTON
181	OMAHA	3933	Male	Oct 17, 1981	Dead	UND	139	Captive Birth/Hatch	Birth/Hatch	Oct 17, 1981	OMAHA
									Death	Oct 17, 1981	OMAHA
182	SAN ANTON	812025	Female	Oct 25, 1981	Dead	82	138	Captive Birth/Hatch	Birth/Hatch	Oct 25, 1981	SAN ANTON
									Death	Oct 25, 1981	SAN ANTON
183	SAN ANTON	811109	Female	Nov 04, 1981	Dead	82	125	Captive Birth/Hatch	Birth/Hatch	Nov 04, 1981	SAN ANTON
									Death	Nov 06, 1981	SAN ANTON
184	OMAHA	3958	Male	Dec 06, 1981	Dead	77	UND	Captive Birth/Hatch	Birth/Hatch	Dec 06, 1981	OMAHA
									Death	Dec 08, 1981	OMAHA
185	HOLIDAY	_____	Male	Dec 31, 1981	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 31, 1981	DALLAS
									Transfer	Undetermined	HOLIDAY
									Transfer	Dec 19, 1983	SD-WAP
									Transfer	Nov 27, 1986	HOLIDAY
									GO LTF	Nov 27, 1986	HOLIDAY
186	METROZOO	M00094	Female	Dec 31, 1981	Dead	110	21	Captive Birth/Hatch	Birth/Hatch	Dec 31, 1981	DALLAS
									Transfer	May 26, 1982	HOLIDAY
									Transfer	Jan 20, 1983	METROZOO
									Death	Dec 09, 1987	METROZOO
196	SD-WAP	682006	Female	Jan 07, 1982	Dead	60	122	Captive Birth/Hatch	Birth/Hatch	Jan 07, 1982	SD-WAP
									Death	Sep 27, 1991	SD-WAP
197	HOUSTON	9770	Female	Jan 24, 1982	Dead	63	UND	Captive Birth/Hatch	Birth/Hatch	Jan 24, 1982	SAN ANTON
									Transfer	Jun 20, 1983	LOSANGELE
									Transfer	Apr 18, 1988	HOUSTON
									Death	Nov 30, 1988	HOUSTON
198	OMAHA	3983	Male	Feb 05, 1982	Dead	77	UND	Captive Birth/Hatch	Birth/Hatch	Feb 05, 1982	OMAHA
									Death	Feb 05, 1982	OMAHA
199	LOSANGELE	N00161	Undetermined	Feb 09, 1982	Dead	64	133	Captive Birth/Hatch	Birth/Hatch	Feb 09, 1982	LOSANGELE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Feb 09, 1982	LOSANGELE
200	OMAHA	3995	Female	Mar 07, 1982	Dead	77	UND	Captive Birth/Hatch	Birth/Hatch	Mar 07, 1982	OMAHA
									Death	Oct 07, 1989	OMAHA
201	OMAHA	3996	Female	Mar 09, 1982	Dead	77	155	Captive Birth/Hatch	Birth/Hatch	Mar 09, 1982	OMAHA
									Death	Mar 09, 1982	OMAHA
202	SD-WAP	682164	Female	Apr 20, 1982	Dead	60	161	Captive Birth/Hatch	Birth/Hatch	Apr 20, 1982	SD-WAP
									Death	Apr 20, 1982	SD-WAP
203	SAN ANTON	820479	Female	Apr 21, 1982	Dead	82	UND	Captive Birth/Hatch	Birth/Hatch	Apr 21, 1982	SAN ANTON
									Death	Apr 22, 1982	SAN ANTON
204	SD-WAP	682233	Male	May 06, 1982	Dead	60	70	Captive Birth/Hatch	Birth/Hatch	May 06, 1982	SD-WAP
									Death	May 09, 1982	SD-WAP
205	OMAHA	4067	Male	Jun 13, 1982	Dead	67	UND	Captive Birth/Hatch	Birth/Hatch	Jun 13, 1982	OMAHA
									Death	Jun 13, 1982	OMAHA
206	SD-WAP	682467	Male	Jul 26, 1982	Dead	60	102	Captive Birth/Hatch	Birth/Hatch	Jul 26, 1982	SD-WAP
									Death	Jul 28, 1982	SD-WAP
207	HOLIDAY	_____	Female	Sep 06, 1982	Undetermined (Lost to follow up)	60	152	Captive Birth/Hatch	Birth/Hatch	Sep 06, 1982	SD-WAP
									Transfer	Nov 20, 1984	HOLIDAY
									Transfer	Dec 03, 1985	BATONROUG
									Transfer	Oct 04, 1989	HOLIDAY
									GO LTF	Oct 04, 1989	HOLIDAY
208	OMAHA	4131	Male	Sep 25, 1982	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 25, 1982	OMAHA
									Death	Oct 04, 1990	OMAHA
209	MEMPHIS	6079	Female	Oct 19, 1982	Dead	63	29	Captive Birth/Hatch	Birth/Hatch	Oct 19, 1982	SAN ANTON
									Transfer	Apr 15, 1984	MEMPHIS
									Death	Jun 27, 1993	MEMPHIS
210	DALLAS	823387	Male	Oct 10, 1982	Dead	110	163	Captive Birth/Hatch	Birth/Hatch	Oct 10, 1982	DALLAS
									Death	Oct 11, 1982	DALLAS
211	CATSKILL	_____	Male	Oct 19, 1982	Dead	63	138	Captive Birth/Hatch	Birth/Hatch	Oct 19, 1982	SAN ANTON
									Transfer	Jun 17, 1983	LOSANGELE
									Transfer	Nov 22, 1983	NORTHLAND

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Nov 30, 1983	MEMPHIS
									Transfer	Apr 09, 1987	CATSKILL
									Death	May 10, 1987	CATSKILL
212	NORTHLAND	_____	Male	Oct 24, 1982	Undetermined (Lost to follow up)	110	21	Captive Birth/Hatch	Birth/Hatch	Oct 24, 1982	DALLAS
									Transfer	Jul 18, 1983	NORTHLAND
									GO LTF	Jul 18, 1983	NORTHLAND
213	SD-WAP	682615	Female	Oct 27, 1982	Dead	60	122	Captive Birth/Hatch	Birth/Hatch	Oct 27, 1982	SD-WAP
									Death	Dec 15, 1987	SD-WAP
214	OMAHA	4180	Female	Nov 03, 1982	Dead	67	91	Captive Birth/Hatch	Birth/Hatch	Nov 03, 1982	OMAHA
									Death	Feb 26, 1995	OMAHA
215	DALLAS	H84011	Female	Nov 06, 1982	Dead	63	125	Captive Birth/Hatch	Birth/Hatch	Nov 06, 1982	SAN ANTON
									Transfer	Jun 01, 1984	DALLAS
									Death	Jun 03, 1984	DALLAS
216	YO RANCH	_____	Male	Nov 09, 1982	Undetermined (Lost to follow up)	63	UND	Captive Birth/Hatch	Birth/Hatch	Nov 09, 1982	SAN ANTON
									Transfer	Oct 03, 1984	BANKS J
									Transfer	Oct 03, 1984	YO RANCH
									GO LTF	Oct 03, 1984	YO RANCH
217	NAT BRIDG	_____	Male	Nov 28, 1982	Undetermined (Lost to follow up)	63	157	Captive Birth/Hatch	Birth/Hatch	Nov 28, 1982	SAN ANTON
									Transfer	May 26, 1984	NAT BRIDG
									GO LTF	May 26, 1984	NAT BRIDG
218	OMAHA	4229	Male	Dec 09, 1982	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Dec 09, 1982	OMAHA
									Death	Dec 12, 1982	OMAHA
219	DALLAS	844037	Female	Jan 25, 1983	Dead	63	UND	Captive Birth/Hatch	Birth/Hatch	Jan 25, 1983	SAN ANTON
									Transfer	Jun 01, 1984	DALLAS
									Death	Nov 10, 1993	DALLAS
220	SAN ANTON	830168	Female	Jan 30, 1983	Dead	63	160	Captive Birth/Hatch	Birth/Hatch	Jan 30, 1983	SAN ANTON
									Death	Jan 31, 1983	SAN ANTON
221	OMAHA	4252	Female	Feb 12, 1983	Dead	124	UND	Captive Birth/Hatch	Birth/Hatch	Feb 12, 1983	OMAHA
									Death	Feb 18, 1983	OMAHA

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
222	LOSANGELE	94415	Male	Feb 17, 1983	Dead	64	133	Captive Birth/Hatch	Birth/Hatch	Feb 17, 1983	LOSANGELE
									Death	Feb 17, 1983	LOSANGELE
223	ASHEBORO	1683	Female	Feb 24, 1983	Dead	124	UND	Captive Birth/Hatch	Birth/Hatch	Feb 24, 1983	OMAHA
									Transfer	Oct 27, 1984	STCATHERN
									Transfer	Nov 09, 2004	ASHEBORO
									Death	Oct 10, 2009	ASHEBORO
224	SD-WAP	683233	Male	Apr 06, 1983	Dead	60	70	Captive Birth/Hatch	Birth/Hatch	Apr 06, 1983	SD-WAP
									Death	Feb 13, 1985	SD-WAP
225	SD-WAP	683310	Male	Apr 25, 1983	Dead	60	102	Captive Birth/Hatch	Birth/Hatch	Apr 25, 1983	SD-WAP
									Death	Apr 27, 1983	SD-WAP
226	OMAHA	4375	Male	May 25, 1983	Dead	124	UND	Captive Birth/Hatch	Birth/Hatch	May 25, 1983	OMAHA
									Death	Sep 06, 1983	OMAHA
227	MEMPHIS	5971	Female	Jul 10, 1983	Dead	110	163	Captive Birth/Hatch	Birth/Hatch	Jul 10, 1983	DALLAS
									Transfer	Feb 02, 1984	NORTHLAND
									Transfer	Feb 03, 1984	MEMPHIS
									Death	Oct 11, 1994	MEMPHIS
228	SD-WAP	783456	Male	Jul 13, 1983	Dead	60	152	Captive Birth/Hatch	Birth/Hatch	Jul 13, 1983	SD-WAP
									Death	Nov 10, 1985	SD-WAP
229	HOLIDAY	_____	Male	Aug 28, 1983	Undetermined (Lost to follow up)	60	122	Captive Birth/Hatch	Birth/Hatch	Aug 28, 1983	SD-WAP
									Transfer	Jan 29, 1988	HOLIDAY
									GO LTF	Jan 29, 1988	HOLIDAY
230	STCATHERN	844138	Male	Sep 28, 1983	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Sep 28, 1983	OMAHA
									Transfer	Oct 27, 1984	STCATHERN
									Death	Apr 08, 1996	STCATHERN
231	OMAHA	4548	Female	Oct 03, 1983	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Oct 03, 1983	OMAHA
									Death	Dec 12, 1989	OMAHA
232	SD-WAP	011588	Female	Oct 11, 1983	Dead	60	178	Captive Birth/Hatch	Birth/Hatch	Oct 11, 1983	SD-WAP
									Death	Oct 19, 1983	SD-WAP
233	LOSANGELE	001441	Male	Oct 24, 1983	Dead	128	171	Captive Birth/Hatch	Birth/Hatch	Oct 24, 1983	LOSANGELE
									Death	Oct 25, 1983	LOSANGELE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
234	LOSANGELE	001442	Male	Oct 24, 1983	Dead	128	174	Captive Birth/Hatch	Birth/Hatch	Oct 24, 1983	LOSANGELE
									Death	Oct 25, 1983	LOSANGELE
235	STCATHERN	844140	Female	Nov 01, 1983	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Nov 01, 1983	OMAHA
									Transfer	Oct 27, 1984	STCATHERN
									Death	Nov 18, 1999	STCATHERN
236	DALLAS	H84010	Female	Nov 03, 1983	Dead	63	125	Captive Birth/Hatch	Birth/Hatch	Nov 03, 1983	SAN ANTON
									Transfer	Jun 12, 1984	DALLAS
									Death	Jun 14, 1984	DALLAS
237	SAN ANTON	831116	Female	Nov 05, 1983	Dead	82	89	Captive Birth/Hatch	Birth/Hatch	Nov 05, 1983	SAN ANTON
									Death	Mar 08, 1996	SAN ANTON
238	SAN ANTON	831154	Female	Nov 17, 1983	Dead	63	138	Captive Birth/Hatch	Birth/Hatch	Nov 17, 1983	SAN ANTON
									Death	Jun 30, 1999	SAN ANTON
239	HOLIDAY	_____	Male	Nov 27, 1983	Undetermined (Lost to follow up)	60	196	Captive Birth/Hatch	Birth/Hatch	Nov 27, 1983	SD-WAP
									Transfer	Mar 09, 1984	HOLIDAY
									Transfer	Dec 03, 1985	BATONROUG
									Transfer	Apr 14, 1987	HOLIDAY
									GO LTF	Apr 14, 1987	HOLIDAY
240	NAT BRIDG	_____	Male	Dec 05, 1983	Undetermined (Lost to follow up)	63	UND	Captive Birth/Hatch	Birth/Hatch	Dec 05, 1983	SAN ANTON
									Transfer	Oct 16, 1985	NAT BRIDG
									GO LTF	Oct 16, 1985	NAT BRIDG
241	SAN ANTON	831266	Female	Dec 06, 1983	Dead	63	157	Captive Birth/Hatch	Birth/Hatch	Dec 06, 1983	SAN ANTON
									Death	Aug 27, 2007	SAN ANTON
242	SANDIEGOZ	014009	Male	Dec 21, 1983	Dead	129	177	Captive Birth/Hatch	Birth/Hatch	Dec 21, 1983	SANDIEGOZ
									Death	Dec 21, 1983	SANDIEGOZ
252	SANDIEGOZ	014014	Male	Jan 01, 1984	Dead	UND	161	Captive Birth/Hatch	Birth/Hatch	Jan 01, 1984	SANDIEGOZ
									Death	Jan 03, 1984	SANDIEGOZ
253	NORTHLAND	_____	Male	Jan 06, 1984	Undetermined (Lost to follow up)	110	21	Captive Birth/Hatch	Birth/Hatch	Jan 06, 1984	DALLAS
									Transfer	Jan 27, 1985	NORTHLAND
									GO LTF	Jan 27, 1985	NORTHLAND

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
254	LOSANGELE	N00234	Female	Jan 13, 1984	Dead	128	133	Captive Birth/Hatch	Birth/Hatch	Jan 13, 1984	LOSANGELE
									Death	Jan 13, 1984	LOSANGELE
255	HOLIDAY	_____	Male	Feb 10, 1984	Undetermined (Lost to follow up)	38	186	Captive Birth/Hatch	Birth/Hatch	Feb 10, 1984	METROZOO
									Transfer	Mar 25, 1985	HOLIDAY
									GO LTF	Mar 25, 1985	HOLIDAY
256	BANKS J	_____	Male	Apr 14, 1984	Undetermined (Lost to follow up)	110	163	Captive Birth/Hatch	Birth/Hatch	Apr 14, 1984	DALLAS
									Transfer	Jan 30, 1985	BANKS J
									GO LTF	Jan 30, 1985	BANKS J
257	SD-WAP	026046	Female	May 07, 1984	Dead	60	152	Captive Birth/Hatch	Birth/Hatch	May 07, 1984	SD-WAP
									Death	Mar 30, 1986	SD-WAP
258	MEMPHIS	10964	Male	May 30, 1984	Dead	60	207	Captive Birth/Hatch	Birth/Hatch	May 30, 1984	SD-WAP
									Transfer	Dec 12, 1989	HOLIDAY
									Transfer	Dec 28, 1989	MEMPHIS
									Death	May 30, 2000	MEMPHIS
259	HOLIDAY	_____	Male	Jun 06, 1984	Undetermined (Lost to follow up)	60	102	Captive Birth/Hatch	Birth/Hatch	Jun 06, 1984	SD-WAP
									Transfer	Oct 01, 1986	HOLIDAY
									GO LTF	Oct 01, 1986	HOLIDAY
260	SD-WAP	026201	Male	Jun 22, 1984	Dead	60	213	Captive Birth/Hatch	Birth/Hatch	Jun 22, 1984	SD-WAP
									Death	Jun 30, 1984	SD-WAP
261	LOSANGELE	001840	Male	Jun 24, 1984	Dead	128	UND	Captive Birth/Hatch	Birth/Hatch	Jun 24, 1984	LOSANGELE
									Death	Jun 26, 1984	LOSANGELE
262	SD-WAP	026252	Female	Jul 06, 1984	Dead	60	122	Captive Birth/Hatch	Birth/Hatch	Jul 06, 1984	SD-WAP
									Death	Jan 11, 1991	SD-WAP
263	METROZOO	M00392	Male	Jul 20, 1984	Dead	60	70	Captive Birth/Hatch	Birth/Hatch	Jul 20, 1984	SD-WAP
									Transfer	Nov 20, 1984	HOLIDAY
									Transfer	Mar 24, 1985	METROZOO
									Death	Dec 17, 1993	METROZOO
264	OMAHA	4686	Male	Sep 13, 1984	Dead	131	200	Captive Birth/Hatch	Birth/Hatch	Sep 13, 1984	OMAHA
									Death	Sep 25, 1992	OMAHA

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
265	OMAHA	4687	Male	Sep 18, 1984	Dead	124	UND	Captive Birth/Hatch	Birth/Hatch	Sep 18, 1984	OMAHA
									Death	Sep 18, 1984	OMAHA
266	DALLAS	874922	Male	Sep 22, 1984	Dead	124	UND	Captive Birth/Hatch	Birth/Hatch	Sep 22, 1984	OMAHA
									Transfer	Apr 08, 1987	DALLAS
									Death	Sep 10, 1989	DALLAS
267	OMAHA	4691	Male	Oct 01, 1984	Dead	124	UND	Captive Birth/Hatch	Birth/Hatch	Oct 01, 1984	OMAHA
									Death	Apr 02, 1987	OMAHA
268	SAN ANTON	841011	Female	Oct 08, 1984	Dead	82	89	Captive Birth/Hatch	Birth/Hatch	Oct 08, 1984	SAN ANTON
									Death	Aug 03, 1992	SAN ANTON
269	SMITH MRK	_____	Female	Oct 09, 1984	Undetermined (Lost to follow up)	128	171	Captive Birth/Hatch	Birth/Hatch	Oct 09, 1984	LOSANGELE
									Transfer	May 10, 1986	SMITH MRK
									GO LTF	May 10, 1986	SMITH MRK
270	OMAHA	4692	Male	Oct 09, 1984	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Oct 09, 1984	OMAHA
									Death	Oct 11, 1984	OMAHA
271	LOSANGELE	001937	Male	Oct 21, 1984	Dead	128	174	Captive Birth/Hatch	Birth/Hatch	Oct 21, 1984	LOSANGELE
									Death	Oct 22, 1984	LOSANGELE
272	SAN ANTON	841078	Male	Oct 27, 1984	Dead	63	UND	Captive Birth/Hatch	Birth/Hatch	Oct 27, 1984	SAN ANTON
									Death	Oct 27, 1984	SAN ANTON
273	SAN ANTON	841102	Female	Nov 03, 1984	Dead	63	UND	Captive Birth/Hatch	Birth/Hatch	Nov 03, 1984	SAN ANTON
									Death	Jul 27, 1985	SAN ANTON
274	SAN ANTON	841105	Male	Nov 05, 1984	Dead	63	160	Captive Birth/Hatch	Birth/Hatch	Nov 05, 1984	SAN ANTON
									Death	Nov 05, 1984	SAN ANTON
275	SAN ANTON	841108	Male	Nov 07, 1984	Dead	82	104	Captive Birth/Hatch	Birth/Hatch	Nov 07, 1984	SAN ANTON
									Death	Nov 07, 1984	SAN ANTON
276	SAN ANTON	841115	Male	Nov 12, 1984	Dead	63	UND	Captive Birth/Hatch	Birth/Hatch	Nov 12, 1984	SAN ANTON
									Death	Dec 20, 1984	SAN ANTON
277	SANDIEGOZ	027850	Male	Nov 23, 1984	Dead	129	161	Captive Birth/Hatch	Birth/Hatch	Nov 23, 1984	SANDIEGOZ
									Death	Feb 18, 1985	SANDIEGOZ
278	METROZOO	M00356	Female	Dec 08, 1984	Dead	38	186	Captive Birth/Hatch	Birth/Hatch	Dec 08, 1984	METROZOO

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Feb 24, 1998	METROZOO
279	MEMPHIS	6813	Female	Dec 11, 1984	Dead	UND	209	Captive Birth/Hatch	Birth/Hatch	Dec 11, 1984	MEMPHIS
									Death	Sep 09, 1994	MEMPHIS
280	METROZOO	M00403	Female	Dec 28, 1984	Dead	UND	178	Captive Birth/Hatch	Birth/Hatch	Dec 28, 1984	SD-WAP
									Transfer	Apr 13, 1985	HOLIDAY
									Transfer	Apr 21, 1985	METROZOO
									Death	Apr 02, 1986	METROZOO
285	FERNDALE	21362	Male	Jan 01, 1985	Dead	110	219	Captive Birth/Hatch	Birth/Hatch	Jan 01, 1985	DALLAS
									Transfer	Dec 04, 1985	FERNDALE
									Death	Mar 23, 1988	FERNDALE
286	FERNDALE	21363	Female	Jan 04, 1985	Dead	110	21	Captive Birth/Hatch	Birth/Hatch	Jan 04, 1985	DALLAS
									Transfer	Dec 04, 1985	FERNDALE
									Death	May 09, 1988	FERNDALE
287	SD-WAP	027292	Female	Jan 11, 1985	Dead	UND	196	Captive Birth/Hatch	Birth/Hatch	Jan 11, 1985	SD-WAP
									Death	Jan 13, 1985	SD-WAP
288	FOUTS J	_____	Female	Jan 27, 1985	Undetermined (Lost to follow up)	110	163	Captive Birth/Hatch	Birth/Hatch	Jan 27, 1985	DALLAS
									Transfer	Jul 03, 1985	HOLIDAY
									Transfer	Dec 03, 1985	BATONROUG
									Transfer	May 04, 1991	ABQBIOPK
									Transfer	Jan 27, 1995	FOUTS J
									GO LTF	Jan 27, 1995	FOUTS J
291	SD-WAP	027325	Female	Feb 12, 1985	Dead	UND	152	Captive Birth/Hatch	Birth/Hatch	Feb 12, 1985	SD-WAP
									Death	Aug 02, 1997	SD-WAP
292	STCATHERN	844150	Female	Feb 27, 1985	Dead	UND	223	Captive Birth/Hatch	Birth/Hatch	Feb 27, 1985	STCATHERN
									Death	May 24, 1986	STCATHERN
293	SD-WAP	027357	Female	Mar 07, 1985	Dead	UND	102	Captive Birth/Hatch	Birth/Hatch	Mar 07, 1985	SD-WAP
									Death	Oct 08, 1993	SD-WAP
294	SAN ANTON	881725	Male	Mar 26, 1985 +/- 6 month	Dead	WILD	WILD	Wild Birth/Hatch	Birth/Hatch	Mar 26, 1985 +/- 6 month	WILD
									Wild Capture	Mar 26, 1985 +/- 6 month	WILD
									Transfer	Mar 26, 1985	GELSNKRKN

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Jan 01, 1987 +/- 1 year	ZEEHANDLR
									Transfer	Jul 23, 1988	SAN ANTON
									Death	Feb 24, 1998	SAN ANTON
295	OMAHA	4742	Male	Apr 07, 1985	Dead	131	231	Captive Birth/Hatch	Birth/Hatch	Apr 07, 1985	OMAHA
									Death	Apr 23, 1985	OMAHA
296	HOLIDAY	_____	Male	Apr 22, 1985	Undetermined (Lost to follow up)	128	197	Captive Birth/Hatch	Birth/Hatch	Apr 22, 1985	LOSANGELE
									Transfer	May 10, 1986	SMITH MRK
									Transfer	Jun 01, 1986 +/- 15 day	HOLIDAY
									Transfer	Feb 12, 1987	BATONROUG
									Transfer	Jun 20, 1990	HOLIDAY
									GO LTF	Jun 20, 1990	HOLIDAY
297	SD-WAP	027463	Male	Apr 25, 1985	Dead	UND	122	Captive Birth/Hatch	Birth/Hatch	Apr 25, 1985	SD-WAP
									Death	Apr 25, 1985	SD-WAP
298	BATONROUG	M2270	Male	May 30, 1985	Dead	UND	213	Captive Birth/Hatch	Birth/Hatch	May 30, 1985	SD-WAP
									Transfer	May 10, 1990	HOLIDAY
									Transfer	Jun 20, 1990	BATONROUG
									Death	Oct 28, 1994	BATONROUG
299	LOSANGELE	002217	Male	Aug 18, 1985	Dead	128	174	Captive Birth/Hatch	Birth/Hatch	Aug 18, 1985	LOSANGELE
									Death	Aug 18, 1985	LOSANGELE
300	OMAHA	4849	Male	Sep 27, 1985	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Sep 27, 1985	OMAHA
									Death	Aug 22, 1987	OMAHA
301	HOLIDAY	_____	Male	Sep 29, 1985	Undetermined (Lost to follow up)	124	UND	Captive Birth/Hatch	Birth/Hatch	Sep 29, 1985	OMAHA
									Transfer	Apr 07, 1987	J SCHULZ
									Transfer	Apr 09, 1987	MEMPHIS
									Transfer	Jan 10, 1990	HOLIDAY
									GO LTF	Jan 10, 1990	HOLIDAY
302	AUERHAHN	_____	Male	Oct 01, 1985	Undetermined (Lost to follow up)	63	238	Captive Birth/Hatch	Birth/Hatch	Oct 01, 1985	SAN ANTON
									Transfer	Oct 31, 1986	AUERHAHN
									GO LTF	Oct 31, 1986	AUERHAHN

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
303	SD-WAP	005169	Male	Oct 10, 1985	Dead	185	70	Captive Birth/Hatch	Birth/Hatch	Oct 10, 1985	SD-WAP
									Death	Oct 10, 1985	SD-WAP
304	NORTHLAND	_____	Male	Oct 17, 1985	Undetermined (Lost to follow up)	128	171	Captive Birth/Hatch	Birth/Hatch	Oct 17, 1985	LOSANGELE
									Transfer	Apr 10, 1987	NORTHLAND
									GO LTF	Apr 10, 1987	NORTHLAND
305	SAN ANTON	851056	Female	Oct 25, 1985	Dead	63	UND	Captive Birth/Hatch	Birth/Hatch	Oct 25, 1985	SAN ANTON
									Death	Mar 22, 1997	SAN ANTON
306	OMAHA	4870	Female	Oct 26, 1985	Dead	124	UND	Captive Birth/Hatch	Birth/Hatch	Oct 26, 1985	OMAHA
									Death	Oct 15, 1987	OMAHA
307	OMAHA	4871	Female	Oct 27, 1985	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Oct 27, 1985	OMAHA
									Death	Oct 27, 1985	OMAHA
308	BANKS J	854512	Male	Nov 01, 1985	Undetermined (Lost to follow up)	110	219	Captive Birth/Hatch	Birth/Hatch	Nov 01, 1985	DALLAS
									Transfer	May 09, 1987	BANKS J
									GO LTF	May 09, 1987	BANKS J
309	SD-WAP	005205	Male	Nov 06, 1985	Dead	185	178	Captive Birth/Hatch	Birth/Hatch	Nov 06, 1985	SD-WAP
									Death	Nov 22, 1985	SD-WAP
310	BATONROUG	M1737	Female	Nov 09, 1985	Dead	110	163	Captive Birth/Hatch	Birth/Hatch	Nov 09, 1985	DALLAS
									Transfer	Oct 14, 1986	BATONROUG
									Death	Mar 15, 1995	BATONROUG
311	SAN ANTON	851124	Male	Nov 10, 1985	Dead	82	89	Captive Birth/Hatch	Birth/Hatch	Nov 10, 1985	SAN ANTON
									Death	Nov 12, 1985	SAN ANTON
312	AUERHAHN	_____	Male	Nov 15, 1985	Undetermined (Lost to follow up)	63	UND	Captive Birth/Hatch	Birth/Hatch	Nov 15, 1985	SAN ANTON
									Transfer	Oct 31, 1986	AUERHAHN
									GO LTF	Oct 31, 1986	AUERHAHN
313	AUERHAHN	_____	Male	Nov 21, 1985	Undetermined (Lost to follow up)	82	241	Captive Birth/Hatch	Birth/Hatch	Nov 21, 1985	SAN ANTON
									Transfer	Oct 31, 1986	AUERHAHN
									GO LTF	Oct 31, 1986	AUERHAHN

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
314	AUERHAHN	_____	Male	Nov 25, 1985	Undetermined (Lost to follow up)	63	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 1985	SAN ANTON
									Transfer	Oct 31, 1986	AUERHAHN
									GO LTF	Oct 31, 1986	AUERHAHN
315	GULF BREZ	A2565	Male	Dec 14, 1985	Dead	185	152	Captive Birth/Hatch	Birth/Hatch	Dec 14, 1985	SD-WAP
									Transfer	Nov 12, 1989	HOUSTON
									Transfer	Mar 30, 1999	GULF BREZ
									Death	Mar 25, 2000	GULF BREZ
316	METROZOO	M00589	Female	Dec 23, 1985	Dead	185	196	Captive Birth/Hatch	Birth/Hatch	Dec 23, 1985	SD-WAP
									Transfer	Apr 10, 1986	HOLIDAY
									Transfer	May 04, 1986	METROZOO
									Death	Oct 18, 2001	METROZOO
321	OMAHA	4889	Male	Jan 04, 1986	Dead	124	UND	Captive Birth/Hatch	Birth/Hatch	Jan 04, 1986	OMAHA
									Death	Jan 04, 1986	OMAHA
322	METROZOO	M00541	Male	Jan 10, 1986	Dead	38	186	Captive Birth/Hatch	Birth/Hatch	Jan 10, 1986	METROZOO
									Death	Apr 13, 1988	METROZOO
323	OMAHA	4892	Female	Jan 17, 1986	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Jan 17, 1986	OMAHA
									Death	Jan 19, 1986	OMAHA
324	SAN ANTON	860157	Female	Jan 30, 1986	Dead	82	237	Captive Birth/Hatch	Birth/Hatch	Jan 30, 1986	SAN ANTON
									Death	Mar 18, 1986	SAN ANTON
325	LOSANGELE	002359	Male	Mar 27, 1986	Dead	128	197	Captive Birth/Hatch	Birth/Hatch	Mar 27, 1986	LOSANGELE
									Death	Mar 29, 1986	LOSANGELE
326	SD-WAP	005345	Female	Mar 29, 1986	Dead	185	257	Captive Birth/Hatch	Birth/Hatch	Mar 29, 1986	SD-WAP
									Death	Mar 29, 1986	SD-WAP
327	HOLIDAY	_____	Female	Mar 31, 1986	Undetermined (Lost to follow up)	185	262	Captive Birth/Hatch	Birth/Hatch	Mar 31, 1986	SD-WAP
									Transfer	Oct 01, 1986	HOLIDAY
									GO LTF	Oct 01, 1986	HOLIDAY
329	HOLIDAY	_____	Female	Apr 29, 1986	Undetermined (Lost to follow up)	185	213	Captive Birth/Hatch	Birth/Hatch	Apr 29, 1986	SD-WAP
									Transfer	Apr 18, 1988	HOLIDAY
									GO LTF	Apr 18, 1988	HOLIDAY

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
330	STCATHERN	864201	Female	May 02, 1986	Dead	230	223	Captive Birth/Hatch	Birth/Hatch	May 02, 1986	STCATHERN
									Death	Sep 25, 1989	STCATHERN
331	STCATHERN	864205	Female	May 12, 1986	Dead	230	235	Captive Birth/Hatch	Birth/Hatch	May 12, 1986	STCATHERN
									Death	Aug 26, 1986	STCATHERN
332	STCATHERN	864209	Female	May 23, 1986	Dead	230	292	Captive Birth/Hatch	Birth/Hatch	May 23, 1986	STCATHERN
									Death	May 23, 1986	STCATHERN
333	NORTHLAND	_____	Male	May 27, 1986	Undetermined (Lost to follow up)	128	174	Captive Birth/Hatch	Birth/Hatch	May 27, 1986	LOSANGELE
									Transfer	Apr 10, 1987	NORTHLAND
									GO LTF	Apr 10, 1987	NORTHLAND
334	SD-WAP	699070	Female	Oct 04, 1986	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Oct 04, 1986	OMAHA
									Transfer	Mar 06, 1998	DISNEY AK
									Transfer	Mar 09, 1999	SD-WAP
									Death	Sep 01, 2001	SD-WAP
335	SAN ANTON	861015	Male	Oct 09, 1986	Dead	63	157	Captive Birth/Hatch	Birth/Hatch	Oct 09, 1986	SAN ANTON
									Death	Oct 09, 1986	SAN ANTON
336	SD-WAP	037643	Male	Oct 09, 1986	Dead	129	291	Captive Birth/Hatch	Birth/Hatch	Oct 09, 1986	SD-WAP
									Death	Oct 11, 1986	SD-WAP
337	DALLAS	864827	Male	Oct 13, 1986	Dead	110	163	Captive Birth/Hatch	Birth/Hatch	Oct 13, 1986	DALLAS
									Death	Oct 13, 1986	DALLAS
338	SD-WAP	687714	Male	Oct 25, 1986	Dead	124	UND	Captive Birth/Hatch	Birth/Hatch	Oct 25, 1986	OMAHA
									Transfer	Dec 21, 1987	SANDIEGOZ
									Transfer	Apr 08, 1988	SD-WAP
									Death	Oct 25, 1995	SD-WAP
339	OMAHA	4977	Female	Oct 30, 1986	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Oct 30, 1986	OMAHA
									Death	Sep 09, 1998	OMAHA
340	BULVERDE	_____	Male	Oct 30, 1986	Undetermined (Lost to follow up)	63	UND	Captive Birth/Hatch	Birth/Hatch	Oct 30, 1986	SAN ANTON
									Transfer	Jul 08, 1987	BULVERDE
									GO LTF	Jul 08, 1987	BULVERDE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
341	BANKS J	_____	Female	Nov 03, 1986	Undetermined (Lost to follow up)	110	219	Captive Birth/Hatch	Birth/Hatch	Nov 03, 1986	DALLAS
									Transfer	Oct 29, 1987	BANKS J
									GO LTF	Oct 29, 1987	BANKS J
342	BULVERDE	_____	Male	Nov 09, 1986	Undetermined (Lost to follow up)	63	UND	Captive Birth/Hatch	Birth/Hatch	Nov 09, 1986	SAN ANTON
									Transfer	Jul 08, 1987	BULVERDE
									GO LTF	Jul 08, 1987	BULVERDE
343	SD-WAP	037693	Male	Nov 13, 1986	Dead	129	70	Captive Birth/Hatch	Birth/Hatch	Nov 13, 1986	SD-WAP
									Death	Nov 13, 1986	SD-WAP
344	BULVERDE	_____	Male	Nov 20, 1986	Undetermined (Lost to follow up)	63	UND	Captive Birth/Hatch	Birth/Hatch	Nov 20, 1986	SAN ANTON
									Transfer	Jul 08, 1987	BULVERDE
									GO LTF	Jul 08, 1987	BULVERDE
345	HOLIDAY	_____	Female	Nov 25, 1986	Undetermined (Lost to follow up)	129	196	Captive Birth/Hatch	Birth/Hatch	Nov 25, 1986	SD-WAP
									Transfer	Apr 23, 1987	HOLIDAY
									GO LTF	Apr 23, 1987	HOLIDAY
346	OMAHA	4988	Female	Nov 27, 1986	Dead	131	231	Captive Birth/Hatch	Birth/Hatch	Nov 27, 1986	OMAHA
									Death	Jun 21, 1990	OMAHA
347	SD-WAP	037718	Male	Dec 02, 1986	Dead	129	152	Captive Birth/Hatch	Birth/Hatch	Dec 02, 1986	SD-WAP
									Death	Dec 02, 1986	SD-WAP
348	OMAHA	4990	Female	Dec 14, 1986	Dead	124	176	Captive Birth/Hatch	Birth/Hatch	Dec 14, 1986	OMAHA
									Death	Dec 14, 1986	OMAHA
349	LOSANGELE	002524	Male	Dec 22, 1986	Dead	128	171	Captive Birth/Hatch	Birth/Hatch	Dec 22, 1986	LOSANGELE
									Death	Dec 22, 1986	LOSANGELE
355	HOLIDAY	_____	Male	Jan 04, 1987	Undetermined (Lost to follow up)	129	178	Captive Birth/Hatch	Birth/Hatch	Jan 04, 1987	SD-WAP
									Transfer	Dec 12, 1989	HOLIDAY
									GO LTF	Dec 12, 1989	HOLIDAY
356	HOUSTON	9771	Female	Jan 08, 1987	Dead	128	197	Captive Birth/Hatch	Birth/Hatch	Jan 08, 1987	LOSANGELE
									Transfer	Apr 18, 1988	HOUSTON
									Death	Apr 27, 1991	HOUSTON

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
357	SD-WAP	687016	Female	Jan 08, 1987	Dead	129	262	Captive Birth/Hatch	Birth/Hatch	Jan 08, 1987	SD-WAP
									Death	Jan 11, 1987	SD-WAP
358	STCATHERN	874231	Female	Feb 01, 1987	Dead	230	223	Captive Birth/Hatch	Birth/Hatch	Feb 01, 1987	STCATHERN
									Death	Feb 05, 1987	STCATHERN
359	SD-WAP	687048	Female	Feb 03, 1987	Dead	129	213	Captive Birth/Hatch	Birth/Hatch	Feb 03, 1987	SD-WAP
									Death	Feb 06, 1987	SD-WAP
360	LOSANGELE	N00311	Female	Mar 05, 1987	Dead	128	174	Captive Birth/Hatch	Birth/Hatch	Mar 05, 1987	LOSANGELE
									Death	Mar 05, 1987	LOSANGELE
361	METROZOO	M00935	Male	Mar 08, 1987	Dead	230	235	Captive Birth/Hatch	Birth/Hatch	Mar 08, 1987	STCATHERN
									Transfer	Apr 04, 1988	HOLIDAY
									Transfer	Apr 25, 1988	METROZOO
									Death	Mar 07, 1991	METROZOO
362	HOLIDAY	_____	Male	Apr 26, 1987	Undetermined (Lost to follow up)	239	207	Captive Birth/Hatch	Birth/Hatch	Apr 26, 1987	BATONROUG
									Transfer	Jun 16, 1988	HOLIDAY
									GO LTF	Jun 16, 1988	HOLIDAY
364	HOLIDAY	_____	Male	May 13, 1987	Undetermined (Lost to follow up)	129	293	Captive Birth/Hatch	Birth/Hatch	May 13, 1987	SD-WAP
									Transfer	Dec 14, 1989	HOLIDAY
									GO LTF	Dec 14, 1989	HOLIDAY
366	SAN ANTON	871801	Female	Aug 04, 1987	Dead	63	125	Captive Birth/Hatch	Birth/Hatch	Aug 04, 1987	SAN ANTON
									Death	Aug 04, 1987	SAN ANTON
367	SD-WAP	687543	Female	Aug 09, 1987	Dead	129	291	Captive Birth/Hatch	Birth/Hatch	Aug 09, 1987	SD-WAP
									Death	Nov 05, 1997	SD-WAP
368	OMAHA	5123	Female	Oct 15, 1987	Dead	124	306	Captive Birth/Hatch	Birth/Hatch	Oct 15, 1987	OMAHA
									Death	Oct 15, 1987	OMAHA
369	OMAHA	5114	Male	Oct 19, 1987	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Oct 19, 1987	OMAHA
									Death	Feb 03, 1993	OMAHA
370	SAN ANTON	871053	Female	Oct 20, 1987	Dead	63	238	Captive Birth/Hatch	Birth/Hatch	Oct 20, 1987	SAN ANTON
									Death	Nov 19, 1987	SAN ANTON
371	OMAHA	5122	Female	Oct 28, 1987	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Oct 28, 1987	OMAHA

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Oct 18, 1994	OMAHA
372	SAN ANTON	871098	Female	Oct 29, 1987	Dead	63	UND	Captive Birth/Hatch	Birth/Hatch	Oct 29, 1987	SAN ANTON
									Death	Mar 23, 1997	SAN ANTON
373	SAN ANTON	871097	Female	Oct 29, 1987	Dead	63	UND	Captive Birth/Hatch	Birth/Hatch	Oct 29, 1987	SAN ANTON
									Death	Feb 23, 1994	SAN ANTON
374	DISNEY AK	980506	Female	Nov 10, 1987	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Nov 10, 1987	OMAHA
									Transfer	Mar 06, 1998	DISNEY AK
									Death	Mar 31, 1998	DISNEY AK
375	SD-WAP	687677	Female	Nov 17, 1987	Dead	229	178	Captive Birth/Hatch	Birth/Hatch	Nov 17, 1987	SD-WAP
									Death	Nov 20, 1987	SD-WAP
376	LOSANGELE	N00366	Male	Nov 26, 1987	Dead	128	171	Captive Birth/Hatch	Birth/Hatch	Nov 26, 1987	LOSANGELE
									Death	Nov 26, 1987	LOSANGELE
377	LOSANGELE	N00368	Male	Nov 29, 1987	Dead	128	197	Captive Birth/Hatch	Birth/Hatch	Nov 29, 1987	LOSANGELE
									Death	Nov 29, 1987	LOSANGELE
378	DALLAS	886446	Female	Nov 29, 1987	Dead	263	316	Captive Birth/Hatch	Birth/Hatch	Nov 29, 1987	METROZOO
									Transfer	Dec 09, 1988	DALLAS
									Death	Mar 31, 1994	DALLAS
379	HOLIDAY	_____	Male	Dec 03, 1987	Undetermined (Lost to follow up)	229	70	Captive Birth/Hatch	Birth/Hatch	Dec 03, 1987	SD-WAP
									Transfer	Mar 08, 1990	HOLIDAY
									GO LTF	Mar 08, 1990	HOLIDAY
380	SAN ANTON	910122	Male	Dec 07, 1987	Dead	229	262	Captive Birth/Hatch	Birth/Hatch	Dec 07, 1987	SD-WAP
									Transfer	Jan 26, 1991	SAN ANTON
									Death	Oct 08, 2003	SAN ANTON
381	STCATHERN	884322	Male	Dec 16, 1987	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 16, 1987	HOLIDAY
									Transfer	Jan 01, 1988 +/- 6 month	METROZOO
									Transfer	Oct 13, 1988	STCATHERN
									Death	Oct 21, 1994	STCATHERN
386	THUMAMAH	L4	Male	Jan 01, 1988	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jan 01, 1988	THUMAMAH
									Death	Dec 17, 1988	THUMAMAH

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
387	OMAHA	5147	Female	Jan 08, 1988	Dead	124	214	Captive Birth/Hatch	Birth/Hatch	Jan 08, 1988	OMAHA
									Death	Jan 09, 1988	OMAHA
388	METROZOO	M00892	Female	Jan 12, 1988	Dead	263	278	Captive Birth/Hatch	Birth/Hatch	Jan 12, 1988	METROZOO
									Death	Dec 06, 1988	METROZOO
389	BATONROUG	M1884	Female	Jan 31, 1988	Dead	296	310	Captive Birth/Hatch	Birth/Hatch	Jan 31, 1988	BATONROUG
									Death	Feb 05, 2007	BATONROUG
390	AUERHAHN	_____	Male	Feb 22, 1988	Undetermined (Lost to follow up)	63	237	Captive Birth/Hatch	Birth/Hatch	Feb 22, 1988	SAN ANTON
									Transfer	Mar 29, 1989	AUERHAHN
									GO LTF	Mar 29, 1989	AUERHAHN
391	HOLIDAY	_____	Male	Feb 27, 1988	Undetermined (Lost to follow up)	229	329	Captive Birth/Hatch	Birth/Hatch	Feb 27, 1988	SD-WAP
									Transfer	Jun 09, 1988	HOLIDAY
									GO LTF	Jun 09, 1988	HOLIDAY
392	SAN ANTON	880249	Female	Feb 27, 1988	Dead	63	241	Captive Birth/Hatch	Birth/Hatch	Feb 27, 1988	SAN ANTON
									Death	May 08, 1997	SAN ANTON
393	STCATHERN	884285	Male	Mar 25, 1988	Dead	230	330	Captive Birth/Hatch	Birth/Hatch	Mar 25, 1988	STCATHERN
									Death	Mar 29, 1988	STCATHERN
394	MEMPHIS	9427	Female	Mar 30, 1988	Dead	301	209	Captive Birth/Hatch	Birth/Hatch	Mar 30, 1988	MEMPHIS
									Death	Feb 19, 1993	MEMPHIS
395	STCATHERN	884293	Male	Apr 09, 1988	Dead	230	223	Captive Birth/Hatch	Birth/Hatch	Apr 09, 1988	STCATHERN
									Death	Mar 27, 1993	STCATHERN
396	SD-WAP	688148	Female	Apr 14, 1988	Dead	229	196	Captive Birth/Hatch	Birth/Hatch	Apr 14, 1988	SD-WAP
									Death	Apr 15, 1988	SD-WAP
397	OMAHA	5169	Male	Apr 24, 1988	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Apr 24, 1988	OMAHA
									Death	Oct 31, 1997	OMAHA
398	AUERHAHN	_____	Male	May 04, 1988	Undetermined (Lost to follow up)	63	268	Captive Birth/Hatch	Birth/Hatch	May 04, 1988	SAN ANTON
									Transfer	Mar 29, 1989	AUERHAHN
									GO LTF	Mar 29, 1989	AUERHAHN
399	METROZOO	M01029	Female	May 06, 1988	Dead	266	219	Captive Birth/Hatch	Birth/Hatch	May 06, 1988	DALLAS

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Dec 08, 1988	METROZOO
									Death	Mar 07, 1991	METROZOO
400	BATONROUG	M1927	Female	Jun 03, 1988	Dead	296	288	Captive Birth/Hatch	Birth/Hatch	Jun 03, 1988	BATONROUG
									Death	Mar 15, 1994	BATONROUG
401	SD-WAP	688398	Undetermined	Jun 20, 1988	Dead	229	UND	Captive Birth/Hatch	Birth/Hatch	Jun 20, 1988	SD-WAP
									Death	Jun 20, 1988	SD-WAP
402	OMAHA	5232	Male	Oct 10, 1988	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Oct 10, 1988	OMAHA
									Death	Jan 30, 1993	OMAHA
403	OMAHA	5235	Female	Oct 14, 1988	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Oct 14, 1988	OMAHA
									Death	Oct 16, 1988	OMAHA
404	OMAHA	5252	Female	Nov 22, 1988	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Nov 22, 1988	OMAHA
									Death	Mar 13, 2002	OMAHA
405	SD-WAP	688659	Male	Nov 29, 1988	Dead	UND	262	Captive Birth/Hatch	Birth/Hatch	Nov 29, 1988	SD-WAP
									Death	Nov 29, 1988	SD-WAP
406	HOUSTON	10758	Female	Nov 29, 1988	Dead	128	197	Captive Birth/Hatch	Birth/Hatch	Nov 29, 1988	HOUSTON
									Death	Nov 29, 1988	HOUSTON
407	GULF BREZ	A2568	Female	Dec 13, 1988	Dead	128	356	Captive Birth/Hatch	Birth/Hatch	Dec 13, 1988	HOUSTON
									Transfer	Mar 30, 1999	GULF BREZ
									Death	Sep 02, 1999	GULF BREZ
408	SD-WAP	699071	Female	Dec 19, 1988	Dead	124	214	Captive Birth/Hatch	Birth/Hatch	Dec 19, 1988	OMAHA
									Transfer	Mar 06, 1998	DISNEY AK
									Transfer	Mar 06, 1999	SD-WAP
									Death	Apr 09, 2004	SD-WAP
415	SAN ANTON	900104	Male	Jan 10, 1989	Dead	263	316	Captive Birth/Hatch	Birth/Hatch	Jan 10, 1989	METROZOO
									Transfer	Jan 10, 1990	SAN ANTON
									Death	Jan 14, 1990	SAN ANTON
416	HOUSTON	11015	Male	Jan 14, 1989	Dead	128	171	Captive Birth/Hatch	Birth/Hatch	Jan 14, 1989	HOUSTON
									Death	Jan 18, 1989	HOUSTON
417	SD-WAP	689024	Female	Jan 19, 1989	Dead	UND	367	Captive Birth/Hatch	Birth/Hatch	Jan 19, 1989	SD-WAP
									Death	Feb 15, 1996	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
418	DALLAS	896466	Male	Feb 08, 1989	Dead	266	219	Captive Birth/Hatch	Birth/Hatch	Feb 08, 1989	DALLAS
									Death	Feb 08, 1989	DALLAS
419	SD-WAP	689070	Male	Feb 27, 1989	Dead	UND	70	Captive Birth/Hatch	Birth/Hatch	Feb 27, 1989	SD-WAP
									Death	Jun 10, 1991	SD-WAP
420	HOLIDAY	_____	Male	Apr 03, 1989	Undetermined (Lost to follow up)	296	288	Captive Birth/Hatch	Birth/Hatch	Apr 03, 1989	BATONROUG
									Transfer	Oct 04, 1989	HOLIDAY
									GO LTF	Oct 04, 1989	HOLIDAY
421	TEXAMWS	IBAX	Male	Apr 04, 1989	Dead	UND	378	Captive Birth/Hatch	Birth/Hatch	Apr 04, 1989	DALLAS
									Transfer	Aug 17, 1989	TEXAMCWC
									Death	Feb 20, 1991	TEXAMWS
422	OMAHA	5338	Male	Apr 09, 1989	Dead	131	334	Captive Birth/Hatch	Birth/Hatch	Apr 09, 1989	OMAHA
									Death	Dec 10, 2000	OMAHA
423	OMAHA	5348	Male	Apr 11, 1989	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Apr 11, 1989	OMAHA
									Death	Apr 12, 1989	OMAHA
424	DALLAS	896508	Female	Apr 11, 1989	Dead	266	163	Captive Birth/Hatch	Birth/Hatch	Apr 11, 1989	DALLAS
									Death	Jun 21, 1992	DALLAS
425	SD-WAP	689212	Male	Apr 29, 1989	Dead	UND	293	Captive Birth/Hatch	Birth/Hatch	Apr 29, 1989	SD-WAP
									Death	May 02, 1989	SD-WAP
426	FOUTS J	_____	Male	May 13, 1989	Undetermined (Lost to follow up)	UND	291	Captive Birth/Hatch	Birth/Hatch	May 13, 1989	SD-WAP
									Transfer	Jun 13, 1991	ABQBIOPK
									Transfer	Jan 27, 1995	FOUTS J
									GO LTF	Jan 27, 1995	FOUTS J
427	METROZOO	M01102	Female	May 13, 1989	Dead	263	278	Captive Birth/Hatch	Birth/Hatch	May 13, 1989	METROZOO
									Death	Mar 07, 1991	METROZOO
428	BATONROUG	M2108	Male	May 19, 1989	Dead	296	207	Captive Birth/Hatch	Birth/Hatch	May 19, 1989	BATONROUG
									Death	May 19, 1989	BATONROUG
429	SD-WAP	689425	Male	Jun 25, 1989	Dead	UND	196	Captive Birth/Hatch	Birth/Hatch	Jun 25, 1989	SD-WAP
									Death	Dec 02, 1992	SD-WAP
430	SAN ANTON	890721	Female	Jul 13, 1989	Dead	294	UND	Captive Birth/Hatch	Birth/Hatch	Jul 13, 1989	SAN ANTON

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Jun 10, 2003	SAN ANTON
431	SAN ANTON	890816	Male	Aug 10, 1989	Dead	294	241	Captive Birth/Hatch	Birth/Hatch	Aug 10, 1989	SAN ANTON
									Death	Aug 10, 1989	SAN ANTON
432	ASHEBORO	1644	Female	Aug 22, 1989	Dead	230	223	Captive Birth/Hatch	Birth/Hatch	Aug 22, 1989	STCATHERN
									Transfer	May 13, 2004	ASHEBORO
									Death	Nov 23, 2004	ASHEBORO
433	STCATHERN	894374	Female	Sep 16, 1989	Dead	230	235	Captive Birth/Hatch	Birth/Hatch	Sep 16, 1989	STCATHERN
									Death	Sep 19, 1989	STCATHERN
434	OMAHA	5526	Male	Oct 22, 1989	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Oct 22, 1989	OMAHA
									Death	Jun 20, 1990	OMAHA
435	OMAHA	5527	Male	Oct 24, 1989	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Oct 24, 1989	OMAHA
									Death	Jan 18, 1996	OMAHA
436	HOLIDAY	_____	Male	Oct 27, 1989	Undetermined (Lost to follow up)	296	310	Captive Birth/Hatch	Birth/Hatch	Oct 27, 1989	BATONROUG
									Transfer	Sep 15, 1990	HOLIDAY
									GO LTF	Sep 15, 1990	HOLIDAY
437	SAN ANTON	891104	Female	Nov 04, 1989	Dead	294	UND	Captive Birth/Hatch	Birth/Hatch	Nov 04, 1989	SAN ANTON
									Death	Oct 10, 2006	SAN ANTON
438	SAN ANTON	891107	Female	Nov 05, 1989	Dead	294	157	Captive Birth/Hatch	Birth/Hatch	Nov 05, 1989	SAN ANTON
									Death	Nov 05, 1989	SAN ANTON
439	HOLIDAY	_____	Female	Nov 07, 1989	Undetermined (Lost to follow up)	296	389	Captive Birth/Hatch	Birth/Hatch	Nov 07, 1989	BATONROUG
									Transfer	Sep 15, 1990	HOLIDAY
									GO LTF	Sep 15, 1990	HOLIDAY
440	OMAHA	5538	Female	Nov 15, 1989	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Nov 15, 1989	OMAHA
									Death	Dec 22, 1989	OMAHA
441	SD-WAP	689678	Female	Nov 20, 1989	Dead	UND	367	Captive Birth/Hatch	Birth/Hatch	Nov 20, 1989	SD-WAP
									Death	Dec 04, 1998	SD-WAP
442	OMAHA	5578	Male	Dec 07, 1989	Dead	131	231	Captive Birth/Hatch	Birth/Hatch	Dec 07, 1989	OMAHA
									Death	Dec 07, 1989	OMAHA

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
450	JOHNSON L	_____	Male	Jan 07, 1990	Undetermined (Lost to follow up)	UND	262	Captive Birth/Hatch	Birth/Hatch	Jan 07, 1990	SD-WAP
									Transfer	Jun 23, 1993	JOHNSON L
									GO LTF	Jun 23, 1993	JOHNSON L
451	OMAHA	5594	Female	Jan 10, 1990	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jan 10, 1990	OMAHA
									Death	Jan 13, 1990	OMAHA
452	HOLIDAY	_____	Male	Jan 13, 1990	Undetermined (Lost to follow up)	263	316	Captive Birth/Hatch	Birth/Hatch	Jan 13, 1990	METROZOO
									Transfer	Sep 14, 1990	HOLIDAY
									GO LTF	Sep 14, 1990	HOLIDAY
453	DALLAS	906681	Female	Jan 14, 1990	Dead	266	163	Captive Birth/Hatch	Birth/Hatch	Jan 14, 1990	DALLAS
									Death	Mar 31, 1994	DALLAS
454	HOLIDAY	_____	Male	Jan 22, 1990	Undetermined (Lost to follow up)	361	399	Captive Birth/Hatch	Birth/Hatch	Jan 22, 1990	METROZOO
									Transfer	Sep 14, 1990	HOLIDAY
									GO LTF	Sep 14, 1990	HOLIDAY
455	OMAHA	5596	Female	Jan 24, 1990	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Jan 24, 1990	OMAHA
									Death	Jul 19, 1995	OMAHA
456	OMAHA	5597	Male	Feb 06, 1990	Dead	124	214	Captive Birth/Hatch	Birth/Hatch	Feb 06, 1990	OMAHA
									Death	Jan 09, 2000	OMAHA
457	OMAHA	5598	Undetermined	Feb 06, 1990	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Feb 06, 1990	OMAHA
									Death	Feb 06, 1990	OMAHA
458	FOUTS J	_____	Female	Feb 09, 1990	Undetermined (Lost to follow up)	263	278	Captive Birth/Hatch	Birth/Hatch	Feb 09, 1990	METROZOO
									Transfer	May 02, 1991	ABQBIOPK
									Transfer	Jan 27, 1995	FOUTS J
									GO LTF	Jan 27, 1995	FOUTS J
459	SD-WAP	690099	Male	Mar 13, 1990	Dead	UND	293	Captive Birth/Hatch	Birth/Hatch	Mar 13, 1990	SD-WAP
									Death	Apr 02, 1990	SD-WAP
460	FOUTS J	_____	Female	Mar 26, 1990	Undetermined (Lost to follow up)	296	288	Captive Birth/Hatch	Birth/Hatch	Mar 26, 1990	BATONROUG
									Transfer	May 08, 1991	HOLIDAY
									Transfer	May 09, 1991	ABQBIOPK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Jan 27, 1995	FOUTS J
									GO LTF	Jan 27, 1995	FOUTS J
461	BATONROUG	M2230	Female	Apr 05, 1990	Dead	296	400	Captive Birth/Hatch	Birth/Hatch	Apr 05, 1990	BATONROUG
									Death	Apr 06, 1991	BATONROUG
462	MEMPHIS	11148	Female	Apr 22, 1990	Dead	301	394	Captive Birth/Hatch	Birth/Hatch	Apr 22, 1990	MEMPHIS
									Death	Apr 24, 1990	MEMPHIS
463	SD-WAP	690186	Undetermined	Apr 28, 1990	Dead	UND	196	Captive Birth/Hatch	Birth/Hatch	Apr 28, 1990	SD-WAP
									Death	Apr 28, 1990	SD-WAP
464	SAN ANTON	901506	Female	May 17, 1990	Dead	294	241	Captive Birth/Hatch	Birth/Hatch	May 17, 1990	SAN ANTON
									Death	May 17, 1990	SAN ANTON
465	SAN ANTON	901533	Female	May 26, 1990	Dead	294	268	Captive Birth/Hatch	Birth/Hatch	May 26, 1990	SAN ANTON
									Death	May 31, 1990	SAN ANTON
466	JOHNSON L	_____	Female	Jun 03, 1990	Undetermined (Lost to follow up)	UND	291	Captive Birth/Hatch	Birth/Hatch	Jun 03, 1990	SD-WAP
									Transfer	Sep 04, 1996	JOHNSON L
									GO LTF	Sep 04, 1996	JOHNSON L
467	SD-WAP	690432	Male	Jul 03, 1990	Dead	UND	417	Captive Birth/Hatch	Birth/Hatch	Jul 03, 1990	SD-WAP
									Death	Jul 03, 1990	SD-WAP
468	STCATHERN	904402	Female	Jul 16, 1990	Dead	381	223	Captive Birth/Hatch	Birth/Hatch	Jul 16, 1990	STCATHERN
									Death	Mar 19, 2001	STCATHERN
469	STCATHERN	904404	Male	Jul 18, 1990	Dead	381	432	Captive Birth/Hatch	Birth/Hatch	Jul 18, 1990	STCATHERN
									Death	Oct 06, 1993	STCATHERN
470	LOXAHATCH	L127	Female	Sep 06, 1990	Dead	294	UND	Captive Birth/Hatch	Birth/Hatch	Sep 06, 1990	SAN ANTON
									Transfer	Jul 13, 1992	LOXAHATCH
									Death	Feb 01, 1994	LOXAHATCH
471	SD-WAP	690567	Male	Sep 16, 1990	Dead	UND	367	Captive Birth/Hatch	Birth/Hatch	Sep 16, 1990	SD-WAP
									Death	Dec 31, 1994	SD-WAP
472	SD-WAP	699068	Female	Oct 02, 1990	Dead	MULT11	UND	Captive Birth/Hatch	Birth/Hatch	Oct 02, 1990	OMAHA
									Transfer	Mar 06, 1998	DISNEY AK
									Transfer	Mar 09, 1999	SD-WAP
									Death	Sep 20, 2001	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
473	DALLAS	917040	Male	Oct 20, 1990	Dead	315	171	Captive Birth/Hatch	Birth/Hatch	Oct 20, 1990	HOUSTON
									Transfer	Mar 29, 1991	DALLAS
									Death	Dec 15, 1993	DALLAS
474	OMAHA	5801	Female	Oct 26, 1990	Dead	131	UND	Captive Birth/Hatch	Birth/Hatch	Oct 26, 1990	OMAHA
									Death	Dec 17, 1997	OMAHA
475	OMAHA	5802	Female	Oct 28, 1990	Dead	131	339	Captive Birth/Hatch	Birth/Hatch	Oct 28, 1990	OMAHA
									Death	Dec 22, 1990	OMAHA
476	OMAHA	5808	Female	Nov 05, 1990	Dead	131	404	Captive Birth/Hatch	Birth/Hatch	Nov 05, 1990	OMAHA
									Death	Jan 15, 2005	OMAHA
477	HOLIDAY	_____	Male	Nov 06, 1990	Undetermined (Lost to follow up)	296	389	Captive Birth/Hatch	Birth/Hatch	Nov 06, 1990	BATONROUG
									Transfer	Apr 16, 1991	HOLIDAY
									GO LTF	Apr 16, 1991	HOLIDAY
478	SD-WAP	690684	Female	Nov 13, 1990	Dead	UND	70	Captive Birth/Hatch	Birth/Hatch	Nov 13, 1990	SD-WAP
									Death	May 14, 1999	SD-WAP
479	METROZOO	M01343	Male	Nov 15, 1990	Dead	361	399	Captive Birth/Hatch	Birth/Hatch	Nov 15, 1990	METROZOO
									Death	Nov 16, 1990	METROZOO
480	YULEE	950316	Female	Nov 18, 1990	Dead	294	157	Captive Birth/Hatch	Birth/Hatch	Nov 18, 1990	SAN ANTON
									Transfer	Jul 12, 1992	LOXAHATCH
									Transfer	Apr 17, 1995	YULEE
									Death	Jun 12, 2003	YULEE
481	OMAHA	5827	Female	Nov 29, 1990	Dead	131	334	Captive Birth/Hatch	Birth/Hatch	Nov 29, 1990	OMAHA
									Death	Nov 30, 1990	OMAHA
482	HOLIDAY	_____	Male	Dec 11, 1990	Undetermined (Lost to follow up)	296	310	Captive Birth/Hatch	Birth/Hatch	Dec 11, 1990	BATONROUG
									Transfer	Apr 16, 1991	HOLIDAY
									GO LTF	Apr 16, 1991	HOLIDAY
483	MT ULLA	_____	Male	Dec 28, 1990	Undetermined (Lost to follow up)	263	316	Captive Birth/Hatch	Birth/Hatch	Dec 28, 1990	METROZOO
									Transfer	Sep 16, 1991	SMITH MRK
									Transfer	Sep 16, 1991	LOXAHATCH
									Transfer	Apr 18, 1995	YULEE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Mar 19, 1998	MT ULLA
									GO LTF	Mar 19, 1998	MT ULLA
484	SD-WAP	691002	Male	Jan 02, 1991	Dead	338	262	Captive Birth/Hatch	Birth/Hatch	Jan 02, 1991	SD-WAP
									Death	Jan 10, 1991	SD-WAP
485	HOLIDAY	_____	Male	Feb 18, 1991	Undetermined (Lost to follow up)	258	394	Captive Birth/Hatch	Birth/Hatch	Feb 18, 1991	MEMPHIS
									Transfer	Nov 15, 1991	HOLIDAY
									GO LTF	Nov 15, 1991	HOLIDAY
486	OMAHA	5892	Female	Feb 21, 1991	Dead	UND	408	Captive Birth/Hatch	Birth/Hatch	Feb 21, 1991	OMAHA
									Death	Feb 22, 1991	OMAHA
487	YULEE	950315	Female	Feb 21, 1991	Dead	263	278	Captive Birth/Hatch	Birth/Hatch	Feb 21, 1991	METROZOO
									Transfer	Sep 16, 1991	SMITH MRK
									Transfer	Sep 16, 1991	LOXAHATCH
									Transfer	Apr 18, 1995	YULEE
									Death	Jan 29, 1999	YULEE
488	JACKSON	931015	Male	Mar 09, 1991	Dead	294	241	Captive Birth/Hatch	Birth/Hatch	Mar 09, 1991	SAN ANTON
									Transfer	Jun 17, 1993	JACKSON
									Death	Aug 01, 2005	JACKSON
489	STCATHERN	914425	Male	Mar 24, 1991	Dead	381	432	Captive Birth/Hatch	Birth/Hatch	Mar 24, 1991	STCATHERN
									Death	Aug 20, 1993	STCATHERN
490	STCATHERN	924486	Male	May 04, 1991	Dead	294	430	Captive Birth/Hatch	Birth/Hatch	May 04, 1991	SAN ANTON
									Transfer	Apr 15, 1992	STCATHERN
									Death	Mar 28, 2000	STCATHERN
491	LOXAHATCH	L129	Female	Apr 12, 1991	Dead	294	305	Captive Birth/Hatch	Birth/Hatch	Apr 12, 1991	SAN ANTON
									Transfer	Jul 12, 1992	LOXAHATCH
									Death	Mar 03, 1994	LOXAHATCH
492	JOHNSON L	_____	Female	Apr 15, 1991	Undetermined (Lost to follow up)	338	417	Captive Birth/Hatch	Birth/Hatch	Apr 15, 1991	SD-WAP
									Transfer	Jun 23, 1993	JOHNSON L
									GO LTF	Jun 23, 1993	JOHNSON L
493	STCATHERN	914447	Female	Apr 25, 1991	Dead	381	223	Captive Birth/Hatch	Birth/Hatch	Apr 25, 1991	STCATHERN
									Death	Jul 29, 1994	STCATHERN

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
494	JOHNSON L	_____	Male	May 01, 1991	Undetermined (Lost to follow up)	338	441	Captive Birth/Hatch	Birth/Hatch	May 01, 1991	SD-WAP
									Transfer	Jul 15, 1997	JOHNSON L
									GO LTF	Jul 15, 1997	JOHNSON L
495	HOLIDAY	_____	Female	May 17, 1991	Undetermined (Lost to follow up)	298	400	Captive Birth/Hatch	Birth/Hatch	May 17, 1991	BATONROUG
									Transfer	Feb 04, 1992	HOLIDAY
									GO LTF	Feb 04, 1992	HOLIDAY
496	FOUTS J	_____	Female	Jun 01, 1991	Undetermined (Lost to follow up)	UND	288	Captive Birth/Hatch	Birth/Hatch	Jun 01, 1991	ABQBIOPK
									Transfer	Jan 27, 1995	FOUTS J
									GO LTF	Jan 27, 1995	FOUTS J
497	HOUSTON	12952	Female	Jun 08, 1991	Dead	315	407	Captive Birth/Hatch	Birth/Hatch	Jun 08, 1991	HOUSTON
									Death	Jan 30, 1999	HOUSTON
498	PEACE RV	101092	Male	Jun 16, 1991	Dead	338	291	Captive Birth/Hatch	Birth/Hatch	Jun 16, 1991	SD-WAP
									Transfer	Aug 25, 1993	HOLIDAY
									Transfer	Dec 02, 1993	METROZOO
									Transfer	Oct 30, 2001	PEACE RV
									Death	Aug 19, 2004	PEACE RV
499	STCATHERN	914463	Male	Jul 24, 1991	Dead	381	235	Captive Birth/Hatch	Birth/Hatch	Jul 24, 1991	STCATHERN
									Death	Oct 15, 1991	STCATHERN
500	SAN ANTON	910763	Male	Jul 28, 1991	Dead	294	392	Captive Birth/Hatch	Birth/Hatch	Jul 28, 1991	SAN ANTON
									Death	Aug 02, 1991	SAN ANTON
510	SD-WAP	691597	Male	Sep 24, 1991	Dead	338	196	Captive Birth/Hatch	Birth/Hatch	Sep 24, 1991	SD-WAP
									Death	Sep 24, 1991	SD-WAP
511	BATONROUG	7535	Female	Sep 26, 1991	Dead	338	367	Captive Birth/Hatch	Birth/Hatch	Sep 26, 1991	SD-WAP
									Transfer	Sep 04, 1995	HOLIDAY
									Transfer	Sep 13, 1995	BATONROUG
									Death	Sep 15, 1996	BATONROUG
512	SAN ANTON	911101	Male	Nov 02, 1991	Dead	294	305	Captive Birth/Hatch	Birth/Hatch	Nov 02, 1991	SAN ANTON
									Death	Nov 03, 1991	SAN ANTON
513	SD-WAP	691694	Male	Nov 03, 1991	Dead	338	178	Captive Birth/Hatch	Birth/Hatch	Nov 03, 1991	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Nov 03, 1991	SD-WAP
514	OMAHA	6219	Female	Nov 07, 1991	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 07, 1991	OMAHA
									Death	Nov 08, 1991	OMAHA
515	HOLIDAY	_____	Male	Nov 11, 1991	Undetermined (Lost to follow up)	258	279	Captive Birth/Hatch	Birth/Hatch	Nov 11, 1991	MEMPHIS
									Transfer	Sep 28, 1992	HOLIDAY
									GO LTF	Sep 28, 1992	HOLIDAY
516	OMAHA	6248	Male	Nov 22, 1991	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 22, 1991	OMAHA
									Death	Nov 23, 1991	OMAHA
517	JACKSON	931011	Female	Nov 26, 1991	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 26, 1991	OMAHA
									Transfer	May 05, 1993	JACKSON
									Death	Jan 05, 2001	JACKSON
518	SAN ANTON	911143	Male	Nov 27, 1991	Dead	294	157	Captive Birth/Hatch	Birth/Hatch	Nov 27, 1991	SAN ANTON
									Death	Nov 27, 1991	SAN ANTON
519	HOUSTON	13241	Female	Dec 01, 1991	Dead	315	171	Captive Birth/Hatch	Birth/Hatch	Dec 01, 1991	HOUSTON
									Death	Mar 26, 1992	HOUSTON
520	ASHLANDNE	6269	Female	Dec 04, 1991	Dead	MULT11	UND	Captive Birth/Hatch	Birth/Hatch	Dec 04, 1991	OMAHA
									Transfer	Aug 03, 2011	ASHLANDNE
									Death	Jan 04, 2016	ASHLANDNE
521	PEACE RV	101096	Female	Dec 05, 1991	Dead	263	278	Captive Birth/Hatch	Birth/Hatch	Dec 05, 1991	METROZOO
									Transfer	Nov 02, 2001	PEACE RV
									Death	Aug 23, 2003	PEACE RV
522	HOLIDAY	_____	Male	Dec 21, 1991	Undetermined (Lost to follow up)	298	310	Captive Birth/Hatch	Birth/Hatch	Dec 21, 1991	BATONROUG
									Transfer	Nov 19, 1992	HOLIDAY
									GO LTF	Nov 19, 1992	HOLIDAY
523	MEMPHIS	12620	Male	Dec 22, 1991	Dead	258	394	Captive Birth/Hatch	Birth/Hatch	Dec 22, 1991	MEMPHIS
									Death	Dec 23, 1991	MEMPHIS
524	ASHEBORO	1541	Male	Dec 31, 1991	Dead	381	432	Captive Birth/Hatch	Birth/Hatch	Dec 31, 1991	STCATHERN
									Transfer	Apr 25, 1996	STCATHERN
									Transfer	Nov 07, 2000	ASHEBORO
									Death	Jul 20, 2004	ASHEBORO

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
525	SAN ANTON	920137	Female	Jan 23, 1992	Dead	294	241	Captive Birth/Hatch	Birth/Hatch	Jan 23, 1992	SAN ANTON
									Death	Sep 01, 2004	SAN ANTON
526	SD-WAP	692043	Undetermined	Feb 02, 1992	Dead	338	291	Captive Birth/Hatch	Birth/Hatch	Feb 02, 1992	SD-WAP
									Death	Feb 02, 1992	SD-WAP
527	BULVERDE	_____	Male	Feb 14, 1992	Undetermined (Lost to follow up)	380	437	Captive Birth/Hatch	Birth/Hatch	Feb 14, 1992	SAN ANTON
									Transfer	Mar 01, 1995	BULVERDE
									GO LTF	Mar 01, 1995	BULVERDE
528	OMAHA	6338	Male	Feb 26, 1992	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Feb 26, 1992	OMAHA
									Death	May 06, 1992	OMAHA
529	SD-WAP	692081	Female	Feb 28, 1992	Dead	338	293	Captive Birth/Hatch	Birth/Hatch	Feb 28, 1992	SD-WAP
									Death	Nov 26, 1998	SD-WAP
530	SAN ANTON	920307	Male	Mar 05, 1992	Dead	294	268	Captive Birth/Hatch	Birth/Hatch	Mar 05, 1992	SAN ANTON
									Death	Mar 09, 1992	SAN ANTON
531	STCATHERN	924477	Male	Mar 08, 1992	Dead	381	468	Captive Birth/Hatch	Birth/Hatch	Mar 08, 1992	STCATHERN
									Death	Apr 29, 1996	STCATHERN
532	METROZOO	M01498	Female	Mar 16, 1992	Dead	263	316	Captive Birth/Hatch	Birth/Hatch	Mar 16, 1992	METROZOO
									Death	Oct 20, 2001	METROZOO
533	SAN ANTON	920325	Male	Mar 17, 1992	Dead	294	470	Captive Birth/Hatch	Birth/Hatch	Mar 17, 1992	SAN ANTON
									Death	Oct 27, 1992	SAN ANTON
534	ASHEBORO	1646	Female	Apr 12, 1992	Dead	381	223	Captive Birth/Hatch	Birth/Hatch	Apr 12, 1992	STCATHERN
									Transfer	May 13, 2004	ASHEBORO
									Death	Dec 31, 2008	ASHEBORO
535	SAN ANTON	920462	Female	Apr 14, 1992	Dead	380	372	Captive Birth/Hatch	Birth/Hatch	Apr 14, 1992	SAN ANTON
									Death	Apr 14, 1992	SAN ANTON
536	BATONROUG	7536	Male	Apr 26, 1992	Dead	338	291	Captive Birth/Hatch	Birth/Hatch	Apr 26, 1992	SD-WAP
									Transfer	Sep 04, 1995	HOLIDAY
									Transfer	Sep 13, 1995	BATONROUG
									Death	Feb 18, 1999	BATONROUG
537	SD-WAP	692264	Male	May 15, 1992	Dead	338	417	Captive Birth/Hatch	Birth/Hatch	May 15, 1992	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	May 15, 1992	SD-WAP
538	OMAHA	6607	Female	May 28, 1992	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	May 28, 1992	OMAHA
									Death	Jan 15, 2005	OMAHA
539	JACKSON	200392	Female	Jun 12, 1992	Dead	380	373	Captive Birth/Hatch	Birth/Hatch	Jun 12, 1992	SAN ANTON
									Transfer	Apr 03, 2005	JACKSON
									Death	Apr 08, 2005	JACKSON
540	FOUTS J	_____	Male	Jun 12, 1992	Undetermined (Lost to follow up)	426	288	Captive Birth/Hatch	Birth/Hatch	Jun 12, 1992	ABQBIOPK
									Transfer	Jan 27, 1995	FOUTS J
									GO LTF	Jan 27, 1995	FOUTS J
541	STCATHERN	924497	Female	Jul 13, 1992	Dead	381	235	Captive Birth/Hatch	Birth/Hatch	Jul 13, 1992	STCATHERN
									Death	Feb 25, 1998	STCATHERN
542	MEMPHIS	21688	Female	Jul 18, 1992	Dead	294	392	Captive Birth/Hatch	Birth/Hatch	Jul 18, 1992	SAN ANTON
									Transfer	Mar 28, 2005	MEMPHIS
									Death	Apr 30, 2006	MEMPHIS
543	JOHNSON L	_____	Male	Jul 18, 1992	Undetermined (Lost to follow up)	338	367	Captive Birth/Hatch	Birth/Hatch	Jul 18, 1992	SD-WAP
									Transfer	Jul 01, 1996	JOHNSON L
									GO LTF	Jul 01, 1996	JOHNSON L
544	FOUTS J	_____	Female	Oct 03, 1992	Undetermined (Lost to follow up)	426	460	Captive Birth/Hatch	Birth/Hatch	Oct 03, 1992	ABQBIOPK
									Transfer	Jan 27, 1995	FOUTS J
									GO LTF	Jan 27, 1995	FOUTS J
545	MEMPHIS	13290	Female	Oct 04, 1992	Dead	258	279	Captive Birth/Hatch	Birth/Hatch	Oct 04, 1992	MEMPHIS
									Death	Oct 26, 1997	MEMPHIS
546	OMAHA	6841	Female	Oct 10, 1992	Dead	435	UND	Captive Birth/Hatch	Birth/Hatch	Oct 10, 1992	OMAHA
									Death	Mar 01, 1993	OMAHA
547	FOUTS J	_____	Female	Oct 11, 1992	Undetermined (Lost to follow up)	426	458	Captive Birth/Hatch	Birth/Hatch	Oct 11, 1992	ABQBIOPK
									Transfer	Jan 27, 1995	FOUTS J
									GO LTF	Jan 27, 1995	FOUTS J
548	OMAHA	6859	Male	Oct 17, 1992	Dead	435	UND	Captive Birth/Hatch	Birth/Hatch	Oct 17, 1992	OMAHA

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Dec 31, 1992	OMAHA
549	OMAHA	6860	Male	Oct 19, 1992	Dead	435	455	Captive Birth/Hatch	Birth/Hatch	Oct 19, 1992	OMAHA
									Death	Jun 03, 1996	OMAHA
550	OMAHA	6863	Male	Oct 24, 1992	Dead	435	UND	Captive Birth/Hatch	Birth/Hatch	Oct 24, 1992	OMAHA
									Death	Oct 28, 1994	OMAHA
551	HOUSTON	14050	Female	Oct 25, 1992	Dead	315	171	Captive Birth/Hatch	Birth/Hatch	Oct 25, 1992	HOUSTON
									Death	Jan 31, 1999	HOUSTON
552	STCATHERN	924505	Male	Oct 27, 1992	Dead	381	432	Captive Birth/Hatch	Birth/Hatch	Oct 27, 1992	STCATHERN
									Death	Feb 17, 2000	STCATHERN
553	IAE OH	A2M77	Female	Nov 08, 1992	Dead	298	400	Captive Birth/Hatch	Birth/Hatch	Nov 08, 1992	BATONROUG
									Transfer	Jun 22, 1993	HOLIDAY
									Transfer	Oct 19, 1994	KANSASCTY
									Transfer	Nov 24, 2002	FERNDALE
									Transfer	Nov 26, 2002	IAE OH
									Death	Dec 05, 2002	IAE OH
554	IAE OH	A2M76	Female	Nov 11, 1992	Dead	298	310	Captive Birth/Hatch	Birth/Hatch	Nov 11, 1992	BATONROUG
									Transfer	Jun 22, 1993	HOLIDAY
									Transfer	Oct 19, 1994	KANSASCTY
									Transfer	Nov 24, 2002	FERNDALE
									Transfer	Nov 24, 2002	IAE OH
									Death	Jan 15, 2003	IAE OH
555	HOUSTON	14090	Female	Nov 12, 1992	Dead	315	407	Captive Birth/Hatch	Birth/Hatch	Nov 12, 1992	HOUSTON
									Death	May 01, 1994	HOUSTON
556	BATONROUG	M2585	Female	Nov 20, 1992	Dead	298	389	Captive Birth/Hatch	Birth/Hatch	Nov 20, 1992	BATONROUG
									Death	Jan 21, 1993	BATONROUG
557	OMAHA	6983	Male	Dec 06, 1992	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 06, 1992	OMAHA
									Death	Jun 03, 1996	OMAHA
558	SAN ANTON	921208	Female	Dec 14, 1992	Dead	380	437	Captive Birth/Hatch	Birth/Hatch	Dec 14, 1992	SAN ANTON
									Death	Mar 28, 2005	SAN ANTON
559	SD-WAP	692668	Male	Dec 19, 1992	Dead	338	441	Captive Birth/Hatch	Birth/Hatch	Dec 19, 1992	SD-WAP
									Death	Dec 23, 1992	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
560	BULVERDE	_____	Male	Dec 23, 1992	Undetermined (Lost to follow up)	315	497	Captive Birth/Hatch	Birth/Hatch	Dec 23, 1992	HOUSTON
									Transfer	Nov 16, 1993	BULVERDE
									GO LTF	Nov 16, 1993	BULVERDE
561	RUM CREEK	101097	Female	Dec 23, 1992	Dead	263	278	Captive Birth/Hatch	Birth/Hatch	Dec 23, 1992	METROZOO
									Transfer	Nov 02, 2001	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Death	Jun 24, 2008	RUM CREEK
562	OMAHA	7079	Male	Jan 06, 1993	Dead	435	UND	Captive Birth/Hatch	Birth/Hatch	Jan 06, 1993	OMAHA
									Death	Feb 02, 1995	OMAHA
563	SD-WAP	693007	Female	Jan 07, 1993	Dead	338	466	Captive Birth/Hatch	Birth/Hatch	Jan 07, 1993	SD-WAP
									Death	Dec 28, 2007	SD-WAP
564	STCATHERN	934508	Female	Jan 10, 1993	Dead	381	468	Captive Birth/Hatch	Birth/Hatch	Jan 10, 1993	STCATHERN
									Death	Dec 07, 1999	STCATHERN
565	YULEE	950317	Male	Jan 13, 1993	Dead	483	487	Captive Birth/Hatch	Birth/Hatch	Jan 13, 1993	LOXAHATCH
									Transfer	Apr 17, 1995	YULEE
									Death	Jan 13, 1998	YULEE
566	BULVERDE	_____	Male	Feb 06, 1993	Undetermined (Lost to follow up)	380	372	Captive Birth/Hatch	Birth/Hatch	Feb 06, 1993	SAN ANTON
									Transfer	Mar 01, 1995	BULVERDE
									GO LTF	Mar 01, 1995	BULVERDE
567	KANSASCTY	102588	Male	Feb 22, 1993	Dead	338	291	Captive Birth/Hatch	Birth/Hatch	Feb 22, 1993	SD-WAP
									Transfer	Jul 15, 1993	HOLIDAY
									Transfer	Oct 19, 1994	KANSASCTY
									Death	Feb 18, 1996	KANSASCTY
568	JACKSON	931012	Female	Mar 08, 1993	Dead	435	UND	Captive Birth/Hatch	Birth/Hatch	Mar 08, 1993	OMAHA
									Transfer	May 05, 1993	JACKSON
									Death	Dec 19, 2001	JACKSON
569	SD-WAP	693097	Female	Mar 16, 1993	Dead	338	417	Captive Birth/Hatch	Birth/Hatch	Mar 16, 1993	SD-WAP
									Death	Mar 11, 1994	SD-WAP
570	DALLAS	938208	Female	Apr 04, 1993	Dead	473	378	Captive Birth/Hatch	Birth/Hatch	Apr 04, 1993	DALLAS
									Death	Apr 04, 1993	DALLAS

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
572	SAN ANTON	930436	Male	Apr 15, 1993	Dead	380	373	Captive Birth/Hatch	Birth/Hatch	Apr 15, 1993	SAN ANTON
									Death	May 03, 1997	SAN ANTON
573	YULEE	950323	Female	Apr 23, 1993	Dead	483	480	Captive Birth/Hatch	Birth/Hatch	Apr 23, 1993	LOXAHATCH
									Transfer	Apr 17, 1995	YULEE
									Death	Feb 22, 1998	YULEE
574	SD-WAP	693189	Female	Apr 28, 1993	Dead	338	367	Captive Birth/Hatch	Birth/Hatch	Apr 28, 1993	SD-WAP
									Death	May 04, 1993	SD-WAP
575	MT ULLA	_____	Male	Apr 16, 1993	Undetermined (Lost to follow up)	483	470	Captive Birth/Hatch	Birth/Hatch	Apr 16, 1993	LOXAHATCH
									Transfer	Apr 18, 1995	W PALM BE
									Transfer	Apr 12, 2001	MT ULLA
									GO LTF	Apr 12, 2001	MT ULLA
576	STCATHERN	934529	Male	May 18, 1993	Dead	381	223	Captive Birth/Hatch	Birth/Hatch	May 18, 1993	STCATHERN
									Death	May 18, 1993	STCATHERN
577	OMAHA	7325	Male	Jun 24, 1993	Dead	435	UND	Captive Birth/Hatch	Birth/Hatch	Jun 24, 1993	OMAHA
									Death	Jun 28, 1993	OMAHA
578	SD-WAP	693424	Male	Jun 28, 1993	Dead	338	511	Captive Birth/Hatch	Birth/Hatch	Jun 28, 1993	SD-WAP
									Death	Jun 28, 1993	SD-WAP
579	METROZOO	M01663	Female	Jul 13, 1993	Dead	263	521	Captive Birth/Hatch	Birth/Hatch	Jul 13, 1993	METROZOO
									Death	Dec 11, 1993	METROZOO
580	STCATHERN	934531	Male	Jul 15, 1993	Dead	381	235	Captive Birth/Hatch	Birth/Hatch	Jul 15, 1993	STCATHERN
									Death	Jul 15, 1993	STCATHERN
581	FOUTS J	_____	Male	Aug 07, 1993	Undetermined (Lost to follow up)	426	MULT14	Captive Birth/Hatch	Birth/Hatch	Aug 07, 1993	ABQBIOPK
									Transfer	Jan 27, 1995	FOUTS J
									GO LTF	Jan 27, 1995	FOUTS J
582	SD-WAP	693525	Male	Sep 01, 1993	Dead	338	291	Captive Birth/Hatch	Birth/Hatch	Sep 01, 1993	SD-WAP
									Death	Sep 02, 1993	SD-WAP
583	JOHNSON L	_____	Male	Sep 04, 1993	Undetermined (Lost to follow up)	338	529	Captive Birth/Hatch	Birth/Hatch	Sep 04, 1993	SD-WAP
									Transfer	Mar 29, 1996	JOHNSON L

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									GO LTF	Mar 29, 1996	JOHNSON L
584	OMAHA	7460	Male	Sep 27, 1993	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Sep 27, 1993	OMAHA
									Death	Oct 28, 2002	OMAHA
585	ASHEBORO	1684	Female	Sep 28, 1993	Dead	381	432	Captive Birth/Hatch	Birth/Hatch	Sep 28, 1993	STCATHERN
									Transfer	Nov 09, 2004	ASHEBORO
									Death	Oct 18, 2011	ASHEBORO
586	OMAHA	7475	Male	Sep 30, 1993	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Sep 30, 1993	OMAHA
									Death	Oct 01, 1993	OMAHA
587	SD-WAP	693592	Undetermined	Oct 01, 1993	Dead	338	293	Captive Birth/Hatch	Birth/Hatch	Oct 01, 1993	SD-WAP
									Death	Oct 01, 1993	SD-WAP
588	OMAHA	7478	Female	Oct 02, 1993	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Oct 02, 1993	OMAHA
									Death	Jan 08, 1994	OMAHA
589	OMAHA	7481	Male	Oct 07, 1993	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Oct 07, 1993	OMAHA
									Death	Mar 15, 2002	OMAHA
590	JOHNSON L	_____	Male	Oct 10, 1993	Undetermined (Lost to follow up)	338	441	Captive Birth/Hatch	Birth/Hatch	Oct 10, 1993	SD-WAP
									Transfer	Jul 01, 1996	JOHNSON L
									GO LTF	Jul 01, 1996	JOHNSON L
591	JACKSON	931029	Female	Oct 15, 1993	Dead	UND	517	Captive Birth/Hatch	Birth/Hatch	Oct 15, 1993	JACKSON
									Death	Oct 15, 1993	JACKSON
592	OMAHA	7486	Male	Oct 19, 1993	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Oct 19, 1993	OMAHA
									Death	Feb 18, 2004	OMAHA
593	MEMPHIS	14064	Female	Oct 29, 1993	Dead	258	279	Captive Birth/Hatch	Birth/Hatch	Oct 29, 1993	MEMPHIS
									Death	Dec 29, 2004	MEMPHIS
594	OMAHA	7493	Male	Oct 30, 1993	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Oct 30, 1993	OMAHA
									Death	Oct 30, 1993	OMAHA
595	DALLAS	938670	Female	Oct 31, 1993	Dead	473	219	Captive Birth/Hatch	Birth/Hatch	Oct 31, 1993	DALLAS
									Death	Oct 31, 1993	DALLAS
596	FOUTS J	_____	Female	Nov 03, 1993	Undetermined (Lost to follow up)	426	458	Captive Birth/Hatch	Birth/Hatch	Nov 03, 1993	ABQBIOPK
									Transfer	Jan 27, 1995	FOUTS J

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									GO LTF	Jan 27, 1995	FOUTS J
597	HOUSTON	14740	Male	Nov 04, 1993	Dead	315	171	Captive Birth/Hatch	Birth/Hatch	Nov 04, 1993	HOUSTON
									Death	Nov 04, 1993	HOUSTON
598	ABQBIOPK	M93056	Female	Nov 05, 1993	Dead	426	460	Captive Birth/Hatch	Birth/Hatch	Nov 05, 1993	ABQBIOPK
									Death	Jul 14, 1994	ABQBIOPK
599	UNDETERMI	Undetermined	Male	Nov 06, 1993	Undetermined (Lost to follow up)	315	497	Captive Birth/Hatch	Birth/Hatch	Nov 06, 1993	HOUSTON
									Transfer	Mar 30, 1999	GULF BREZ
									Transfer	Jan 19, 2005	GULF BREZ
									Transfer	Jul 28, 2006	UNDETERMI
									GO LTF	Jul 28, 2006	UNDETERMI
600	YULEE	950324	Male	Nov 06, 1993	Dead	483	487	Captive Birth/Hatch	Birth/Hatch	Nov 06, 1993	LOXAHATCH
									Transfer	Apr 17, 1995	YULEE
									Death	Oct 13, 1997	YULEE
601	SAN ANTON	931022	Female	Oct 20, 1993	Dead	380	437	Captive Birth/Hatch	Birth/Hatch	Oct 20, 1993	SAN ANTON
									Death	Dec 10, 1996	SAN ANTON
609	HOUSTON	14803	Female	Dec 31, 1993	Dead	315	407	Captive Birth/Hatch	Birth/Hatch	Dec 31, 1993	HOUSTON
									Death	Jan 31, 1999	HOUSTON
610	HOLIDAY	_____	Male	Nov 11, 1993	Undetermined (Lost to follow up)	338	466	Captive Birth/Hatch	Birth/Hatch	Nov 11, 1993	SD-WAP
									Transfer	Feb 08, 2000	HOLIDAY
									GO LTF	Feb 08, 2000	HOLIDAY
611	STCATHERN	934540	Female	Nov 21, 1993	Dead	381	468	Captive Birth/Hatch	Birth/Hatch	Nov 21, 1993	STCATHERN
									Death	Feb 27, 1998	STCATHERN
612	ASHEBORO	1678	Female	Dec 04, 1993	Dead	381	541	Captive Birth/Hatch	Birth/Hatch	Dec 04, 1993	STCATHERN
									Transfer	Nov 03, 2004	ASHEBORO
									Death	Nov 18, 2010	ASHEBORO
613	SAN ANTON	931215	Female	Dec 09, 1993	Dead	380	372	Captive Birth/Hatch	Birth/Hatch	Dec 09, 1993	SAN ANTON
									Death	Jun 12, 1999	SAN ANTON
614	KANSASCTY	102605	Female	Dec 15, 1993	Dead	UND	400	Captive Birth/Hatch	Birth/Hatch	Dec 15, 1993	BATONROUG
									Transfer	Dec 15, 1993	KANSASCTY
									Transfer	Oct 27, 1994	HOLIDAY

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Nov 15, 1994	KANSASCTY
									Death	Oct 19, 2002	KANSASCTY
615	SD-WAP	693690	Male	Dec 16, 1993	Dead	338	478	Captive Birth/Hatch	Birth/Hatch	Dec 16, 1993	SD-WAP
									Death	Dec 16, 1993	SD-WAP
616	HOLIDAY	_____	Male	Dec 18, 1993	Undetermined (Lost to follow up)	UND	389	Captive Birth/Hatch	Birth/Hatch	Dec 18, 1993	BATONROUG
									Transfer	Oct 29, 1994	HOLIDAY
									GO LTF	Oct 29, 1994	HOLIDAY
617	W PALM BE	960024	Male	Dec 18, 1993	Dead	263	278	Captive Birth/Hatch	Birth/Hatch	Dec 18, 1993	METROZOO
									Transfer	Apr 01, 1996	W PALM BE
									Death	Jun 30, 1999	W PALM BE
618	OMAHA	7543	Female	Dec 20, 1993	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Dec 20, 1993	OMAHA
									Death	Oct 27, 1998	OMAHA
619	OMAHA	7551	Male	Dec 29, 1993	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Dec 29, 1993	OMAHA
									Death	Jun 03, 1996	OMAHA
620	DALLAS	938708	Male	Dec 30, 1993	Dead	473	453	Captive Birth/Hatch	Birth/Hatch	Dec 30, 1993	DALLAS
									Death	Dec 30, 1993	DALLAS
621	W PALM BE	960025	Male	Jan 08, 1994	Dead	263	316	Captive Birth/Hatch	Birth/Hatch	Jan 08, 1994	METROZOO
									Transfer	Apr 01, 1996	W PALM BE
									Death	Apr 02, 1996	W PALM BE
622	DALLAS	948738	Male	Jan 19, 1994	Dead	473	378	Captive Birth/Hatch	Birth/Hatch	Jan 19, 1994	DALLAS
									Death	Jan 19, 1994	DALLAS
623	OMAHA	7667	Male	Feb 12, 1994	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Feb 12, 1994	OMAHA
									Death	Feb 12, 1994	OMAHA
624	PEACE RV	101098	Female	Jan 28, 1994	Dead	263	532	Captive Birth/Hatch	Birth/Hatch	Jan 28, 1994	METROZOO
									Transfer	Nov 02, 2001	PEACE RV
									Death	Mar 02, 2006	PEACE RV
625	SAN ANTON	940241	Female	Feb 23, 1994	Dead	380	373	Captive Birth/Hatch	Birth/Hatch	Feb 23, 1994	SAN ANTON
									Death	Feb 23, 1994	SAN ANTON
626	YULEE	950320	Female	Feb 24, 1994	Dead	483	480	Captive Birth/Hatch	Birth/Hatch	Feb 24, 1994	LOXAHATCH
									Transfer	Apr 17, 1995	YULEE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Nov 30, 2005	YULEE
627	JOHNSON L	_____	Female	Feb 24, 1994	Undetermined (Lost to follow up)	338	367	Captive Birth/Hatch	Birth/Hatch	Feb 24, 1994	SD-WAP
									Transfer	Mar 12, 1996	JOHNSON L
									GO LTF	Mar 12, 1996	JOHNSON L
628	YULEE	950321	Male	Mar 03, 1994	Dead	483	491	Captive Birth/Hatch	Birth/Hatch	Mar 03, 1994	LOXAHATCH
									Transfer	Apr 17, 1995	YULEE
									Death	Aug 07, 2006	YULEE
629	HOLIDAY	_____	Male	Mar 19, 1994	Undetermined (Lost to follow up)	298	310	Captive Birth/Hatch	Birth/Hatch	Mar 19, 1994	BATONROUG
									Transfer	Oct 27, 1994	HOLIDAY
									GO LTF	Oct 27, 1994	HOLIDAY
630	HOLIDAY	_____	Male	Mar 20, 1994	Undetermined (Lost to follow up)	338	417	Captive Birth/Hatch	Birth/Hatch	Mar 20, 1994	SD-WAP
									Transfer	Dec 18, 1996	HOLIDAY
									GO LTF	Dec 18, 1996	HOLIDAY
631	FOUTS J	_____	Male	Apr 15, 1994	Undetermined (Lost to follow up)	426	544	Captive Birth/Hatch	Birth/Hatch	Apr 15, 1994	ABQBIOPK
									Transfer	Jan 27, 1995	FOUTS J
									GO LTF	Jan 27, 1995	FOUTS J
632	HOUSTON	15040	Undetermined	Apr 26, 1994	Dead	315	497	Captive Birth/Hatch	Birth/Hatch	Apr 26, 1994	HOUSTON
									Death	Apr 26, 1994	HOUSTON
633	STCATHERN	944562	Female	May 22, 1994	Dead	381	223	Captive Birth/Hatch	Birth/Hatch	May 22, 1994	STCATHERN
									Death	Feb 21, 1998	STCATHERN
634	SD-WAP	694474	Female	Jul 20, 1994	Dead	338	511	Captive Birth/Hatch	Birth/Hatch	Jul 20, 1994	SD-WAP
									Death	Apr 03, 1996	SD-WAP
635	OMAHA	7984	Female	Aug 07, 1994	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Aug 07, 1994	OMAHA
									Death	Aug 21, 1994	OMAHA
636	SLAUGHTER	_____	Female	Aug 17, 1994	Undetermined (Lost to follow up)	488	517	Captive Birth/Hatch	Birth/Hatch	Aug 17, 1994	JACKSON
									Transfer	Mar 26, 1996	SLAUGHTER
									GO LTF	Mar 26, 1996	SLAUGHTER
637	SD-WAP	694542	Female	Aug 23, 1994	Dead	338	441	Captive Birth/Hatch	Birth/Hatch	Aug 23, 1994	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Aug 31, 1994	SD-WAP
638	SD-WAP	694551	Female	Aug 28, 1994	Dead	338	466	Captive Birth/Hatch	Birth/Hatch	Aug 28, 1994	SD-WAP
									Death	Aug 29, 1995	SD-WAP
640	OMAHA	8055	Male	Sep 16, 1994	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Sep 16, 1994	OMAHA
									Death	Jan 06, 2005	OMAHA
641	OMAHA	8059	Female	Sep 18, 1994	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Sep 18, 1994	OMAHA
									Death	Sep 19, 1994	OMAHA
642	OMAHA	8072	Female	Sep 23, 1994	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Sep 23, 1994	OMAHA
									Death	Sep 24, 1994	OMAHA
643	OMAHA	8075	Male	Sep 28, 1994	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Sep 28, 1994	OMAHA
									Death	Oct 19, 1997	OMAHA
644	OMAHA	8076	Male	Sep 28, 1994	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Sep 28, 1994	OMAHA
									Death	Jan 14, 2005	OMAHA
645	SD-WAP	694594	Female	Oct 04, 1994	Dead	471	291	Captive Birth/Hatch	Birth/Hatch	Oct 04, 1994	SD-WAP
									Death	Oct 04, 1994	SD-WAP
646	SD-WAP	694595	Female	Oct 04, 1994	Dead	471	529	Captive Birth/Hatch	Birth/Hatch	Oct 04, 1994	SD-WAP
									Death	Jun 15, 2006	SD-WAP
647	OMAHA	8079	Male	Oct 06, 1994	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Oct 06, 1994	OMAHA
									Death	Oct 07, 1994	OMAHA
648	BULVERDE	_____	Female	Oct 06, 1994	Undetermined (Lost to follow up)	380	437	Captive Birth/Hatch	Birth/Hatch	Oct 06, 1994	SAN ANTON
									Transfer	Mar 01, 1995	BULVERDE
									GO LTF	Mar 01, 1995	BULVERDE
649	STCATHERN	944573	Female	Oct 11, 1994	Dead	381	235	Captive Birth/Hatch	Birth/Hatch	Oct 11, 1994	STCATHERN
									Death	Feb 23, 1998	STCATHERN
650	HOLIDAY	_____	Male	Oct 12, 1994	Undetermined (Lost to follow up)	471	563	Captive Birth/Hatch	Birth/Hatch	Oct 12, 1994	SD-WAP
									Transfer	Aug 01, 1997	HOLIDAY
									GO LTF	Aug 01, 1997	HOLIDAY
651	STCATHERN	944574	Female	Oct 12, 1994	Dead	381	468	Captive Birth/Hatch	Birth/Hatch	Oct 12, 1994	STCATHERN
									Death	Feb 25, 1998	STCATHERN

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
652	BULVERDE	_____	Female	Oct 14, 1994	Undetermined (Lost to follow up)	380	372	Captive Birth/Hatch	Birth/Hatch	Oct 14, 1994	SAN ANTON
									Transfer	Mar 01, 1995	BULVERDE
									GO LTF	Mar 01, 1995	BULVERDE
653	OMAHA	8080	Male	Oct 17, 1994	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Oct 17, 1994	OMAHA
									Death	Oct 20, 1994	OMAHA
654	OMAHA	8088	Male	Oct 18, 1994	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Oct 18, 1994	OMAHA
									Death	Dec 27, 2004	OMAHA
655	OMAHA	8090	Female	Oct 20, 1994	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Oct 20, 1994	OMAHA
									Death	Jan 15, 2005	OMAHA
656	STCATHERN	944575	Male	Oct 25, 1994	Dead	381	432	Captive Birth/Hatch	Birth/Hatch	Oct 25, 1994	STCATHERN
									Death	Apr 08, 1999	STCATHERN
657	STCATHERN	944576	Male	Oct 31, 1994	Dead	381	541	Captive Birth/Hatch	Birth/Hatch	Oct 31, 1994	STCATHERN
									Death	Apr 11, 1999	STCATHERN
658	ABQBIOPK	M94041	Female	Nov 04, 1994	Dead	426	544	Captive Birth/Hatch	Birth/Hatch	Nov 04, 1994	ABQBIOPK
									Death	Nov 05, 1994	ABQBIOPK
659	FOUTS J	_____	Female	Nov 08, 1994	Undetermined (Lost to follow up)	426	496	Captive Birth/Hatch	Birth/Hatch	Nov 08, 1994	ABQBIOPK
									Transfer	Jan 27, 1995	FOUTS J
									GO LTF	Jan 27, 1995	FOUTS J
660	RUM CREEK	100035	Male	Nov 15, 1994	Dead	483	487	Captive Birth/Hatch	Birth/Hatch	Nov 15, 1994	LOXAHATCH
									Transfer	Apr 17, 1995	YULEE
									Transfer	Apr 06, 2000	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Death	Jan 13, 2007	RUM CREEK
661	MEMPHIS	14824	Female	Nov 16, 1994	Dead	258	545	Captive Birth/Hatch	Birth/Hatch	Nov 16, 1994	MEMPHIS
									Death	Nov 16, 1994	MEMPHIS
662	HOUSTON	15474	Female	Nov 19, 1994	Dead	315	551	Captive Birth/Hatch	Birth/Hatch	Nov 19, 1994	HOUSTON
									Death	Jan 31, 1999	HOUSTON
663	HOUSTON	15497	Female	Nov 23, 1994	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 23, 1994	HOUSTON
									Death	Nov 24, 1994	HOUSTON

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
664	SD-WAP	694684	Female	Dec 01, 1994	Dead	471	367	Captive Birth/Hatch	Birth/Hatch	Dec 01, 1994	SD-WAP
									Death	Aug 26, 1995	SD-WAP
665	OMAHA	8163	Male	Dec 03, 1994	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Dec 03, 1994	OMAHA
									Death	Feb 17, 2001	OMAHA
666	FOUTS J	_____	Male	Dec 11, 1994	Undetermined (Lost to follow up)	426	288	Captive Birth/Hatch	Birth/Hatch	Dec 11, 1994	ABQBIOPK
									Transfer	Jan 27, 1995	FOUTS J
									GO LTF	Jan 27, 1995	FOUTS J
667	MT ULLA	_____	Male	Dec 14, 1994	Undetermined (Lost to follow up)	498	561	Captive Birth/Hatch	Birth/Hatch	Dec 14, 1994	METROZOO
									Transfer	Apr 01, 1996	W PALM BE
									Transfer	Nov 12, 1998	MT ULLA
									GO LTF	Nov 12, 1998	MT ULLA
668	OMAHA	8171	Female	Dec 23, 1994	Dead	456	UND	Captive Birth/Hatch	Birth/Hatch	Dec 23, 1994	OMAHA
									Death	Jan 19, 2005	OMAHA
669	W PALM BE	960022	Female	Dec 25, 1994	Dead	498	521	Captive Birth/Hatch	Birth/Hatch	Dec 25, 1994	METROZOO
									Transfer	Apr 01, 1996	W PALM BE
									Death	Aug 01, 2017	W PALM BE
670	METROZOO	M01813	Male	Dec 30, 1994	Dead	498	532	Captive Birth/Hatch	Birth/Hatch	Dec 30, 1994	METROZOO
									Death	Dec 30, 1994	METROZOO
671	JOHNSON L	_____	Male	Jan 01, 1995	Undetermined (Lost to follow up)	471	417	Captive Birth/Hatch	Birth/Hatch	Jan 01, 1995	SD-WAP
									Transfer	Jan 20, 1996	JOHNSON L
									GO LTF	Jan 20, 1996	JOHNSON L
672	W PALM BE	960026	Male	Jan 09, 1995	Dead	498	316	Captive Birth/Hatch	Birth/Hatch	Jan 09, 1995	METROZOO
									Transfer	Apr 01, 1996	W PALM BE
									Death	Apr 04, 1996	W PALM BE
673	GULF BREZ	A2567	Female	Jan 09, 1995	Dead	315	407	Captive Birth/Hatch	Birth/Hatch	Jan 09, 1995	HOUSTON
									Transfer	Mar 30, 1999	GULF BREZ
									Death	Jul 18, 1999	GULF BREZ
674	ASHEBORO	1670	Female	Jan 15, 1995	Dead	381	534	Captive Birth/Hatch	Birth/Hatch	Jan 15, 1995	STCATHERN
									Transfer	Nov 02, 2004	ASHEBORO

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Nov 23, 2008	ASHEBORO
675	YULEE	950319	Male	Jan 16, 1995	Dead	483	480	Captive Birth/Hatch	Birth/Hatch	Jan 16, 1995	LOXAHATCH
									Transfer	Apr 17, 1995	YULEE
									Death	Apr 18, 1995	YULEE
676	YULEE	950318	Female	Jan 25, 1995	Dead	483	573	Captive Birth/Hatch	Birth/Hatch	Jan 25, 1995	LOXAHATCH
									Transfer	Apr 17, 1995	YULEE
									Death	Dec 29, 2006	YULEE
677	BATONROUG	M2790	Male	Feb 25, 1995	Dead	298	310	Captive Birth/Hatch	Birth/Hatch	Feb 25, 1995	BATONROUG
									Death	Mar 12, 1995	BATONROUG
678	JACKSON	951014	Female	Mar 10, 1995	Dead	488	568	Captive Birth/Hatch	Birth/Hatch	Mar 10, 1995	JACKSON
									Death	Mar 10, 1995	JACKSON
679	STCATHERN	954583	Female	Mar 13, 1995	Dead	381	585	Captive Birth/Hatch	Birth/Hatch	Mar 13, 1995	STCATHERN
									Death	Dec 04, 2002	STCATHERN
680	HOLIDAY	_____	Male	Mar 24, 1995	Undetermined (Lost to follow up)	298	389	Captive Birth/Hatch	Birth/Hatch	Mar 24, 1995	BATONROUG
									Transfer	Sep 13, 1995	HOLIDAY
									GO LTF	Sep 13, 1995	HOLIDAY
681	SLAUGHTER	_____	Female	May 19, 1995	Undetermined (Lost to follow up)	488	517	Captive Birth/Hatch	Birth/Hatch	May 19, 1995	JACKSON
									Transfer	Mar 26, 1996	SLAUGHTER
									GO LTF	Mar 26, 1996	SLAUGHTER
682	STCATHERN	954600	Male	May 21, 1995	Dead	490	612	Captive Birth/Hatch	Birth/Hatch	May 21, 1995	STCATHERN
									Death	Apr 07, 1999	STCATHERN
683	STCATHERN	954601	Male	May 31, 1995	Dead	490	611	Captive Birth/Hatch	Birth/Hatch	May 31, 1995	STCATHERN
									Death	Apr 07, 1999	STCATHERN
684	KANSASCTY	102707	Male	May 31, 1995	Dead	567	553	Captive Birth/Hatch	Birth/Hatch	May 31, 1995	KANSASCTY
									Death	Jun 08, 1995	KANSASCTY
685	JOHNSON L	_____	Female	Jun 01, 1995	Undetermined (Lost to follow up)	471	441	Captive Birth/Hatch	Birth/Hatch	Jun 01, 1995	SD-WAP
									Transfer	Sep 04, 1996	JOHNSON L
									GO LTF	Sep 04, 1996	JOHNSON L

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
686	SD-WAP	695296	Male	Jun 04, 1995	Dead	471	511	Captive Birth/Hatch	Birth/Hatch	Jun 04, 1995	SD-WAP
									Death	Oct 18, 2001	SD-WAP
687	SD-WAP	695349	Female	Jun 17, 1995	Dead	471	466	Captive Birth/Hatch	Birth/Hatch	Jun 17, 1995	SD-WAP
									Death	Aug 08, 1996	SD-WAP
688	JOHNSON L	_____	Female	Jun 30, 1995	Undetermined (Lost to follow up)	471	627	Captive Birth/Hatch	Birth/Hatch	Jun 30, 1995	SD-WAP
									Transfer	Jan 20, 1996	JOHNSON L
									GO LTF	Jan 20, 1996	JOHNSON L
690	ASHEBORO	1645	Female	Jul 29, 1995	Dead	490	564	Captive Birth/Hatch	Birth/Hatch	Jul 29, 1995	STCATHERN
									Transfer	May 13, 2004	ASHEBORO
									Death	Apr 23, 2009	ASHEBORO
691	JOHNSON L	_____	Male	Sep 13, 1995	Undetermined (Lost to follow up)	536	529	Captive Birth/Hatch	Birth/Hatch	Sep 13, 1995	SD-WAP
									Transfer	Mar 12, 1996	JOHNSON L
									GO LTF	Mar 12, 1996	JOHNSON L
692	OMAHA	8768	Male	Sep 16, 1995	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 16, 1995	OMAHA
									Death	Sep 16, 1995	OMAHA
693	OMAHA	8623	Male	Sep 26, 1995	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 26, 1995	OMAHA
									Death	Apr 16, 2001	OMAHA
694	OMAHA	8624	Male	Sep 27, 1995	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 27, 1995	OMAHA
									Death	Feb 02, 2005	OMAHA
695	OMAHA	8625	Male	Oct 01, 1995	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 01, 1995	OMAHA
									Death	Oct 19, 2000	OMAHA
696	OMAHA	8635	Male	Oct 06, 1995	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 06, 1995	OMAHA
									Death	Oct 06, 1995	OMAHA
697	OMAHA	8629	Female	Oct 07, 1995	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 07, 1995	OMAHA
									Death	Oct 08, 1995	OMAHA
698	SD-WAP	695549	Female	Oct 18, 1995	Dead	536	563	Captive Birth/Hatch	Birth/Hatch	Oct 18, 1995	SD-WAP
									Death	Oct 21, 1995	SD-WAP
699	OMAHA	8614	Male	Oct 24, 1995	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 24, 1995	OMAHA
									Death	Oct 24, 1995	OMAHA

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
700	OMAHA	8648	Female	Oct 23, 1995	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 23, 1995	OMAHA
									Death	Mar 15, 1996	OMAHA
701	ASHEBORO	1540	Male	Oct 23, 1995	Dead	490	432	Captive Birth/Hatch	Birth/Hatch	Oct 23, 1995	STCATHERN
									Transfer	Nov 07, 2000	ASHEBORO
									Death	Oct 17, 2008	ASHEBORO
702	MEMPHIS	15612	Female	Nov 08, 1995	Dead	258	545	Captive Birth/Hatch	Birth/Hatch	Nov 08, 1995	MEMPHIS
									Death	May 01, 2006	MEMPHIS
703	OMAHA	8668	Male	Nov 10, 1995	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 10, 1995	OMAHA
									Death	Feb 02, 1996	OMAHA
704	ASHEBORO	1679	Female	Nov 19, 1995	Dead	490	534	Captive Birth/Hatch	Birth/Hatch	Nov 19, 1995	STCATHERN
									Transfer	Nov 03, 2004	ASHEBORO
									Death	Nov 05, 2004	ASHEBORO
705	SD-WAP	695583	Female	Nov 21, 1995	Dead	536	367	Captive Birth/Hatch	Birth/Hatch	Nov 21, 1995	SD-WAP
									Death	Mar 07, 1998	SD-WAP
706	TOLEDO	970034	Male	Nov 22, 1995	Dead	498	624	Captive Birth/Hatch	Birth/Hatch	Nov 22, 1995	METROZOO
									Transfer	May 05, 1997	TOLEDO
									Death	Mar 12, 2009	TOLEDO
707	YULEE	950058	Male	Nov 30, 1995	Dead	483	487	Captive Birth/Hatch	Birth/Hatch	Nov 30, 1995	YULEE
									Death	Nov 30, 1995	YULEE
708	W PALM BE	960021	Female	Dec 05, 1995	Dead	498	532	Captive Birth/Hatch	Birth/Hatch	Dec 05, 1995	METROZOO
									Transfer	Apr 01, 1996	W PALM BE
									Death	Feb 18, 2015	W PALM BE
709	MT ULLA	_____	Male	Dec 06, 1995	Undetermined (Lost to follow up)	483	480	Captive Birth/Hatch	Birth/Hatch	Dec 06, 1995	YULEE
									Transfer	Mar 19, 1998	MT ULLA
									GO LTF	Mar 19, 1998	MT ULLA
710	BATONROUG	8171	Female	Dec 10, 1995	Dead	488	568	Captive Birth/Hatch	Birth/Hatch	Dec 10, 1995	JACKSON
									Transfer	Jul 08, 1997	BATONROUG
									Death	Oct 15, 2002	BATONROUG
711	SAN ANTON	M01080	Male	Dec 12, 1995	Dead	498	316	Captive Birth/Hatch	Birth/Hatch	Dec 12, 1995	METROZOO
									Transfer	May 05, 1997	TOLEDO

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Mar 31, 2001	SAN ANTON
									Death	Jul 13, 2011	SAN ANTON
712	MT ULLA	_____	Male	Dec 12, 1995	Undetermined (Lost to follow up)	483	573	Captive Birth/Hatch	Birth/Hatch	Dec 12, 1995	YULEE
									Transfer	Mar 19, 1998	MT ULLA
									GO LTF	Mar 19, 1998	MT ULLA
713	YULEE	950065	Female	Dec 31, 1995	Dead	483	626	Captive Birth/Hatch	Birth/Hatch	Dec 31, 1995	YULEE
									Death	Jan 03, 1996	YULEE
714	STCATHERN	964612	Female	Jan 02, 1996	Dead	490	585	Captive Birth/Hatch	Birth/Hatch	Jan 02, 1996	STCATHERN
									Death	Mar 15, 1998	STCATHERN
715	STCATHERN	964613	Female	Jan 12, 1996	Dead	490	223	Captive Birth/Hatch	Birth/Hatch	Jan 12, 1996	STCATHERN
									Death	Feb 22, 1998	STCATHERN
716	STCATHERN	964614	Female	Jan 22, 1996	Dead	490	468	Captive Birth/Hatch	Birth/Hatch	Jan 22, 1996	STCATHERN
									Death	Feb 23, 1998	STCATHERN
717	SD-WAP	696027	Female	Jan 25, 1996	Dead	536	417	Captive Birth/Hatch	Birth/Hatch	Jan 25, 1996	SD-WAP
									Death	Jan 31, 1996	SD-WAP
718	STCATHERN	964615	Male	Feb 01, 1996	Dead	490	649	Captive Birth/Hatch	Birth/Hatch	Feb 01, 1996	STCATHERN
									Death	Jul 11, 2000	STCATHERN
719	JOHNSON L	_____	Male	Feb 11, 1996	Undetermined (Lost to follow up)	536	417	Captive Birth/Hatch	Birth/Hatch	Feb 11, 1996	SD-WAP
									Transfer	Sep 04, 1996	JOHNSON L
									GO LTF	Sep 04, 1996	JOHNSON L
720	OMAHA	8784	Male	Feb 14, 1996	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Feb 14, 1996	OMAHA
									Death	Nov 01, 1997	OMAHA
721	JACKSON	961006	Male	Feb 27, 1996	Dead	488	517	Captive Birth/Hatch	Birth/Hatch	Feb 27, 1996	JACKSON
									Death	Apr 19, 2005	JACKSON
722	TOLEDO	970036	Male	Mar 05, 1996	Dead	498	521	Captive Birth/Hatch	Birth/Hatch	Mar 05, 1996	METROZOO
									Transfer	May 05, 1997	TOLEDO
									Death	Apr 09, 2008	TOLEDO
723	STCATHERN	964622	Male	Mar 23, 1996	Dead	490	541	Captive Birth/Hatch	Birth/Hatch	Mar 23, 1996	STCATHERN
									Death	Sep 22, 2000	STCATHERN

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
724	STCATHERN	964626	Male	Mar 26, 1996	Dead	490	612	Captive Birth/Hatch	Birth/Hatch	Mar 26, 1996	STCATHERN
									Death	Mar 27, 1996	STCATHERN
725	SD-WAP	696124	Male	Mar 27, 1996	Dead	UND	466	Captive Birth/Hatch	Birth/Hatch	Mar 27, 1996	SD-WAP
									Death	Mar 29, 1996	SD-WAP
726	DISNEY AK	980505	Female	Mar 30, 1996	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Mar 30, 1996	OMAHA
									Transfer	Mar 06, 1998	DISNEY AK
									Death	Mar 17, 1998	DISNEY AK
727	SD-WAP	696215	Male	Apr 30, 1996	Dead	543	441	Captive Birth/Hatch	Birth/Hatch	Apr 30, 1996	SD-WAP
									Death	Aug 20, 2002	SD-WAP
728	SD-WAP	696221	Male	May 02, 1996	Dead	543	646	Captive Birth/Hatch	Birth/Hatch	May 02, 1996	SD-WAP
									Death	May 24, 2002	SD-WAP
729	KANSASCTY	102790	Male	May 04, 1996	Dead	567	553	Captive Birth/Hatch	Birth/Hatch	May 04, 1996	KANSASCTY
									Death	May 05, 1996	KANSASCTY
730	STCATHERN	964633	Male	May 11, 1996	Dead	490	564	Captive Birth/Hatch	Birth/Hatch	May 11, 1996	STCATHERN
									Death	May 13, 1996	STCATHERN
731	UNDETERMI	Undetermined	Female	May 31, 1996	Undetermined (Lost to follow up)	498	561	Captive Birth/Hatch	Birth/Hatch	May 31, 1996	METROZOO
									Transfer	Feb 05, 1997	MCCOMBS
									Transfer	Dec 14, 2001	UNDETERMI
									GO LTF	Dec 14, 2001	UNDETERMI
732	BATONROUG	8283	Female	Jul 24, 1996	Dead	543	529	Captive Birth/Hatch	Birth/Hatch	Jul 24, 1996	SD-WAP
									Transfer	Aug 01, 1997	HOLIDAY
									Transfer	Sep 13, 1997	BATONROUG
									Death	Jul 19, 2017	BATONROUG
733	OMAHA	9235	Female	Aug 05, 1996	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Aug 05, 1996	OMAHA
									Death	Jan 16, 1997	OMAHA
734	BATONROUG	7807	Male	Aug 05, 1996	Dead	536	511	Captive Birth/Hatch	Birth/Hatch	Aug 05, 1996	BATONROUG
									Death	Aug 20, 1996	BATONROUG
735	OMAHA	9250	Female	Aug 17, 1996	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Aug 17, 1996	OMAHA
									Death	Apr 26, 2005	OMAHA

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
736	SD-WAP	699066	Male	Aug 22, 1996	Dead	MULT11	UND	Captive Birth/Hatch	Birth/Hatch	Aug 22, 1996	OMAHA
									Transfer	Mar 06, 1998	DISNEY AK
									Transfer	Mar 09, 1999	SD-WAP
									Death	Jan 04, 2006	SD-WAP
737	OMAHA	9259	Male	Aug 26, 1996	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Aug 26, 1996	OMAHA
									Death	Apr 13, 2006	OMAHA
738	OMAHA	9270	Female	Sep 03, 1996	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 03, 1996	OMAHA
									Death	Dec 26, 1996	OMAHA
739	OMAHA	9274	Female	Sep 10, 1996	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 10, 1996	OMAHA
									Death	Dec 24, 1996	OMAHA
740	STCATHERN	964639	Male	Sep 11, 1996	Dead	490	674	Captive Birth/Hatch	Birth/Hatch	Sep 11, 1996	STCATHERN
									Death	Sep 11, 1996	STCATHERN
741	OMAHA	9283	Male	Sep 16, 1996	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 16, 1996	OMAHA
									Death	Dec 20, 2002	OMAHA
742	OMAHA	9284	Undetermined	Sep 20, 1996	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 20, 1996	OMAHA
									Death	Sep 20, 1996	OMAHA
743	OMAHA	9285	Male	Sep 22, 1996	Dead	MULT11	UND	Captive Birth/Hatch	Birth/Hatch	Sep 22, 1996	OMAHA
									Death	Jul 25, 2009	OMAHA
744	STCATHERN	964640	Male	Sep 23, 1996	Dead	490	432	Captive Birth/Hatch	Birth/Hatch	Sep 23, 1996	STCATHERN
									Death	Sep 24, 1996	STCATHERN
745	STCATHERN	964641	Male	Oct 15, 1996	Dead	490	585	Captive Birth/Hatch	Birth/Hatch	Oct 15, 1996	STCATHERN
									Death	Oct 16, 1996	STCATHERN
746	ASHEBORO	1671	Female	Oct 19, 1996	Dead	490	690	Captive Birth/Hatch	Birth/Hatch	Oct 19, 1996	STCATHERN
									Transfer	Nov 02, 2004	ASHEBORO
									Death	Jan 28, 2010	ASHEBORO
747	STCATHERN	964643	Male	Oct 23, 1996	Dead	490	633	Captive Birth/Hatch	Birth/Hatch	Oct 23, 1996	STCATHERN
									Death	Oct 24, 1996	STCATHERN
748	AMIG GR R	_____	Female	Oct 27, 1996	Undetermined (Lost to follow up)	565	676	Captive Birth/Hatch	Birth/Hatch	Oct 27, 1996	YULEE
									Transfer	Apr 06, 1999	AMIG GR R

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									GO LTF	Apr 06, 1999	AMIG GR R
749	MEMPHIS	16461	Female	Oct 29, 1996	Dead	258	545	Captive Birth/Hatch	Birth/Hatch	Oct 29, 1996	MEMPHIS
									Death	Nov 26, 2005	MEMPHIS
750	ASHEBORO	1680	Female	Nov 20, 1996	Dead	490	235	Captive Birth/Hatch	Birth/Hatch	Nov 20, 1996	STCATHERN
									Transfer	Nov 03, 2004	ASHEBORO
									Death	Feb 17, 2010	ASHEBORO
751	AMIG GR R	_____	Male	Nov 27, 1996	Undetermined (Lost to follow up)	565	573	Captive Birth/Hatch	Birth/Hatch	Nov 27, 1996	YULEE
									Transfer	Apr 06, 1999	AMIG GR R
									GO LTF	Apr 06, 1999	AMIG GR R
752	OMAHA	9392	Male	Nov 30, 1996	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 30, 1996	OMAHA
									Death	Nov 30, 1996	OMAHA
753	YULEE	960063	Male	Dec 13, 1996	Dead	565	626	Captive Birth/Hatch	Birth/Hatch	Dec 13, 1996	YULEE
									Death	Dec 19, 1996	YULEE
754	SD-WAP	696626	Male	Dec 15, 1996	Dead	543	367	Captive Birth/Hatch	Birth/Hatch	Dec 15, 1996	SD-WAP
									Death	Dec 15, 1996	SD-WAP
755	SD-WAP	696629	Female	Dec 16, 1996	Dead	543	563	Captive Birth/Hatch	Birth/Hatch	Dec 16, 1996	SD-WAP
									Death	Dec 20, 1996	SD-WAP
756	HOLIDAY	_____	Male	Dec 23, 1996	Undetermined (Lost to follow up)	536	389	Captive Birth/Hatch	Birth/Hatch	Dec 23, 1996	BATONROUG
									Transfer	May 29, 1997	HOLIDAY
									GO LTF	May 29, 1997	HOLIDAY
758	STCATHERN	974648	Male	Jan 03, 1997	Dead	490	611	Captive Birth/Hatch	Birth/Hatch	Jan 03, 1997	STCATHERN
									Death	Jan 03, 1997	STCATHERN
759	OMAHA	9420	Female	Jan 04, 1997	Dead	MULT11	UND	Captive Birth/Hatch	Birth/Hatch	Jan 04, 1997	OMAHA
									Death	Jul 21, 2008	OMAHA
760	BATONROUG	8668	Male	Jan 04, 1997	Dead	498	521	Captive Birth/Hatch	Birth/Hatch	Jan 04, 1997	METROZOO
									Transfer	Sep 04, 1997	BULVERDE
									Transfer	Jul 13, 1999	BATONROUG
									Death	Dec 03, 2003	BATONROUG
761	STCATHERN	974649	Male	Jan 06, 1997	Dead	490	468	Captive Birth/Hatch	Birth/Hatch	Jan 06, 1997	STCATHERN

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Jan 07, 1997	STCATHERN
762	AMIG GR R	_____	Male	Jan 12, 1997	Undetermined (Lost to follow up)	565	480	Captive Birth/Hatch	Birth/Hatch	Jan 12, 1997	YULEE
									Transfer	Apr 06, 1999	AMIG GR R
									GO LTF	Apr 06, 1999	AMIG GR R
763	METROZOO	97M013	Female	Jan 25, 1997	Dead	498	532	Captive Birth/Hatch	Birth/Hatch	Jan 25, 1997	METROZOO
									Death	Aug 28, 1997	METROZOO
764	STCATHERN	964650	Male	Jan 29, 1997	Dead	490	UND	Captive Birth/Hatch	Birth/Hatch	Jan 29, 1997	STCATHERN
									Death	Jan 29, 1997	STCATHERN
765	JACKSON	971002	Female	Feb 13, 1997	Dead	488	517	Captive Birth/Hatch	Birth/Hatch	Feb 13, 1997	JACKSON
									Death	Feb 13, 1997	JACKSON
766	STCATHERN	974652	Male	Feb 20, 1997	Dead	490	715	Captive Birth/Hatch	Birth/Hatch	Feb 20, 1997	STCATHERN
									Death	Feb 21, 1997	STCATHERN
767	STCATHERN	974653	Male	Feb 22, 1997	Dead	490	674	Captive Birth/Hatch	Birth/Hatch	Feb 22, 1997	STCATHERN
									Death	Feb 23, 1997	STCATHERN
768	OMAHA	9514	Female	Feb 23, 1997	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Feb 23, 1997	OMAHA
									Death	Feb 23, 1997	OMAHA
769	AMIG GR R	_____	Male	Mar 02, 1997	Undetermined (Lost to follow up)	565	487	Captive Birth/Hatch	Birth/Hatch	Mar 02, 1997	YULEE
									Transfer	Apr 06, 1999	AMIG GR R
									GO LTF	Apr 06, 1999	AMIG GR R
770	BULVERDE	_____	Male	Mar 16, 1997	Undetermined (Lost to follow up)	498	624	Captive Birth/Hatch	Birth/Hatch	Mar 16, 1997	METROZOO
									Transfer	Sep 04, 1997	BULVERDE
									GO LTF	Sep 04, 1997	BULVERDE
771	ASHEBORO	1685	Female	Mar 18, 1997	Dead	490	690	Captive Birth/Hatch	Birth/Hatch	Mar 18, 1997	STCATHERN
									Transfer	Nov 09, 2004	ASHEBORO
									Death	Jun 08, 2016	ASHEBORO
772	SD-WAP	697129	Male	Apr 01, 1997	Dead	494	441	Captive Birth/Hatch	Birth/Hatch	Apr 01, 1997	SD-WAP
									Death	Apr 01, 1997	SD-WAP
773	OMAHA	9608	Male	Apr 05, 1997	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 05, 1997	OMAHA

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Apr 11, 1997	OMAHA
774	STCATHERN	974683	Male	Apr 19, 1997	Dead	490	534	Captive Birth/Hatch	Birth/Hatch	Apr 19, 1997	STCATHERN
									Death	Apr 19, 1997	STCATHERN
775	SD-WAP	697184	Female	Apr 25, 1997	Dead	494	529	Captive Birth/Hatch	Birth/Hatch	Apr 25, 1997	SD-WAP
									Death	Apr 25, 1997	SD-WAP
776	ASHEBORO	1539	Male	Apr 26, 1997	Dead	490	704	Captive Birth/Hatch	Birth/Hatch	Apr 26, 1997	STCATHERN
									Transfer	Nov 07, 2000	ASHEBORO
									Death	Dec 23, 2008	ASHEBORO
777	MEMPHIS	16900	Female	May 05, 1997	Dead	258	593	Captive Birth/Hatch	Birth/Hatch	May 05, 1997	MEMPHIS
									Death	Feb 13, 2005	MEMPHIS
778	SD-WAP	_____	Male	Jun 20, 1997	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jun 20, 1997	OMAHA
									Transfer	Mar 06, 1998	DISNEY AK
									Transfer	Mar 07, 1999	SD-WAP
									Death	Mar 07, 1999	SD-WAP
779	SD-WAP	697457	Male	Aug 14, 1997	Dead	610	646	Captive Birth/Hatch	Birth/Hatch	Aug 14, 1997	SD-WAP
									Death	Apr 27, 2001	SD-WAP
780	OMAHA	9863	Male	Aug 30, 1997	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Aug 30, 1997	OMAHA
									Death	Aug 31, 1997	OMAHA
781	OMAHA	9864	Male	Sep 01, 1997	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 01, 1997	OMAHA
									Death	Sep 22, 1997	OMAHA
782	SD-WAP	699067	Female	Sep 11, 1997	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 11, 1997	OMAHA
									Transfer	Mar 06, 1998	DISNEY AK
									Transfer	Mar 09, 1999	SD-WAP
									Death	Dec 22, 2000	SD-WAP
783	SD-WAP	699069	Female	Sep 17, 1997	Dead	MULT11	UND	Captive Birth/Hatch	Birth/Hatch	Sep 17, 1997	OMAHA
									Transfer	Mar 06, 1998	DISNEY AK
									Transfer	Mar 09, 1999	SD-WAP
									Death	Mar 16, 2004	SD-WAP
784	METROZOO	97M055	Female	Sep 17, 1997	Dead	498	561	Captive Birth/Hatch	Birth/Hatch	Sep 17, 1997	METROZOO
									Death	Nov 12, 1998	METROZOO
785	OMAHA	9900	Male	Sep 20, 1997	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 20, 1997	OMAHA

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Feb 27, 2003	OMAHA
786	DISNEY AK	980507	Female	Sep 25, 1997	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 25, 1997	OMAHA
									Transfer	Mar 06, 1998	DISNEY AK
									Death	Mar 02, 1999	DISNEY AK
787	OMAHA	9971	Male	Oct 10, 1997	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 10, 1997	OMAHA
									Death	Oct 10, 1997	OMAHA
788	JACKSON	200393	Female	Oct 13, 1997	Dead	294	613	Captive Birth/Hatch	Birth/Hatch	Oct 13, 1997	SAN ANTON
									Transfer	Apr 03, 2005	JACKSON
									Death	Nov 18, 2009	JACKSON
789	MEMPHIS	17336	Undetermined	Oct 25, 1997	Dead	258	545	Captive Birth/Hatch	Birth/Hatch	Oct 25, 1997	MEMPHIS
									Death	Oct 25, 1997	MEMPHIS
790	YULEE	970044	Male	Nov 14, 1997	Dead	628	626	Captive Birth/Hatch	Birth/Hatch	Nov 14, 1997	YULEE
									Death	Apr 08, 2004	YULEE
791	MONROE	44244F	Female	Nov 15, 1997	Dead	498	532	Captive Birth/Hatch	Birth/Hatch	Nov 15, 1997	METROZOO
									Transfer	Dec 02, 1998	MONROE
									Death	Jun 01, 2012 +/- 6 month	MONROE
792	OMAHA	10060	Female	Nov 22, 1997	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 22, 1997	OMAHA
									Death	Jan 15, 2005	OMAHA
793	AMIG GR R	_____	Female	Nov 28, 1997	Undetermined (Lost to follow up)	628	676	Captive Birth/Hatch	Birth/Hatch	Nov 28, 1997	YULEE
									Transfer	Apr 06, 1999	AMIG GR R
									GO LTF	Apr 06, 1999	AMIG GR R
794	OMAHA	10089	Female	Dec 07, 1997	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 07, 1997	OMAHA
									Death	Jan 15, 2005	OMAHA
795	AMIG GR R	_____	Female	Dec 07, 1997	Undetermined (Lost to follow up)	628	480	Captive Birth/Hatch	Birth/Hatch	Dec 07, 1997	YULEE
									Transfer	Apr 06, 1999	AMIG GR R
									GO LTF	Apr 06, 1999	AMIG GR R
796	METROZOO	97M077	Undetermined	Dec 11, 1997	Dead	498	316	Captive Birth/Hatch	Birth/Hatch	Dec 11, 1997	METROZOO
									Death	Dec 11, 1997	METROZOO
797	RUM CREEK	100036	Female	Dec 20, 1997	Dead	628	573	Captive Birth/Hatch	Birth/Hatch	Dec 20, 1997	YULEE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Apr 06, 2000	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Death	May 26, 2008	RUM CREEK
798	MONROE	44143F	Male	Dec 21, 1997	Dead	498	521	Captive Birth/Hatch	Birth/Hatch	Dec 21, 1997	METROZOO
									Transfer	Dec 02, 1998	MONROE
									Death	Jun 01, 2012 +/- 6 month	MONROE
799	SD-WAP	697646	Male	Dec 23, 1997	Dead	610	563	Captive Birth/Hatch	Birth/Hatch	Dec 23, 1997	SD-WAP
									Death	Jan 09, 1998	SD-WAP
800	YULEE	980001	Male	Jan 01, 1998	Dead	628	487	Captive Birth/Hatch	Birth/Hatch	Jan 01, 1998	YULEE
									Death	Jan 09, 1998	YULEE
801	DISNEY AK	981458	Female	Aug 15, 1998	Dead	UND	472	Captive Birth/Hatch	Birth/Hatch	Aug 15, 1998	DISNEY AK
									Death	Aug 15, 1998	DISNEY AK
802	DISNEY AK	981481	Male	Sep 01, 1998	Dead	UND	408	Captive Birth/Hatch	Birth/Hatch	Sep 01, 1998	DISNEY AK
									Death	Sep 01, 1998	DISNEY AK
803	DISNEY AK	981482	Male	Sep 03, 1998	Dead	UND	783	Captive Birth/Hatch	Birth/Hatch	Sep 03, 1998	DISNEY AK
									Death	Nov 19, 1998	DISNEY AK
804	DISNEY AK	981631	Undetermined	Oct 07, 1998	Dead	UND	334	Captive Birth/Hatch	Birth/Hatch	Oct 07, 1998	DISNEY AK
									Death	Oct 07, 1998	DISNEY AK
810	BULVERDE	_____	Male	Jan 10, 1998	Undetermined (Lost to follow up)	498	624	Captive Birth/Hatch	Birth/Hatch	Jan 10, 1998	METROZOO
									Transfer	Sep 16, 1998	BULVERDE
									GO LTF	Sep 16, 1998	BULVERDE
811	HOLIDAY	_____	Female	Jan 17, 1998	Undetermined (Lost to follow up)	610	529	Captive Birth/Hatch	Birth/Hatch	Jan 17, 1998	SD-WAP
									Transfer	Feb 08, 2000	HOLIDAY
									GO LTF	Feb 08, 2000	HOLIDAY
812	BULVERDE	_____	Female	Jan 20, 1998	Undetermined (Lost to follow up)	536	389	Captive Birth/Hatch	Birth/Hatch	Jan 20, 1998	BATONROUG
									Transfer	Jul 03, 1998	BULVERDE
									GO LTF	Jul 03, 1998	BULVERDE
813	OMAHA	10131	Male	Jan 22, 1998	Dead	UND	668	Captive Birth/Hatch	Birth/Hatch	Jan 22, 1998	OMAHA

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Jan 22, 1998	OMAHA
814	OMAHA	10152	Undetermined	Jan 30, 1998	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jan 30, 1998	OMAHA
									Death	Jan 30, 1998	OMAHA
815	SD-WAP	698047	Female	Jan 31, 1998	Dead	610	441	Captive Birth/Hatch	Birth/Hatch	Jan 31, 1998	SD-WAP
									Death	Jan 31, 1998	SD-WAP
816	JOHNSON L	_____	Male	Feb 15, 1998	Undetermined (Lost to follow up)	258	702	Captive Birth/Hatch	Birth/Hatch	Feb 15, 1998	MEMPHIS
									Transfer	Nov 20, 1998	JOHNSON L
									GO LTF	Nov 20, 1998	JOHNSON L
817	HOLIDAY	_____	Male	Mar 04, 1998	Undetermined (Lost to follow up)	610	705	Captive Birth/Hatch	Birth/Hatch	Mar 04, 1998	SD-WAP
									Transfer	Nov 20, 1999	HOLIDAY
									GO LTF	Nov 20, 1999	HOLIDAY
818	HOLIDAY	_____	Male	May 21, 1998	Undetermined (Lost to follow up)	610	646	Captive Birth/Hatch	Birth/Hatch	May 21, 1998	SD-WAP
									Transfer	Aug 02, 2004	HOLIDAY
									GO LTF	Aug 02, 2004	HOLIDAY
819	BULVERDE	_____	Male	May 30, 1998	Undetermined (Lost to follow up)	536	732	Captive Birth/Hatch	Birth/Hatch	May 30, 1998	BATONROUG
									Transfer	Mar 31, 1999	BULVERDE
									GO LTF	Mar 31, 1999	BULVERDE
820	JOHNSON L	_____	Female	Jun 04, 1998	Undetermined (Lost to follow up)	258	593	Captive Birth/Hatch	Birth/Hatch	Jun 04, 1998	MEMPHIS
									Transfer	Nov 20, 1998	JOHNSON L
									GO LTF	Nov 20, 1998	JOHNSON L
821	OMAHA	10529	Male	Jul 02, 1998	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 02, 1998	OMAHA
									Death	Jul 02, 1998	OMAHA
822	GULF BREZ	A2569	Male	Sep 01, 1998 +/- 15 day	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 01, 1998 +/- 15 day	BULVERDE
									Transfer	Mar 30, 1999	GULF BREZ
									Death	Nov 02, 2005	GULF BREZ
823	YULEE	980031	Female	Sep 07, 1998	Dead	628	748	Captive Birth/Hatch	Birth/Hatch	Sep 07, 1998	YULEE
									Death	Aug 03, 2014	YULEE
824	OMAHA	10667	Female	Sep 19, 1998	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 19, 1998	OMAHA

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Jan 15, 2005	OMAHA
825	OMAHA	10668	Male	Sep 21, 1998	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 21, 1998	OMAHA
									Death	Sep 21, 1998	OMAHA
826	OMAHA	10732	Male	Oct 08, 1998	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 08, 1998	OMAHA
									Death	Oct 08, 1998	OMAHA
827	OMAHA	10821	Male	Nov 03, 1998	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 03, 1998	OMAHA
									Death	Nov 03, 1998	OMAHA
828	MONROE	44204G	Female	Nov 11, 1998	Dead	498	561	Captive Birth/Hatch	Birth/Hatch	Nov 11, 1998	METROZOO
									Transfer	Apr 16, 1999	MONROE
									Death	Jun 01, 2012 +/- 6 month	MONROE
829	METROZOO	98M065	Male	Nov 12, 1998	Dead	498	532	Captive Birth/Hatch	Birth/Hatch	Nov 12, 1998	METROZOO
									Death	Nov 12, 1998	METROZOO
830	SLAUGHTER	_____	Male	Nov 24, 1998	Undetermined (Lost to follow up)	498	316	Captive Birth/Hatch	Birth/Hatch	Nov 24, 1998	METROZOO
									Transfer	Apr 16, 1999	SLAUGHTER
									GO LTF	Apr 16, 1999	SLAUGHTER
831	SD-WAP	698666	Male	Nov 29, 1998	Dead	610	441	Captive Birth/Hatch	Birth/Hatch	Nov 29, 1998	SD-WAP
									Death	Apr 18, 1999	SD-WAP
832	JOHNSONLA	NONE	Male	Dec 04, 1998	Undetermined (Lost to follow up)	628	480	Captive Birth/Hatch	Birth/Hatch	Dec 04, 1998	YULEE
									Transfer	Dec 05, 2000	MEMPHIS
									Transfer	Nov 26, 2011	JOHNSONLA
									GO LTF	Nov 27, 2011	JOHNSONLA
833	OMAHA	10874	Undetermined	Dec 05, 1998	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 05, 1998	OMAHA
									Death	Dec 05, 1998	OMAHA
834	YULEE	980039	Female	Dec 08, 1998	Dead	628	626	Captive Birth/Hatch	Birth/Hatch	Dec 08, 1998	YULEE
									Death	Sep 23, 2017	YULEE
835	JOHNSON L	_____	Male	Dec 08, 1998	Undetermined (Lost to follow up)	610	563	Captive Birth/Hatch	Birth/Hatch	Dec 08, 1998	SD-WAP
									Transfer	Aug 29, 2002	JOHNSON L
									GO LTF	Aug 29, 2002	JOHNSON L

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
836	AMIG GR R	_____	Male	Dec 14, 1998	Undetermined (Lost to follow up)	628	676	Captive Birth/Hatch	Birth/Hatch	Dec 14, 1998	YULEE
									Transfer	Feb 14, 2001	STCATHERN
									Transfer	Feb 25, 2005	YULEE
									Transfer	Mar 11, 2005	AMIG GR R
									GO LTF	Mar 11, 2005	AMIG GR R
837	OMAHA	10893	Female	Jan 10, 1999	Dead	UND	668	Captive Birth/Hatch	Birth/Hatch	Jan 10, 1999	OMAHA
									Death	Jan 11, 1999	OMAHA
838	W PALM BE	990138	Female	Jan 13, 1999	Dead	498	624	Captive Birth/Hatch	Birth/Hatch	Jan 13, 1999	METROZOO
									Transfer	Oct 02, 1999	W PALM BE
									Death	Jan 12, 2010	W PALM BE
839	YULEE	990003	Male	Jan 27, 1999	Dead	UND	487	Captive Birth/Hatch	Birth/Hatch	Jan 27, 1999	YULEE
									Death	Jan 27, 1999	YULEE
840	JOHNSON L	_____	Male	Mar 01, 1999	Undetermined (Lost to follow up)	610	646	Captive Birth/Hatch	Birth/Hatch	Mar 01, 1999	SD-WAP
									Transfer	Aug 29, 2002	JOHNSON L
									GO LTF	Aug 29, 2002	JOHNSON L
841	YULEE	990013	Female	Apr 06, 1999	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 06, 1999	YULEE
									Death	Apr 06, 1999	YULEE
842	BULVERDE	_____	Male	Apr 20, 1999	Undetermined (Lost to follow up)	536	710	Captive Birth/Hatch	Birth/Hatch	Apr 20, 1999	BATONROUG
									Transfer	Feb 23, 2000	BULVERDE
									GO LTF	Feb 23, 2000	BULVERDE
843	OMAHA	11032	Male	Apr 25, 1999	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 25, 1999	OMAHA
									Death	Apr 25, 1999	OMAHA
844	SD-WAP	699185	Male	Apr 28, 1999	Dead	610	811	Captive Birth/Hatch	Birth/Hatch	Apr 28, 1999	SD-WAP
									Death	Apr 30, 1999	SD-WAP
845	SAFARI W	106024	Female	Jun 12, 1999	Dead	536	732	Captive Birth/Hatch	Birth/Hatch	Jun 12, 1999	BATONROUG
									Transfer	May 08, 2006	SAFARI W
									Death	Nov 16, 2008	SAFARI W
846	SD-WAP	699447	Female	Aug 03, 1999	Dead	736	472	Captive Birth/Hatch	Birth/Hatch	Aug 03, 1999	SD-WAP
									Death	May 02, 2005	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
847	SD-WAP	699486	Female	Aug 27, 1999	Dead	736	783	Captive Birth/Hatch	Birth/Hatch	Aug 27, 1999	SD-WAP
									Death	Sep 02, 1999	SD-WAP
848	OMAHA	11276	Female	Sep 04, 1999	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 04, 1999	OMAHA
									Death	Jan 17, 2005	OMAHA
849	OMAHA	11290	Female	Sep 13, 1999	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 13, 1999	OMAHA
									Death	Jan 15, 2005	OMAHA
850	OMAHA	11322	Male	Sep 19, 1999	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 19, 1999	OMAHA
									Death	Sep 20, 1999	OMAHA
851	RUM CREEK	100026	Female	Sep 24, 1999	Dead	498	316	Captive Birth/Hatch	Birth/Hatch	Sep 24, 1999	METROZOO
									Transfer	Mar 02, 2000	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Death	Mar 01, 2009	RUM CREEK
852	YULEE	990034	Male	Oct 24, 1999	Dead	628	676	Captive Birth/Hatch	Birth/Hatch	Oct 24, 1999	YULEE
									Death	Mar 27, 2001	YULEE
853	MEMPHIS	21965	Female	Oct 30, 1999	Dead	628	797	Captive Birth/Hatch	Birth/Hatch	Oct 30, 1999	YULEE
									Transfer	Mar 22, 2006	MEMPHIS
									Death	Mar 03, 2011	MEMPHIS
854	YULEE	990036	Female	Nov 02, 1999	Dead	628	626	Captive Birth/Hatch	Birth/Hatch	Nov 02, 1999	YULEE
									Death	Aug 30, 2015	YULEE
855	ASHEBORO	1569	Male	Dec 09, 1999	Dead	498	561	Captive Birth/Hatch	Birth/Hatch	Dec 09, 1999	METROZOO
									Transfer	Jan 29, 2002	ASHEBORO
									Death	Apr 18, 2003	ASHEBORO
856	METROZOO	99M070	Female	Dec 16, 1999	Dead	498	624	Captive Birth/Hatch	Birth/Hatch	Dec 16, 1999	METROZOO
									Death	Dec 04, 2000	METROZOO
857	SD-WAP	699596	Female	Dec 04, 1999	Dead	UND	646	Captive Birth/Hatch	Birth/Hatch	Dec 04, 1999	SD-WAP
									Death	Jan 27, 2010	SD-WAP
858	YULEE	990043	Female	Dec 27, 1999	Dead	628	480	Captive Birth/Hatch	Birth/Hatch	Dec 27, 1999	YULEE
									Death	Jan 01, 2000	YULEE
860	DALLAS	000Q24	Male	Jul 20, 1978	Dead	9	40	Captive Birth/Hatch	Birth/Hatch	Jul 20, 1978	DALLAS
									Death	Jul 20, 1978	DALLAS

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
861	METROZOO	M00882	Male	Dec 08, 1987	Dead	263	186	Captive Birth/Hatch	Birth/Hatch	Dec 08, 1987	METROZOO
									Death	Dec 08, 1987	METROZOO
862	W PALM BE	970053	Female	Feb 01, 1997	Dead	575	669	Captive Birth/Hatch	Birth/Hatch	Feb 01, 1997	W PALM BE
									Death	Jul 21, 2011	W PALM BE
863	PEACE RV	990045	Female	Jul 01, 1997 +/- 6 month	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 1997 +/- 6 month	BULVERDE
									Transfer	Jul 22, 1999	PEACE RV
									Death	Jul 27, 1999	PEACE RV
864	W PALM BE	990232	Male	Oct 29, 1997	Dead	575	708	Captive Birth/Hatch	Birth/Hatch	Oct 29, 1997	W PALM BE
									Death	Sep 29, 2012	W PALM BE
865	W PALM BE	M12017	Male	Nov 20, 1997	Dead	575	669	Captive Birth/Hatch	Birth/Hatch	Nov 20, 1997	W PALM BE
									Death	Oct 13, 2014	W PALM BE
866	RUM CREEK	990030	Male	Sep 01, 1998 +/- 6 month	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 01, 1998 +/- 6 month	BULVERDE
									Transfer	May 15, 1999	PEACE RV
									Transfer	Jun 25, 2004	RUM CREEK
									Death	Jun 25, 2007	RUM CREEK
867	RUM CREEK	990031	Female	Sep 01, 1998 +/- 6 month	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 01, 1998 +/- 6 month	BULVERDE
									Transfer	May 15, 1999	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Death	Jun 01, 2008	RUM CREEK
868	RUM CREEK	990032	Female	Sep 01, 1998 +/- 6 month	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 01, 1998 +/- 6 month	BULVERDE
									Transfer	May 15, 1999	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Death	Feb 28, 2009	RUM CREEK
869	W PALM BE	980193	Male	Oct 23, 1998	Dead	575	708	Captive Birth/Hatch	Birth/Hatch	Oct 23, 1998	W PALM BE
									Death	Feb 19, 2009	W PALM BE
870	MONROE	64099F	Undetermined	May 13, 1999	Dead	798	791	Captive Birth/Hatch	Birth/Hatch	May 13, 1999	MONROE
									Death	May 13, 1999	MONROE
871	W PALM BE	990142	Male	Oct 27, 1999	Dead	575	708	Captive Birth/Hatch	Birth/Hatch	Oct 27, 1999	W PALM BE
									Death	Aug 28, 2011	W PALM BE
872	W PALM BE	990143	Male	Oct 31, 1999	Dead	575	862	Captive Birth/Hatch	Birth/Hatch	Oct 31, 1999	W PALM BE
									Death	Nov 12, 2012	W PALM BE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
873	W PALM BE	B027	Female	Nov 26, 1999	Dead	575	669	Captive Birth/Hatch	Birth/Hatch	Nov 26, 1999	W PALM BE
									Death	Feb 21, 2017	W PALM BE
874	ASHEBORO	1567	Male	Jan 03, 2000	Dead	498	532	Captive Birth/Hatch	Birth/Hatch	Jan 03, 2000	METROZOO
									Transfer	Jan 29, 2002	ASHEBORO
									Death	Jun 12, 2009	ASHEBORO
875	HOLIDAY	_____	Male	Feb 19, 2000	Undetermined (Lost to follow up)	UND	563	Captive Birth/Hatch	Birth/Hatch	Feb 19, 2000	SD-WAP
									Transfer	Aug 02, 2004	HOLIDAY
									GO LTF	Aug 02, 2004	HOLIDAY
876	SD-WAP	600053	Female	Feb 27, 2000	Dead	UND	782	Captive Birth/Hatch	Birth/Hatch	Feb 27, 2000	SD-WAP
									Death	Jan 06, 2001	SD-WAP
877	ASHEBORO	1568	Male	Mar 08, 2000	Dead	498	521	Captive Birth/Hatch	Birth/Hatch	Mar 08, 2000	METROZOO
									Transfer	Jan 29, 2002	ASHEBORO
									Death	Mar 10, 2004	ASHEBORO
878	SD-WAP	600068	Female	Mar 11, 2000	Dead	UND	408	Captive Birth/Hatch	Birth/Hatch	Mar 11, 2000	SD-WAP
									Death	Sep 28, 2001	SD-WAP
879	MONROE	64076G	Female	Mar 21, 2000	Dead	798	791	Captive Birth/Hatch	Birth/Hatch	Mar 21, 2000	MONROE
									Death	Jun 01, 2012 +/- 6 month	MONROE
880	MT ULLA	_____	Male	Apr 25, 2000	Undetermined (Lost to follow up)	575	UND	Captive Birth/Hatch	Birth/Hatch	Apr 25, 2000	W PALM BE
									Transfer	Dec 20, 2001	MT ULLA
									GO LTF	Dec 20, 2001	MT ULLA
881	PEACE RV	100086	Female	Sep 30, 2000	Dead	866	UND	Captive Birth/Hatch	Birth/Hatch	Sep 30, 2000	PEACE RV
									Death	Dec 15, 2004	PEACE RV
882	BATONROUG	9003	Male	Oct 11, 2000	Dead	760	732	Captive Birth/Hatch	Birth/Hatch	Oct 11, 2000	BATONROUG
									Death	Dec 13, 2007	BATONROUG
883	UNDETERMI	Undetermined	Male	Oct 16, 2000	Undetermined (Lost to follow up)	798	828	Captive Birth/Hatch	Birth/Hatch	Oct 16, 2000	MONROE
									Transfer	Oct 01, 2001	UNDETERMI
									GO LTF	Oct 01, 2001	UNDETERMI
884	W PALM BE	A251	Male	Nov 15, 2000	Dead	575	838	Captive Birth/Hatch	Birth/Hatch	Nov 15, 2000	W PALM BE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Dec 22, 2016	W PALM BE
885	YULEE	Y04026	Female	Nov 16, 2000	Dead	628	676	Captive Birth/Hatch	Birth/Hatch	Nov 16, 2000	YULEE
									Death	Nov 25, 2000	YULEE
886	YULEE	Y04027	Male	Nov 19, 2000	Dead	628	626	Captive Birth/Hatch	Birth/Hatch	Nov 19, 2000	YULEE
									Death	Nov 22, 2000	YULEE
887	PEACE RV	100105	Female	Nov 22, 2000	Dead	UND	797	Captive Birth/Hatch	Birth/Hatch	Nov 22, 2000	PEACE RV
									Death	Oct 12, 2006	PEACE RV
888	ASHEBORO	1819	Male	Nov 23, 2000	Dead	498	561	Captive Birth/Hatch	Birth/Hatch	Nov 23, 2000	METROZOO
									Transfer	Oct 30, 2001	PEACE RV
									Transfer	Apr 03, 2002	OKLAHOMA
									Transfer	Dec 29, 2006	RUM CREEK
									Transfer	Dec 18, 2008	ASHEBORO
									Death	May 17, 2012	ASHEBORO
889	RUM CREEK	101099	Female	Nov 29, 2000	Undetermined (Lost to follow up)	498	624	Captive Birth/Hatch	Birth/Hatch	Nov 29, 2000	METROZOO
									Transfer	Nov 02, 2001	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
890	W PALM BE	A252	Male	Dec 02, 2000	Dead	575	669	Captive Birth/Hatch	Birth/Hatch	Dec 02, 2000	W PALM BE
									Death	Dec 24, 2013	W PALM BE
891	W PALM BE	A257	Male	Dec 08, 2000	Dead	575	862	Captive Birth/Hatch	Birth/Hatch	Dec 08, 2000	W PALM BE
									Death	Jan 01, 2015	W PALM BE
892	W PALM BE	A264	Male	Dec 11, 2000	Dead	575	708	Captive Birth/Hatch	Birth/Hatch	Dec 11, 2000	W PALM BE
									Death	Mar 18, 2014	W PALM BE
893	YULEE	Y04033	Female	Dec 11, 2000	Dead	628	834	Captive Birth/Hatch	Birth/Hatch	Dec 11, 2000	YULEE
									Death	Feb 04, 2013	YULEE
894	YULEE	Y04034	Male	Dec 12, 2000	Dead	628	480	Captive Birth/Hatch	Birth/Hatch	Dec 12, 2000	YULEE
									Death	Dec 17, 2000	YULEE
895	SD-WAP	600641	Male	Dec 15, 2000	Dead	UND	782	Captive Birth/Hatch	Birth/Hatch	Dec 15, 2000	SD-WAP
									Death	Dec 15, 2000	SD-WAP
896	OKLAHOMA	771002	Male	Dec 17, 2000	Dead	498	532	Captive Birth/Hatch	Birth/Hatch	Dec 17, 2000	METROZOO

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Oct 30, 2001	PEACE RV
									Transfer	Apr 03, 2002	OKLAHOMA
									Death	Nov 11, 2009	OKLAHOMA
897	AMIG GR R	_____	Male	Dec 18, 2000	Undetermined (Lost to follow up)	628	823	Captive Birth/Hatch	Birth/Hatch	Dec 18, 2000	YULEE
									Transfer	Mar 11, 2005	AMIG GR R
									GO LTF	Mar 11, 2005	AMIG GR R
898	SD-WAP	601003	Male	Jan 04, 2001	Dead	UND	472	Captive Birth/Hatch	Birth/Hatch	Jan 04, 2001	SD-WAP
									Death	Jan 04, 2001	SD-WAP
899	BATONROUG	9131	Male	Jan 10, 2001	Dead	760	710	Captive Birth/Hatch	Birth/Hatch	Jan 10, 2001	BATONROUG
									Death	Sep 07, 2014	BATONROUG
900	YULEE	Y14303	Male	Feb 03, 2001	Dead	498	521	Captive Birth/Hatch	Birth/Hatch	Feb 03, 2001	METROZOO
									Transfer	Oct 30, 2001	PEACE RV
									Transfer	Nov 14, 2001	YULEE
									Death	Aug 12, 2010	YULEE
901	RUM CREEK	101100	Female	Mar 28, 2001	Undetermined (Lost to follow up)	498	316	Captive Birth/Hatch	Birth/Hatch	Mar 28, 2001	METROZOO
									Transfer	Nov 02, 2001	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
902	OKLAHOMA	771003	Male	Apr 29, 2001	Dead	866	UND	Captive Birth/Hatch	Birth/Hatch	Apr 29, 2001	PEACE RV
									Transfer	Apr 03, 2002	OKLAHOMA
									Death	Feb 12, 2007	OKLAHOMA
903	W PALM BE	B111	Female	May 04, 2001	Dead	575	873	Captive Birth/Hatch	Birth/Hatch	May 04, 2001	W PALM BE
									Death	May 06, 2001	W PALM BE
904	YULEE	Y14013	Male	May 29, 2001	Dead	628	854	Captive Birth/Hatch	Birth/Hatch	May 29, 2001	YULEE
									Death	Oct 20, 2009	YULEE
905	RUM CREEK	101061	Female	Jun 10, 2001	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jun 10, 2001	PEACE RV
									Transfer	Dec 29, 2006	PREMONT
									GO LTF	Dec 29, 2006	PREMONT
									Return from LTF	Dec 30, 2006	PREMONT
									Transfer	Dec 31, 2006	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Nov 09, 2008	RUM CREEK
906	UNDETERMI	Undetermined	Male	Aug 21, 2001	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Aug 21, 2001	MONROE
									Transfer	Oct 29, 2001	UNDETERMI
									GO LTF	Oct 29, 2001	UNDETERMI
907	HOLIDAY	_____	Male	Aug 24, 2001	Undetermined (Lost to follow up)	UND	408	Captive Birth/Hatch	Birth/Hatch	Aug 24, 2001	SD-WAP
									Transfer	Dec 16, 2003	HOLIDAY
									GO LTF	Dec 16, 2003	HOLIDAY
908	SD-WAP	601450	Male	Aug 25, 2001	Dead	UND	783	Captive Birth/Hatch	Birth/Hatch	Aug 25, 2001	SD-WAP
									Death	Aug 25, 2001	SD-WAP
909	SD-WAP	601460	Female	Sep 01, 2001	Dead	UND	334	Captive Birth/Hatch	Birth/Hatch	Sep 01, 2001	SD-WAP
									Death	Sep 01, 2001	SD-WAP
910	SD-WAP	601479	Female	Sep 20, 2001	Dead	UND	472	Captive Birth/Hatch	Birth/Hatch	Sep 20, 2001	SD-WAP
									Death	Sep 21, 2001	SD-WAP
911	HOLIDAY	_____	Female	Sep 28, 2001	Undetermined (Lost to follow up)	UND	857	Captive Birth/Hatch	Birth/Hatch	Sep 28, 2001	SD-WAP
									Transfer	Dec 16, 2003	HOLIDAY
									GO LTF	Dec 16, 2003	HOLIDAY
912	BATONROUG	9266	Female	Sep 28, 2001	Dead	760	845	Captive Birth/Hatch	Birth/Hatch	Sep 28, 2001	BATONROUG
									Death	Jun 08, 2006	BATONROUG
913	BATONROUG	9275	Female	Oct 24, 2001	Dead	760	732	Captive Birth/Hatch	Birth/Hatch	Oct 24, 2001	BATONROUG
									Death	Jan 10, 2019	BATONROUG
914	YULEE	Y14027	Male	Oct 28, 2001	Dead	UND	676	Captive Birth/Hatch	Birth/Hatch	Oct 28, 2001	YULEE
									Death	Nov 05, 2001	YULEE
915	BATONROUG	9278	Female	Oct 29, 2001	Dead	760	710	Captive Birth/Hatch	Birth/Hatch	Oct 29, 2001	BATONROUG
									Death	Jan 09, 2002	BATONROUG
916	YULEE	Y14028	Male	Nov 01, 2001	Dead	UND	626	Captive Birth/Hatch	Birth/Hatch	Nov 01, 2001	YULEE
									Death	Nov 04, 2001	YULEE
917	MEMPHIS	21966	Female	Nov 03, 2001	Dead	UND	853	Captive Birth/Hatch	Birth/Hatch	Nov 03, 2001	YULEE
									Transfer	Mar 22, 2006	MEMPHIS

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Nov 04, 2011	MEMPHIS
918	PEACE RV	101110	Undetermined	Nov 13, 2001	Dead	866	UND	Captive Birth/Hatch	Birth/Hatch	Nov 13, 2001	PEACE RV
									Death	Aug 19, 2004	PEACE RV
919	W PALM BE	B218	Female	Nov 17, 2001 +/- 1 day	Dead	575	708	Captive Birth/Hatch	Birth/Hatch	Nov 17, 2001 +/- 1 day	W PALM BE
									Death	Apr 30, 2019	W PALM BE
920	W PALM BE	B217	Female	Nov 18, 2001 +/- 1 day	Dead	UND	862	Captive Birth/Hatch	Birth/Hatch	Nov 18, 2001 +/- 1 day	W PALM BE
									Death	Apr 03, 2014	W PALM BE
921	JOHNSON L	_____	Male	Nov 19, 2001	Undetermined (Lost to follow up)	UND	563	Captive Birth/Hatch	Birth/Hatch	Nov 19, 2001	SD-WAP
									Transfer	Jun 15, 2006	JOHNSON L
									GO LTF	Jun 15, 2006	JOHNSON L
922	YULEE	Y14031	Female	Nov 21, 2001	Dead	852	480	Captive Birth/Hatch	Birth/Hatch	Nov 21, 2001	YULEE
									Death	Aug 27, 2018	YULEE
923	YULEE	Y14032	Male	Nov 23, 2001	Dead	UND	834	Captive Birth/Hatch	Birth/Hatch	Nov 23, 2001	YULEE
									Death	Dec 01, 2001	YULEE
924	PEACE RV	101112	Male	Nov 28, 2001	Dead	498	624	Captive Birth/Hatch	Birth/Hatch	Nov 28, 2001	PEACE RV
									Death	Dec 14, 2006	PEACE RV
925	W PALM BE	B219	Female	Nov 29, 2001 +/- 1 day	Dead	UND	669	Captive Birth/Hatch	Birth/Hatch	Nov 29, 2001 +/- 1 day	W PALM BE
									Death	Jul 05, 2013	W PALM BE
926	BULVERDE	-	Male	Dec 13, 2001	Undetermined (Lost to follow up)	498	521	Captive Birth/Hatch	Birth/Hatch	Dec 13, 2001	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Transfer	Jan 17, 2007	BULVERDE
									GO LTF	Jan 17, 2007	BULVERDE
927	W PALM BE	B238	Male	Dec 18, 2001	Dead	869	838	Captive Birth/Hatch	Birth/Hatch	Dec 18, 2001	W PALM BE
									Death	Sep 20, 2016	W PALM BE
928	BULVERDE	-	Male	Dec 22, 2001	Undetermined (Lost to follow up)	866	UND	Captive Birth/Hatch	Birth/Hatch	Dec 22, 2001	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Transfer	Jan 17, 2007	BULVERDE
									GO LTF	Jan 17, 2007	BULVERDE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
929	STCATHERN	S02001	Male	Jan 10, 2002	Dead	836	679	Captive Birth/Hatch	Birth/Hatch	Jan 10, 2002	STCATHERN
									Death	Jan 10, 2002	STCATHERN
930	STCATHERN	S02002	Male	Jan 11, 2002	Dead	836	750	Captive Birth/Hatch	Birth/Hatch	Jan 11, 2002	STCATHERN
									Death	Jan 11, 2002	STCATHERN
931	ASHEBORO	1672	Female	Jan 18, 2002	Dead	836	690	Captive Birth/Hatch	Birth/Hatch	Jan 18, 2002	STCATHERN
									Transfer	Nov 02, 2004	ASHEBORO
									Death	May 25, 2012	ASHEBORO
932	ASHEBORO	1673	Female	Jan 18, 2002	Dead	836	612	Captive Birth/Hatch	Birth/Hatch	Jan 18, 2002	STCATHERN
									Transfer	Nov 02, 2004	ASHEBORO
									Death	Aug 01, 2018	ASHEBORO
933	W PALM BE	C008	Female	Feb 03, 2002	Dead	869	873	Captive Birth/Hatch	Birth/Hatch	Feb 03, 2002	W PALM BE
									Death	Jan 07, 2014	W PALM BE
934	STCATHERN	S02017	Female	Feb 26, 2002	Dead	836	704	Captive Birth/Hatch	Birth/Hatch	Feb 26, 2002	STCATHERN
									Death	Feb 26, 2002	STCATHERN
935	BERRY JIM	-	Male	Mar 04, 2002	Undetermined (Lost to follow up)	UND	797	Captive Birth/Hatch	Birth/Hatch	Mar 04, 2002	PEACE RV
									Transfer	Dec 15, 2006	BERRY JIM
									GO LTF	Dec 15, 2006	BERRY JIM
936	STCATHERN	S02020	Male	Mar 07, 2002	Dead	836	771	Captive Birth/Hatch	Birth/Hatch	Mar 07, 2002	STCATHERN
									Death	Mar 07, 2002	STCATHERN
937	SD-WAP	602066	Male	Mar 11, 2002	Dead	UND	846	Captive Birth/Hatch	Birth/Hatch	Mar 11, 2002	SD-WAP
									Death	Mar 14, 2002	SD-WAP
938	RUM CREEK	102013	Female	Mar 11, 2002	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Mar 11, 2002	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Death	Aug 01, 2008	RUM CREEK
939	BERRY JIM	-	Male	Mar 13, 2002	Undetermined (Lost to follow up)	UND	561	Captive Birth/Hatch	Birth/Hatch	Mar 13, 2002	PEACE RV
									Transfer	Dec 15, 2006	BERRY JIM
									GO LTF	Dec 15, 2006	BERRY JIM
940	ASHEBORO	1686	Female	May 03, 2002	Dead	836	746	Captive Birth/Hatch	Birth/Hatch	May 03, 2002	STCATHERN
									Transfer	Nov 09, 2004	ASHEBORO

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Oct 10, 2019	ASHEBORO
941	SD-WAP	602361	Female	Jun 30, 2002	Dead	UND	783	Captive Birth/Hatch	Birth/Hatch	Jun 30, 2002	SD-WAP
									Death	Dec 26, 2006	SD-WAP
942	SD-WAP	602474	Female	Sep 29, 2002	Dead	UND	408	Captive Birth/Hatch	Birth/Hatch	Sep 29, 2002	SD-WAP
									Death	Nov 08, 2006	SD-WAP
943	BATONROUG	9479	Female	Oct 12, 2002	Dead	760	845	Captive Birth/Hatch	Birth/Hatch	Oct 12, 2002	BATONROUG
									Death	Oct 15, 2002	BATONROUG
944	BATONROUG	9480	Male	Oct 15, 2002	Dead	760	710	Captive Birth/Hatch	Birth/Hatch	Oct 15, 2002	BATONROUG
									Death	Oct 15, 2002	BATONROUG
945	SAFARI W	106023	Male	Oct 16, 2002	Dead	760	732	Captive Birth/Hatch	Birth/Hatch	Oct 16, 2002	BATONROUG
									Transfer	May 08, 2006	SAFARI W
									Death	Sep 10, 2006	SAFARI W
946	SD-WAP	602497	Female	Oct 23, 2002	Dead	UND	857	Captive Birth/Hatch	Birth/Hatch	Oct 23, 2002	SD-WAP
									Death	Jul 13, 2017	SD-WAP
947	STCATHERN	S02087	Undetermined	Oct 31, 2002	Dead	836	750	Captive Birth/Hatch	Birth/Hatch	Oct 31, 2002	STCATHERN
									Death	Oct 31, 2002	STCATHERN
948	ASHEBORO	1681	Female	Nov 07, 2002	Dead	836	704	Captive Birth/Hatch	Birth/Hatch	Nov 07, 2002	STCATHERN
									Transfer	Nov 03, 2004	ASHEBORO
									Death	Feb 28, 2019	ASHEBORO
949	W PALM BE	C100	Male	Nov 09, 2002	Dead	869	862	Captive Birth/Hatch	Birth/Hatch	Nov 09, 2002	W PALM BE
									Death	Jan 26, 2007	W PALM BE
950	RUM CREEK	102096	Female	Nov 09, 2002	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 09, 2002	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Death	Nov 11, 2008	RUM CREEK
951	W PALM BE	C101	Female	Nov 12, 2002	Dead	869	838	Captive Birth/Hatch	Birth/Hatch	Nov 12, 2002	W PALM BE
									Death	Jan 19, 2003	W PALM BE
952	SD-WAP	602511	Female	Nov 13, 2002	Dead	UND	563	Captive Birth/Hatch	Birth/Hatch	Nov 13, 2002	SD-WAP
									Death	Mar 30, 2010	SD-WAP
953	PEACE RV	102111	Undetermined	Dec 04, 2002	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 04, 2002	PEACE RV
									Death	May 31, 2005	PEACE RV

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
954	PREMONT	-	Female	Dec 04, 2002	Undetermined (Lost to follow up)	UND	624	Captive Birth/Hatch	Birth/Hatch	Dec 04, 2002	PEACE RV
									Transfer	Dec 29, 2006	PREMONT
									GO LTF	Dec 29, 2006	PREMONT
955	STCATHERN	S02092	Male	Dec 04, 2002	Dead	836	679	Captive Birth/Hatch	Birth/Hatch	Dec 04, 2002	STCATHERN
									Death	Dec 04, 2002	STCATHERN
956	W PALM BE	C104	Male	Dec 12, 2002	Dead	869	873	Captive Birth/Hatch	Birth/Hatch	Dec 12, 2002	W PALM BE
									Death	Nov 20, 2008	W PALM BE
957	STCATHERN	S02093	Female	Dec 12, 2002	Dead	836	612	Captive Birth/Hatch	Birth/Hatch	Dec 12, 2002	STCATHERN
									Death	Dec 15, 2002	STCATHERN
958	AMIG GR R	_____	Male	Dec 13, 2002	Undetermined (Lost to follow up)	836	771	Captive Birth/Hatch	Birth/Hatch	Dec 13, 2002	STCATHERN
									Transfer	Feb 23, 2005	YULEE
									Transfer	Mar 11, 2005	AMIG GR R
									GO LTF	Mar 11, 2005	AMIG GR R
959	RUM CREEK	102116	Female	Dec 17, 2002	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 17, 2002	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Death	Oct 19, 2008	RUM CREEK
960	ASHEBORO	1674	Female	Dec 17, 2002	Dead	836	690	Captive Birth/Hatch	Birth/Hatch	Dec 17, 2002	STCATHERN
									Transfer	Nov 02, 2004	ASHEBORO
									Death	Nov 04, 2016	ASHEBORO
961	W PALM BE	C103	Male	Dec 25, 2002	Dead	869	708	Captive Birth/Hatch	Birth/Hatch	Dec 25, 2002	W PALM BE
									Death	Aug 08, 2016	W PALM BE
962	W PALM BE	C106	Female	Dec 30, 2002	Dead	869	669	Captive Birth/Hatch	Birth/Hatch	Dec 30, 2002	W PALM BE
									Death	May 29, 2016	W PALM BE
963	RUM CREEK	103006	Female	Jan 07, 2003	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jan 07, 2003	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
964	SAFARI W	107028	Male	Jan 16, 2003	Dead	UND	846	Captive Birth/Hatch	Birth/Hatch	Jan 16, 2003	SD-WAP
									Transfer	May 17, 2007	SAFARI W
									Death	Oct 09, 2012	SAFARI W

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
965	RUM CREEK	103014	Female	Jan 21, 2003	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jan 21, 2003	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Death	Apr 21, 2009	RUM CREEK
966	RUM CREEK	103016	Male	Jan 28, 2003	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jan 28, 2003	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
967	AMIG GR R	_____	Male	Feb 13, 2003	Undetermined (Lost to follow up)	836	585	Captive Birth/Hatch	Birth/Hatch	Feb 13, 2003	STCATHERN
									Transfer	Feb 23, 2005	YULEE
									Transfer	Mar 11, 2005	AMIG GR R
									GO LTF	Mar 11, 2005	AMIG GR R
968	YULEE	Y34003	Male	Feb 21, 2003	Dead	900	626	Captive Birth/Hatch	Birth/Hatch	Feb 21, 2003	YULEE
									Death	Feb 27, 2003	YULEE
969	AMIG GR R	_____	Male	Feb 24, 2003	Undetermined (Lost to follow up)	900	UND	Captive Birth/Hatch	Birth/Hatch	Feb 24, 2003	YULEE
									Transfer	Mar 11, 2005	AMIG GR R
									GO LTF	Mar 11, 2005	AMIG GR R
970	AMIG GR R	_____	Male	Feb 26, 2003	Undetermined (Lost to follow up)	900	853	Captive Birth/Hatch	Birth/Hatch	Feb 26, 2003	YULEE
									Transfer	Mar 11, 2005	AMIG GR R
									GO LTF	Mar 11, 2005	AMIG GR R
971	BULVERDE	-	Male	Mar 04, 2003	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Mar 04, 2003	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Transfer	Jan 13, 2007	BULVERDE
									GO LTF	Jan 13, 2007	BULVERDE
972	MONROE	200309	Female	Mar 08, 2003	Dead	798	791	Captive Birth/Hatch	Birth/Hatch	Mar 08, 2003	MONROE
									Death	Jun 01, 2012 +/- 6 month	MONROE
973	BERRY JIM	-	Male	Mar 18, 2003	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Mar 18, 2003	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Transfer	Jan 12, 2007	BERRY JIM

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									GO LTF	Jan 12, 2007	BERRY JIM
974	SD-WAP	603226	Male	May 17, 2003	Dead	UND	783	Captive Birth/Hatch	Birth/Hatch	May 17, 2003	SD-WAP
									Death	May 17, 2003	SD-WAP
975	YULEE	Y34010	Male	Jun 12, 2003	Dead	900	480	Captive Birth/Hatch	Birth/Hatch	Jun 12, 2003	YULEE
									Death	Jun 12, 2003	YULEE
976	W PALM BE	D089	Male	Jul 10, 2003	Dead	UND	925	Captive Birth/Hatch	Birth/Hatch	Jul 10, 2003	W PALM BE
									Death	Apr 20, 2018	W PALM BE
977	YULEE	Y94303	Male	Oct 29, 2003	Dead	UND	408	Captive Birth/Hatch	Birth/Hatch	Oct 29, 2003	SD-WAP
									Transfer	Nov 07, 2009	YULEE
									Death	Aug 14, 2014	YULEE
978	ASHEBORO	1682	Female	Oct 30, 2003	Dead	836	746	Captive Birth/Hatch	Birth/Hatch	Oct 30, 2003	STCATHERN
									Transfer	Nov 03, 2004	ASHEBORO
									Death	Dec 23, 2012	ASHEBORO
979	SD-WAP	603447	Female	Nov 09, 2003	Dead	UND	857	Captive Birth/Hatch	Birth/Hatch	Nov 09, 2003	SD-WAP
									Death	Apr 25, 2010	SD-WAP
980	W PALM BE	D104	Male	Nov 19, 2003	Dead	869	708	Captive Birth/Hatch	Birth/Hatch	Nov 19, 2003	W PALM BE
									Death	Jul 13, 2016	W PALM BE
981	ASHEBORO	1687	Female	Nov 21, 2003	Dead	836	704	Captive Birth/Hatch	Birth/Hatch	Nov 21, 2003	STCATHERN
									Transfer	Nov 09, 2004	ASHEBORO
									Death	Dec 05, 2012	ASHEBORO
982	STCATHERN	S03104	Male	Nov 24, 2003	Dead	836	750	Captive Birth/Hatch	Birth/Hatch	Nov 24, 2003	STCATHERN
									Death	Nov 24, 2003	STCATHERN
983	RUM CREEK	103139	Female	Nov 25, 2003	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2003	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
984	STCATHERN	S03105	Male	Nov 28, 2003	Dead	836	612	Captive Birth/Hatch	Birth/Hatch	Nov 28, 2003	STCATHERN
									Death	Dec 01, 2003	STCATHERN
985	STCATHERN	S03106	Female	Nov 29, 2003	Dead	836	UND	Captive Birth/Hatch	Birth/Hatch	Nov 29, 2003	STCATHERN
									Death	Dec 02, 2003	STCATHERN

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
986	RUM CREEK	103140	Female	Nov 30, 2003	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 30, 2003	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
987	RUM CREEK	103141	Female	Nov 30, 2003	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 30, 2003	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
988	STCATHERN	S03107	Female	Nov 30, 2003	Dead	836	690	Captive Birth/Hatch	Birth/Hatch	Nov 30, 2003	STCATHERN
									Death	Dec 01, 2003	STCATHERN
989	STCATHERN	S03108	Male	Nov 30, 2003	Dead	836	612	Captive Birth/Hatch	Birth/Hatch	Nov 30, 2003	STCATHERN
									Death	Feb 10, 2005	STCATHERN
990	STCATHERN	S03109	Undetermined	Dec 06, 2003	Dead	836	585	Captive Birth/Hatch	Birth/Hatch	Dec 06, 2003	STCATHERN
									Death	Dec 06, 2003	STCATHERN
991	BERRY JIM	-	Undetermined	Dec 09, 2003	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 09, 2003	PEACE RV
									Transfer	Dec 15, 2006	BERRY JIM
									GO LTF	Dec 15, 2006	BERRY JIM
992	STCATHERN	S03110	Male	Dec 14, 2003	Dead	836	UND	Captive Birth/Hatch	Birth/Hatch	Dec 14, 2003	STCATHERN
									Death	Dec 17, 2003	STCATHERN
993	BERRY JIM	-	Undetermined	Dec 20, 2003	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 20, 2003	PEACE RV
									Transfer	Dec 15, 2006	BERRY JIM
									GO LTF	Dec 15, 2006	BERRY JIM
994	BERRY JIM	-	Undetermined	Dec 20, 2003	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 20, 2003	PEACE RV
									Transfer	Dec 15, 2006	BERRY JIM
									GO LTF	Dec 15, 2006	BERRY JIM
995	RUM CREEK	103158	Female	Dec 20, 2003	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 20, 2003	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
996	PEACE RV	103159	Undetermined	Dec 20, 2003	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 20, 2003	PEACE RV

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Dec 11, 2006	PEACE RV
997	ASHEBORO	1647	Female	Jan 02, 2004	Dead	836	534	Captive Birth/Hatch	Birth/Hatch	Jan 02, 2004	STCATHERN
									Transfer	May 13, 2004	ASHEBORO
									Death	Jun 20, 2005	ASHEBORO
998	W PALM BE	E001	Male	Jan 10, 2004	Dead	869	919	Captive Birth/Hatch	Birth/Hatch	Jan 10, 2004	W PALM BE
									Death	Jan 09, 2018	W PALM BE
999	ASHEBORO	1677	Female	Jan 16, 2004	Dead	836	931	Captive Birth/Hatch	Birth/Hatch	Jan 16, 2004	STCATHERN
									Transfer	Nov 03, 2004	ASHEBORO
									Death	Nov 03, 2004	ASHEBORO
1000	W PALM BE	E003	Female	Jan 23, 2004	Dead	869	669	Captive Birth/Hatch	Birth/Hatch	Jan 23, 2004	W PALM BE
									Death	Apr 29, 2013	W PALM BE
1001	W PALM BE	E004	Undetermined	Jan 24, 2004	Dead	869	862	Captive Birth/Hatch	Birth/Hatch	Jan 24, 2004	W PALM BE
									Death	Jan 24, 2004	W PALM BE
1002	W PALM BE	E005	Male	Jan 26, 2004	Dead	869	873	Captive Birth/Hatch	Birth/Hatch	Jan 26, 2004	W PALM BE
									Death	Oct 16, 2020	W PALM BE
1003	SD-WAP	604013	Male	Jan 31, 2004	Dead	UND	846	Captive Birth/Hatch	Birth/Hatch	Jan 31, 2004	SD-WAP
									Death	May 01, 2005	SD-WAP
1004	MONROE	200406	Male	Feb 26, 2004	Dead	798	791	Captive Birth/Hatch	Birth/Hatch	Feb 26, 2004	MONROE
									Death	Jun 01, 2012 +/- 6 month	MONROE
1005	W PALM BE	E020	Female	Feb 28, 2004	Dead	869	933	Captive Birth/Hatch	Birth/Hatch	Feb 28, 2004	W PALM BE
									Death	Apr 29, 2013	W PALM BE
1006	JOHNSON L	_____	Male	Mar 14, 2004	Undetermined (Lost to follow up)	UND	946	Captive Birth/Hatch	Birth/Hatch	Mar 14, 2004	SD-WAP
									Transfer	Apr 15, 2007	JOHNSON L
									GO LTF	Apr 15, 2007	JOHNSON L
1007	SD-WAP	604051	Male	Mar 16, 2004	Dead	UND	783	Captive Birth/Hatch	Birth/Hatch	Mar 16, 2004	SD-WAP
									Death	Mar 16, 2004	SD-WAP
1008	TATUM E	UNK	Female	Mar 19, 2004	Undetermined (Lost to follow up)	UND	942	Captive Birth/Hatch	Birth/Hatch	Mar 19, 2004	SD-WAP
									Transfer	Jan 23, 2012	TATUM E
									GO LTF	Jan 23, 2012	TATUM E

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1009	ASHEBORO	1675	Female	May 03, 2004	Dead	836	771	Captive Birth/Hatch	Birth/Hatch	May 03, 2004	STCATHERN
									Transfer	Nov 02, 2004	ASHEBORO
									Death	Oct 10, 2019	ASHEBORO
1010	JOHNSON L	_____	Male	May 11, 2004	Undetermined (Lost to follow up)	UND	952	Captive Birth/Hatch	Birth/Hatch	May 11, 2004	SD-WAP
									Transfer	Apr 15, 2007	JOHNSON L
									GO LTF	Apr 15, 2007	JOHNSON L
1011	AMIG GR R	_____	Male	May 15, 2004	Undetermined (Lost to follow up)	836	960	Captive Birth/Hatch	Birth/Hatch	May 15, 2004	STCATHERN
									Transfer	Feb 23, 2005	YULEE
									Transfer	Mar 11, 2005	AMIG GR R
									GO LTF	Mar 11, 2005	AMIG GR R
1012	ASHEBORO	1688	Female	Sep 21, 2004	Dead	836	940	Captive Birth/Hatch	Birth/Hatch	Sep 21, 2004	STCATHERN
									Transfer	Nov 09, 2004	ASHEBORO
									Death	Feb 07, 2005	ASHEBORO
1013	PEACE RV	104222	Undetermined	Nov 10, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 10, 2004	PEACE RV
									Death	Dec 25, 2004	PEACE RV
1014	PEACE RV	104223	Undetermined	Nov 10, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 10, 2004	PEACE RV
									Death	Dec 19, 2004	PEACE RV
1015	RUM CREEK	104226	Female	Nov 17, 2004	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 17, 2004	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1016	BERRY JIM	-	Male	Nov 20, 2004	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 20, 2004	PEACE RV
									Transfer	Dec 15, 2006	BERRY JIM
									GO LTF	Dec 15, 2006	BERRY JIM
1017	RUM CREEK	104228	Female	Nov 28, 2004	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 28, 2004	PEACE RV
									Transfer	Dec 29, 2009	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1018	BULVERDE	_____	Male	Nov 29, 2004	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 29, 2004	PEACE RV

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Aug 01, 2006	BULVERDE
									GO LTF	Aug 01, 2006	BULVERDE
1019	PEACE RV	104235	Undetermined	Dec 09, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 09, 2004	PEACE RV
									Death	Jan 06, 2005	PEACE RV
1020	PEACE RV	104236	Undetermined	Dec 09, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 09, 2004	PEACE RV
									Death	Jan 05, 2005	PEACE RV
1021	PEACE RV	104237	Undetermined	Dec 09, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 09, 2004	PEACE RV
									Death	Jan 03, 2005	PEACE RV
1022	PEACE RV	104238	Undetermined	Dec 09, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 09, 2004	PEACE RV
									Death	Dec 30, 2004	PEACE RV
1023	PEACE RV	104239	Undetermined	Dec 09, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 09, 2004	PEACE RV
									Death	Dec 27, 2004	PEACE RV
1024	SD-WAP	604260	Female	Jul 06, 2004	Dead	UND	941	Captive Birth/Hatch	Birth/Hatch	Jul 06, 2004	SD-WAP
									Death	Jul 12, 2004	SD-WAP
1025	SD-WAP	604405	Male	Dec 08, 2004	Dead	UND	563	Captive Birth/Hatch	Birth/Hatch	Dec 08, 2004	SD-WAP
									Death	Dec 12, 2004	SD-WAP
1026	HOLIDAY	_____	Male	Jan 15, 2005	Undetermined (Lost to follow up)	UND	942	Captive Birth/Hatch	Birth/Hatch	Jan 15, 2005	SD-WAP
									Transfer	Mar 23, 2007	HOLIDAY
									GO LTF	Mar 23, 2007	HOLIDAY
1027	PEACE RV	104245	Undetermined	Dec 14, 2004	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 14, 2004	PEACE RV
									Death	Dec 26, 2004	PEACE RV
1028	W PALM BE	E060	Male	Nov 20, 2004	Dead	949	962	Captive Birth/Hatch	Birth/Hatch	Nov 20, 2004	W PALM BE
									Death	Jan 03, 2020	W PALM BE
1029	W PALM BE	E061	Female	Nov 24, 2004	Dead	949	838	Captive Birth/Hatch	Birth/Hatch	Nov 24, 2004	W PALM BE
									Death	Feb 01, 2014	W PALM BE
1030	W PALM BE	E062	Female	Nov 27, 2004	Dead	949	708	Captive Birth/Hatch	Birth/Hatch	Nov 27, 2004	W PALM BE
									Death	Feb 25, 2018	W PALM BE
1031	SD-WAP	605019	Male	Jan 27, 2005	Dead	UND	946	Captive Birth/Hatch	Birth/Hatch	Jan 27, 2005	SD-WAP
									Death	Jan 27, 2005	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1032	SD-WAP	605023	Male	Mar 02, 2005	Dead	UND	857	Captive Birth/Hatch	Birth/Hatch	Mar 02, 2005	SD-WAP
									Death	Mar 23, 2007	SD-WAP
1033	JOHNSON L	_____	Male	Mar 19, 2005	Undetermined (Lost to follow up)	UND	952	Captive Birth/Hatch	Birth/Hatch	Mar 19, 2005	SD-WAP
									Transfer	Apr 15, 2007	JOHNSON L
									GO LTF	Apr 15, 2007	JOHNSON L
1034	SD-WAP	605074	Male	Mar 27, 2005	Dead	UND	846	Captive Birth/Hatch	Birth/Hatch	Mar 27, 2005	SD-WAP
									Death	Mar 27, 2005	SD-WAP
1035	SD-WAP	605242	Female	May 30, 2005	Dead	UND	941	Captive Birth/Hatch	Birth/Hatch	May 30, 2005	SD-WAP
									Death	Mar 27, 2009	SD-WAP
1036	SD-WAP	605272	Female	Jun 21, 2005	Dead	UND	979	Captive Birth/Hatch	Birth/Hatch	Jun 21, 2005	SD-WAP
									Death	Jun 21, 2005	SD-WAP
1037	BULVERDE	_____	Male	Dec 31, 2004	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 31, 2004	PEACE RV
									Transfer	Aug 01, 2006	BULVERDE
									GO LTF	Aug 01, 2006	BULVERDE
1038	RUM CREEK	105015	Female	Jan 25, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jan 25, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1039	PEACE RV	105042	Undetermined	May 19, 2005	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	May 19, 2005	PEACE RV
									Death	May 19, 2005	PEACE RV
1040	PEACE RV	105043	Undetermined	May 19, 2005	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	May 19, 2005	PEACE RV
									Death	May 19, 2005	PEACE RV
1041	RUM CREEK	105056	Female	Jun 01, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jun 01, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1042	RUM CREEK	105057	Female	Jun 01, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jun 01, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1043	RUM CREEK	105101	Female	Oct 07, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 07, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1044	BULVERDE	-	Undetermined	Oct 18, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 18, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Transfer	Jan 13, 2007	BULVERDE
									GO LTF	Jan 13, 2007	BULVERDE
1045	RUM CREEK	105104	Female	Oct 18, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 18, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1046	HOLIDAY	_____	Male	Oct 16, 2005	Undetermined (Lost to follow up)	UND	1008	Captive Birth/Hatch	Birth/Hatch	Oct 16, 2005	SD-WAP
									Transfer	Mar 23, 2007	HOLIDAY
									GO LTF	Mar 23, 2007	HOLIDAY
1047	W PALM BE	F078	Male	Nov 23, 2005	Dead	1002	933	Captive Birth/Hatch	Birth/Hatch	Nov 23, 2005	W PALM BE
									Death	Nov 23, 2005	W PALM BE
1048	SD-WAP	605404	Male	Nov 23, 2005	Dead	UND	942	Captive Birth/Hatch	Birth/Hatch	Nov 23, 2005	SD-WAP
									Death	Nov 25, 2005	SD-WAP
1049	SD-WAP	605415	Male	Dec 10, 2005	Dead	UND	946	Captive Birth/Hatch	Birth/Hatch	Dec 10, 2005	SD-WAP
									Death	Dec 10, 2005	SD-WAP
1050	SD-WAP	606015	Female	Jan 26, 2006	Dead	UND	952	Captive Birth/Hatch	Birth/Hatch	Jan 26, 2006	SD-WAP
									Death	Jan 29, 2006	SD-WAP
1051	SD-WAP	606050	Male	Mar 22, 2006	Dead	UND	941	Captive Birth/Hatch	Birth/Hatch	Mar 22, 2006	SD-WAP
									Death	Mar 23, 2006	SD-WAP
1052	BULVERDE	-	Undetermined	Oct 31, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 31, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Transfer	Jan 13, 2007	BULVERDE
									GO LTF	Jan 13, 2007	BULVERDE
1053	RUM CREEK	105109	Undetermined	Nov 08, 2005	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 08, 2005	PEACE RV

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Dec 29, 2006	RUM CREEK
									Death	Jan 07, 2007	RUM CREEK
1054	RUM CREEK	105110	Female	Nov 08, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 08, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1055	RUM CREEK	105111	Undetermined	Nov 15, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 15, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1056	BERRY JIM	-	Undetermined	Nov 20, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 20, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Transfer	Jan 12, 2007	BERRY JIM
									GO LTF	Jan 12, 2007	BERRY JIM
1057	RUM CREEK	105138	Female	Dec 01, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1058	RUM CREEK	105139	Female	Dec 02, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 02, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1059	RUM CREEK	105140	Female	Dec 03, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 03, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1060	RUM CREEK	105141	Female	Dec 04, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 04, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1061	RUM CREEK	105142	Female	Dec 05, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 05, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1062	RUM CREEK	105143	Female	Dec 06, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 06, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1063	RUM CREEK	105194	Female	Dec 07, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 07, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1064	RUM CREEK	105144	Female	Dec 08, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 08, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1065	RUM CREEK	105145	Female	Dec 09, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 09, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1066	RUM CREEK	105146	Female	Dec 10, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 10, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1067	RUM CREEK	105147	Female	Dec 11, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 11, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1068	BERRY JIM	-	Undetermined	Dec 18, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 18, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Transfer	Jan 12, 2007	BERRY JIM
									GO LTF	Jan 12, 2007	BERRY JIM
1069	BERRY JIM	-	Male	Dec 18, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 18, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Transfer	Jan 09, 2007	BERRY JIM
									GO LTF	Jan 09, 2007	BERRY JIM

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1070	BERRY JIM	-	Male	Dec 18, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 18, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Transfer	Jan 09, 2007	BERRY JIM
									GO LTF	Jan 09, 2007	BERRY JIM
1071	BERRY JIM	-	Undetermined	Dec 18, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 18, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Transfer	Jan 12, 2007	BERRY JIM
									GO LTF	Jan 12, 2007	BERRY JIM
1072	RUM CREEK	106129	Female	Oct 29, 2006	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 29, 2006	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Death	Jan 13, 2007	RUM CREEK
1073	RUM CREEK	106130	Female	Nov 03, 2006	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 03, 2006	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									Death	Jan 13, 2007	RUM CREEK
1074	RUM CREEK	106131	Female	Nov 07, 2006	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 07, 2006	PEACE RV
									Transfer	Dec 29, 2009	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1075	SD-WAP	605384	Female	Oct 27, 2005	Dead	UND	563	Captive Birth/Hatch	Birth/Hatch	Oct 27, 2005	SD-WAP
									Death	Nov 29, 2010	SD-WAP
1076	JOHNSON L	UNK	Female	Nov 07, 2005	Undetermined (Lost to follow up)	UND	857	Captive Birth/Hatch	Birth/Hatch	Nov 07, 2005	SD-WAP
									Transfer	Dec 29, 2010	JOHNSON L
									GO LTF	Dec 29, 2010	JOHNSON L
1077	PHILADELP	14931	Male	Jul 01, 1925 +/- 6 month	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 1925 +/- 6 month	JOSEPH E
									Transfer	Jun 02, 1926	PHILADELP
									Death	Jun 11, 1926	PHILADELP
1078	PHILADELP	14932	Male	Jul 01, 1927 +/- 6 month	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 1927 +/- 6 month	BARTELS H
									Transfer	Jun 12, 1928	PHILADELP
									Death	Feb 28, 1938	PHILADELP
1079	SD-WAP	606108	Female	Apr 26, 2006	Dead	UND	979	Captive Birth/Hatch	Birth/Hatch	Apr 26, 2006	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Jan 11, 2008	SD-WAP
1080	SD-WAP	606254	Male	Aug 04, 2006	Dead	UND	1008	Captive Birth/Hatch	Birth/Hatch	Aug 04, 2006	SD-WAP
									Death	Oct 19, 2009	SD-WAP
1081	SD-WAP	606310	Female	Oct 01, 2006	Dead	UND	857	Captive Birth/Hatch	Birth/Hatch	Oct 01, 2006	SD-WAP
									Death	Nov 09, 2020	SD-WAP
1082	SD-WAP	606330	Male	Nov 05, 2006	Dead	UND	942	Captive Birth/Hatch	Birth/Hatch	Nov 05, 2006	SD-WAP
									Death	Nov 05, 2006	SD-WAP
1083	SD-WAP	606331	Female	Nov 05, 2006	Dead	UND	952	Captive Birth/Hatch	Birth/Hatch	Nov 05, 2006	SD-WAP
									Death	Nov 05, 2006	SD-WAP
1084	JOHNSON L	UNK	Female	Nov 28, 2006	Undetermined (Lost to follow up)	UND	946	Captive Birth/Hatch	Birth/Hatch	Nov 28, 2006	SD-WAP
									Transfer	Dec 29, 2010	JOHNSON L
									GO LTF	Dec 29, 2010	JOHNSON L
1085	SD-WAP	606364	Male	Dec 22, 2006	Dead	UND	941	Captive Birth/Hatch	Birth/Hatch	Dec 22, 2006	SD-WAP
									Death	Dec 26, 2006	SD-WAP
1086	SD-WAP	606366	Female	Dec 24, 2006	Dead	UND	563	Captive Birth/Hatch	Birth/Hatch	Dec 24, 2006	SD-WAP
									Death	Dec 26, 2006	SD-WAP
1087	SD-WAP	607041	Male	Mar 13, 2007	Dead	UND	979	Captive Birth/Hatch	Birth/Hatch	Mar 13, 2007	SD-WAP
									Death	Mar 15, 2007	SD-WAP
1088	SD-WAP	607138	Female	May 22, 2007	Dead	UND	1008	Captive Birth/Hatch	Birth/Hatch	May 22, 2007	SD-WAP
									Death	Jul 18, 2018	SD-WAP
1089	SD-WAP	607151	Female	May 26, 2007	Dead	UND	1076	Captive Birth/Hatch	Birth/Hatch	May 26, 2007	SD-WAP
									Death	Apr 29, 2019	SD-WAP
1090	JOHNSON L	UNK	Female	Jun 01, 2007	Undetermined (Lost to follow up)	UND	1075	Captive Birth/Hatch	Birth/Hatch	Jun 01, 2007	SD-WAP
									Transfer	Jul 23, 2008	JOHNSON L
									GO LTF	Jul 23, 2008	JOHNSON L
1091	JOHNSON L	UNK	Male	Jun 23, 2007	Undetermined (Lost to follow up)	UND	1035	Captive Birth/Hatch	Birth/Hatch	Jun 23, 2007	SD-WAP
									Transfer	Jul 23, 2008	JOHNSON L
									GO LTF	Jul 23, 2008	JOHNSON L

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1092	SD-WAP	607213	Female	Jul 29, 2007	Dead	UND	857	Captive Birth/Hatch	Birth/Hatch	Jul 29, 2007	SD-WAP
									Death	Nov 14, 2021	SD-WAP
1093	SD-WAP	607223	Male	Aug 10, 2007	Dead	977	952	Captive Birth/Hatch	Birth/Hatch	Aug 10, 2007	SD-WAP
									Death	Oct 12, 2009	SD-WAP
1094	SD-WAP	610100	Male	Jan 16, 2007	Dead	900	834	Captive Birth/Hatch	Birth/Hatch	Jan 16, 2007	YULEE
									Transfer	Mar 21, 2010	SD-WAP
									Death	Jan 20, 2016	SD-WAP
1095	YULEE	Y74012	Female	Jul 25, 2007	Dead	900	854	Captive Birth/Hatch	Birth/Hatch	Jul 25, 2007	YULEE
									Death	Mar 08, 2018	YULEE
1096	YULEE	Y74021	Male	Nov 26, 2007	Dead	900	834	Captive Birth/Hatch	Birth/Hatch	Nov 26, 2007	YULEE
									Death	Aug 31, 2015	YULEE
1097	LOWRY	103284	Male	Feb 12, 2008	Dead	882	732	Captive Birth/Hatch	Birth/Hatch	Feb 12, 2008	BATONROUG
									Transfer	Nov 18, 2012	ASHEBORO
									Transfer	Nov 20, 2015	LOWRY
									Death	May 17, 2016	LOWRY
1098	SD-WAP	607358	Female	Dec 26, 2007	Dead	977	979	Captive Birth/Hatch	Birth/Hatch	Dec 26, 2007	SD-WAP
									Death	Apr 07, 2016	SD-WAP
1099	WLD PRTNR	UNK	Female	Dec 28, 2007	Undetermined (Lost to follow up)	977	1079	Captive Birth/Hatch	Birth/Hatch	Dec 28, 2007	SD-WAP
									Transfer	Nov 25, 2008	SAFARI W
									Transfer	Nov 25, 2018	WLD PRTNR
									GO LTF	Nov 26, 2018	WLD PRTNR
1100	SD-WAP	608041	Female	Feb 29, 2008	Dead	977	1008	Captive Birth/Hatch	Birth/Hatch	Feb 29, 2008	SD-WAP
									Death	Feb 11, 2022	SD-WAP
1101	SD-WAP	608071	Female	Mar 25, 2008	Dead	977	1076	Captive Birth/Hatch	Birth/Hatch	Mar 25, 2008	SD-WAP
									Death	Aug 03, 2012	SD-WAP
1102	SD-WAP	608100	Female	Apr 14, 2008	Dead	977	1075	Captive Birth/Hatch	Birth/Hatch	Apr 14, 2008	SD-WAP
									Death	Jan 01, 2015	SD-WAP
1103	SD-WAP	608112	Male	Apr 24, 2008	Dead	977	1081	Captive Birth/Hatch	Birth/Hatch	Apr 24, 2008	SD-WAP
									Death	Apr 27, 2008	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1104	JOHNSON L	UNK	Male	May 01, 2008	Undetermined (Lost to follow up)	977	857	Captive Birth/Hatch	Birth/Hatch	May 01, 2008	SD-WAP
									Transfer	Sep 02, 2010	JOHNSON L
									GO LTF	Sep 02, 2010	JOHNSON L
1105	SD-WAP	608206	Male	Jun 04, 2008	Dead	977	1035	Captive Birth/Hatch	Birth/Hatch	Jun 04, 2008	SD-WAP
									Death	Jun 05, 2008	SD-WAP
1106	JOHNSON L	UNK	Male	Jun 04, 2008	Undetermined (Lost to follow up)	977	952	Captive Birth/Hatch	Birth/Hatch	Jun 04, 2008	SD-WAP
									Transfer	Sep 02, 2010	JOHNSON L
									GO LTF	Sep 02, 2010	JOHNSON L
1107	SD-WAP	608377	Female	Dec 30, 2008	Dead	977	1008	Captive Birth/Hatch	Birth/Hatch	Dec 30, 2008	SD-WAP
									Death	Jun 14, 2012	SD-WAP
1108	SD-WAP	609034	Female	Mar 03, 2009	Dead	977	1089	Captive Birth/Hatch	Birth/Hatch	Mar 03, 2009	SD-WAP
									Death	Nov 09, 2010	SD-WAP
1109	TATUM E	UNK	Female	Mar 04, 2009	Undetermined (Lost to follow up)	977	1088	Captive Birth/Hatch	Birth/Hatch	Mar 04, 2009	SD-WAP
									Transfer	Nov 17, 2010	TATUM E
									GO LTF	Nov 17, 2010	TATUM E
1110	SD-WAP	609046	Female	Mar 12, 2009	Dead	977	952	Captive Birth/Hatch	Birth/Hatch	Mar 12, 2009	SD-WAP
									Death	Mar 17, 2009	SD-WAP
1111	SD-WAP	609047	Female	Mar 12, 2009	Dead	977	UND	Captive Birth/Hatch	Birth/Hatch	Mar 12, 2009	SD-WAP
									Death	Mar 23, 2009	SD-WAP
1112	JOHNSON L	UNK	Male	Mar 23, 2009	Undetermined (Lost to follow up)	977	1075	Captive Birth/Hatch	Birth/Hatch	Mar 23, 2009	SD-WAP
									Transfer	Sep 02, 2010	JOHNSON L
									GO LTF	Sep 02, 2010	JOHNSON L
1113	JOHNSON L	UNK	Male	Mar 25, 2009	Undetermined (Lost to follow up)	977	1035	Captive Birth/Hatch	Birth/Hatch	Mar 25, 2009	SD-WAP
									Transfer	Aug 11, 2010	JOHNSON L
									GO LTF	Aug 11, 2010	JOHNSON L
1114	TATUM E	UNK	Male	Apr 01, 2009	Undetermined (Lost to follow up)	977	1081	Captive Birth/Hatch	Birth/Hatch	Apr 01, 2009	SD-WAP
									Transfer	Nov 17, 2010	TATUM E

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									GO LTF	Nov 17, 2010	TATUM E
1115	JOHNSON L	UNK	Male	Apr 25, 2009	Undetermined (Lost to follow up)	977	1092	Captive Birth/Hatch	Birth/Hatch	Apr 25, 2009	SD-WAP
									Transfer	Dec 29, 2010	JOHNSON L
									GO LTF	Dec 29, 2010	JOHNSON L
1116	JOHNSON L	UNK	Male	Sep 02, 2009	Undetermined (Lost to follow up)	977	1076	Captive Birth/Hatch	Birth/Hatch	Sep 02, 2009	SD-WAP
									Transfer	Jul 30, 2011	JOHNSON L
									GO LTF	Jul 30, 2011	JOHNSON L
1117	YULEE	Y84014	Male	Jun 13, 2008	Dead	900	854	Captive Birth/Hatch	Birth/Hatch	Jun 13, 2008	YULEE
									Death	Jun 25, 2008	YULEE
1118	YULEE	Y84033	Female	Nov 28, 2008	Dead	900	834	Captive Birth/Hatch	Birth/Hatch	Nov 28, 2008	YULEE
									Death	Sep 11, 2017	YULEE
1119	YULEE	Y94009	Undetermined	Apr 12, 2009	Dead	900	854	Captive Birth/Hatch	Birth/Hatch	Apr 12, 2009	YULEE
									Death	Apr 12, 2009	YULEE
1120	SAFARI W	110006	Female	Jul 01, 2007 +/- 6 month	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2007 +/- 6 month	Undetermined
									Transfer	Jul 01, 2007 +/- 6 month	BULVERDE
									Transfer	Jan 29, 2010	SAFARI W
									Death	Sep 15, 2013	SAFARI W
1121	WLD PRTNR	UNK	Female	Jul 01, 2007 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2007 +/- 6 month	Undetermined
									Transfer	Jul 01, 2007 +/- 6 month	PRIVATE
									Transfer	Jan 29, 2010	SAFARI W
									Transfer	Nov 25, 2018	WLD PRTNR
									GO LTF	Nov 26, 2018	WLD PRTNR
1122	WLD PRTNR	UNK	Female	Aug 21, 2010	Undetermined (Lost to follow up)	964	1099	Captive Birth/Hatch	Birth/Hatch	Aug 21, 2010	SAFARI W
									Transfer	Nov 25, 2018	WLD PRTNR
									GO LTF	Nov 26, 2018	WLD PRTNR
1123	SAFARI W	110092	Female	Dec 05, 2010	Dead	964	1120	Captive Birth/Hatch	Birth/Hatch	Dec 05, 2010	SAFARI W
									Death	Apr 03, 2016	SAFARI W
1124	W PALM BE	M11221	Male	Nov 30, 2009	Dead	900	922	Captive Birth/Hatch	Birth/Hatch	Nov 30, 2009	YULEE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Dec 15, 2011	W PALM BE
									Death	Jun 10, 2013	W PALM BE
1125	YULEE	104002	Male	Jan 24, 2010	Dead	900	834	Captive Birth/Hatch	Birth/Hatch	Jan 24, 2010	YULEE
									Death	Jan 24, 2010	YULEE
1126	YULEE	104046	Female	Oct 31, 2010	Dead	977	854	Captive Birth/Hatch	Birth/Hatch	Oct 31, 2010	YULEE
									Death	Dec 23, 2020	YULEE
1127	W PALM BE	M11222	Male	Dec 02, 2010	Alive	977	1118	Captive Birth/Hatch	Birth/Hatch	Dec 02, 2010	YULEE
									Transfer	Dec 15, 2011	W PALM BE
1128	YULEE	104052	Female	Dec 06, 2010	Dead	977	1095	Captive Birth/Hatch	Birth/Hatch	Dec 06, 2010	YULEE
									Death	Dec 06, 2010	YULEE
1129	ASHEBORO	1860	Male	Jul 08, 2010	Dead	888	981	Captive Birth/Hatch	Birth/Hatch	Jul 08, 2010	ASHEBORO
									Death	Oct 29, 2011	ASHEBORO
1130	SD-WAP	609316	Male	Oct 20, 2009	Dead	977	1084	Captive Birth/Hatch	Birth/Hatch	Oct 20, 2009	SD-WAP
									Death	Oct 20, 2009	SD-WAP
1131	JOHNSON L	UNK	Female	Nov 11, 2009	Undetermined (Lost to follow up)	977	1008	Captive Birth/Hatch	Birth/Hatch	Nov 11, 2009	SD-WAP
									Transfer	Aug 11, 2010	JOHNSON L
									GO LTF	Aug 11, 2010	JOHNSON L
1132	JOHNSON L	UNK	Male	Nov 12, 2009	Undetermined (Lost to follow up)	977	1098	Captive Birth/Hatch	Birth/Hatch	Nov 12, 2009	SD-WAP
									Transfer	Mar 18, 2011	JOHNSON L
									GO LTF	Mar 18, 2011	JOHNSON L
1133	SD-WAP	610017	Female	Jan 26, 2010	Dead	977	857	Captive Birth/Hatch	Birth/Hatch	Jan 26, 2010	SD-WAP
									Death	Jan 26, 2010	SD-WAP
1134	SD-WAP	610020	Male	Jan 27, 2010	Dead	977	1088	Captive Birth/Hatch	Birth/Hatch	Jan 27, 2010	SD-WAP
									Death	Jan 31, 2010	SD-WAP
1135	SD-WAP	610025	Male	Jan 31, 2010	Dead	977	1102	Captive Birth/Hatch	Birth/Hatch	Jan 31, 2010	SD-WAP
									Death	Feb 01, 2010	SD-WAP
1136	SD-WAP	610027	Male	Feb 02, 2010	Dead	977	1081	Captive Birth/Hatch	Birth/Hatch	Feb 02, 2010	SD-WAP
									Death	Feb 04, 2010	SD-WAP
1137	SD-WAP	610029	Male	Feb 05, 2010	Dead	977	1089	Captive Birth/Hatch	Birth/Hatch	Feb 05, 2010	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Nov 28, 2011	SD-WAP
1138	SD-WAP	610032	Male	Feb 07, 2010	Dead	977	1100	Captive Birth/Hatch	Birth/Hatch	Feb 07, 2010	SD-WAP
									Death	Mar 01, 2010	SD-WAP
1139	SD-WAP	610039	Female	Feb 13, 2010	Dead	977	1075	Captive Birth/Hatch	Birth/Hatch	Feb 13, 2010	SD-WAP
									Death	Nov 06, 2010	SD-WAP
1140	TATUM E	UNK	Male	Mar 05, 2010	Undetermined (Lost to follow up)	977	1101	Captive Birth/Hatch	Birth/Hatch	Mar 05, 2010	SD-WAP
									Transfer	Oct 26, 2011	TATUM E
									GO LTF	Oct 26, 2011	TATUM E
1141	JOHNSON L	UNK	Male	Mar 07, 2010	Undetermined (Lost to follow up)	977	1092	Captive Birth/Hatch	Birth/Hatch	Mar 07, 2010	SD-WAP
									Transfer	Dec 29, 2011	JOHNSON L
									GO LTF	Dec 29, 2011	JOHNSON L
1142	SD-WAP	610097	Male	Mar 28, 2010	Dead	977	952	Captive Birth/Hatch	Birth/Hatch	Mar 28, 2010	SD-WAP
									Death	Apr 01, 2010	SD-WAP
1143	SD-WAP	610140	Male	Apr 22, 2010	Dead	977	979	Captive Birth/Hatch	Birth/Hatch	Apr 22, 2010	SD-WAP
									Death	Apr 22, 2010	SD-WAP
1144	JOHNSON L	UNK	Male	Jun 07, 2010	Undetermined (Lost to follow up)	977	1107	Captive Birth/Hatch	Birth/Hatch	Jun 07, 2010	SD-WAP
									Transfer	Mar 03, 2011	JOHNSON L
									GO LTF	Mar 03, 2011	JOHNSON L
1145	TATUM E	UNK	Female	Sep 30, 2010	Undetermined (Lost to follow up)	MULT5	1008	Captive Birth/Hatch	Birth/Hatch	Sep 30, 2010	SD-WAP
									Transfer	Jan 23, 2012	TATUM E
									GO LTF	Jan 23, 2012	TATUM E
1146	SD-WAP	610366	Male	Nov 03, 2010	Dead	UND	1076	Captive Birth/Hatch	Birth/Hatch	Nov 03, 2010	SD-WAP
									Death	Nov 07, 2010	SD-WAP
1147	TATUM E	UNK	Male	Nov 14, 2010	Undetermined (Lost to follow up)	MULT5	1102	Captive Birth/Hatch	Birth/Hatch	Nov 14, 2010	SD-WAP
									Transfer	Jan 23, 2012	TATUM E
									GO LTF	Jan 23, 2012	TATUM E
1148	SD-WAP	610385	Male	Nov 18, 2010	Dead	UND	1084	Captive Birth/Hatch	Birth/Hatch	Nov 18, 2010	SD-WAP
									Death	Nov 30, 2010	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1149	SD-WAP	610402	Male	Dec 18, 2010	Dead	MULT5	1089	Captive Birth/Hatch	Birth/Hatch	Dec 18, 2010	SD-WAP
									Death	Sep 07, 2018	SD-WAP
1150	JOHNSON L	UNK	Female	Jan 08, 2011	Undetermined (Lost to follow up)	MULT5	1092	Captive Birth/Hatch	Birth/Hatch	Jan 08, 2011	SD-WAP
									Transfer	Jul 30, 2011	JOHNSON L
									GO LTF	Jul 30, 2011	JOHNSON L
1151	JOHNSON L	UNK	Female	Jan 16, 2011	Undetermined (Lost to follow up)	MULT5	1088	Captive Birth/Hatch	Birth/Hatch	Jan 16, 2011	SD-WAP
									Transfer	Jul 30, 2011	JOHNSON L
									GO LTF	Jul 30, 2011	JOHNSON L
1152	JOHNSON L	UNK	Female	Jan 16, 2011	Undetermined (Lost to follow up)	MULT5	1100	Captive Birth/Hatch	Birth/Hatch	Jan 16, 2011	SD-WAP
									Transfer	Jul 30, 2011	JOHNSON L
									GO LTF	Jul 30, 2011	JOHNSON L
1153	SAFARI W	110036	Male	Mar 16, 2010	Dead	964	1120	Captive Birth/Hatch	Birth/Hatch	Mar 16, 2010	SAFARI W
									Death	Mar 16, 2010	SAFARI W
1154	RUM CREEK	104259	Male	Jul 01, 2001 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2001 +/- 6 month	Undetermined
									GO LTF	Jul 02, 2001	UNDETERMI
									Return from LTF	Jul 01, 2002	UNDETERMI
									Transfer	Jul 01, 2002	BULVERDE
									GO LTF	Jul 01, 2002	BULVERDE
									Return from LTF	May 23, 2004	BULVERDE
									Transfer	May 25, 2004	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1155	RUM CREEK	104260	Female	Jul 01, 2003 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2003 +/- 6 month	Undetermined
									GO LTF	Jul 02, 2003	UNDETERMI
									Return from LTF	Apr 01, 2004	UNDETERMI
									Transfer	Apr 01, 2004	BULVERDE
									GO LTF	Apr 01, 2004	BULVERDE
									Return from LTF	May 23, 2004	BULVERDE
									Transfer	May 25, 2004	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									GO LTF	Dec 02, 2013	RUM CREEK
1156	RUM CREEK	104261	Female	Jul 01, 2003 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2003 +/- 6 month	Undetermined
									GO LTF	Jul 02, 2003	UNDETERMI
									Return from LTF	Apr 01, 2004	UNDETERMI
									Transfer	Apr 01, 2004	BULVERDE
									GO LTF	Apr 01, 2004	BULVERDE
									Return from LTF	May 23, 2004	BULVERDE
									Transfer	May 25, 2004	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1157	RUM CREEK	104262	Female	Jul 01, 2003 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2003 +/- 6 month	Undetermined
									GO LTF	Jul 02, 2003	UNDETERMI
									Return from LTF	Apr 01, 2004	UNDETERMI
									Transfer	Apr 01, 2004	BULVERDE
									GO LTF	Apr 01, 2004	BULVERDE
									Return from LTF	May 23, 2004	BULVERDE
									Transfer	May 25, 2004	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1158	RUM CREEK	104263	Female	Jul 01, 2003 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2003 +/- 6 month	Undetermined
									GO LTF	Jul 07, 2003	UNDETERMI
									Return from LTF	Apr 01, 2004	UNDETERMI
									Transfer	Apr 01, 2004	BULVERDE
									GO LTF	Apr 01, 2004	BULVERDE
									Return from LTF	May 23, 2004	BULVERDE
									Transfer	May 25, 2004	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1159	RUM CREEK	104264	Female	Jul 01, 2002 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2002 +/- 6 month	Undetermined
									GO LTF	Jul 02, 2002	UNDETERMI
									Return from LTF	Jul 01, 2003	UNDETERMI

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Jul 01, 2003	BULVERDE
									GO LTF	Jul 01, 2003	BULVERDE
									Return from LTF	May 23, 2004	BULVERDE
									Transfer	May 25, 2004	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1160	RUM CREEK	104258	Male	Jul 01, 2003 +/- 6 month	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2003 +/- 6 month	Undetermined
									GO LTF	Jul 02, 2003	UNDETERMI
									Return from LTF	Apr 01, 2004	UNDETERMI
									Transfer	Apr 01, 2004	BULVERDE
									GO LTF	Apr 01, 2004	BULVERDE
									Return from LTF	May 23, 2004	BULVERDE
									Transfer	May 25, 2004	RUM CREEK
									Death	Jun 24, 2008	RUM CREEK
1161	RUM CREEK	104265	Female	Jul 01, 2002 +/- 6 month	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2002 +/- 6 month	Undetermined
									GO LTF	Jul 02, 2002	UNDETERMI
									Return from LTF	Jul 01, 2003	UNDETERMI
									Transfer	Jul 01, 2003	BULVERDE
									GO LTF	Jul 01, 2003	BULVERDE
									Return from LTF	May 23, 2004	BULVERDE
									Transfer	May 25, 2004	RUM CREEK
									Death	Oct 29, 2007	RUM CREEK
1162	RUM CREEK	104266	Female	Jul 01, 2002 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2002 +/- 6 month	Undetermined
									GO LTF	Jul 02, 2002	UNDETERMI
									Return from LTF	Jul 01, 2003	UNDETERMI
									Transfer	Jul 01, 2003	BULVERDE
									GO LTF	Jul 01, 2003	BULVERDE
									Return from LTF	May 23, 2004	BULVERDE
									Transfer	May 25, 2004	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1163	RUM CREEK	104267	Female	Jul 01, 2000 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2000 +/- 6 month	Undetermined

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									GO LTF	Jul 02, 2000	UNDETERMI
									Return from LTF	Jul 01, 2001	UNDETERMI
									Transfer	Jul 01, 2001	BULVERDE
									GO LTF	Jul 01, 2001	BULVERDE
									Return from LTF	May 23, 2004	BULVERDE
									Transfer	May 25, 2004	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1164	RUM CREEK	104268	Female	Jul 01, 2000 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2000 +/- 6 month	Undetermined
									GO LTF	Jul 02, 2000	UNDETERMI
									Return from LTF	Jul 01, 2001	UNDETERMI
									Transfer	Jul 01, 2001	BULVERDE
									GO LTF	Jul 01, 2001	BULVERDE
									Return from LTF	May 23, 2004	BULVERDE
									Transfer	May 25, 2004	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1165	RUM CREEK	104269	Female	Jul 01, 2000 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2000 +/- 6 month	Undetermined
									GO LTF	Jul 02, 2000	UNDETERMI
									Return from LTF	Jul 01, 2001	UNDETERMI
									Transfer	Jul 01, 2001	BULVERDE
									GO LTF	Jul 01, 2001	BULVERDE
									Return from LTF	May 23, 2004	BULVERDE
									Transfer	May 25, 2004	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1166	RUM CREEK	104270	Female	Jul 01, 2004 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2004 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1167	RUM CREEK	104271	Male	Jul 01, 2004 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2004 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1168	RUM CREEK	104272	Female	Nov 01, 2004 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 01, 2004 +/- 6 month	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									GO LTF	Dec 02, 2013	RUM CREEK
1169	RUM CREEK	104273	Female	Nov 15, 2004	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 15, 2004	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1170	RUM CREEK	104274	Female	Nov 15, 2004	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 15, 2004	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1171	RUM CREEK	105148	Female	Dec 12, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 12, 2005	PEACE RV
									Transfer	Dec 29, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1172	RUM CREEK	105165	Male	Oct 01, 2005	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 01, 2005	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1173	RUM CREEK	105166	Male	Jul 01, 2005 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2005 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1174	RUM CREEK	105167	Male	Jul 01, 2005 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2005 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1175	RUM CREEK	105168	Male	Jul 01, 2005 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2005 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1176	RUM CREEK	105169	Male	Jul 01, 2005 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2005 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1177	RUM CREEK	105170	Female	Jul 01, 2005 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2005 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1178	RUM CREEK	105171	Female	Jul 01, 2005 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2005 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1179	RUM CREEK	105172	Female	Jul 01, 2005 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2005 +/- 6 month	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									GO LTF	Dec 02, 2013	RUM CREEK
1180	RUM CREEK	105173	Female	Jul 01, 2005 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2005 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1181	RUM CREEK	105174	Female	Jul 01, 2005 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2005 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1182	RUM CREEK	106143	Male	Mar 01, 2006	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Mar 01, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1183	RUM CREEK	106144	Male	Mar 03, 2006	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Mar 03, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1184	RUM CREEK	106145	Female	Apr 01, 2006	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 01, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1185	RUM CREEK	106146	Undetermined	Jun 01, 2006	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jun 01, 2006	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1186	RUM CREEK	106150	Male	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1187	RUM CREEK	106151	Male	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1188	RUM CREEK	106152	Male	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1189	RUM CREEK	106153	Male	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1190	RUM CREEK	106154	Male	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1191	RUM CREEK	106155	Male	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1192	RUM CREEK	106156	Male	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1193	RUM CREEK	106157	Male	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1194	RUM CREEK	106158	Male	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1195	RUM CREEK	106159	Male	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1196	RUM CREEK	106160	Male	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1197	RUM CREEK	106161	Male	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1198	RUM CREEK	106162	Female	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1199	RUM CREEK	106163	Female	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1200	RUM CREEK	106164	Female	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1201	RUM CREEK	106165	Female	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1202	RUM CREEK	106166	Female	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1203	RUM CREEK	106167	Female	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1204	RUM CREEK	106168	Female	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1205	RUM CREEK	106169	Female	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1206	RUM CREEK	106170	Female	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1207	RUM CREEK	106171	Female	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1208	RUM CREEK	106172	Female	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1209	RUM CREEK	106173	Female	Jul 01, 2006 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jul 01, 2006 +/- 6 month	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1210	RUM CREEK	107029	Undetermined	Apr 30, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 30, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1211	RUM CREEK	107040	Undetermined	Jun 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jun 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1212	RUM CREEK	107041	Undetermined	Jun 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jun 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1213	RUM CREEK	107042	Undetermined	Jun 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jun 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1214	RUM CREEK	107043	Undetermined	Jun 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jun 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1215	RUM CREEK	107084	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1216	RUM CREEK	107085	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1217	RUM CREEK	107088	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1218	RUM CREEK	107086	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1219	RUM CREEK	107087	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1220	RUM CREEK	107089	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1221	RUM CREEK	107090	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1222	RUM CREEK	107091	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1223	RUM CREEK	107092	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1224	RUM CREEK	107093	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1225	RUM CREEK	107094	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1226	RUM CREEK	107095	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1227	RUM CREEK	107096	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1228	RUM CREEK	107097	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1229	RUM CREEK	107098	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1230	RUM CREEK	107099	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1231	RUM CREEK	107100	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1232	RUM CREEK	107101	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1233	RUM CREEK	107102	Undetermined	Nov 25, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1234	RUM CREEK	107104	Undetermined	Nov 26, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 26, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1235	RUM CREEK	107105	Undetermined	Nov 26, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 26, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1236	RUM CREEK	107106	Undetermined	Nov 27, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 27, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1237	RUM CREEK	107103	Undetermined	Nov 25, 2007	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2007	RUM CREEK
									Death	Dec 03, 2007	RUM CREEK
1238	RUM CREEK	107107	Undetermined	Nov 27, 2007	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 27, 2007	RUM CREEK
									Death	Dec 03, 2007	RUM CREEK
1239	RUM CREEK	107108	Undetermined	Nov 27, 2007	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Nov 27, 2007	RUM CREEK
									Death	Dec 09, 2008	RUM CREEK
1240	RUM CREEK	108023	Male	Feb 20, 2008	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Feb 20, 2008	RUM CREEK
									Death	Feb 20, 2008	RUM CREEK
1241	RUM CREEK	108025	Undetermined	Feb 27, 2008	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Feb 27, 2008	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1242	RUM CREEK	107115	Undetermined	Dec 18, 2007	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 18, 2007	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1243	RUM CREEK	108027	Undetermined	Mar 10, 2008	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Mar 10, 2008	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1244	RUM CREEK	108030	Undetermined	Mar 19, 2008	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Mar 19, 2008	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1245	SAFARI W	108032	Female	May 29, 2008	Dead	964	845	Captive Birth/Hatch	Birth/Hatch	May 29, 2008	SAFARI W
									Death	May 29, 2008	SAFARI W
1246	RUM CREEK	108033	Undetermined	Apr 02, 2008	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 02, 2008	RUM CREEK
									Death	Apr 17, 2008	RUM CREEK
1247	RUM CREEK	108034	Undetermined	Apr 02, 2008	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 02, 2008	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									GO LTF	Dec 02, 2013	RUM CREEK
1248	RUM CREEK	108035	Undetermined	Apr 02, 2008	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 02, 2008	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1249	RUM CREEK	108039	Undetermined	Apr 09, 2008	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 09, 2008	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1250	RUM CREEK	108062	Undetermined	Jun 23, 2008	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jun 23, 2008	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1251	RUM CREEK	108063	Undetermined	Jun 23, 2008	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jun 23, 2008	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1252	RUM CREEK	108101	Undetermined	Oct 14, 2008	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 14, 2008	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1253	RUM CREEK	108102	Undetermined	Oct 14, 2008	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 14, 2008	RUM CREEK
									GO LTF	Dec 02, 2016	RUM CREEK
1254	RUM CREEK	109018	Undetermined	Feb 12, 2009	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Feb 12, 2009	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1255	RUM CREEK	108117	Undetermined	Dec 02, 2008	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 02, 2008	RUM CREEK
									Death	Apr 17, 2009	RUM CREEK
1256	RUM CREEK	109027	Undetermined	Apr 02, 2009	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 02, 2009	RUM CREEK
									GO LTF	Dec 02, 2013	RUM CREEK
1257	RUM CREEK	108094	Undetermined	Sep 21, 2008	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Sep 21, 2008	RUM CREEK
									Death	Apr 17, 2009	RUM CREEK
1258	SD-WAP	0611127	Female	Apr 06, 2011	Dead	1094	1098	Captive Birth/Hatch	Birth/Hatch	Apr 06, 2011	SD-WAP
									Death	Apr 10, 2011	SD-WAP
1259	SD-WAP	0611178	Female	May 14, 2011	Dead	1094	1101	Captive Birth/Hatch	Birth/Hatch	May 14, 2011	SD-WAP
									Death	May 21, 2011	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1260	SD-WAP	0611390	Female	Nov 08, 2011	Dead	1094	1092	Captive Birth/Hatch	Birth/Hatch	Nov 08, 2011	SD-WAP
									Death	Jun 14, 2012	SD-WAP
1261	SD-WAP	0612004	Male	Jan 05, 2012	Dead	1094	1107	Captive Birth/Hatch	Birth/Hatch	Jan 05, 2012	SD-WAP
									Death	Jan 07, 2012	SD-WAP
1262	SD-WAP	0612007	Male	Jan 10, 2012	Dead	1094	1081	Captive Birth/Hatch	Birth/Hatch	Jan 10, 2012	SD-WAP
									Death	Jun 15, 2012	SD-WAP
1263	SD-WAP	0612047	Male	Mar 04, 2012	Dead	1094	1102	Captive Birth/Hatch	Birth/Hatch	Mar 04, 2012	SD-WAP
									Death	Mar 04, 2012	SD-WAP
1264	SD-WAP	0612295	Female	Jul 17, 2012	Dead	1094	1101	Captive Birth/Hatch	Birth/Hatch	Jul 17, 2012	SD-WAP
									Death	Jul 17, 2012	SD-WAP
1265	JOHNSON L	UNK	Male	Mar 26, 2011	Undetermined (Lost to follow up)	1094	1107	Captive Birth/Hatch	Birth/Hatch	Mar 26, 2011	SD-WAP
									Transfer	Dec 29, 2011	JOHNSON L
									GO LTF	Dec 29, 2011	JOHNSON L
1266	TATUM E	UNK	Male	Apr 03, 2011	Undetermined (Lost to follow up)	1094	1081	Captive Birth/Hatch	Birth/Hatch	Apr 03, 2011	SD-WAP
									Transfer	Jan 23, 2012	TATUM E
									GO LTF	Jan 23, 2012	TATUM E
1267	TATUM E	UNK	Male	Jul 03, 2011	Undetermined (Lost to follow up)	1094	1008	Captive Birth/Hatch	Birth/Hatch	Jul 03, 2011	SD-WAP
									Transfer	Dec 29, 2014	TATUM E
									GO LTF	Dec 29, 2014	TATUM E
1268	BATONROUG	10916	Male	Oct 20, 2011	Dead	1094	1088	Captive Birth/Hatch	Birth/Hatch	Oct 20, 2011	SD-WAP
									Transfer	Mar 14, 2016	BATONROUG
									Death	Mar 16, 2016	BATONROUG
1269	SD-WAP	0611406	Female	Nov 21, 2011	Alive	1094	1089	Captive Birth/Hatch	Birth/Hatch	Nov 21, 2011	SD-WAP
1270	SD-WAP	612009	Male	Jan 03, 2012	Dead	1094	1100	Captive Birth/Hatch	Birth/Hatch	Jan 03, 2012	SD-WAP
									Death	Mar 01, 2019	SD-WAP
1271	SD-WAP	612067	Female	Mar 26, 2012	Dead	1094	1098	Captive Birth/Hatch	Birth/Hatch	Mar 26, 2012	SD-WAP
									Death	Sep 30, 2019	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1272	JOHNSON L	UNK	Female	Sep 02, 2012	Undetermined (Lost to follow up)	1094	1088	Captive Birth/Hatch	Birth/Hatch	Sep 02, 2012	SD-WAP
									Transfer	May 16, 2014	JOHNSON L
									GO LTF	May 16, 2014	JOHNSON L
1273	TATUM E	UNK	Male	Sep 05, 2012	Undetermined (Lost to follow up)	1094	1092	Captive Birth/Hatch	Birth/Hatch	Sep 05, 2012	SD-WAP
									Transfer	Dec 29, 2014	TATUM E
									GO LTF	Dec 29, 2014	TATUM E
1274	JOHNSON L	UNK	Female	Dec 06, 2012	Undetermined (Lost to follow up)	1094	1089	Captive Birth/Hatch	Birth/Hatch	Dec 06, 2012	SD-WAP
									Transfer	May 16, 2014	JOHNSON L
									GO LTF	May 16, 2014	JOHNSON L
1275	SD-WAP	612426	Male	Dec 15, 2012	Dead	1094	1081	Captive Birth/Hatch	Birth/Hatch	Dec 15, 2012	SD-WAP
									Death	Feb 10, 2021	SD-WAP
1276	SD-WAP	612430	Female	Dec 14, 2012	Dead	1094	1100	Captive Birth/Hatch	Birth/Hatch	Dec 14, 2012	SD-WAP
									Death	Aug 31, 2018	SD-WAP
1277	SD-WAP	0613014	Female	Jan 26, 2013	Dead	1094	1098	Captive Birth/Hatch	Birth/Hatch	Jan 26, 2013	SD-WAP
									Death	Jun 09, 2014	SD-WAP
1278	SD-WAP	613115	Male	Feb 07, 2013	Dead	1094	1102	Captive Birth/Hatch	Birth/Hatch	Feb 07, 2013	SD-WAP
									Death	Sep 13, 2020	SD-WAP
1279	SD-WAP	0613229	Male	Jun 09, 2013	Dead	1094	1088	Captive Birth/Hatch	Birth/Hatch	Jun 09, 2013	SD-WAP
									Death	May 21, 2016	SD-WAP
1280	SD-WAP	0613270	Female	Jul 08, 2013	Dead	1094	1092	Captive Birth/Hatch	Birth/Hatch	Jul 08, 2013	SD-WAP
									Death	Dec 14, 2014	SD-WAP
1282	W PALM BE	M13074	Female	May 13, 2013	Dead	1124	669	Captive Birth/Hatch	Birth/Hatch	May 13, 2013	W PALM BE
									Death	Nov 26, 2016	W PALM BE
1283	ASHEBORO	1901	Female	Apr 20, 2011	Dead	888	981	Captive Birth/Hatch	Birth/Hatch	Apr 20, 2011	ASHEBORO
									Death	Jun 14, 2011	ASHEBORO
1284	ASHEBORO	1932	Male	Feb 02, 2012	Dead	888	981	Captive Birth/Hatch	Birth/Hatch	Feb 02, 2012	ASHEBORO
									Death	Feb 02, 2012	ASHEBORO
1285	ASHEBORO	1977	Female	Nov 17, 2012	Dead	888	981	Captive Birth/Hatch	Birth/Hatch	Nov 17, 2012	ASHEBORO

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Dec 04, 2012	ASHEBORO
1286	YULEE	114004	Male	Feb 01, 2011	Dead	977	834	Captive Birth/Hatch	Birth/Hatch	Feb 01, 2011	YULEE
									Death	Feb 07, 2011	YULEE
1287	YULEE	114040	Female	Oct 30, 2011	Dead	977	922	Captive Birth/Hatch	Birth/Hatch	Oct 30, 2011	YULEE
									Death	Jun 28, 2021	YULEE
1288	YULEE	114045	Female	Dec 10, 2011	Alive	977	823	Captive Birth/Hatch	Birth/Hatch	Dec 10, 2011	YULEE
1289	YULEE	114049	Female	Dec 17, 2011	Dead	977	854	Captive Birth/Hatch	Birth/Hatch	Dec 17, 2011	YULEE
									Death	Dec 22, 2011	YULEE
1290	MICANOPY	UNK	Male	Dec 26, 2011	Undetermined (Lost to follow up)	977	1118	Captive Birth/Hatch	Birth/Hatch	Dec 26, 2011	YULEE
									Transfer	May 14, 2018	MICANOPY
									GO LTF	May 15, 2018	MICANOPY
1291	YULEE	124013	Female	Apr 01, 2012	Dead	977	1126	Captive Birth/Hatch	Birth/Hatch	Apr 01, 2012	YULEE
									Death	Nov 02, 2021	YULEE
1292	YULEE	124041	Male	Nov 11, 2012	Dead	977	834	Captive Birth/Hatch	Birth/Hatch	Nov 11, 2012	YULEE
									Death	Apr 22, 2018	YULEE
1293	YULEE	124044	Female	Dec 07, 2012	Dead	977	1118	Captive Birth/Hatch	Birth/Hatch	Dec 07, 2012	YULEE
									Death	Sep 29, 2019	YULEE
1294	YULEE	134004	Female	Jan 16, 2013	Dead	977	1126	Captive Birth/Hatch	Birth/Hatch	Jan 16, 2013	YULEE
									Death	Dec 10, 2016	YULEE
1295	YULEE	134005	Female	Jan 25, 2013	Dead	977	UND	Captive Birth/Hatch	Birth/Hatch	Jan 25, 2013	YULEE
									Death	Jan 27, 2013	YULEE
1296	YULEE	134006	Male	Jan 29, 2013	Dead	977	1095	Captive Birth/Hatch	Birth/Hatch	Jan 29, 2013	YULEE
									Death	Jan 29, 2013	YULEE
1297	YULEE	134017	Male	Apr 10, 2013	Dead	UND	1287	Captive Birth/Hatch	Birth/Hatch	Apr 10, 2013	YULEE
									Death	Apr 10, 2013	YULEE
1298	YULEE	134050	Female	Oct 06, 2013	Alive	977	834	Captive Birth/Hatch	Birth/Hatch	Oct 06, 2013	YULEE
1299	WILD WRLD	10285	Female	Mar 17, 2012	Dead	964	1122	Captive Birth/Hatch	Birth/Hatch	Mar 17, 2012	SAFARI W
									Transfer	Oct 23, 2013	WILD WRLD
									Death	May 05, 2020	WILD WRLD

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1300	SAFARI W	111009	Female	Mar 19, 2011	Dead	964	1121	Captive Birth/Hatch	Birth/Hatch	Mar 19, 2011	SAFARI W
									Death	Apr 24, 2016	SAFARI W
1301	CHASE NET	UNK	Male	Dec 09, 2011	Undetermined (Lost to follow up)	964	1120	Captive Birth/Hatch	Birth/Hatch	Dec 09, 2011	SAFARI W
									Transfer	Nov 08, 2018	CHASE NET
									GO LTF	Nov 09, 2018	CHASE NET
1302	PRIVATE	UNK	Male	Jan 25, 2012	Undetermined (Lost to follow up)	964	1121	Captive Birth/Hatch	Birth/Hatch	Jan 25, 2012	SAFARI W
									Transfer	Aug 12, 2015	PRIVATE
									GO LTF	Aug 13, 2015	PRIVATE
1303	PRIVATE	UNK	Male	Sep 17, 2013	Undetermined (Lost to follow up)	1301	1122	Captive Birth/Hatch	Birth/Hatch	Sep 17, 2013	SAFARI W
									Transfer	Aug 12, 2015	PRIVATE
									GO LTF	Aug 13, 2015	PRIVATE
1304	SAFARI W	114002	Female	Jan 02, 2014	Dead	1301	1123	Captive Birth/Hatch	Birth/Hatch	Jan 02, 2014	SAFARI W
									Death	Jan 06, 2014	SAFARI W
1305	WLD PRTNR	UNK	Female	Feb 04, 2014	Undetermined (Lost to follow up)	1301	1121	Captive Birth/Hatch	Birth/Hatch	Feb 04, 2014	SAFARI W
									Transfer	Nov 25, 2018	WLD PRTNR
									GO LTF	Nov 26, 2018	WLD PRTNR
1306	WLD PRTNR	UNK	Female	Apr 17, 2014	Undetermined (Lost to follow up)	1301	1300	Captive Birth/Hatch	Birth/Hatch	Apr 17, 2014	SAFARI W
									Transfer	Nov 25, 2018	WLD PRTNR
									GO LTF	Nov 26, 2018	WLD PRTNR
1307	PRIVATE	UNK	Male	May 11, 2014	Undetermined (Lost to follow up)	1301	1099	Captive Birth/Hatch	Birth/Hatch	May 11, 2014	SAFARI W
									Transfer	Aug 12, 2015	PRIVATE
									GO LTF	Aug 13, 2015	PRIVATE
1308	SAFARI W	114051	Female	Jun 22, 2014	Dead	1301	1122	Captive Birth/Hatch	Birth/Hatch	Jun 22, 2014	SAFARI W
									Death	Jun 22, 2014	SAFARI W
1309	SAFARI W	114074	Female	Apr 04, 2014	Dead	1301	1123	Captive Birth/Hatch	Birth/Hatch	Apr 04, 2014	SAFARI W
									Death	Apr 04, 2014	SAFARI W

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1310	PRIVATE	UNK	Male	Nov 05, 2014	Undetermined (Lost to follow up)	1301	1123	Captive Birth/Hatch	Birth/Hatch	Nov 05, 2014	SAFARI W
									Transfer	Aug 12, 2015	PRIVATE
									GO LTF	Aug 13, 2015	PRIVATE
1311	PRIVATE	UNK	Male	Jan 18, 2015	Undetermined (Lost to follow up)	1301	1121	Captive Birth/Hatch	Birth/Hatch	Jan 18, 2015	SAFARI W
									Transfer	Aug 12, 2015	PRIVATE
									GO LTF	Aug 13, 2015	PRIVATE
1312	WLD PRTNR	UNK	Female	Mar 26, 2015	Undetermined (Lost to follow up)	1301	1300	Captive Birth/Hatch	Birth/Hatch	Mar 26, 2015	SAFARI W
									Transfer	Nov 25, 2018	WLD PRTNR
									GO LTF	Nov 26, 2018	WLD PRTNR
1313	PRIVATE	UNK	Male	Apr 24, 2015	Undetermined (Lost to follow up)	1301	1122	Captive Birth/Hatch	Birth/Hatch	Apr 24, 2015	SAFARI W
									Transfer	Dec 09, 2016	PRIVATE
									GO LTF	Dec 09, 2016	PRIVATE
1314	WLD PRTNR	UNK	Male	Feb 01, 2014	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Feb 01, 2014	PRIVATE
									Transfer	Jun 01, 2015	SAFARI W
									Transfer	Nov 25, 2018	WLD PRTNR
									GO LTF	Nov 26, 2018	WLD PRTNR
1315	SAFARI W	115140	Female	Nov 22, 2015	Dead	1302	1123	Captive Birth/Hatch	Birth/Hatch	Nov 22, 2015	SAFARI W
									Death	Nov 22, 2015	SAFARI W
1316	BATONROUG	10640	Female	Dec 05, 2011	Dead	899	913	Captive Birth/Hatch	Birth/Hatch	Dec 05, 2011	BATONROUG
									Death	Mar 23, 2019	BATONROUG
1317	BATONROUG	10684	Female	Jan 10, 2013	Dead	899	913	Captive Birth/Hatch	Birth/Hatch	Jan 10, 2013	BATONROUG
									Death	Nov 18, 2018	BATONROUG
1318	SD-WAP	616058	Male	Nov 02, 2013	Dead	899	913	Captive Birth/Hatch	Birth/Hatch	Nov 02, 2013	BATONROUG
									Transfer	Mar 14, 2016	SD-WAP
									Death	Mar 10, 2017	SD-WAP
1319	YULEE	174304	Male	Mar 14, 2015	Alive	899	913	Captive Birth/Hatch	Birth/Hatch	Mar 14, 2015	BATONROUG
									Transfer	Apr 17, 2017	YULEE
1320	BATONROUG	10844	Female	Apr 24, 2015	Dead	UND	1316	Captive Birth/Hatch	Birth/Hatch	Apr 24, 2015	BATONROUG

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Apr 25, 2015	BATONROUG
1321	YULEE	134057	Female	Nov 16, 2013	Dead	977	922	Captive Birth/Hatch	Birth/Hatch	Nov 16, 2013	YULEE
									Death	Nov 28, 2015	YULEE
1322	MICANOPY	UNK	Male	Dec 10, 2013	Undetermined (Lost to follow up)	977	1118	Captive Birth/Hatch	Birth/Hatch	Dec 10, 2013	YULEE
									Transfer	May 14, 2018	MICANOPY
									GO LTF	May 15, 2018	MICANOPY
1323	YULEE	144001	Female	Jan 01, 2014	Alive	977	1288	Captive Birth/Hatch	Birth/Hatch	Jan 01, 2014	YULEE
1324	MICANOPY	UNK	Male	Mar 06, 2014	Undetermined (Lost to follow up)	977	1287	Captive Birth/Hatch	Birth/Hatch	Mar 06, 2014	YULEE
									Transfer	May 14, 2018	MICANOPY
									GO LTF	May 15, 2018	MICANOPY
1325	YULEE	144017	Female	Apr 12, 2014	Alive	977	1095	Captive Birth/Hatch	Birth/Hatch	Apr 12, 2014	YULEE
1326	MICANOPY	Indeterminate	Female	Nov 06, 2014	Undetermined (Lost to follow up)	977	1126	Captive Birth/Hatch	Birth/Hatch	Nov 06, 2014	YULEE
									Transfer	Nov 20, 2015	LOWRY
									Transfer	Mar 31, 2022	MICANOPY
									GO LTF	Apr 01, 2022	MICANOPY
1327	YULEE	144041	Female	Nov 18, 2014	Alive	977	1118	Captive Birth/Hatch	Birth/Hatch	Nov 18, 2014	YULEE
1328	YULEE	144043	Female	Dec 08, 2014	Dead	977	1287	Captive Birth/Hatch	Birth/Hatch	Dec 08, 2014	YULEE
									Death	Dec 08, 2014	YULEE
1329	YULEE	144045	Undetermined	Dec 15, 2014	Dead	977	UND	Captive Birth/Hatch	Birth/Hatch	Dec 15, 2014	YULEE
									Death	Dec 15, 2014	YULEE
1330	MICANOPY	Indeterminate	Female	Dec 29, 2014	Undetermined (Lost to follow up)	977	1288	Captive Birth/Hatch	Birth/Hatch	Dec 29, 2014	YULEE
									Transfer	Nov 20, 2015	LOWRY
									Transfer	Mar 31, 2022	MICANOPY
									GO LTF	Apr 01, 2022	MICANOPY
1331	MICANOPY	UNK	Male	Jan 21, 2015	Undetermined (Lost to follow up)	977	1294	Captive Birth/Hatch	Birth/Hatch	Jan 21, 2015	YULEE
									Transfer	May 14, 2018	MICANOPY
									GO LTF	May 15, 2018	MICANOPY

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1332	MICANOPY	UNK	Female	May 10, 2015	Undetermined (Lost to follow up)	1290	1291	Captive Birth/Hatch	Birth/Hatch	May 10, 2015	YULEE
									Transfer	Apr 04, 2018	MICANOPY
									GO LTF	Apr 05, 2018	MICANOPY
1333	MICANOPY	Indeterminate	Male	Nov 07, 2013	Undetermined (Lost to follow up)	UND	1041	Captive Birth/Hatch	Birth/Hatch	Nov 07, 2013	RUM CREEK
									GO LTF	Nov 08, 2013	RUM CREEK
									Return from LTF	Dec 10, 2014 +/- 1 year	RUM CREEK
									Transfer	Dec 10, 2014	MICANOPY
									Transfer	Dec 10, 2015	YULEE
									Transfer	May 24, 2017	MICANOPY
									GO LTF	May 25, 2017	MICANOPY
1334	W PALM BE	M14018	Female	Feb 18, 2014	Dead	1127	1030	Captive Birth/Hatch	Birth/Hatch	Feb 18, 2014	W PALM BE
									Death	Feb 21, 2014	W PALM BE
1335	MICANOPY	UNK	Male	Feb 01, 2015	Undetermined (Lost to follow up)	1127	1282	Captive Birth/Hatch	Birth/Hatch	Feb 01, 2015	W PALM BE
									Transfer	Nov 20, 2016	LOWRY
									Transfer	Apr 27, 2018	MICANOPY
									GO LTF	Apr 28, 2018	MICANOPY
1336	FOSSILRIM	1625	Male	Nov 19, 2015	Alive	1127	1282	Captive Birth/Hatch	Birth/Hatch	Nov 19, 2015	W PALM BE
									Transfer	Mar 11, 2017	BATONROUG
									Transfer	Oct 12, 2019	FOSSILRIM
1337	SD-WAP	613436	Male	Nov 17, 2013	Dead	1094	1089	Captive Birth/Hatch	Birth/Hatch	Nov 17, 2013	SD-WAP
									Death	Jan 26, 2021	SD-WAP
1338	MICANOPY	Indeterminate	Male	Jan 27, 2014	Undetermined (Lost to follow up)	1094	1269	Captive Birth/Hatch	Birth/Hatch	Jan 27, 2014	SD-WAP
									Transfer	Apr 23, 2016	DALLAS
									Transfer	Mar 15, 2018	MICANOPY
									GO LTF	Mar 16, 2018	MICANOPY
1339	SD-WAP	614044	Female	Feb 08, 2014	Dead	UND	1271	Captive Birth/Hatch	Birth/Hatch	Feb 08, 2014	SD-WAP
									Death	Jan 25, 2016	SD-WAP
1340	MICANOPY	Indeterminate	Male	Mar 02, 2014	Undetermined (Lost to follow up)	1094	1100	Captive Birth/Hatch	Birth/Hatch	Mar 02, 2014	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Dec 14, 2017	MICANOPY
									GO LTF	Dec 15, 2017	MICANOPY
1341	JOHNSON L	UNK	Male	Mar 27, 2014	Undetermined (Lost to follow up)	1094	1088	Captive Birth/Hatch	Birth/Hatch	Mar 27, 2014	SD-WAP
									Transfer	Apr 23, 2016	DALLAS
									Transfer	Nov 14, 2017	JOHNSON L
									GO LTF	Nov 15, 2017	JOHNSON L
1342	MICANOPY	UNK	Male	Nov 25, 2014	Undetermined (Lost to follow up)	1094	1089	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2014	SD-WAP
									Transfer	Nov 04, 2018	MICANOPY
									GO LTF	Nov 05, 2018	MICANOPY
1343	MICANOPY	Indeterminate	Male	Jan 20, 2015	Undetermined (Lost to follow up)	1094	1276	Captive Birth/Hatch	Birth/Hatch	Jan 20, 2015	SD-WAP
									Transfer	Feb 02, 2016	DALLAS
									Transfer	Mar 15, 2018	MICANOPY
									GO LTF	Mar 16, 2018	MICANOPY
1344	SD-WAP	615022	Female	Jan 21, 2015	Alive	1094	1092	Captive Birth/Hatch	Birth/Hatch	Jan 21, 2015	SD-WAP
1345	JOHNSON L	UNK	Male	Feb 26, 2015	Undetermined (Lost to follow up)	1094	1100	Captive Birth/Hatch	Birth/Hatch	Feb 26, 2015	SD-WAP
									Transfer	Feb 02, 2016	DALLAS
									Transfer	Nov 14, 2017	JOHNSON L
									GO LTF	Nov 15, 2017	JOHNSON L
1346	JOHNSON L	UNK	Male	Mar 23, 2015	Undetermined (Lost to follow up)	1094	1081	Captive Birth/Hatch	Birth/Hatch	Mar 23, 2015	SD-WAP
									Transfer	Feb 02, 2016	DALLAS
									Transfer	Nov 14, 2017	JOHNSON L
									GO LTF	Nov 15, 2017	JOHNSON L
1347	SD-WAP	615075	Female	Mar 24, 2015	Alive	1094	1088	Captive Birth/Hatch	Birth/Hatch	Mar 24, 2015	SD-WAP
1348	ST LOUIS	UNDETERMINED	Male	Nov 05, 2015	Alive	1094	1092	Captive Birth/Hatch	Birth/Hatch	Nov 05, 2015	SD-WAP
									Transfer	Apr 25, 2022	ST LOUIS
1349	SD-WAP	615525	Female	Nov 10, 2015	Dead	1094	1098	Captive Birth/Hatch	Birth/Hatch	Nov 10, 2015	SD-WAP
									Death	Aug 04, 2016	SD-WAP
1350	SD-WAP	614027	Female	Jan 28, 2014	Dead	1094	1098	Captive Birth/Hatch	Birth/Hatch	Jan 28, 2014	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Feb 02, 2014	SD-WAP
1351	SD-WAP	614028	Female	Jan 28, 2014	Dead	1094	UND	Captive Birth/Hatch	Birth/Hatch	Jan 28, 2014	SD-WAP
									Death	Jan 28, 2014	SD-WAP
1352	SD-WAP	614049	Male	Feb 13, 2014	Dead	1094	1102	Captive Birth/Hatch	Birth/Hatch	Feb 13, 2014	SD-WAP
									Death	Jul 02, 2014	SD-WAP
1353	SD-WAP	614137	Male	Apr 14, 2014	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 14, 2014	SD-WAP
									Death	Apr 14, 2014	SD-WAP
1354	SD-WAP	614542	Female	Dec 20, 2014	Dead	1094	1271	Captive Birth/Hatch	Birth/Hatch	Dec 20, 2014	SD-WAP
									Death	Apr 30, 2015	SD-WAP
1355	SD-WAP	614556	Male	Dec 31, 2014	Dead	1094	1098	Captive Birth/Hatch	Birth/Hatch	Dec 31, 2014	SD-WAP
									Death	Dec 31, 2014	SD-WAP
1356	SD-WAP	615545	Male	Nov 26, 2015	Dead	1094	1089	Captive Birth/Hatch	Birth/Hatch	Nov 26, 2015	SD-WAP
									Death	Nov 29, 2015	SD-WAP
1357	W PALM BE	M16103	Female	Jan 30, 2012	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jan 30, 2012	RUM CREEK
									Transfer	May 26, 2016	W PALM BE
									Death	Dec 22, 2019	W PALM BE
1358	W PALM BE	M16104	Female	Feb 28, 2012	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Feb 28, 2012	RUM CREEK
									Transfer	May 26, 2016	W PALM BE
									Death	Nov 24, 2018	W PALM BE
1359	W PALM BE	M16105	Female	Apr 01, 2015	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 01, 2015	RUM CREEK
									Transfer	May 26, 2016	W PALM BE
									Death	Nov 30, 2018	W PALM BE
1360	W PALM BE	M16276	Female	Nov 07, 2016	Alive	MULT7	MULT8	Captive Birth/Hatch	Birth/Hatch	Nov 07, 2016	W PALM BE
1361	W PALM BE	M16300	Female	Nov 23, 2016	Dead	1127	1282	Captive Birth/Hatch	Birth/Hatch	Nov 23, 2016	W PALM BE
									Death	Nov 26, 2016	W PALM BE
1362	W PALM BE	M16302	Female	Dec 01, 2016	Dead	UND	1358	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016	W PALM BE
									Death	Mar 17, 2022	W PALM BE
1363	MICANOPY	Indeterminate	Female	Oct 25, 2016	Undetermined (Lost to follow up)	1333	1298	Captive Birth/Hatch	Birth/Hatch	Oct 25, 2016	YULEE
									Transfer	Apr 04, 2018	MICANOPY

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									GO LTF	Apr 05, 2018	MICANOPY
1364	YULEE	164061	Female	Oct 29, 2016	Alive	1333	1118	Captive Birth/Hatch	Birth/Hatch	Oct 29, 2016	YULEE
1365	MICANOPY	Indeterminate	Male	Oct 31, 2016	Undetermined (Lost to follow up)	1333	1288	Captive Birth/Hatch	Birth/Hatch	Oct 31, 2016	YULEE
									Transfer	Apr 29, 2021	MICANOPY
									GO LTF	Apr 30, 2021	MICANOPY
1366	YULEE	164063	Male	Nov 01, 2016	Dead	1333	1294	Captive Birth/Hatch	Birth/Hatch	Nov 01, 2016	YULEE
									Death	Nov 11, 2016	YULEE
1367	YULEE	164064	Female	Nov 01, 2016	Dead	1333	1287	Captive Birth/Hatch	Birth/Hatch	Nov 01, 2016	YULEE
									Death	Nov 01, 2016	YULEE
1368	YULEE	164067	Female	Nov 04, 2016	Alive	1333	922	Captive Birth/Hatch	Birth/Hatch	Nov 04, 2016	YULEE
1369	MICANOPY	Indeterminate	Male	Nov 12, 2016	Undetermined (Lost to follow up)	1333	1325	Captive Birth/Hatch	Birth/Hatch	Nov 12, 2016	YULEE
									Transfer	Apr 29, 2021	MICANOPY
									GO LTF	Apr 30, 2021	MICANOPY
1370	YULEE	164078	Female	Nov 19, 2016	Alive	1333	1323	Captive Birth/Hatch	Birth/Hatch	Nov 19, 2016	YULEE
1371	YULEE	164080	Male	Nov 23, 2016	Dead	1333	1293	Captive Birth/Hatch	Birth/Hatch	Nov 23, 2016	YULEE
									Death	Dec 28, 2016	YULEE
1372	MICANOPY	Indeterminate	Female	Nov 24, 2016	Undetermined (Lost to follow up)	1333	1327	Captive Birth/Hatch	Birth/Hatch	Nov 24, 2016	YULEE
									Transfer	Apr 04, 2018	MICANOPY
									GO LTF	Apr 05, 2018	MICANOPY
1373	WILD WRLD	11332	Male	Dec 28, 2015	Alive	1094	1081	Captive Birth/Hatch	Birth/Hatch	Dec 28, 2015	SD-WAP
									Transfer	Jan 20, 2018	WILD WRLD
1374	SD-WAP	615582	Male	Dec 30, 2015	Alive	1094	1276	Captive Birth/Hatch	Birth/Hatch	Dec 30, 2015	SD-WAP
1375	SD-WAP	616001	Male	Jan 07, 2016	Alive	UND	1088	Captive Birth/Hatch	Birth/Hatch	Jan 07, 2016	SD-WAP
1376	SD-WAP	616008	Female	Jan 16, 2016	Dead	1094	1100	Captive Birth/Hatch	Birth/Hatch	Jan 16, 2016	SD-WAP
									Death	Jun 03, 2022	SD-WAP
1377	SD-WAP	616020	Male	Jan 22, 2016	Dead	UND	1339	Captive Birth/Hatch	Birth/Hatch	Jan 22, 2016	SD-WAP
									Death	Jan 22, 2016	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1378	SD-WAP	616045	Male	Feb 24, 2016	Dead	1094	1271	Captive Birth/Hatch	Birth/Hatch	Feb 24, 2016	SD-WAP
									Death	Sep 19, 2016	SD-WAP
1379	SD-WAP	616289	Female	May 29, 2016	Alive	1094	1344	Captive Birth/Hatch	Birth/Hatch	May 29, 2016	SD-WAP
1380	JOHNSON L	UNK	Male	Oct 23, 2016	Undetermined (Lost to follow up)	MULT9	1081	Captive Birth/Hatch	Birth/Hatch	Oct 23, 2016	SD-WAP
									Transfer	May 14, 2019	JOHNSON L
									GO LTF	May 15, 2019	JOHNSON L
1381	HEMKER TX	UNDETERMINED	Male	Oct 26, 2016	Alive	MULT9	1089	Captive Birth/Hatch	Birth/Hatch	Oct 26, 2016	SD-WAP
									Transfer	Apr 04, 2018	FORTWORTH
									Transfer	Apr 07, 2020	HEMKER TX
1382	SD-WAP	Undetermined	Male	Oct 27, 2016	Dead	MULT9	1088	Captive Birth/Hatch	Birth/Hatch	Oct 27, 2016	SD-WAP
									Transfer	Apr 04, 2018	FORTWORTH
									Death	Jan 23, 2020	SD-WAP
1383	WILD WRLD	11333	Female	Oct 28, 2016	Alive	MULT9	1092	Captive Birth/Hatch	Birth/Hatch	Oct 28, 2016	SD-WAP
									Transfer	Jan 20, 2018	WILD WRLD
1384	CHASE NET	UNK	Male	Dec 26, 2015	Undetermined (Lost to follow up)	1301	1099	Captive Birth/Hatch	Birth/Hatch	Dec 26, 2015	SAFARI W
									Transfer	Nov 08, 2017	CHASE NET
									GO LTF	Nov 09, 2017	CHASE NET
1385	CHASE NET	UNK	Male	Jan 09, 2016	Undetermined (Lost to follow up)	1301	1300	Captive Birth/Hatch	Birth/Hatch	Jan 09, 2016	SAFARI W
									Transfer	Dec 13, 2017	CHASE NET
									GO LTF	Dec 14, 2017	CHASE NET
1386	CHASE NET	UNK	Male	Feb 22, 2016	Undetermined (Lost to follow up)	1301	1122	Captive Birth/Hatch	Birth/Hatch	Feb 22, 2016	SAFARI W
									Transfer	Dec 13, 2017	CHASE NET
									GO LTF	Dec 14, 2017	CHASE NET
1387	CHASE NET	UNK	Male	Mar 27, 2016	Undetermined (Lost to follow up)	1301	1306	Captive Birth/Hatch	Birth/Hatch	Mar 27, 2016	SAFARI W
									Transfer	Dec 13, 2017	CHASE NET
									GO LTF	Dec 14, 2017	CHASE NET
1388	WLD PRTNR	UNK	Female	Apr 19, 2016	Undetermined (Lost to follow up)	1301	1305	Captive Birth/Hatch	Birth/Hatch	Apr 19, 2016	SAFARI W

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Nov 25, 2018	WLD PRTNR
									GO LTF	Nov 26, 2018	WLD PRTNR
1390	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1391	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1392	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1393	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1394	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1395	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1396	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1397	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1398	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1399	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1400	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									GO LTF	Dec 19, 2016	RUM CREEK
1401	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1402	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1403	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1404	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1405	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1406	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1407	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1408	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1409	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1410	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1411	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1412	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1413	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1414	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1415	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1416	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1417	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1418	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1419	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1420	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1421	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1422	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1423	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1424	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1425	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1426	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1427	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1428	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1429	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1430	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1431	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1432	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1433	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1434	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1435	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1436	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1437	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1438	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1439	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1440	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1441	RUM CREEK	UNK	Male	Dec 01, 2005 +/- 6 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 6 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1442	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1443	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1444	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1445	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1446	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1447	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1448	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1449	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1450	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1451	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1452	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1453	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1454	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1455	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1456	RUM CREEK	UNK	Male	Dec 01, 2012 +/- 2 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2012 +/- 2 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1457	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1458	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1459	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1460	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1461	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1462	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1463	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1464	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1465	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1466	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1467	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1468	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1469	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1470	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1471	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1472	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1473	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1474	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1475	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1476	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1477	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1478	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1479	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1480	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1481	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1482	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1483	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1484	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1485	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1486	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1487	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1488	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1489	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1490	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1491	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1492	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1493	RUM CREEK	-	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1494	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1495	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1496	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1497	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1498	RUM CREEK	UNK	Female	Dec 01, 2005 +/- 9 year	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2005 +/- 9 year	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1499	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1500	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1501	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1502	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1503	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1504	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1505	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1506	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1507	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1508	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1509	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1510	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1511	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1512	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1513	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1514	RUM CREEK	UNK	Undetermined	Dec 01, 2016 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2016 +/- 6 month	RUM CREEK
									GO LTF	Dec 19, 2016	RUM CREEK
1515	PRIVATE	UNK	Male	Dec 02, 2016	Undetermined (Lost to follow up)	1301	1099	Captive Birth/Hatch	Birth/Hatch	Dec 02, 2016	SAFARI W
									Transfer	May 10, 2018	PRIVATE
									GO LTF	May 11, 2018	PRIVATE
1516	SD-WAP	616618	Female	Dec 28, 2016	Dead	UND	1271	Captive Birth/Hatch	Birth/Hatch	Dec 28, 2016	SD-WAP
									Death	Dec 31, 2016	SD-WAP
1517	RUM CREEK	UNK	Undetermined	Jan 23, 2017 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jan 23, 2017 +/- 6 month	RUM CREEK
									GO LTF	Jan 24, 2017	RUM CREEK
1518	RUM CREEK	UNK	Undetermined	Jan 23, 2017 +/- 6 month	Undetermined (Lost to follow up)	UND	UND	Captive Birth/Hatch	Birth/Hatch	Jan 23, 2017 +/- 6 month	RUM CREEK
									GO LTF	Jan 24, 2017	RUM CREEK
1519	HEMKER TX	Undetermined	Male	Nov 30, 2016	Dead	MULT9	1276	Captive Birth/Hatch	Birth/Hatch	Nov 30, 2016	SD-WAP
									Transfer	Apr 04, 2018	FORTWORTH
									Transfer	Apr 07, 2020	HEMKER TX
									Death	Aug 10, 2021	HEMKER TX
1522	SAFARI W	116107	Female	Dec 02, 2016	Dead	1301	1099	Captive Birth/Hatch	Birth/Hatch	Dec 02, 2016	SAFARI W
									Death	Dec 02, 2016	SAFARI W
1523	MICANOPY	Undetermined	Male	Nov 28, 2016	Undetermined (Lost to follow up)	1333	1095	Captive Birth/Hatch	Birth/Hatch	Nov 28, 2016	YULEE
									Transfer	Apr 29, 2021	MICANOPY

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									GO LTF	Apr 30, 2021	MICANOPY
1524	YULEE	164088	Female	Dec 06, 2016	Alive	1333	1291	Captive Birth/Hatch	Birth/Hatch	Dec 06, 2016	YULEE
1525	GULF BREZ	Undetermined	Male	May 05, 2017	Undetermined (Lost to follow up)	1333	1332	Captive Birth/Hatch	Birth/Hatch	May 05, 2017	YULEE
									Transfer	Jan 09, 2020	GULF BREZ
									GO LTF	Jan 10, 2020	GULF BREZ
1526	VA SAFARI	Undetermined	Female	Nov 18, 2017	Undetermined (Lost to follow up)	1333	1126	Captive Birth/Hatch	Birth/Hatch	Nov 18, 2017	YULEE
									Transfer	Dec 15, 2020	VA SAFARI
									GO LTF	Dec 16, 2020	VA SAFARI
1527	GULF BREZ	Undetermined	Male	Nov 20, 2017	Undetermined (Lost to follow up)	1333	1288	Captive Birth/Hatch	Birth/Hatch	Nov 20, 2017	YULEE
									Transfer	Jan 09, 2020	GULF BREZ
									GO LTF	Jan 10, 2020	GULF BREZ
1528	YULEE	174055	Male	Nov 23, 2017	Dead	1333	1291	Captive Birth/Hatch	Birth/Hatch	Nov 23, 2017	YULEE
									Death	Sep 22, 2018	YULEE
1529	GULF BREZ	Undetermined	Male	Nov 23, 2017	Undetermined (Lost to follow up)	1333	1293	Captive Birth/Hatch	Birth/Hatch	Nov 23, 2017	YULEE
									Transfer	Jan 09, 2020	GULF BREZ
									GO LTF	Jan 10, 2020	GULF BREZ
1530	GULF BREZ	Undetermined	Male	Nov 25, 2017	Undetermined (Lost to follow up)	1333	1323	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2017	YULEE
									Transfer	Jan 09, 2020	GULF BREZ
									GO LTF	Jan 10, 2020	GULF BREZ
1531	YULEE	174059	Female	Dec 04, 2017	Dead	1333	1298	Captive Birth/Hatch	Birth/Hatch	Dec 04, 2017	YULEE
									Death	Dec 04, 2017	YULEE
1532	YULEE	174065	Female	Dec 19, 2017	Dead	1333	1327	Captive Birth/Hatch	Birth/Hatch	Dec 19, 2017	YULEE
									Death	Oct 23, 2020	YULEE
1533	YULEE	174066	Female	Dec 19, 2017	Dead	1333	1325	Captive Birth/Hatch	Birth/Hatch	Dec 19, 2017	YULEE
									Death	Dec 19, 2017	YULEE
1534	YULEE	184031	Female	May 18, 2018	Dead	1319	1368	Captive Birth/Hatch	Birth/Hatch	May 18, 2018	YULEE
									Death	Sep 27, 2019	YULEE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1535	GULF BREZ	Undetermined	Male	May 20, 2018	Undetermined (Lost to follow up)	1319	1524	Captive Birth/Hatch	Birth/Hatch	May 20, 2018	YULEE
									Transfer	Jan 09, 2020	GULF BREZ
									GO LTF	Jan 10, 2020	GULF BREZ
1536	HEMKER TX	694	Male	Sep 22, 2018	Alive	1319	1364	Captive Birth/Hatch	Birth/Hatch	Sep 22, 2018	YULEE
									Transfer	Nov 04, 2020	HEMKER TX
1537	YULEE	184055	Male	Oct 21, 2018	Dead	1319	1368	Captive Birth/Hatch	Birth/Hatch	Oct 21, 2018	YULEE
									Death	Oct 21, 2018	YULEE
1538	FOSSILRIM	1626	Female	Oct 29, 2018	Dead	1319	1293	Captive Birth/Hatch	Birth/Hatch	Oct 29, 2018	YULEE
									Transfer	Oct 11, 2019	FOSSILRIM
									Death	Apr 16, 2020	FOSSILRIM
1539	FOSSILRIM	1627	Female	Nov 16, 2018	Alive	1319	1126	Captive Birth/Hatch	Birth/Hatch	Nov 16, 2018	YULEE
									Transfer	Oct 11, 2019	FOSSILRIM
1540	HEMKER TX	Undetermined	Male	Nov 23, 2018	Dead	1319	1323	Captive Birth/Hatch	Birth/Hatch	Nov 23, 2018	YULEE
									Transfer	Nov 04, 2020	HEMKER TX
									Death	Nov 30, 2021	HEMKER TX
1541	YULEE	184067	Male	Nov 27, 2018	Dead	1319	1327	Captive Birth/Hatch	Birth/Hatch	Nov 27, 2018	YULEE
									Death	Nov 13, 2021	YULEE
1542	YULEE	184069	Male	Dec 05, 2018	Alive	1319	1288	Captive Birth/Hatch	Birth/Hatch	Dec 05, 2018	YULEE
1543	YULEE	184070	Male	Dec 06, 2018	Alive	1319	1291	Captive Birth/Hatch	Birth/Hatch	Dec 06, 2018	YULEE
1544	YULEE	184071	Male	Dec 10, 2018	Alive	1319	1325	Captive Birth/Hatch	Birth/Hatch	Dec 10, 2018	YULEE
1545	FOSSILRIM	1628	Female	Dec 18, 2018	Dead	1319	1298	Captive Birth/Hatch	Birth/Hatch	Dec 18, 2018	YULEE
									Transfer	Oct 11, 2019	FOSSILRIM
									Death	Apr 22, 2020	FOSSILRIM
1546	FOSSILRIM	1629	Female	Dec 28, 2018	Dead	1319	1287	Captive Birth/Hatch	Birth/Hatch	Dec 28, 2018	YULEE
									Transfer	Oct 11, 2019	FOSSILRIM
									Death	Apr 22, 2020	FOSSILRIM
1547	YULEE	194013	Male	Apr 15, 2019	Alive	1319	1368	Captive Birth/Hatch	Birth/Hatch	Apr 15, 2019	YULEE
1548	HEMKER TX	690	Female	May 02, 2019	Alive	1319	1524	Captive Birth/Hatch	Birth/Hatch	May 02, 2019	YULEE
									Transfer	Nov 04, 2020	HEMKER TX

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1549	JOHNSON L	Indeterminate	Male	Mar 01, 2019	Undetermined (Lost to follow up)	1342	1376	Captive Birth/Hatch	Birth/Hatch	Mar 01, 2019	SD-WAP
									Transfer	Mar 30, 2022	JOHNSON L
									GO LTF	Mar 31, 2022	JOHNSON L
1550	SD-WAP	4000137	Female	Mar 10, 2019	Dead	1342	1344	Captive Birth/Hatch	Birth/Hatch	Mar 10, 2019	SD-WAP
									Death	Mar 31, 2019	SD-WAP
1551	SD-WAP	617028	Female	Jan 23, 2017	Dead	1318	1347	Captive Birth/Hatch	Birth/Hatch	Jan 23, 2017	SD-WAP
									Death	May 07, 2020	SD-WAP
1552	WILD WRLD	11334	Female	Feb 14, 2017	Alive	1318	1100	Captive Birth/Hatch	Birth/Hatch	Feb 14, 2017	SD-WAP
									Transfer	Jan 20, 2018	WILD WRLD
1553	JOHNSON L	UNK	Male	Apr 01, 2017	Undetermined (Lost to follow up)	1318	1344	Captive Birth/Hatch	Birth/Hatch	Apr 01, 2017	SD-WAP
									Transfer	May 14, 2019	JOHNSON L
									GO LTF	May 15, 2019	JOHNSON L
1554	SD-WAP	617499	Female	Jul 31, 2017	Dead	MULT12	1088	Captive Birth/Hatch	Birth/Hatch	Jul 31, 2017	SD-WAP
									Death	Aug 04, 2017	SD-WAP
1555	SD-WAP	617520	Female	Aug 12, 2017	Dead	MULT12	1089	Captive Birth/Hatch	Birth/Hatch	Aug 12, 2017	SD-WAP
									Death	Dec 16, 2017	SD-WAP
1556	JOHNSON L	UNK	Male	Aug 21, 2017	Undetermined (Lost to follow up)	MULT12	1081	Captive Birth/Hatch	Birth/Hatch	Aug 21, 2017	SD-WAP
									Transfer	Mar 22, 2019	JOHNSON L
									GO LTF	Mar 23, 2019	JOHNSON L
1557	JOHNSON L	UNK	Female	Oct 25, 2017	Undetermined (Lost to follow up)	1342	1092	Captive Birth/Hatch	Birth/Hatch	Oct 25, 2017	SD-WAP
									Transfer	Feb 19, 2019	JOHNSON L
									GO LTF	Feb 20, 2019	JOHNSON L
1558	SD-WAP	617641	Female	Nov 17, 2017	Alive	1342	1347	Captive Birth/Hatch	Birth/Hatch	Nov 17, 2017	SD-WAP
1559	SD-WAP	617646	Male	Nov 22, 2017	Alive	1342	1276	Captive Birth/Hatch	Birth/Hatch	Nov 22, 2017	SD-WAP
1560	JOHNSON L	UNK	Female	Dec 11, 2017	Undetermined (Lost to follow up)	1342	1100	Captive Birth/Hatch	Birth/Hatch	Dec 11, 2017	SD-WAP
									Transfer	Feb 19, 2019	JOHNSON L
									GO LTF	Feb 19, 2019	JOHNSON L

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1561	MICANOPY	Indeterminate	Female	Feb 07, 2018	Undetermined (Lost to follow up)	1342	1271	Captive Birth/Hatch	Birth/Hatch	Feb 07, 2018	SD-WAP
									Transfer	Jan 17, 2019	MICANOPY
									GO LTF	Jan 18, 2019	MICANOPY
1562	SD-WAP	618087	Female	Mar 19, 2018	Dead	1342	1376	Captive Birth/Hatch	Birth/Hatch	Mar 19, 2018	SD-WAP
									Death	Mar 03, 2021	SD-WAP
1563	MICANOPY	Indeterminate	Female	Mar 25, 2018	Undetermined (Lost to follow up)	1342	1379	Captive Birth/Hatch	Birth/Hatch	Mar 25, 2018	SD-WAP
									Transfer	Jan 17, 2019	MICANOPY
									GO LTF	Jan 18, 2019	MICANOPY
1564	MICANOPY	Indeterminate	Female	Apr 13, 2018	Undetermined (Lost to follow up)	1342	1344	Captive Birth/Hatch	Birth/Hatch	Apr 13, 2018	SD-WAP
									Transfer	Nov 04, 2018	MICANOPY
									GO LTF	Nov 05, 2018	MICANOPY
1565	SD-WAP	618141	Male	Dec 05, 2016	Alive	UND	UND	Captive Birth/Hatch	Birth/Hatch	Dec 05, 2016	RUM CREEK
									Transfer	Apr 19, 2018	SD-WAP
1566	SD-WAP	618142	Male	Oct 05, 2016	Dead	UND	UND	Captive Birth/Hatch	Birth/Hatch	Oct 05, 2016	RUM CREEK
									Transfer	Apr 19, 2018	SD-WAP
									Death	Jan 20, 2021	SD-WAP
1567	SD-WAP	618166	Female	May 13, 2018	Dead	1342	1089	Captive Birth/Hatch	Birth/Hatch	May 13, 2018	SD-WAP
									Death	May 19, 2018	SD-WAP
1568	MICANOPY	UNK	Male	May 28, 2018	Undetermined (Lost to follow up)	1342	1088	Captive Birth/Hatch	Birth/Hatch	May 28, 2018	SD-WAP
									Transfer	Nov 04, 2018	MICANOPY
									GO LTF	Nov 05, 2018	MICANOPY
1569	SD-WAP	618232	Female	Jun 16, 2018	Alive	1342	1081	Captive Birth/Hatch	Birth/Hatch	Jun 16, 2018	SD-WAP
1570	SD-WAP	618291	Female	Jul 25, 2018	Alive	1342	1092	Captive Birth/Hatch	Birth/Hatch	Jul 25, 2018	SD-WAP
1571	MICANOPY	UNK	Male	Aug 21, 2018	Undetermined (Lost to follow up)	1342	1276	Captive Birth/Hatch	Birth/Hatch	Aug 21, 2018	SD-WAP
									Transfer	Jan 17, 2019	MICANOPY
									GO LTF	Jan 18, 2019	MICANOPY

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1572	JOHNSON L	Indeterminate	Male	Oct 08, 2018	Undetermined (Lost to follow up)	1342	1100	Captive Birth/Hatch	Birth/Hatch	Oct 08, 2018	SD-WAP
									Transfer	Mar 29, 2021	JOHNSON L
									GO LTF	Mar 30, 2021	JOHNSON L
1573	JOHNSON L	Undetermined	Male	Nov 27, 2018	Undetermined (Lost to follow up)	MULT10	1271	Captive Birth/Hatch	Birth/Hatch	Nov 27, 2018	SD-WAP
									Transfer	Sep 20, 2021	JOHNSON L
									GO LTF	Sep 21, 2021	JOHNSON L
1574	SD-WAP	18454	Female	Dec 06, 2018	Dead	MULT10	1347	Captive Birth/Hatch	Birth/Hatch	Dec 06, 2018	SD-WAP
									Death	Dec 09, 2018	SD-WAP
1575	TATUM E	UNK	Male	Mar 30, 2019	Undetermined (Lost to follow up)	MULT1	1558	Captive Birth/Hatch	Birth/Hatch	Mar 30, 2019	SD-WAP
									Transfer	Nov 09, 2019	TATUM E
									GO LTF	Nov 10, 2019	TATUM E
1576	SD-WAP	4000296	Female	Apr 18, 2019	Alive	MULT1	1379	Captive Birth/Hatch	Birth/Hatch	Apr 18, 2019	SD-WAP
1577	SD-WAP	4000363	Female	Apr 30, 2019	Alive	MULT1	1081	Captive Birth/Hatch	Birth/Hatch	Apr 30, 2019	SD-WAP
1578	SD-WAP	4000691	Female	Jul 05, 2019	Alive	MULT2	1092	Captive Birth/Hatch	Birth/Hatch	Jul 05, 2019	SD-WAP
1579	SD-WAP	4000896	Male	Aug 15, 2019	Dead	1374	1100	Captive Birth/Hatch	Birth/Hatch	Aug 15, 2019	SD-WAP
									Death	Jul 16, 2022	SD-WAP
1580	SD-WAP	4001040	Female	Sep 02, 2019	Alive	MULT2	1551	Captive Birth/Hatch	Birth/Hatch	Sep 02, 2019	SD-WAP
1581	W PALM BE	M17064	Female	Apr 26, 2014 +/- 3 month	Alive	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 26, 2014 +/- 3 month	RUM CREEK
									Transfer	Apr 26, 2017	W PALM BE
1582	W PALM BE	M17065	Female	Apr 26, 2014 +/- 3 month	Alive	UND	UND	Captive Birth/Hatch	Birth/Hatch	Apr 26, 2014 +/- 3 month	RUM CREEK
									Transfer	Apr 26, 2017	W PALM BE
1583	W PALM BE	M17136	Male	Nov 01, 2017	Dead	1127	1582	Captive Birth/Hatch	Birth/Hatch	Nov 01, 2017	W PALM BE
									Death	Nov 02, 2017	W PALM BE
1584	MICANOPY	UNK	Male	Nov 04, 2017	Undetermined (Lost to follow up)	1127	1359	Captive Birth/Hatch	Birth/Hatch	Nov 04, 2017	W PALM BE
									Transfer	Mar 04, 2019	MICANOPY
									GO LTF	Mar 05, 2019	MICANOPY

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1585	MICANOPY	UNK	Male	Nov 17, 2017	Undetermined (Lost to follow up)	1127	1358	Captive Birth/Hatch	Birth/Hatch	Nov 17, 2017	W PALM BE
									Transfer	Mar 04, 2019	MICANOPY
									GO LTF	Mar 05, 2019	MICANOPY
1586	W PALM BE	M17165	Undetermined	Dec 08, 2017	Dead	1127	1357	Captive Birth/Hatch	Birth/Hatch	Dec 08, 2017	W PALM BE
									Death	Dec 08, 2017	W PALM BE
1587	W PALM BE	M17168	Female	Dec 26, 2017	Dead	1127	1581	Captive Birth/Hatch	Birth/Hatch	Dec 26, 2017	W PALM BE
									Death	Mar 17, 2020	W PALM BE
1588	HEMKER TX	17	Male	Jul 06, 2018	Alive	1127	1362	Captive Birth/Hatch	Birth/Hatch	Jul 06, 2018	W PALM BE
									Transfer	Mar 01, 2020	HEMKER TX
1589	W PALM BE	M18228	Female	Nov 09, 2018	Dead	1127	1360	Captive Birth/Hatch	Birth/Hatch	Nov 09, 2018	W PALM BE
									Death	Apr 05, 2022	W PALM BE
1590	HEMKER TX	Undetermined	Male	Nov 18, 2018	Dead	1127	1359	Captive Birth/Hatch	Birth/Hatch	Nov 18, 2018	W PALM BE
									Transfer	Jun 04, 2019	HEMKER TX
									Death	Oct 16, 2021	HEMKER TX
1591	W PALM BE	M18233	Female	Nov 19, 2018	Alive	1127	1582	Captive Birth/Hatch	Birth/Hatch	Nov 19, 2018	W PALM BE
1592	W PALM BE	M18234	Undetermined	Nov 24, 2018	Dead	1127	1358	Captive Birth/Hatch	Birth/Hatch	Nov 24, 2018	W PALM BE
									Death	Nov 24, 2018	W PALM BE
1593	W PALM BE	M18241	Female	Dec 04, 2018	Dead	1127	1581	Captive Birth/Hatch	Birth/Hatch	Dec 04, 2018	W PALM BE
									Death	Feb 16, 2022	W PALM BE
1594	HEMKER TX	16	Male	Dec 10, 2018	Alive	1127	1357	Captive Birth/Hatch	Birth/Hatch	Dec 10, 2018	W PALM BE
									Transfer	Mar 01, 2020	HEMKER TX
1595	W PALM BE	M19126	Female	May 15, 2019	Alive	1127	1587	Captive Birth/Hatch	Birth/Hatch	May 15, 2019	W PALM BE
1596	W PALM BE	M19136	Female	Jun 29, 2019	Alive	1127	1362	Captive Birth/Hatch	Birth/Hatch	Jun 29, 2019	W PALM BE
1597	BATONROUG	11089	Male	Jan 11, 2018	Dead	1336	913	Captive Birth/Hatch	Birth/Hatch	Jan 11, 2018	BATONROUG
									Death	Jan 11, 2018	BATONROUG
1598	BATONROUG	11110	Male	Apr 25, 2018	Dead	1336	1316	Captive Birth/Hatch	Birth/Hatch	Apr 25, 2018	BATONROUG
									Death	Apr 25, 2018	BATONROUG
1599	WLD PRTNR	UNK	Male	Dec 16, 2017	Undetermined (Lost to follow up)	1301	1305	Captive Birth/Hatch	Birth/Hatch	Dec 16, 2017	SAFARI W

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Nov 25, 2018	WLD PRTNR
									GO LTF	Nov 26, 2018	WLD PRTNR
1600	WLD PRTNR	UNK	Male	Mar 16, 2018	Undetermined (Lost to follow up)	1301	1388	Captive Birth/Hatch	Birth/Hatch	Mar 16, 2018	SAFARI W
									Transfer	Nov 25, 2018	WLD PRTNR
									GO LTF	Nov 26, 2018	WLD PRTNR
1601	WLD PRTNR	UNK	Female	Apr 08, 2018	Undetermined (Lost to follow up)	1301	1122	Captive Birth/Hatch	Birth/Hatch	Apr 08, 2018	SAFARI W
									Transfer	Nov 25, 2018	WLD PRTNR
									GO LTF	Nov 26, 2018	WLD PRTNR
1602	WLD PRTNR	UNK	Male	Oct 15, 2018	Undetermined (Lost to follow up)	1314	1388	Captive Birth/Hatch	Birth/Hatch	Oct 15, 2018	SAFARI W
									Transfer	Nov 25, 2018	WLD PRTNR
									GO LTF	Nov 26, 2018	WLD PRTNR
1603	WLD PRTNR	UNK	Male	Oct 17, 2018	Undetermined (Lost to follow up)	1314	1305	Captive Birth/Hatch	Birth/Hatch	Oct 17, 2018	SAFARI W
									Transfer	Nov 25, 2018	WLD PRTNR
									GO LTF	Nov 26, 2018	WLD PRTNR
1604	WILDLIFEP	UNK	Male	May 15, 2018	Undetermined (Lost to follow up)	1373	1383	Captive Birth/Hatch	Birth/Hatch	May 15, 2018	WILD WRLD
									Transfer	Sep 19, 2018	WILDLIFEP
									GO LTF	Sep 20, 2018	WILDLIFEP
1605	W PALM BE	M19178	Female	Nov 14, 2019	Alive	1127	1582	Captive Birth/Hatch	Birth/Hatch	Nov 14, 2019	W PALM BE
1606	SD-WAP	4001083	Female	Sep 28, 2019	Dead	MULT2	1271	Captive Birth/Hatch	Birth/Hatch	Sep 28, 2019	SD-WAP
									Death	Sep 30, 2019	SD-WAP
1607	SD-WAP	4001179	Female	Oct 28, 2019	Alive	MULT2	1347	Captive Birth/Hatch	Birth/Hatch	Oct 28, 2019	SD-WAP
1608	HEMKER TX	695	Female	Oct 19, 2019	Alive	1319	1532	Captive Birth/Hatch	Birth/Hatch	Oct 19, 2019	YULEE
									Transfer	Nov 04, 2020	HEMKER TX
1609	MONTGOMRY	4365	Male	Oct 30, 2019	Alive	1319	1298	Captive Birth/Hatch	Birth/Hatch	Oct 30, 2019	YULEE
									Transfer	May 05, 2022	MONTGOMRY
1610	YULEE	194053	Male	Nov 05, 2019	Alive	1319	1291	Captive Birth/Hatch	Birth/Hatch	Nov 05, 2019	YULEE
1611	YULEE	194054	Male	Nov 06, 2019	Dead	1319	1364	Captive Birth/Hatch	Birth/Hatch	Nov 06, 2019	YULEE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Apr 30, 2021	YULEE
1612	MONTGOMRY	4363	Male	Nov 08, 2019	Alive	1319	1327	Captive Birth/Hatch	Birth/Hatch	Nov 08, 2019	YULEE
									Transfer	May 05, 2022	MONTGOMRY
1613	MICANOPY	Indeterminate	Female	Nov 12, 2019	Undetermined (Lost to follow up)	1319	1287	Captive Birth/Hatch	Birth/Hatch	Nov 12, 2019	YULEE
									Transfer	Apr 29, 2021	MICANOPY
									GO LTF	Apr 30, 2021	MICANOPY
1614	MONTGOMRY	4364	Male	Nov 24, 2019	Alive	1319	1325	Captive Birth/Hatch	Birth/Hatch	Nov 24, 2019	YULEE
									Transfer	May 05, 2022	MONTGOMRY
1615	MICANOPY	Indeterminate	Female	Nov 28, 2019	Undetermined (Lost to follow up)	1319	1323	Captive Birth/Hatch	Birth/Hatch	Nov 28, 2019	YULEE
									Transfer	Apr 29, 2021	MICANOPY
									GO LTF	Apr 30, 2021	MICANOPY
1616	YULEE	194061	Male	Dec 01, 2019	Alive	1319	1288	Captive Birth/Hatch	Birth/Hatch	Dec 01, 2019	YULEE
1617	MONTGOMRY	4366	Male	Dec 05, 2019	Alive	1319	1526	Captive Birth/Hatch	Birth/Hatch	Dec 05, 2019	YULEE
									Transfer	May 05, 2022	MONTGOMRY
1618	W PALM BE	M21004	Male	Dec 10, 2019	Alive	1319	1370	Captive Birth/Hatch	Birth/Hatch	Dec 10, 2019	YULEE
									Transfer	Jan 16, 2021	W PALM BE
1619	SD-WAP	4001490	Female	Dec 30, 2019	Alive	1374	1376	Captive Birth/Hatch	Birth/Hatch	Dec 30, 2019	SD-WAP
1620	MICANOPY	Indeterminate	Male	Feb 08, 2018	Undetermined (Lost to follow up)	1335	1330	Captive Birth/Hatch	Birth/Hatch	Feb 08, 2018	LOWRY
									Transfer	Mar 04, 2019	MICANOPY
									GO LTF	Mar 05, 2019	MICANOPY
1621	MICANOPY	Indeterminate	Female	Nov 13, 2019	Undetermined (Lost to follow up)	1620	1330	Captive Birth/Hatch	Birth/Hatch	Nov 13, 2019	LOWRY
									Transfer	Mar 31, 2022	MICANOPY
									GO LTF	Apr 01, 2022	MICANOPY
1622	MICANOPY	Indeterminate	Male	Apr 13, 2020	Undetermined (Lost to follow up)	1127	1591	Captive Birth/Hatch	Birth/Hatch	Apr 13, 2020	W PALM BE
									Transfer	Jan 27, 2021	MICANOPY
									GO LTF	Jan 28, 2021	MICANOPY
1623	SD-WAP	4003030	Male	Mar 29, 2021	Alive	1565	1580	Captive Birth/Hatch	Birth/Hatch	Mar 29, 2021	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1624	SD-WAP	4002469	Male	Dec 17, 2020	Alive	1565	1577	Captive Birth/Hatch	Birth/Hatch	Dec 17, 2020	SD-WAP
1625	SD-WAP	4002362	Female	Oct 03, 2020	Alive	1565	1376	Captive Birth/Hatch	Birth/Hatch	Oct 03, 2020	SD-WAP
1626	SD-WAP	4002064	Female	Jul 07, 2020	Alive	1565	1100	Captive Birth/Hatch	Birth/Hatch	Jul 07, 2020	SD-WAP
1627	JOHNSON L	Undetermined	Female	Jun 24, 2020	Undetermined (Lost to follow up)	1565	1092	Captive Birth/Hatch	Birth/Hatch	Jun 24, 2020	SD-WAP
									Transfer	Nov 17, 2021	JOHNSON L
									GO LTF	Nov 18, 2021	JOHNSON L
1628	SD-WAP	4001870	Male	Apr 28, 2020	Alive	1565	1562	Captive Birth/Hatch	Birth/Hatch	Apr 28, 2020	SD-WAP
1629	SD-WAP	4001838	Male	Apr 18, 2020	Dead	1565	1379	Captive Birth/Hatch	Birth/Hatch	Apr 18, 2020	SD-WAP
									Death	Mar 13, 2022	SD-WAP
1630	SD-WAP	4001835	Female	Apr 17, 2020	Alive	1565	1558	Captive Birth/Hatch	Birth/Hatch	Apr 17, 2020	SD-WAP
1631	SD-WAP	4001830	Female	Apr 15, 2020	Alive	1565	1569	Captive Birth/Hatch	Birth/Hatch	Apr 15, 2020	SD-WAP
1632	JOHNSON L	Undetermined	Male	Apr 09, 2020	Undetermined (Lost to follow up)	1565	1344	Captive Birth/Hatch	Birth/Hatch	Apr 09, 2020	SD-WAP
									Transfer	Mar 30, 2022	JOHNSON L
									GO LTF	Mar 31, 2022	JOHNSON L
1633	SD-WAP	4003031	Male	Mar 30, 2021	Dead	1565	1607	Captive Birth/Hatch	Birth/Hatch	Mar 30, 2021	SD-WAP
									Death	Apr 07, 2021	SD-WAP
1634	SD-WAP	4002857	Male	Feb 28, 2021	Dead	1565	1562	Captive Birth/Hatch	Birth/Hatch	Feb 28, 2021	SD-WAP
									Death	Mar 03, 2021	SD-WAP
1635	HEMKER TX	UNDETERMINED	Female	Apr 26, 2021	Alive	1565	1578	Captive Birth/Hatch	Birth/Hatch	Apr 26, 2021	SD-WAP
									Transfer	Jun 08, 2022	HEMKER TX
1636	SD-WAP	4003179	Male	Apr 21, 2021	Alive	1565	1569	Captive Birth/Hatch	Birth/Hatch	Apr 21, 2021	SD-WAP
1637	W PALM BE	M20067	Female	~ from Dec 09, 2020 to Dec 10, 2020	Alive	1127	1596	Captive Birth/Hatch	Birth/Hatch	~ from Dec 09, 2020 to Dec 10, 2020	W PALM BE
1638	MICANOPY	Indeterminate	Male	Nov 25, 2020	Undetermined (Lost to follow up)	1127	1360	Captive Birth/Hatch	Birth/Hatch	Nov 25, 2020	W PALM BE
									Transfer	Feb 17, 2022	MICANOPY
									GO LTF	Feb 18, 2022	MICANOPY
1639	W PALM BE	M20060	Female	Oct 30, 2020	Alive	1127	1582	Captive Birth/Hatch	Birth/Hatch	Oct 30, 2020	W PALM BE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1640	W PALM BE	M20025	Female	Apr 11, 2020	Alive	1127	1362	Captive Birth/Hatch	Birth/Hatch	Apr 11, 2020	W PALM BE
1641	W PALM BE	M20024	Female	Mar 21, 2020	Alive	1127	1593	Captive Birth/Hatch	Birth/Hatch	Mar 21, 2020	W PALM BE
1642	YULEE	204005	Male	Jan 24, 2020	Alive	1319	1126	Captive Birth/Hatch	Birth/Hatch	Jan 24, 2020	YULEE
1643	FOSSILRIM	1631	Male	Sep 28, 2021	Dead	1336	1539	Captive Birth/Hatch	Birth/Hatch	Sep 28, 2021	FOSSILRIM
									Death	Jan 19, 2022	FOSSILRIM
1644	YULEE	214041	Male	Aug 08, 2021	Alive	1319	1364	Captive Birth/Hatch	Birth/Hatch	Aug 08, 2021	YULEE
1645	YULEE	214035	Male	Jul 23, 2021	Alive	1319	1323	Captive Birth/Hatch	Birth/Hatch	Jul 23, 2021	YULEE
1646	YULEE	214033	Female	Jul 20, 2021	Alive	1319	1325	Captive Birth/Hatch	Birth/Hatch	Jul 20, 2021	YULEE
1647	MICANOPY	Indeterminate	Female	Jul 16, 2021	Undetermined (Lost to follow up)	1565	1376	Captive Birth/Hatch	Birth/Hatch	Jul 16, 2021	SD-WAP
									Transfer	Mar 02, 2022	MICANOPY
									GO LTF	Mar 03, 2022	MICANOPY
1648	YULEE	214029	Male	Jul 12, 2021	Alive	1319	1327	Captive Birth/Hatch	Birth/Hatch	Jul 12, 2021	YULEE
1649	YULEE	214030	Male	Jul 12, 2021	Alive	1319	1524	Captive Birth/Hatch	Birth/Hatch	Jul 12, 2021	YULEE
1650	YULEE	214031	Female	Jul 12, 2021	Alive	1319	1288	Captive Birth/Hatch	Birth/Hatch	Jul 12, 2021	YULEE
1651	YULEE	214032	Female	Jul 12, 2021	Alive	1319	1298	Captive Birth/Hatch	Birth/Hatch	Jul 12, 2021	YULEE
1652	MICANOPY	Indeterminate	Female	Jun 20, 2021	Undetermined (Lost to follow up)	1565	1092	Captive Birth/Hatch	Birth/Hatch	Jun 20, 2021	SD-WAP
									Transfer	Mar 02, 2022	MICANOPY
									GO LTF	Mar 03, 2022	MICANOPY
1653	MICANOPY	Indeterminate	Female	Jun 18, 2021	Undetermined (Lost to follow up)	1565	1100	Captive Birth/Hatch	Birth/Hatch	Jun 18, 2021	SD-WAP
									Transfer	Mar 02, 2022	MICANOPY
									GO LTF	Mar 03, 2022	MICANOPY
1654	MICANOPY	Indeterminate	Female	May 28, 2021	Undetermined (Lost to follow up)	1565	1619	Captive Birth/Hatch	Birth/Hatch	May 28, 2021	SD-WAP
									Transfer	Mar 02, 2022	MICANOPY
									GO LTF	Mar 03, 2022	MICANOPY
1655	JOHNSON L	Undetermined	Female	May 25, 2021	Undetermined (Lost to follow up)	1565	1347	Captive Birth/Hatch	Birth/Hatch	May 25, 2021	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Transfer	Nov 17, 2021	JOHNSON L
									GO LTF	Nov 18, 2021	JOHNSON L
1656	MICANOPY	Indeterminate	Female	May 20, 2021	Undetermined (Lost to follow up)	1565	1576	Captive Birth/Hatch	Birth/Hatch	May 20, 2021	SD-WAP
									Transfer	Mar 02, 2022	MICANOPY
									GO LTF	Mar 03, 2022	MICANOPY
1657	SD-WAP	4003275	Female	May 11, 2021	Alive	1565	1570	Captive Birth/Hatch	Birth/Hatch	May 11, 2021	SD-WAP
1658	MICANOPY	Indeterminate	Female	May 09, 2021	Undetermined (Lost to follow up)	1374	1344	Captive Birth/Hatch	Birth/Hatch	May 09, 2021	SD-WAP
									Transfer	Mar 02, 2022	MICANOPY
									GO LTF	Mar 03, 2022	MICANOPY
1659	SD-WAP	4003250	Male	May 05, 2021	Alive	1565	1558	Captive Birth/Hatch	Birth/Hatch	May 05, 2021	SD-WAP
1660	SD-WAP	4003219	Male	May 01, 2021	Alive	1565	1379	Captive Birth/Hatch	Birth/Hatch	May 01, 2021	SD-WAP
1661	SD-WAP	4003675	Male	Nov 11, 2021	Alive	1565	1577	Captive Birth/Hatch	Birth/Hatch	Nov 11, 2021	SD-WAP
1662	VA SAFARI	Undetermined	Female	Feb 02, 2020	Undetermined (Lost to follow up)	1319	1524	Captive Birth/Hatch	Birth/Hatch	Feb 02, 2020	YULEE
									Transfer	Dec 15, 2020	VA SAFARI
									GO LTF	Dec 16, 2020	VA SAFARI
1663	YULEE	224029	Female	May 10, 2022	Alive	1319	1327	Captive Birth/Hatch	Birth/Hatch	May 10, 2022	YULEE
1664	SD-WAP	4004137	Female	Apr 27, 2022	Alive	1565	1576	Captive Birth/Hatch	Birth/Hatch	Apr 27, 2022	SD-WAP
1665	SD-WAP	4004134	Female	Apr 26, 2022	Alive	1565	1570	Captive Birth/Hatch	Birth/Hatch	Apr 26, 2022	SD-WAP
1666	SD-WAP	4004138	Male	~ from Apr 25, 2022 to Apr 26, 2022	Alive	1565	1631	Captive Birth/Hatch	Birth/Hatch	~ from Apr 25, 2022 to Apr 26, 2022	SD-WAP
1667	YULEE	224026	Male	Apr 13, 2022	Alive	1319	1524	Captive Birth/Hatch	Birth/Hatch	Apr 13, 2022	YULEE
1668	SD-WAP	4004057	Male	Apr 10, 2022	Alive	1565	1626	Captive Birth/Hatch	Birth/Hatch	Apr 10, 2022	SD-WAP
1669	SD-WAP	4003958	Male	Mar 27, 2022	Dead	1565	1558	Captive Birth/Hatch	Birth/Hatch	Mar 27, 2022	SD-WAP
									Death	Aug 30, 2022	SD-WAP
1670	SD-WAP	4003955	Male	Mar 24, 2022	Alive	1565	1625	Captive Birth/Hatch	Birth/Hatch	Mar 24, 2022	SD-WAP
1671	SD-WAP	4003827	Female	Mar 19, 2022	Alive	1565	1619	Captive Birth/Hatch	Birth/Hatch	Mar 19, 2022	SD-WAP
1672	SD-WAP	4003825	Male	Mar 18, 2022	Alive	1565	1569	Captive Birth/Hatch	Birth/Hatch	Mar 18, 2022	SD-WAP

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1673	SD-WAP	4003808	Male	Mar 11, 2022	Alive	1565	1580	Captive Birth/Hatch	Birth/Hatch	Mar 11, 2022	SD-WAP
1674	SD-WAP	4003793	Male	Mar 08, 2022	Alive	1565	1607	Captive Birth/Hatch	Birth/Hatch	Mar 08, 2022	SD-WAP
1675	SD-WAP	4003788	Male	Mar 07, 2022	Alive	1565	1569	Captive Birth/Hatch	Birth/Hatch	Mar 07, 2022	SD-WAP
1676	W PALM BE	M22012	Female	Feb 19, 2022	Alive	1618	1589	Captive Birth/Hatch	Birth/Hatch	Feb 19, 2022	W PALM BE
1677	W PALM BE	M22010	Female	Feb 14, 2022	Alive	1618	1593	Captive Birth/Hatch	Birth/Hatch	Feb 14, 2022	W PALM BE
1678	SD-WAP	4003956	Female	Mar 25, 2022	Dead	1565	1344	Captive Birth/Hatch	Birth/Hatch	Mar 25, 2022	SD-WAP
									Death	Mar 27, 2022	SD-WAP
1679	SD-WAP	4003877	Female	Mar 22, 2022	Dead	1565	1578	Captive Birth/Hatch	Birth/Hatch	Mar 22, 2022	SD-WAP
									Death	Mar 28, 2022	SD-WAP
1680	W PALM BE	M22019	Undetermined	Mar 16, 2022	Dead	UND	1362	Captive Birth/Hatch	Birth/Hatch	Mar 16, 2022	W PALM BE
									Death	Mar 16, 2022	W PALM BE
1681	YULEE	214036	Male	Jul 27, 2021	Dead	1319	UND	Captive Birth/Hatch	Birth/Hatch	Jul 27, 2021	YULEE
									Death	Aug 01, 2021	YULEE
1682	YULEE	214034	Female	Jul 20, 2021	Dead	1319	1370	Captive Birth/Hatch	Birth/Hatch	Jul 20, 2021	YULEE
									Death	Jul 25, 2021	YULEE
1683	YULEE	214027	Male	Jun 28, 2021	Dead	1319	1287	Captive Birth/Hatch	Birth/Hatch	Jun 28, 2021	YULEE
									Death	Jun 28, 2021	YULEE
1684	W PALM BE	M20061	Female	Nov 05, 2020 +/- 1 day	Dead	1127	1595	Captive Birth/Hatch	Birth/Hatch	Nov 05, 2020 +/- 1 day	W PALM BE
									Death	Mar 13, 2021	W PALM BE
1685	FOSSILRIM	1630	Female	Nov 04, 2020	Dead	1336	1539	Captive Birth/Hatch	Birth/Hatch	Nov 04, 2020	FOSSILRIM
									Death	Nov 15, 2020	FOSSILRIM
1686	SD-WAP	4002156	Female	Jul 31, 2020	Dead	1565	1347	Captive Birth/Hatch	Birth/Hatch	Jul 31, 2020	SD-WAP
									Death	Jul 31, 2020	SD-WAP
1687	W PALM BE	M20023	Undetermined	Mar 16, 2020	Dead	UND	1587	Captive Birth/Hatch	Birth/Hatch	Mar 16, 2020	W PALM BE
									Death	Mar 16, 2020	W PALM BE
1688	SD-WAP	4001592	Female	Feb 18, 2020	Dead	1374	1269	Captive Birth/Hatch	Birth/Hatch	Feb 18, 2020	SD-WAP
									Death	Feb 18, 2020	SD-WAP
1689	W PALM BE	M19177	Male	Nov 12, 2019	Dead	1127	1360	Captive Birth/Hatch	Birth/Hatch	Nov 12, 2019	W PALM BE

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Nov 21, 2019	W PALM BE
1690	SD-WAP	4004294	Female	May 21, 2022	Alive	1565	1376	Captive Birth/Hatch	Birth/Hatch	May 21, 2022	SD-WAP
1691	YULEE	224038	Male	May 25, 2022	Alive	1319	1325	Captive Birth/Hatch	Birth/Hatch	May 25, 2022	YULEE
1692	YULEE	224035	Male	May 23, 2022	Alive	1319	1368	Captive Birth/Hatch	Birth/Hatch	May 23, 2022	YULEE
1693	YULEE	224034	Female	May 21, 2022	Alive	1319	1323	Captive Birth/Hatch	Birth/Hatch	May 21, 2022	YULEE
1694	YULEE	224033	Male	May 20, 2022	Alive	1319	1364	Captive Birth/Hatch	Birth/Hatch	May 20, 2022	YULEE
1695	SD-WAP	4004621	Female	Aug 14, 2022	Alive	1565	1577	Captive Birth/Hatch	Birth/Hatch	Aug 14, 2022	SD-WAP
1696	YULEE	224032	Undetermined	May 18, 2022	Dead	1319	1298	Captive Birth/Hatch	Birth/Hatch	May 18, 2022	YULEE
									Death	May 23, 2022	YULEE
1697	W PALM BE	M19180	Undetermined	Dec 22, 2019	Dead	1127	1357	Captive Birth/Hatch	Birth/Hatch	Dec 22, 2019	W PALM BE
									Death	Dec 22, 2019	W PALM BE
1698	SD-WAP	612295	Female	Jul 17, 2012	Dead	1094	1101	Captive Birth/Hatch	Birth/Hatch	Jul 17, 2012	SD-WAP
									Death	Jul 17, 2012	SD-WAP
1699	SD-WAP	612047	Male	Mar 04, 2012	Dead	1094	1102	Captive Birth/Hatch	Birth/Hatch	Mar 04, 2012	SD-WAP
									Death	Mar 04, 2012	SD-WAP
1700	SD-WAP	612007	Male	Jan 10, 2012	Dead	1094	1081	Captive Birth/Hatch	Birth/Hatch	Jan 10, 2012	SD-WAP
									Death	Jun 15, 2012	SD-WAP
1701	SD-WAP	612004	Male	Jan 05, 2012	Dead	1094	1107	Captive Birth/Hatch	Birth/Hatch	Jan 05, 2012	SD-WAP
									Death	Jan 07, 2012	SD-WAP
1702	SD-WAP	611390	Female	Nov 08, 2011	Dead	1094	1092	Captive Birth/Hatch	Birth/Hatch	Nov 08, 2011	SD-WAP
									Death	Jun 14, 2012	SD-WAP
1703	SD-WAP	611178	Female	May 14, 2011	Dead	1094	1101	Captive Birth/Hatch	Birth/Hatch	May 14, 2011	SD-WAP
									Death	May 21, 2011	SD-WAP
1704	SD-WAP	611127	Female	Apr 06, 2011	Dead	1094	1098	Captive Birth/Hatch	Birth/Hatch	Apr 06, 2011	SD-WAP
									Death	Apr 10, 2011	SD-WAP
1705	METROZOO	96M051	Female	Dec 11, 1996	Dead	498	316	Captive Birth/Hatch	Birth/Hatch	Dec 11, 1996	METROZOO
									Death	Dec 11, 1996	METROZOO
1706	METROZOO	93M001	Male	Jan 12, 1993	Dead	263	316	Captive Birth/Hatch	Birth/Hatch	Jan 12, 1993	METROZOO

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
									Death	Jan 12, 1993	METROZOO
1707	OMAHA	438	Female	Nov 24, 1967	Dead	2	3	Captive Birth/Hatch	Birth/Hatch	Nov 24, 1967	OMAHA
									Death	Nov 24, 1967	OMAHA
1708	MICANOPY	Indeterminate	Female	Feb 19, 2018	Undetermined (Lost to follow up)	1335	1326	Captive Birth/Hatch	Birth/Hatch	Feb 19, 2018	LOWRY
									Transfer	Mar 04, 2019	MICANOPY
									GO LTF	May 05, 2019	MICANOPY
1709	JOHNSON L	Indeterminate	Male	Jan 01, 2015	Undetermined (Lost to follow up)	1094	1102	Captive Birth/Hatch	Birth/Hatch	Jan 01, 2015	SD-WAP
									Transfer	Nov 18, 2015	JOHNSON L
									GO LTF	Nov 19, 2015	JOHNSON L
1710	JOHNSON L	Undetermined	Female	Mar 29, 2014	Undetermined (Lost to follow up)	UND	1276	Captive Birth/Hatch	Birth/Hatch	Mar 29, 2014	SD-WAP
									Transfer	Feb 11, 2015	JOHNSON L
									GO LTF	Feb 12, 2015	JOHNSON L
1711	TATUM E	Undetermined	Male	Apr 03, 2011	Undetermined (Lost to follow up)	1094	1081	Captive Birth/Hatch	Birth/Hatch	Apr 03, 2011	SD-WAP
									Transfer	Jan 23, 2012	TATUM E
									GO LTF	Jan 24, 2012	TATUM E
1712	JOHNSON L	Indeterminate	Male	Mar 26, 2011	Undetermined (Lost to follow up)	1094	1107	Captive Birth/Hatch	Birth/Hatch	Mar 26, 2011	SD-WAP
									Transfer	Dec 29, 2011	JOHNSON L
									GO LTF	Dec 30, 2011	JOHNSON L
1713	FOUTS J	Indeterminate	Female	Mar 26, 1990	Undetermined (Lost to follow up)	296	288	Captive Birth/Hatch	Birth/Hatch	Mar 26, 1990	BATONROUG
									Transfer	May 09, 1991	ABQBIOPK
									Transfer	Jan 27, 1995	FOUTS J
									GO LTF	Jan 28, 1995	FOUTS J
1714	SD-WAP	UNK	Male	Feb 18, 1979	Alive	DRAFT 94	DRAFT 93	Captive Birth/Hatch	Birth/Hatch	Feb 18, 1979	HANNOVER
									Transfer	Apr 18, 1980	SD-WAP
1715	YULEE	224031	Male	May 16, 2022	Alive	1319	1370	Captive Birth/Hatch	Birth/Hatch	May 16, 2022	YULEE
1716	HEMKER TX	Indeterminate	Female	Nov 02, 2021	Alive	1519	1548	Captive Birth/Hatch	Birth/Hatch	Nov 02, 2021	HEMKER TX
1717	HEMKER TX	Indeterminate	Male	Jan 15, 2022	Alive	1519	1608	Captive Birth/Hatch	Birth/Hatch	Jan 15, 2022	HEMKER TX

Studbook ID	Current Location	Current Local ID	Sex	Birth Date	Current Status	Sire	Dam	Birth Type	Event Type	Date	Location
1718	FOSSILRIM	1632	Male	Dec 25, 2021	Alive	1336	1539	Captive Birth/Hatch	Birth/Hatch	Dec 25, 2021	FOSSILRIM

Current Institutions

Institution Name	Mnemonic
Fossil Rim Wildlife Center	FOSSILRIM
West Texas Wildlife Preserve	HEMKER TX
Montgomery Zoo	MONTGOMRY
San Diego Zoo Safari Park	SD-WAP
Saint Louis Zoological Park	ST LOUIS
Lion Country Safari Inc - Florida	W PALM BE
Wildlife World Zoo	WILD WRLD
White Oak Conservation Center	YULEE

Historical Institutions

Albuquerque Biological Park	ABQBIOPK
Jardin D'Essai du Hamma	ALGIERS
Amigita Grande Ranch (Lou Waters)	AMIG GR R
Lee Simmons Conservation Park and Safari	ASHLANDNE
Auerhahn Ranch (Betty Kelso) (extinct 1996)	AUERHAHN
John Banks	BANKS J
BREC's Baton Rouge Zoo	BATONROUG
Frank Thompson Collection	BRADENTON
Catskill Game Farm (New York)	CATSKILL
CHASE NET	CHASE NET
Chicago Zoological Park / Brookfield Zoo	CHICAGOBR
Dallas Zoo	DALLAS
Darby Dan Farm	DARBY DAN
College of Agriculture Zoo, Dire Dawa	DIRE UNIV
Disney's Animal Kingdom	DISNEY AK
International Animal Exchange, Inc.	FERNDALE
Fort Worth Zoological Park	FORTWORTH
Fossil Rim Wildlife Center	FOSSILRIM
Jim Fouts Wildlife Co (animal supply)	FOUTS J
Earl Tatum	HOLIDAY
Mr. Ellis Joseph	JOSEPH E
Memphis Zoological Garden & Aquarium	MEMPHIS
Montgomery Zoo	MONTGOMRY
Center for Conservation of Tropical Ungulates	RUM CREEK
Animals in Motion (Mark Smith)	SMITH MRK
E.AFRICA	
Gulf Breeze Zoo	GULF BREZ
Houston Zoo, Inc.	HOUSTON
IAE - African Safari Wildlife Park	IAE OH
Jurgen Schulz, Inc.	J SCHULZ
Jackson Zoological Park	JACKSON
Kansas City Zoo	KANSASCTY
Los Angeles Zoo & Botanical Gardens	LOSANGELE
Micanopy Zool. Preserve (Rhudy Holly)	MICANOPY
Louisiana Purchase Gardens & Zoo	MONROE
Lazy 5 Ranch (Henry Hampton)	MT ULLA
Los Jaboncillos Ranch (Brad Kelley)	PREMONT
Franciscus van den Brink	SOEST
Earl Tatum MO	TATUM E
Lion Country Safari Inc - Florida	W PALM BE
Fred Zeehandelaar Inc	ZEEHANDLR
GERMANY: Invalid use of GeoRef	
Vivo Animales (extinct 1971)	ANIMALES
North Carolina Zoo	ASHEBORO
Mr. Henry Bartels (extinct)	BARTELS H

Pony Creek Ranch (Jim Berry)	BERRY JIM
NBJ Ranch (Buddy Jordan)	BULVERDE
Zoo New England, Franklin Park Zoo	FRANKLINP
ZOOM Erlebniswelt Gelsenkirchen	GELSNKRKN
Wildlife Management Services (1976-90)	GRND PRAI
Tierpark Hagenbeck GmbH	HAMBURG
Zoo Hannover gGmbH	HANNOVER
West Texas Wildlife Preserve	HEMKER TX
Safari Enterprises (Larry Johnson)	JOHNSON L
Safari Enterprises (Larry Johnson)	JOHNSONLA
ZooTampa at Lowry Park	LOWRY
Rare Species Conservatory	LOXAHATCH
Red McCombs Ranch (extinct)	MCCOMBS
Zoo Miami	METROZOO
Natural Bridge Zoological Park	NAT BRIDG
Northland Wildlife	NORTHLAND
Smithsonian National Zoological Park	NZP-WASH
Oklahoma City Zoological Park	OKLAHOMA
Omaha's Henry Doorly Zoo	OMAHA
The Patio Ranch (Louis Stumberg)	PATIO RCH
Peace River Center (extinct Jan 2007)	PEACE RV
Philadelphia Zoo	PHILADELP
Private Collection	PRIVATE
Safari West	SAFARI W
San Antonio Zoological Gardens & Aquar	SAN ANTON
San Diego Zoo	SANDIEGOZ
San Diego Zoo Safari Park	SD-WAP
Southern Exposure Wildlife Park	SLAUGHTER
Saint Louis Zoological Park	ST LOUIS
St. Catherines Island/WCS (extinct Nov 2005)	STCATHERN
Texas A&M Univ Tx Coop Wildl Coll	TEXAMCWC
Texas A&M Univ Dept Wildl Sci	TEXAMWS
King Khalid Wldf Res Cntr -Thumamah	THUMAMAH
Toledo Zoological Gardens	TOLEDO
Undetermined Location	UNDETERMI
J.V.D. Brink (Jabria) (Extinct)	V.D.BRINK
Virginia Safari Park	VA SAFARI
Wild Population	WILD
Wildlife World Zoo	WILD WRLD
WILDLIFEP	WILDLIFEP
Wildlife Partners	WLD PRTNR
Y O Ranch (Louis Schreiner)	YO RANCH
White Oak Conservation Center	YULEE

AZA Regional Studbook Disclaimer

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Because the technical information provided in the studbook can easily be misread or misinterpreted unless properly analyzed, AZA and the Lincoln Park Zoo strongly recommend that users of this information consult with the Studbook Keeper in all matters related to data analysis and interpretation.

Draft for Institutional Representative Review – Please Respond by 19 April 2024

Population Analysis & Breeding and Transfer Plan

Malayan (Asian) Tapir (*Tapirus indicus*) AZA Species Survival Plan® Signature Program

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19 March 2024

PMC Population Management Center

LINCOLN PARK ZOO.

ASSOCIATION OF ZOOS & AQUARIUMS

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Ivy Brower, Zoo Miami
Erin Pritchard, Point Defiance Zoo and Aquarium
Angela Belcher, ZooTampa at Lowry Park
Cara Groome Bryan, PMC

Cover photo courtesy of Africam Safari – Puebla, Mexico

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Description of Population Status

Species Survival Plan® for the Malayan (Asian) Tapir (*Tapirus indicus*)

Introduction: The Malayan tapir, also called the Asian tapir, is the largest of the world's four tapir species, and the only tapir species native to Asia. This species is listed as Endangered on the IUCN Red List as wild populations are declining due to various stressors including habitat loss and fragmentation, hunting and conflicts with humans. The current Malayan Tapir SSP population consists of 43 animals (20 males, 23 females) distributed among 16 facilities (16 AZA facilities (30 total: 14 males, 16 females) and one approved Sustainability Partner facility (13 total: 6 males, 7 females)). The Hippo, Peccary, Pig and Tapir Taxon Advisory Group (TAG) set the target size for this population to be 58 animals (2022 Regional Collection Plan (RCP)). The RCP lists the primary roles of this species in zoos and aquariums as education and conservation due to the species being under immediate threat in the wild and active conservation projects being underway. Under AZA's new sustainability designations, as of 6 February 2023, this Animal Program is designated as a Signature SSP.

Analytical Assumptions and Exclusions: The pedigree of this population is 98% known before assumptions and exclusions. Unknown pedigree within the population was attributed to a single individual whose parents were unknown. Analytical assumptions were created for this individual and can be found in Appendix A. Five (2.3) individuals were excluded from the potentially breeding population and genetic analyses due to reasons outlined in Appendix C. Following assumptions and exclusions, the potentially breeding population includes 38 animals (18.20) with 100% known/certain pedigree.

Demography: Malayan tapirs have a long history in North American zoos with the first wild caught animals being exhibited starting in 1876. Although the species has been consistently held in North American facilities since 1906, the population remained fewer than ten animals until 1963 with zoo breeding beginning in 1964. The population steadily grew to a peak size of 56 animals by 1992 due primarily to successful zoo breeding and sporadic imports (Fig. 1). Since this time the population has generally trended towards decline (1992 to present, mean λ = 0.99) and has remained between 37 to 55 animals. While the population growth has generally been inconsistent over this time fluctuating between positive and negative growth, over the past five years the growth rate is one of decline (2019 – 2023 λ = 0.995). Births averaged 2.8 per year from 2019 to 2023 along with one import during that time versus an average of 2.4 deaths per year and four exports. In order to grow the population, the SSP needs to focus on increasing the number of births and decreasing the number of animals sent out of the SSP, as well as, recruiting more holding facilities.

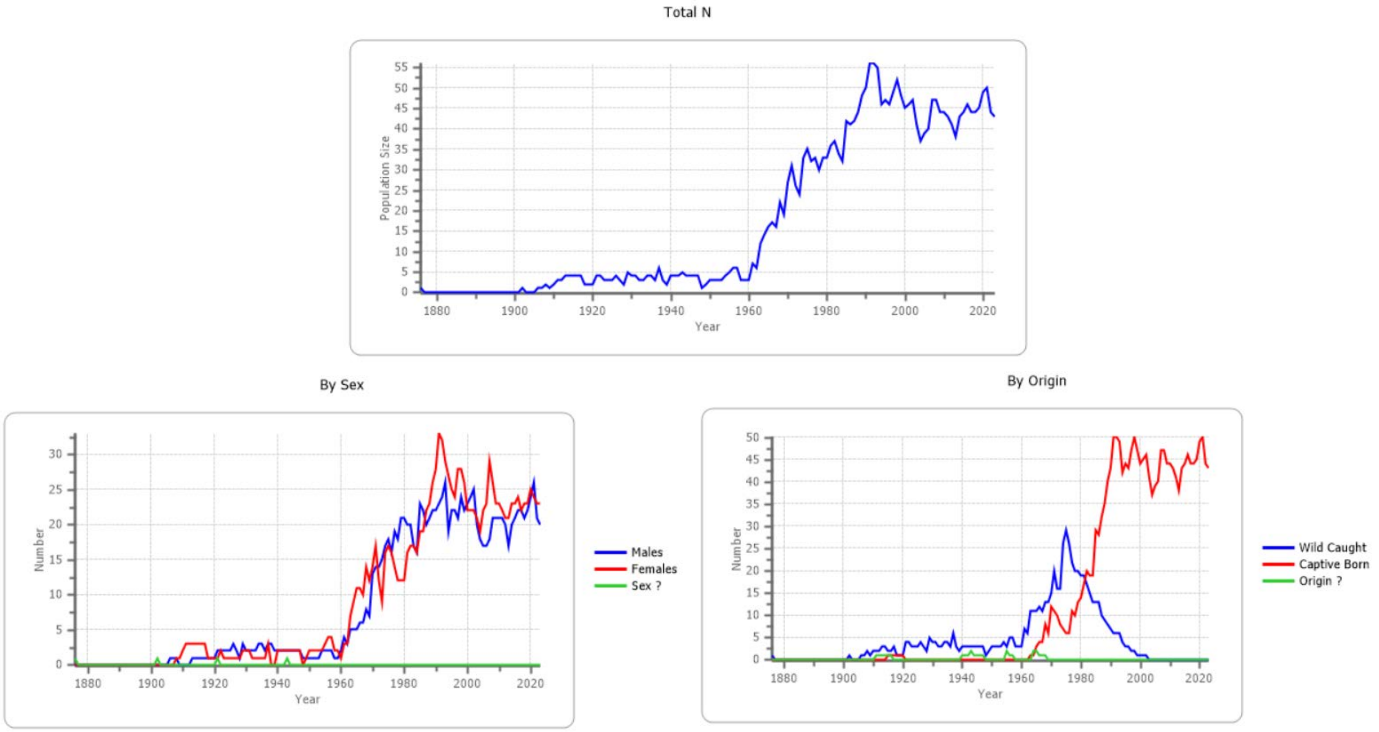


Figure 1. *Census of Malayan (Asian) Tapir SSP from 1900 to present by total (top), by sex (bottom left) and birth type (bottom right)*

The age structure of the Malayan tapir population is approximately columnar (Fig.2), reflecting the longer life expectancy and reproductive span, but relatively slow reproductive rate (gestation period is approx. 398 days, see Table 1) of this species. Currently, the sex ratio of the population is even, which is important to maintain in a species that typically develops monogamous pairings during breeding. The age distribution deviates from stable due to many age classes that have only a single tapir and several empty age classes in the distribution. These small/empty age classes are due to the low/sporadic breeding that has occurred in this population historically. Births have ranged from as low as one up to five births per year over the past ten years. While this sort of age distribution is common for long-lived species with low reproductive rates, it is important that reproduction occurs consistently to ensure that there are young individuals continually moving into reproductive age classes. The SSP needs to focus on increased, consistent reproduction to keep breeding age classes full, offset deaths in this aging population, and build a stronger foundation to support future growth.

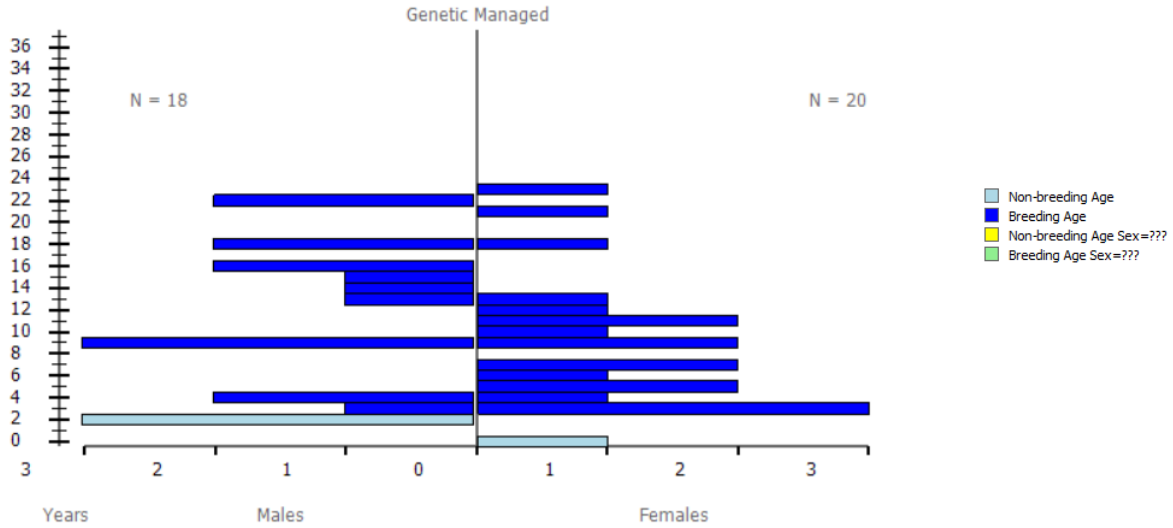


Figure 2. *Age distribution of the potentially breeding population, N= 39 (18.20) in the Malayan (Asian) Tapir SSP.*

Table 1: *Demographic status of SSP population, according to studbook.*

Demography Summary		
Current size of SSP population (N) – Total (Males.Females.Unknown Sex)	43 (20.23.0)	
Number of individuals excluded from genetic analyses	5 (2.3.0)	
Population size following exclusions	38 (18.20.0)	
Target population size (Kt) from Hippo, Peccary, Pig and Tapir TAG (2022 RCP)	58	
Mean generation time (T, years)	10.9	
Population growth rates (λ; lambda)*: Life Table / 5-year / Projected	1.014 / 0.995 / 0.967<0.999>1.025	
Percentage (%) of living population born ex situ	100	
Survival/Mortality	**Males**	**Females**
Observed first year mortality rate (Q_x)	0.27	0.23
Median life expectancy (MLE), excluding first year mortalities (years) (from PopLink Survival Statistics Report (https://www.aza.org/species-survival-statistics))	18.1	18.1
Observed maximum longevity (L_x) (Studbook ID # of individual)	36 (SB # 105)	35 (SB # 34)
Reproduction		
Observed reproductive age range	3–26	3–32**
Gestation	398 days (385<398>410)	
Median litter size born	1	

* Life table (AZA, 1980-present); 5-year from studbook census; Projected from PMx stochastic 20-year projections
**The female tapir that bred at age 32 is an outlier as the next oldest female to breed was 25 years old.

Genetics: Based on pedigree assumptions and exclusions, the studbook pedigree indicates that this SSP is descended from 32 founders with 0 potential founders remaining (Table 2). The gene diversity of the population is 91%, which is equivalent to that found in over 5 founders (FGE = 5.46). Founder representation in the population is currently highly skewed (Figure 3). Equalizing founder contributions through breeding unrepresented and potential founders will increase gene diversity within the SSP. Typical AZA program goals include thresholds for tolerance of gene diversity loss over time; 90% gene diversity retention for 100 years is a common management goal. Decreases in gene diversity below 90% of that in the founding population have been associated with reproduction increasingly compromised by, among other factors, lower birth weights, smaller litter sizes, and greater neonatal mortality in some species. Based on current population parameters and recent growth rate trends, gene diversity is projected to decline to 79% over the next 100 years if the current population grows to the target size of 58 at its projected growth rate of 1.01%.

There remains potential gene diversity (94.54%, potential FGE = 9.16) which if exploited would extend the amount of gene diversity retained long-term; however, it may be difficult to capitalize on this potential gene diversity in practice. This is due to historic crossing of rare and common founder lineages, which makes it difficult to increase underrepresented founder lineages without also perpetuating overrepresented founder lineages. Additionally, reproductive behavior challenges in the species have resulted in a few successful pairings through time. These pairings, and particularly their offspring, become genetically overrepresented, with high individual mean kinships that would typically make them less valuable for breeding. However, because of the population's low reproductive success rate, these overrepresented, but behaviorally compatible pairs, have historically still received breeding recommendations to bolster demographic stability.

Strategies to maintain/increase the amount of gene diversity include maintaining the already very high effective size ratio (Ne/N = 0.5789; proportion of individuals breeding), increasing the growth rate, and careful breeding targeted at equalizing founder representation (by breeding animals with low and well-matched mean kinship values). The acquisition of additional founders would also improve gene diversity retention, but the importation of zoo-born animals from other regions should be carefully planned to maximize genetic benefit because many animals managed in other regions may be related to the current population.

The SSP is actively looking at import opportunities of potential founders from other regions. Projections show that if 2 founders were recruited to the SSP every 12 years, genetic goals of maintaining 90% gene diversity over 100 years could be met.

Table 2: *Genetic status and projections for the Malayan (Asian) Tapir SSP population.*

Genetics Summary*							
	2010	*2013*	*2016*	*2019*	*2022*	**2024**	**Potential**
Founders	*31*	*31*	*31*	30	*32*	32	0
Founder genome equivalents (FGE)	*10.14*	*9.18*	*7.61*	6.79	*6.27*	5.46	9.16
Gene diversity (GD %)	*95.07*	*94.55*	*93.43*	92.63	*92.03*	90.84	94.54
Population mean kinship (MK)	*0.0493*	*0.0545*	*0.0657*	0.0737	*0.0797*	0.0916	--
Mean inbreeding (F)	*0.0000*	*0.0046*	*0.0125*	0.0147	*0.0223*	0.0262	--
Effective population size relative to population size (N_e/N)	*0.33*	*0.55*	*0.51*	0.5556	*0.6056*	0.5789	--
Percentage of pedigree known before / after assumptions and exclusions	*100 / 100*	*100 / 100*	*100 / 100*	*95.1 / 100*	*97.8 / 100*	98 / 100	--
Projections							
Years to 90% gene diversity	*16*	*22*	*19*	*11*	*14*	5	100+
Years to 10% loss of gene diversity	*37*	*57*	*59*	*48*	*84*	88	193
Gene diversity at 100 Years (%)	*72*	*78*	*77*	*74.1*	*80.4*	79	91
	Assuming λ = 1.01, Kt = 45, T = 12.8, Starting pop size = 36	*Assuming λ = 1.01, Kt = 42, T = 12.4, Starting pop size = 31*	*Assuming λ = 1.00, Kt = 43, T = 12.0, Starting pop size = 43*	*Assuming λ = 1.005, Kt = 42, T = 11.4, Starting pop size = 32*	*Assuming λ = 1.0175 Kt = 58, T = 10.8, Starting pop size = 46*	Assuming λ = 1.01 Target size = 58, Generation length = 10.9, Starting population size = 43	Assuming λ = 1.01 Target size = 58, Generation length = 10.9, Starting population size = 43 Add 2 founders every 12 years

*Genetic statistics may not be comparable across years due to changes in software and parameters used for projections from year to year. Pedigree assumptions were created for this population and may over- or under-estimate genetic statistics shown in this table.

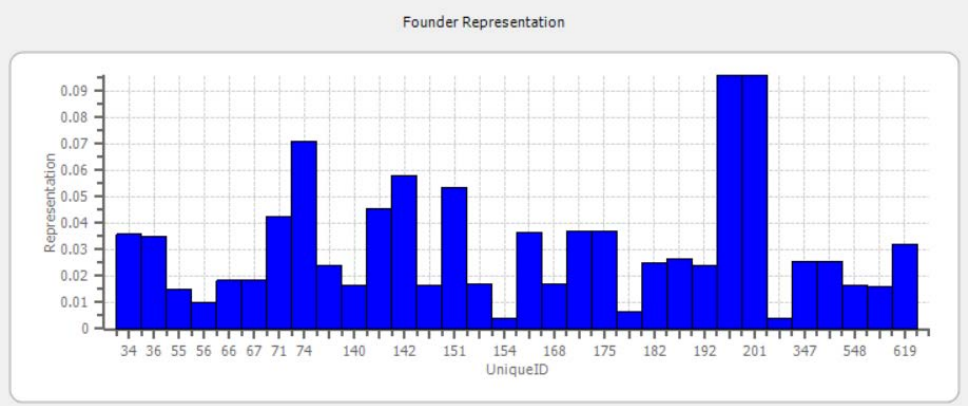


Figure 3. *Founder representation distribution of the analytical Malayan Tapir SSP population.*

Recommendation Outcomes: The website PMCTrack calculates the outcomes for SSP recommendations by comparing Breeding and Transfer Plan recommendations to births and transfers recorded in the studbook (Figure 4). There are many reasons that recommendations might not be fulfilled, including interim recommendations issued by the SSP Coordinator; these reasons can be captured using PMCTrack Outcomes Surveys. Note that starting in 2022, SSP Coordinators directly add interim recommendations to PMCTrack to improve the accuracy of recommendation outcomes. The fulfillment rates of any plan that had outcomes calculated in 2022 or after may reflect inclusion of these interim rates; in the graph, this may include the last plan before 2022, such as a 2021 plan, plus any plans with a date of 2022 or after.

Of the recommendations proposed in the 2022 Breeding and Transfer Plan, 55% of the BREED WITH recommendations were fulfilled or attempted, and 80% of SEND TO recommendations were fulfilled or attempted as requested by March 2024. SSP participants are always encouraged to attempt to fulfill recommendations and communicate successes and challenges to the SSP Coordinator.

Figure 4. Recommendation outcomes by transfers (left) and breeding (right) for the past Malayan (Asian) Tapir SSP Breeding and Transfer Plans. *N* represents the number of recommendations scored for each recommendation type, per plan, and the number represents the percentage recommendations fulfilled. Please visit PMCTrack.org or contact pmctrack@lpzoo.org for more information or with any questions.

Management Strategies: Demographic analyses of the Malayan Tapir SSP indicate that three to four births per year over the next three years are needed in order to maintain the current population size of 48 and four to five births per year are needed in order to begin growing to the target population size of 58 over the next 20 years (Table 3). Reproductive productivity in this population has been fairly low in recent years and is often restricted to a few, behaviorally compatible, pairs. As a result, individual mean kinships are not distributed equally around the population mean, with only seven of 21 reproductive females being genetically underrepresented. Therefore, in order to assure demographic stability, some overrepresented females have received breeding recommendations. Given the population's current genetic status and demographic needs, the best management strategy is one that balances prioritizing behaviorally compatible breeding pairs with consideration of genetic factors (mean kinship, avoidance of inbreeding, and differences in sire and dam mean kinships) to optimize gene diversity retention. *Space is also a limiting factor when it comes to population growth for this species and additional holders are needed for this SSP to reach its goals.*

This is a 3-year plan (2024-2027). Interim recommendations will continue to be made as needed until another full set of recommendations are produced. Recommendations contained in this plan supersede all previous recommendations.

Table 3: Historic reproduction and future population goals.

Current Reproductive Goals Summary		
	Number of Births Needed per Year over the next 3 Years	**Target Population Size**
To maintain current population size (λ = 1.00)	3-4	43
To grow to the TAG's recommended target population size in 20 years (Kt = 58; λ = 1.01)	4-5	58
Reproductive Goals Summary from the Last BTP (2022)		
Number of females recommended to breed	12	
Number of births since then	2	
Average Number of Events in the SSP Population per Year over the Last Five Years		
Average number of births per year	2.8	
Average number of deaths per year	2.4	
Average number of imports per year	0.2	
Average number of exports per year	0.8	

At this time, the SSP:

1. **The SSP recommends 11 females to breed at 11 facilities.** One additional facility will breed to facility capacity based on a provided MateRx.
    a. Facilities are asked to hold offspring for a minimum of three years. Please contact the SSP if there are concerns with this timeline.

2. **The SSP recommends five transfers to establish new pairs and meet facility requests.**

3. The Tapir Animal Care Manual has been published and is available at https://www.aza.org/animal-care-manuals. Please contact the SSP Coordinator with questions or concerns about husbandry or breeding.

4. More facilities are needed to house Malayan tapirs in order to meet the demographic and genetic goals for this species. Facilities interested in obtaining or placing Malayan tapirs should contact the SSP Coordinator to coordinate transfers that will facilitate genetic and demographic stability.

5. The SSP is looking into importing unrelated animals from Europe and Indonesia. The SSP Coordinator may be in touch soon with those facilities who expressed interest in receiving these animals.

6. Please reach out to the Management Group (Ivy Brower (ivy.brower@miamidade.gov), Erin Pritchard (erin.pritchard@pdzo.org), Angela Belcher (angela.belcher@zootampa.org)) if there are any husbandry concerns.

Explanation of Recommendations Using MateR$_x$

Recommendations Using MateR$_x$: MateR$_x$ is analytical software developed jointly by the Lincoln Park Zoo and Smithsonian's National Zoo and Conservation Biology Institute. The primary output is a matrix of genetic ratings (Mate Suitability Indices = MSI) for possible breeding pairs.

Each MSI represents the genetic consequences for the population if a given pair was to produce offspring. There are seven values for MSIs varying in degree of genetic benefit or detriment to the genetic health of the population.

These MSI values are defined as:

MSI Value	*Genetic consequences*	*Demographic consequences*
1	very beneficial	ok to breed
2	moderately beneficial	ok to breed
3	slightly beneficial	ok to breed
4	slightly detrimental/beneficial	may be necessary to breed to maintain or increase population size
5	moderately detrimental	may be necessary to breed in declining populations
6	very detrimental	not to be bred without a consultation with a population biologist
—	extremely detrimental	not to be bred without a consultation with a population biologist

If MateRx setting have been modified by the population biologist, the interpretation of the MSI values may differ. Your population biologists may provide additional MateR$_x$ instructions, as MateR$_x$ values do not integrate a population's demographic goals or needs.

MateR$_x$ integrates four genetic factors to produce the Mate Suitability Index:

1. the expected change in genetic diversity (increase, decrease) that would result if an offspring of a pair is added to the population
2. the relative rareness or commonness of the parent's genome (i.e., the difference between the male and female mean kinships)
3. the inbreeding coefficient of offspring that would be produced by a pair
4. the proportion, if any, of the dam and sire's pedigree that is of unknown origin.

Additional information on reading, interpreting, using MateRx Matrices can be found at:
http://youtu.be/0YX-FdOCekI

Breeding and Transfer Recommendations by Facility

CALGARY
Calgary Zoo, Garden and Prehistoric Park
Calgary, Alberta, Canada

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
527	106135	M	22	HOLD	CALGARY	BREED WITH	869	
869		F	3	HOLD	CALGARY	BREED WITH	527	

DENVER
Denver Zoological Garden
Denver, CO

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
822	A10230	F	16	HOLD	DENVER	DO NOT BREED		Excluded
830	A22040	M	14	HOLD	DENVER	DO NOT BREED		

EL PASO
El Paso Zoo
El Paso, TX

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
524	200493	F	23	HOLD	EL PASO	BREED WITH	791	
791	202391	M	18	HOLD	EL PASO	BREED WITH	524	

FRESNO
Fresno Chaffee Zoo
Fresno, CA

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
877	27130	M	2	RECEIVE FROM	OMAHA	BREED WITH	841	
841	204560	F	12	RECEIVE FROM	SEATTLE	BREED WITH	877	

LOUISVILL
Louisville Zoological Garden
Louisville, KY

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
455	101581	F	29	HOLD	LOUISVILL	DO NOT BREED		Excluded
476	101680	M	29	HOLD	LOUISVILL	DO NOT BREED		Excluded

LOWRY
ZooTampa at Lowry Park
Tampa, FL

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
754	15286	F	18	HOLD	LOWRY	BREED WITH	837	Currently pregnant
837	103086	M	13	HOLD	LOWRY	BREED WITH	754	

LUFKIN
Ellen Trout Zoo
Lufkin, TX

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
529	10932	M	22	HOLD	LUFKIN	BREED WITH	852	
852	10740	F	7	HOLD	LUFKIN	BREED WITH	529	
A17109	11155	F	0	SEND TO	SEATTLE	BREED WITH	870	Send after one year old

METROZOO
Zoo Miami
Miami, FL

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
854	18M005	F	7	HOLD	METROZOO	BREED WITH	867	Currently pregnant
867	UND	M	4	HOLD	METROZOO	BREED WITH	854	

MINNESOTA
Minnesota Zoological Park
Apple Valley, MN

Facility notes: The SSP will send an animal here once one becomes available.

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
674	11374	F	20	HOLD	MINNESOTA	DO NOT BREED		Excluded
870	15510	M	3	SEND TO	SEATTLE	BREED WITH	A17109	

NORFOLK
Virginia Zoological Park
Norfolk, VA

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
865	223037	F	5	HOLD	NORFOLK	BREED WITH	875	
875	223036	M	2	HOLD	NORFOLK	BREED WITH	865	

NY BRONX
Bronx Zoo – Wildlife Conservation Society
Bronx, NY

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
436	M11075	M	30	HOLD	NY BRONX	DO NOT BREED		Excluded
540	M03061	F	20	HOLD	NY BRONX	DO NOT BREED		

OMAHA
Omaha's Henry Doorly Zoo
Omaha, NE

Facility notes: Male will be received from outside the SSP for breeding with F843. Please discuss details with SSP Coordinator.

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
843	22712	F	11	HOLD	OMAHA	SEE NOTES		
877	27130	M	2	SEND TO	FRESNO	BREED WITH	841	

PUEBLA
Africam Safari
Puebla, Mexico

Facility notes: This female is very genetically valuable and a priority for breeding. Please discuss health issues with the SSP Coordinator and vet advisors.

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
828	7729	M	15	HOLD	PUEBLA	BREED WITH	855	
855	11108	F	6	HOLD	PUEBLA	BREED WITH	828	Genetically valuable

RUM CREEK
Center for the Conservation of Tropical Ungulates
Punta Gorda, FL

Facility notes: Prioritize breeding pairings with MateRx ratings 1,2,3 and 4. Avoid breeding pairings rated 5,6 and "-".

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
794	106033	M	18	HOLD	RUM CREEK	SEE MATERX		
821	**107039**	**M**	**16**	**HOLD**	**RUM CREEK**	**SEE MATERX**		**Genetically valuable. Priority for breeding.**
823	**118049**	**M**	**16**	**HOLD**	**RUM CREEK**	**SEE MATERX**		**Genetically valuable. Priority for breeding.**
838	110040	F	13	HOLD	RUM CREEK	SEE MATERX		
844	112152	F	11	HOLD	RUM CREEK	SEE MATERX		
848	103227	M	9	HOLD	RUM CREEK	SEE MATERX		
851	114114	F	9	HOLD	RUM CREEK	SEE MATERX		
866	119209	F	5	HOLD	RUM CREEK	SEE MATERX		
871	119055	M	4	HOLD	RUM CREEK	SEE MATERX		
872	**119164**	**F**	**4**	**HOLD**	**RUM CREEK**	**SEE MATERX**		**Genetically valuable. Priority for breeding.**
873	**120072**	**F**	**3**	**HOLD**	**RUM CREEK**	**SEE MATERX**		**Genetically valuable. Priority for breeding.**
874	120145	F	3	HOLD	RUM CREEK	SEE MATERX		
1801	**121208**	**M**	**2**	**HOLD**	**RUM CREEK**	**SEE MATERX**		**Genetically valuable. Priority for breeding.**

MateRx for RUM CREEK group.
See notes and refer to Explanation of Recommendations using MateRx on page 8.

UniqueID	873	872	866	838	844	874	851
821	2	3	4	4	4	-	-
823	-	-	6	6	6	6	6
848	4	4	-	6	6	-	5
871	4	6	6	-	-	-	-
794	4	4	-	-	-	-	-
1801	-	-	4	-	-	5	4

SANDIEGOZ
San Diego Zoo
San Diego, CA

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
845	1001313	F	10	HOLD	SANDIEGOZ	BREED WITH	850	
850	UND	M	9	HOLD	SANDIEGOZ	BREED WITH	845	

SEATTLE
Woodland Park Zoo
Seattle, WA

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
841	204560	F	12	SEND TO	FRESNO	BREED WITH	877	
A17109	11155	F	0	RECEIVE FROM	LUFKIN	BREED WITH	870	
870	15510	M	3	RECEIVE FROM	MINNESOTA	BREED WITH	A17109	

TACOMA
Point Defiance Zoo and Aquarium
Tacoma, WA

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With	Notes
846	T15M20	M	9	HOLD	TACOMA	BREED WITH	847	
847	T16M21	F	9	HOLD	TACOMA	BREED WITH	846	

Appendices

A. Analytical Assumptions

ANALYTICAL DATA FOR TRUE INDIVIDUALS

Studbook ID	Field	True	Overlay	Notes
140	Dam	UNK	WILD	Female #140 was born in 1971 and has 23 living descendants in European and US zoos. She is the only individual ever recorded as being held at BASEL so unlikely she was related to any other SB animals at time of birth. Assumed to be wild-caught for purposes of analyses.
	Sire	UNK	WILD	

B. Summary of Data Exports

Studbook Name	Tapir, Malayan (*Tapirus indicus*)
Studbook Currentness Date	March 18th, 2024
Studbook Software and version #	ZIMS for Studbooks (release Jan 24th, 2024)
Overlay Name	analytical overlay
PMx version #	1.6.2.20200804
.fed file	AZA.fed (AZA + RUM CREEK)
Descriptive Survival Statistics Report	Report is archived with PMC/AZA and Median Life Expectancy can be viewed here: https://www.aza.org/species-survival-statistics

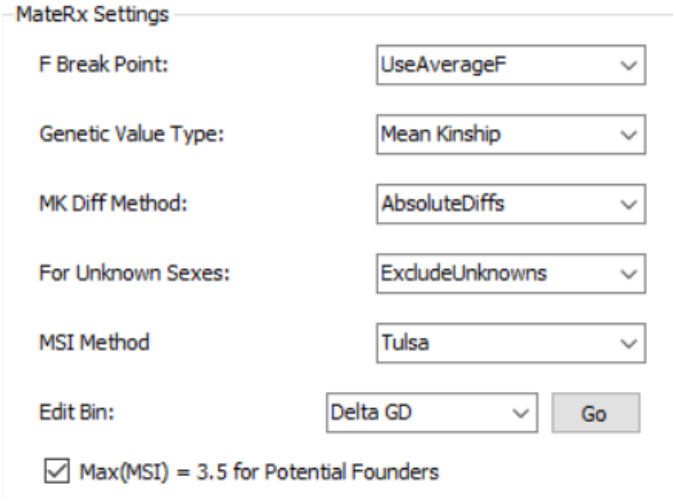
PMx Project: TapirMalayan2024
Created: 2024-03-07 by PMx version 1.6.2.20200804
File: C:\PMxProjects\TapirMalayan2024.pmxproj

Primary data file
Data File Name: zims.zims
Common Name: Malayan tapir
Scientific Name: Tapirus indicus
Data Source: ZIMS for Studbooks
Studbook Name: Tapir, Malayan (Tapirus indicus) SSP
Exported On: 2024-03-07
Software version: ZIMS for Studbooks 3.0
Current Through: 2023-11-10
Compiled By: Michele Stancer, Ivy Brower, Michele Stancer
Scope: AZA
Dates: 1980-01-01 to 2024-03-07
Location: RUM CREEK / Center for Conservation of Tropical Ungulates
Association: AZA / Association of Zoos & Aquariums (AZA)
Other Filters: Status = Living
User: Cara Groome Bryan

Moves data file
Scope: AZA
Dates: 1980-01-01 to 2024-03-07
Location: RUM CREEK / Center for Conservation of Tropical Ungulates
Association: AZA / Association of Zoos & Aquariums (AZA)
Other Filters: Status = None
User: Cara Groome Bryan

Moves data file
Scope: AZA
Dates: 1980-01-01 to 2024-03-07
Location: RUM CREEK / Center for Conservation of Tropical Ungulates
Association: AZA / Association of Zoos & Aquariums (AZA)
Other Filters: Status = None
User: Cara Groome Bryan

Demographic input files
Census1 file: Exchcens.txt



C. Animals Excluded from Genetic Analyses

ID	Location	Sex	Age	Reason for Exclusion
436	NY BRONX	M	30	Age
455	LOUISVILLE	F	29	Age
476	LOUISVILLE	M	29	Age
822	DENVER	F	16	Medical
	MINNESOTA	F		

D. Life Tables

Px = survival; Qx = mortality; Lx = cumulative survivorship; Mx = fecundity; Ex = life expectancy; Vx = expected future reproduction,
At Risk (Qx and Mx) = number of animals corresponding values are estimated from.

Males

Age (years)	Px	Mid Px	Qx	Risk Qx	Lx	Mid Lx	Mx	Risk Mx	Ex	Vx	Cx	Births	Deaths
0	**0.731**	0.836	**0.269**	59.240	1.000	0.865	**0.000**	59.240	16.024	1.156	0.075	0.0	20.5
1	**0.979**	0.979	**0.021**	48.868	0.731	0.723	**0.000**	48.868	17.978	1.407	0.062	0.0	1.0
2	**0.978**	0.956	**0.022**	46.978	0.716	0.708	**0.000**	46.978	17.347	1.463	0.059	0.0	1.0
3	**0.933**	0.954	**0.067**	42.751	0.700	0.677	**0.047**	42.751	17.103	1.557	0.056	2.0	3.0
4	**0.976**	0.976	**0.024**	41.551	0.653	0.645	**0.072**	41.551	16.884	1.611	0.052	3.0	1.0
5	**0.975**	0.975	**0.025**	38.975	0.637	0.630	**0.180**	38.975	16.281	1.605	0.050	7.0	1.0
6	**0.975**	0.975	**0.025**	39.562	0.622	0.614	**0.152**	39.562	15.673	1.488	0.048	6.0	1.0
7	**0.975**	0.964	**0.025**	40.233	0.606	0.598	**0.101**	40.233	15.049	1.394	0.046	4.0	1.0
8	**0.952**	0.964	**0.048**	41.370	0.591	0.577	**0.182**	41.370	14.576	1.366	0.044	7.5	2.0
9	**0.976**	0.975	**0.024**	39.945	0.563	0.556	**0.113**	39.945	14.088	1.250	0.041	4.5	1.0
10	**0.975**	0.975	**0.025**	39.685	0.549	0.542	**0.163**	39.685	13.419	1.187	0.040	6.5	1.0
11	**0.976**	0.988	**0.024**	40.874	0.535	0.529	**0.098**	40.874	12.734	1.068	0.038	4.0	1.0
12	**1.000**	0.963	**0.000**	39.589	0.522	0.522	**0.176**	39.589	11.880	0.999	0.037	7.0	0.0
13	**0.926**	0.962	**0.074**	38.452	0.522	0.503	**0.130**	38.452	11.297	0.869	0.035	5.0	3.0
14	**1.000**	0.970	**0.000**	35.255	0.484	0.484	**0.100**	35.255	10.707	0.782	0.033	3.5	0.0
15	**0.939**	0.969	**0.061**	33.425	0.484	0.469	**0.091**	33.425	10.010	0.716	0.031	3.0	2.0
16	**1.000**	0.948	**0.000**	30.227	0.454	0.454	**0.081**	30.227	9.301	0.657	0.030	2.5	0.0
17	**0.897**	0.945	**0.103**	28.252	0.454	0.431	**0.176**	28.252	8.753	0.618	0.028	5.0	3.0
18	**1.000**	0.960	**0.000**	24.638	0.407	0.407	**0.041**	24.638	8.201	0.475	0.026	1.0	0.0
19	**0.920**	0.939	**0.080**	24.014	0.407	0.391	**0.063**	24.014	7.501	0.460	0.024	1.5	2.0
20	**0.960**	0.923	**0.040**	24.893	0.375	0.367	**0.121**	24.893	6.922	0.431	0.023	3.0	1.0
21	**0.885**	0.896	**0.115**	24.721	0.360	0.339	**0.040**	24.721	6.415	0.342	0.020	1.0	3.0
22	**0.909**	0.902	**0.091**	20.975	0.318	0.304	**0.114**	20.975	6.044	0.343	0.018	2.5	2.0
23	**0.895**	0.944	**0.105**	18.326	0.289	0.274	**0.028**	18.326	5.592	0.259	0.016	0.5	2.0
24	**1.000**	0.889	**0.000**	17.984	0.259	0.259	**0.111**	17.984	4.862	0.249	0.015	2.0	0.0
25	**0.778**	0.774	**0.222**	15.570	0.259	0.230	**0.094**	15.570	4.345	0.158	0.013	1.5	4.0
26	**0.769**	0.783	**0.231**	12.474	0.201	0.178	**0.045**	12.474	4.322	0.084	0.010	0.5	3.0
27	**0.800**	0.833	**0.200**	9.310	0.155	0.139	**0.050**	9.310	4.244	0.050	0.008	0.5	2.0
28	**0.875**	0.840	**0.125**	6.819	0.124	0.116	**0.000**	6.819	3.893	0.000	0.006	0.0	1.0
29	**0.800**	0.778	**0.200**	4.655	0.108	0.098	**0.000**	4.655	3.444	0.000	0.005	0.0	1.0
30	**0.750**	0.643	**0.250**	3.636	0.087	0.076	**0.000**	3.636	3.143	0.000	0.004	0.0	1.0
31	**0.500**	0.667	**0.500**	1.044	0.065	0.049	**0.000**	1.044	3.333	0.000	0.002	0.0	1.0
32	**1.000**	1.000	**0.000**	1.000	0.033	0.033	**0.000**	1.000	3.500	0.000	0.002	0.0	0.0
33	**1.000**	1.000	**0.000**	1.000	0.033	0.033	**0.000**	1.000	2.500	0.000	0.002	0.0	0.0
34	**1.000**	0.500	**0.000**	1.000	0.033	0.033	**0.000**	1.000	1.500	0.000	0.002	0.0	0.0
35	**0.000**	0.000	**1.000**	0.000	0.033	0.016	**0.000**	0.000	1.000	0.000	0.001	0.0	1.0
36	**0.000**	0.000	**1.000**	0.000	0.000	0.000	**0.000**	0.000	0.000	0.000	0.000	0.0	0.0

r=0.017; λ=1.018; T=11.1; N_{20}=28

Females

Age (years)	Px	Mid Px	Qx	Risk Qx	Lx	Mid Lx	Mx	Risk Mx	Ex	Vx	Cx	Births	Deaths
0	**0.768**	0.863	**0.232**	73.168	1.000	0.884	**0.000**	73.168	---	1.131	0.073	0.0	21.5
1	**0.986**	0.978	**0.014**	69.830	0.768	0.762	**0.000**	69.830	---	1.326	0.062	0.0	1.0
2	**0.969**	0.968	**0.031**	63.540	0.757	0.745	**0.000**	63.540	---	1.372	0.060	0.0	2.0
3	**0.968**	0.984	**0.032**	60.195	0.734	0.722	**0.034**	60.195	---	1.433	0.057	2.0	2.0
4	**1.000**	1.000	**0.000**	57.545	0.710	0.710	**0.121**	57.545	---	1.438	0.056	7.0	0.0
5	**1.000**	1.000	**0.000**	57.170	0.710	0.710	**0.123**	57.170	---	1.331	0.055	7.0	0.0
6	**1.000**	0.975	**0.000**	58.789	0.710	0.710	**0.145**	58.789	---	1.222	0.055	8.5	0.0
7	**0.949**	0.965	**0.051**	56.123	0.710	0.692	**0.125**	56.123	---	1.118	0.053	7.0	3.0
8	**0.982**	0.963	**0.018**	54.274	0.674	0.668	**0.120**	54.274	---	1.041	0.050	6.5	1.0
9	**0.945**	0.942	**0.055**	52.121	0.662	0.643	**0.162**	52.121	---	0.967	0.048	8.5	3.0
10	**0.940**	0.948	**0.060**	47.838	0.625	0.606	**0.124**	47.838	---	0.863	0.045	6.0	3.0
11	**0.956**	0.887	**0.044**	44.652	0.588	0.575	**0.125**	44.652	---	0.788	0.042	5.5	2.0
12	**0.814**	0.898	**0.186**	39.542	0.562	0.510	**0.138**	39.542	---	0.757	0.037	5.5	8.0
13	**1.000**	0.985	**0.000**	33.699	0.458	0.458	**0.119**	33.699	---	0.697	0.033	4.0	0.0
14	**0.970**	0.923	**0.030**	32.200	0.458	0.451	**0.076**	32.200	---	0.594	0.032	2.5	1.0
15	**0.874**	0.879	**0.126**	29.975	0.444	0.416	**0.150**	29.975	---	0.568	0.029	4.5	4.0
16	**0.886**	0.899	**0.114**	26.071	0.388	0.366	**0.060**	26.071	---	0.480	0.025	1.5	3.0
17	**0.913**	0.955	**0.087**	21.332	0.344	0.329	**0.047**	21.332	---	0.473	0.022	1.0	2.0
18	**1.000**	0.921	**0.000**	20.934	0.314	0.314	**0.000**	20.934	---	0.452	0.021	0.0	0.0
19	**0.842**	0.886	**0.158**	17.033	0.314	0.289	**0.031**	17.033	---	0.496	0.019	0.5	3.0
20	**0.938**	0.931	**0.063**	14.693	0.264	0.256	**0.031**	14.693	---	0.531	0.017	0.5	1.0
21	**0.923**	0.880	**0.077**	12.222	0.248	0.238	**0.042**	12.222	---	0.543	0.015	0.5	1.0
22	**0.833**	0.909	**0.167**	11.375	0.229	0.210	**0.174**	11.375	---	0.576	0.013	2.0	2.0
23	**1.000**	0.944	**0.000**	9.381	0.190	0.190	**0.000**	9.381	---	0.447	0.012	0.0	0.0
24	**0.889**	0.941	**0.111**	8.973	0.190	0.180	**0.056**	8.973	---	0.478	0.011	0.5	1.0
25	**1.000**	0.889	**0.000**	8.452	0.169	0.169	**0.118**	8.452	---	0.454	0.011	1.0	0.0
26	**0.778**	0.875	**0.222**	8.055	0.169	0.151	**0.000**	8.055	---	0.382	0.009	0.0	2.0
27	**1.000**	0.929	**0.000**	7.000	0.132	0.132	**0.071**	7.000	---	0.442	0.008	0.5	0.0
28	**0.857**	0.846	**0.143**	6.170	0.132	0.122	**0.083**	6.170	---	0.403	0.007	0.5	1.0
29	**0.833**	0.795	**0.167**	4.644	0.113	0.103	**0.125**	4.644	---	0.382	0.006	0.5	1.0
30	**0.750**	0.714	**0.250**	3.868	0.094	0.082	**0.000**	3.868	---	0.327	0.005	0.0	1.0
31	**0.667**	0.600	**0.333**	2.340	0.071	0.059	**0.167**	2.340	---	0.463	0.003	0.5	1.0
32	**0.500**	0.667	**0.500**	1.710	0.047	0.035	**0.500**	1.710	---	0.500	0.002	0.5	1.0
33	**1.000**	1.000	**0.000**	1.000	0.024	0.024	**0.000**	1.000	---	0.000	0.001	0.0	0.0
34	**1.000**	1.000	**0.000**	0.934	0.024	0.024	**0.000**	0.934	---	0.000	0.001	0.0	0.0
35	**1.000**	1.000	**0.000**	0.000	0.024	0.024	**0.000**	0.000	---	0.000	0.001	0.0	0.0
36	**1.000**	1.000	**0.000**	0.000	0.024	0.024	**0.000**	0.000	---	0.000	0.001	0.0	0.0

r=0.011; λ=1.011; T=10.7; N_{20}=28

E. Ordered Mean Kinship List

These lists are current to March 2024 and values are subject to change with any birth, death, import, export, inclusion, exclusion, or changes in pedigree or pedigree assumptions.

Population MK = 0.0916

Male

ID	MK	Known	Age	Location
527	0.035	1	22	CALGARY
823	0.0382	1	16	RUM CREEK
791	0.0592	1	18	EL PASO
846	0.0721	1	9	TACOMA
821	0.0742	1	16	RUM CREEK
1801	0.0827	1	2	RUM CREEK
875	0.0842	1	2	NORFOLK
870	0.0878	1	3	MINNESOTA
828	0.0894	1	15	PUEBLA
867	0.0899	1	4	METROZOO
794	0.0936	1	18	RUM CREEK
877	0.0948	1	2	OMAHA
529	0.1003	1	22	LUFKIN
837	0.1018	1	13	LOWRY
830	0.105	1	14	DENVER
871	0.1075	1	4	RUM CREEK
850	0.1076	1	9	SANDIEGOZ
848	0.1174	1	9	RUM CREEK

Female

ID	MK	Known	Age	Location
540	0.0301	1	20	NY BRONX
855	0.0689	1	6	PUEBLA
873	0.0827	1	3	RUM CREEK
869	0.0835	1	3	CALGARY
872	0.0843	1	4	RUM CREEK
845	0.0911	1	10	SANDIEGOZ
865	0.0948	1	5	NORFOLK
847	0.0949	1	9	TACOMA
852	0.098	1	7	LUFKIN
841	0.0995	1	12	SEATTLE
843	0.1032	1	11	OMAHA
524	0.1038	1	23	EL PASO
A17109	0.1056	1	0	LUFKIN
851	0.1088	1	9	RUM CREEK
754	0.1133	1	18	LOWRY
854	0.1141	1	7	METROZOO
866	0.1141	1	5	RUM CREEK
844	0.1142	1	11	RUM CREEK
838	0.1174	1	13	RUM CREEK
874	0.1193	1	3	RUM CREEK

F. Definitions

Management Terms (December 2021)

Signature Species Survival Plan® (Signature SSP) Program – A Signature SSP Program are populations that are considered to be sustainable using robust measures of viability and sustainability defined by the AZA Animal Population Management Committee. A Signature SSP meets all of the requirements to become an SSP, and scores at least two positives and does not score any negatives in the SSP Assessment process.

Provisional Species Survival Plan® (Provisional SSP) Program – A Provisional SSP Program is a population that is a priority for AZA members, but does not currently meet the definitions of viability and sustainability defined by the AZA Animal Population Management Committee. A Provisional SSP Program meets all of the requirements to become an SSP and does not score a negative in more than two categories in the SSP Assessment process.

Candidate Program – A Candidate Program either has a population size of fewer than twenty individuals and/or found at fewer than three AZA facilities or it does not yet have a completed studbook so the population size is unclear. A Candidate Program is overseen by the TAG, with no additional AZA accountability requirements.

Sustainability Partners – AZA Animal Population Management (APM) Committee approved wildlife facilities that regularly exchange animals with AZA-accredited facilities and certified related facilities, typically as part of the Species Survival Plan® (SSP) Program Breeding and Transfer Plan or other SSP Program management process.

Full Participation – AZA policy stating that all AZA accredited facilities and certified related facilities having a Green SSP animal in their collection are required to participate in the collaborative SSP planning process (e.g., provide relevant animal data to the AZA Studbook Keeper, assign an Institutional Representative who will communicate facility wants and needs to the SSP Coordinator and comment on the draft plan during the 30-day review period, and abide by the recommendations agreed upon in the final plan).

All AZA member facilities and Animal Programs, regardless of management designation, must adhere to the AZA Policy on Responsible Population Management and the AZA Code of Professional Ethics. For more information on AZA policies, see https://www.aza.org/board-approved-policies-and-position-statements.

Currentness Date – The date when the entire studbook is updated. This equates to the first date you received an update after requesting updates from all the facilities included in your studbook.

Demographic Terms

Age Distribution – A visual representation of the numbers or percentages of individuals in various age and sex classes.

Ex, Life Expectancy – The average years of further life for an animal in age class x.

Lambda (λ) or Population Growth Rate – The proportional change in population size from one year to the next. A lambda of 1.11 means an 11% per year increase; a lambda of 0.97 means a 3% decline in size per year. The three lambdas highlighted in this BTP are: 1) Life Table, from the PMx life tables, the change in the population based on the demographic regional and date window exported from the studbook, the life table lambda is the rate at which the population would be expected to grow (in the future) given the birth and death rates reported in the life tables and assuming a stable age distribution (does NOT factor in imports or exports); 2) 5-year, from the studbook census, the 5-year lambda is calculated from observed changes in population size over the last 5 years and includes births, deaths, imports and exports; and 3) Projected, from the PMx stochastic 20-year projections (includes confidence intervals), models how the population is predicted to grow or decline over the next 20 years given the birth and death rates from the life tables and the age structure of the current population.

lx, Age-Specific Survivorship – The probability that a new individual (e.g., age 0) is alive at the *beginning* of age *x*. Alternatively, the proportion of individuals which survive from birth to the beginning of a specific age class.

Mean Generation Time (T) – The average time elapsing from reproduction in one generation to the time the next generation reproduces. Also, the average age at which a female (or male) produces offspring. It is not the age of first reproduction. Males and females often have different generation times.

Median Life Expectancy (MLE) – The 'typical' age at which an average animal is expected to live; 50% will die before the median life expectancy and 50% die after. The MLE reported in Breeding and Transfer Plans (BTPs) and Survival Stats Reports, does excludes individuals that did not survive to their first birthday. The MLE obtained from population management software (PM2000, PMx, ZooRisk) or from life tables in BTPs (e.g., where Lx = 0.5) will be lower because they include those individuals that did not survive to their first birthday in order to project the correct number of births needed. A Survival Statistics Library is maintained for most AZA Animal Programs on the AZA website: https://www.aza.org/species-survival-statistics.

Maximum Longevity – The maximum age at which we have observed a species to live. If the oldest observed animal is currently living, we do not yet know the maximum longevity.

Mx, Fecundity – The average number of same-sexed offspring born to animals in that age class. Because studbooks typically have relatively small sample sizes, studbook software calculates Mx as 1/2 the average number of offspring born to animals in that age class. This provides a somewhat less "noisy" estimate of Mx, though it does not allow for unusual sex ratios. The fecundity rates provide information on the age of first, last, and maximum reproduction.

Px, Age-Specific Survival – The probability that an individual of age *x* survives an age class; is conditional on an individual being alive at the beginning of the age class. Alternatively, the proportion of individuals that survive from the beginning of one age class to the next.

Qx, Mortality – The probability that an individual of age *x* dies during an age class (Qx = 1-Px). Alternatively, the proportion of individuals that die during an age class. It is calculated from the number of animals that die during an age class divided by the number of animals that were alive at the beginning of the age class (i.e., "at risk").

Risk (Qx or Mx) – The number of individuals that have lived during an age class. The number “at risk” is used to calculate Mx and Qx by dividing the number of births and deaths that occurred during an age class by the number of animals at risk of dying and reproducing during that age class.

Target Population Size (TPS) – The desired number of SSP animals to be held across AZA and approved partner facilities over a specific, stated timeframe. This number is determined with consideration for program roles and goals (genetic, demographic, and others), logistical constraints, spatial competition with other TAG-managed species, and other population-specific concerns. Target Population Size is determined by the Taxon Advisory Group (TAG) and published in their Regional Collection Plan (RCP).

Vx, **Reproductive Value –** The expected number of offspring produced this year and in future years by an animal of age *x*.

Genetic Terms

Allele – Alternate forms of DNA at a particular position in a genome (genetic locus). Alleles represent the most basic form of genetic diversity.

Gene Diversity (GD) – The probability that two alleles randomly sampled from the same genetic locus across a population are not identical by descent. Gene diversity is calculated relative to a population’s founders, which are assumed to be unrelated and not inbred, and is the proportional diversity retained by the current, descendant population.

Effective Population Size (N_e) – The size of a randomly mating population of constant size with equal sex ratio and a Poisson distribution of family sizes that would (a) result in the same mean rate of inbreeding as that observed in the population, or (b) would result in the same rate of random change in allele frequencies (genetic drift) as observed in the population. These two definitions are identical only if the population is demographically stable (because the rate of inbreeding depends on the distribution of alleles in the parental generation, whereas the rate of allele frequency drift is measured in the current generation). More specifically, PMx software uses the definition as the size of the current population that have produced offspring, assuming that there are current breeders, that these current breeders have a Poisson distribution of family sizes, that none of the current breeders are now post-reproductive, and none of the not-yet-breeding adults will breed.

Founder – An individual obtained from a source population (often the wild) that has no known relationship to any individuals in the derived population (except for its own descendants).

Founder Genome Equivalents (FGE) – The number of wild-caught individuals (founders) that represent the same amount of gene diversity as does the population under study. The gene diversity of a population is 1 - 1 / (2 * FGE).

Founder Representation – The proportion of the alleles in the living, descendant population that are derived from that founder.

Inbreeding Coefficient (F) – The probability that the two alleles present at an individual’s genetic locus are identical by descent (i.e., both alleles originated from an ancestor common to both the individual’s parents).

Mean Kinship (MK) – The mean (or average) kinship coefficient between an animal and all animals (including itself) in the living, captive-born population. An individual’s mean kinship is a measure of how well its alleles are represented within a population. Animals with low mean kinships have few relatives, are from under-represented founder lineages, and have transmitted few of their alleles to the next generation; these individuals should be prioritized for breeding to slow a population’s gene diversity loss.

Percent Known – The percentage of an animal's genome that is traceable to known founders. Thus, if an animal has an UNK sire, its % Known = 50. If it has an UNK grandparent, its % Known = 75.

Percent Certain – The percentage of the living individuals' pedigree that can be completely identified as *certain:* (exact identity of both parents is known) and traceable back to known founders. Individuals that are 100% *certain* do not have any MULTs or UNKs in their pedigree. *Certainty* represents a higher degree of knowledge than *Known* and therefore is always less than or equal to *Known*.

G. AZA Animal Population Management (APM) Committee Disclaimers

as of June 2019

This managed population is currently an SSP and subject to AZA Full Participation and Sustainability Partner policies. APM Committee-approved Sustainability Partners are expected to agree and abide by AZA's Code of Professional Ethics, SSP Full Participation Policy, Policy on Responsible Population Management, and Accreditation Standards related to animal care and welfare.

See the AZA Animal Population Management Committee Disclaimers in Appendix G for more info.

H. Directory of Institutional Representatives

Facility Name	Mnemonic	Contact Name (IR or Advisor)	Email
Wilder Institute/Calgary Zoo	CALGARY	Jennifer Godwin	jenniferg@calgaryzoo.com
Denver Zoo	DENVER	Rachael Chappell	rchappell@denverzoo.org
El Paso Zoo	EL PASO	John Kiseda	kisedajj@elpasotexas.gov
Fresno Chaffee Zoo	FRESNO	Mark Halvorsen	mhalvorsen@fresnochaffeezoo.org
Peoria Zoo	GLEN OAK	Dawn Petefish	dpetefish@peoriazoo.org
Louisville Zoological Garden	LOUISVILL	Jill Katka	jill.katka@louisvilleky.gov
ZooTampa at Lowry Park	LOWRY	Angela Belcher	angela.belcher@zootampa.org
Ellen Trout Zoo	LUFKIN	Crissy Garrett	cgarrett@ellentroutzoo.com
Zoo Miami	METROZOO	Ivy Brower	Ivy.Brower@miamidade.gov
Minnesota Zoological Garden	MINNESOTA	Breanne Barney	breanne.barney@state.mn.us
Virginia Zoological Park	NORFOLK	Jill Tarrant	jill.tarrant@norfolk.gov
Elmwood Park Zoo	NORRISTOW	Michele Goodman	mgoodman@elmwoodparkzoo.org
Bronx Zoo	NY BRONX	Jessica Moody	jmoody@wcs.org
Omaha's Henry Doorly Zoo & Aquarium	OMAHA	Christie Eddie	christiee@omahazoo.com
Africam Safari Park	PUEBLA	Lilia Gonzalez	cholguin@africamsafari.com
Center for The Conservation of Tropical Ungulates	RUM CREEK	Jeff Holland	jeffhollandcctu@gmail.com
Sacramento Zoo	SACRAMNTO	Matthew McKim	MMcKim@saczoo.org
San Antonio Zoological Society	SAN ANTON	Rachel Malstaff	rachel.malstaff@sazoo.org
San Diego Zoo	SANDIEGOZ	Gaylene Thomas	gthomas@sdzwa.org
San Diego Zoo Safari Park	SD-WAP	Gavin Livingston	galivingston@sdzwa.org
Woodland Park Zoo	SEATTLE	Wendy Gardner	Wendy.Gardner@Zoo.org
Point Defiance Zoo & Aquarium	TACOMA	Erin Pritchard	erin.pritchard@pdza.org

Exported from PMCTrack as of 3/19/24

2011
CENTRAL AMERICAN TAPIR
(*Tapirus bairdii)*

Baird's Tapir at ZooLeon Photo courtesy of ZooLeon Staff

INTERNATIONAL STUDBOOK

Studbook Keeper: Joseph Roman
Virginia Zoological Park
Norfolk, Virginia
U.S.A.

INTERNATIONAL STUDBOOK

World Association of Zoos and Aquariums | WAZA
United for Conservation

VIRGINIA ZOO

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INTRODUCTION

Results of a survey distributed in early 2011 indicated that during the period of 1 January 2011 to 22 May 2012, there were 7 births (6.1) and 1(1.0) death with a living population of 122 animals on 22 May 2012.

Asia	15 animals	(8.6.1)
Europe	5 animals	(3.2.0)
Central America	66 animals	(40.25.1)
North America	36 animals	(25.11.0)

Every effort was made to insure the accuracy of the data. Unfortunately, several questionnaires sent out remained unanswered. The facilities listed below did not respond to update requests. Please take this into account when using the data.

El Nispero Zoo and Botanical Garden
Miguel Alvarez Del Toro Zoo
Villa Griselda
Shanghai Zoo
Parque Nacional Zoologico
Zoologico de Chapultepec

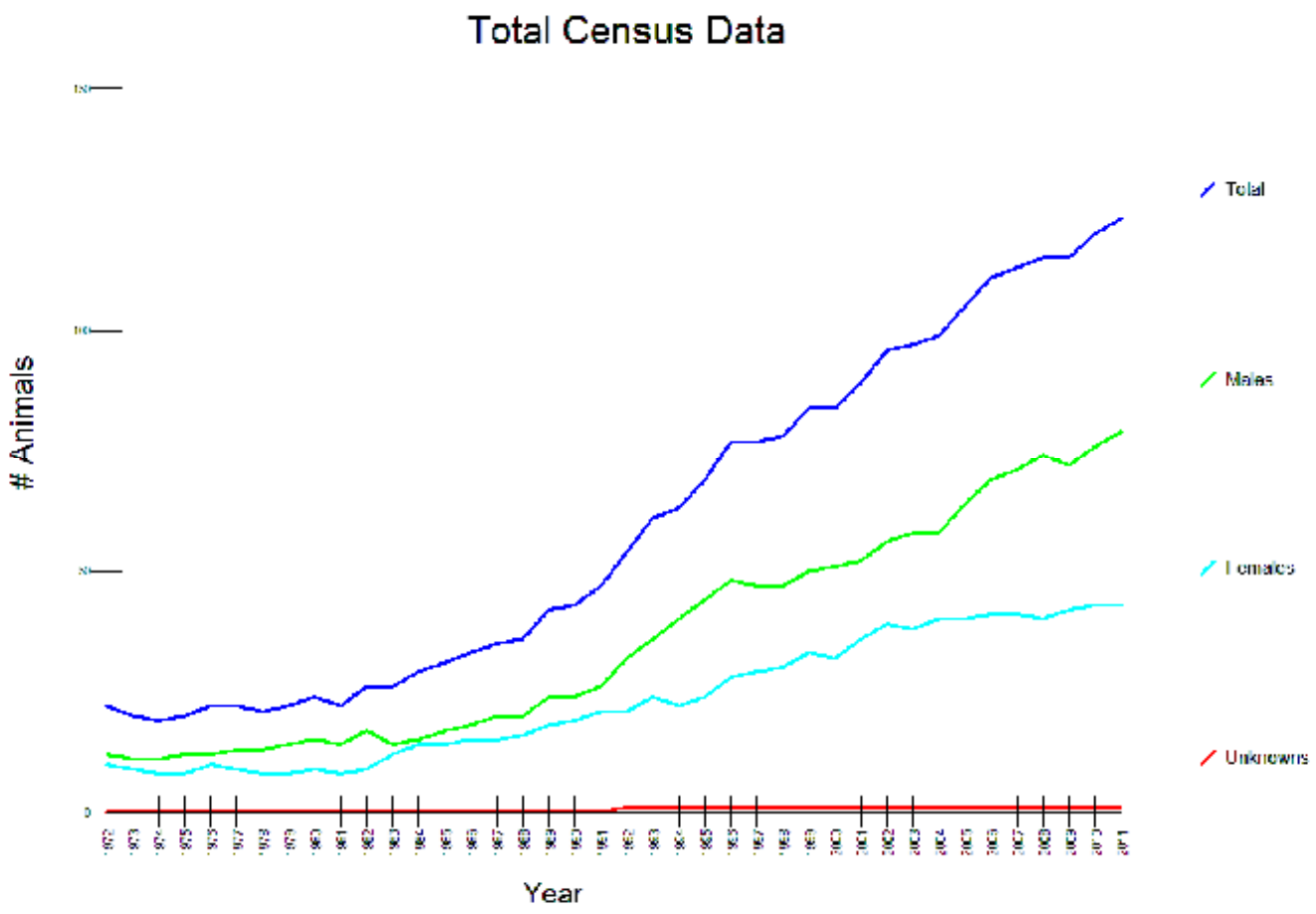
Please review the data and let me know of any errors or omissions. If you are aware of animals not listed in this studbook, please inform me of these animals and I will include them in future editions.

I would like to acknowledge Laurie Bingaman Lackey (International Species Information System - ISIS) for her suggestions in the compilation of the data for the studbook. Additionally, I wish to acknowledge the staff of ZooLeon for permission for use of their photo for the cover page.

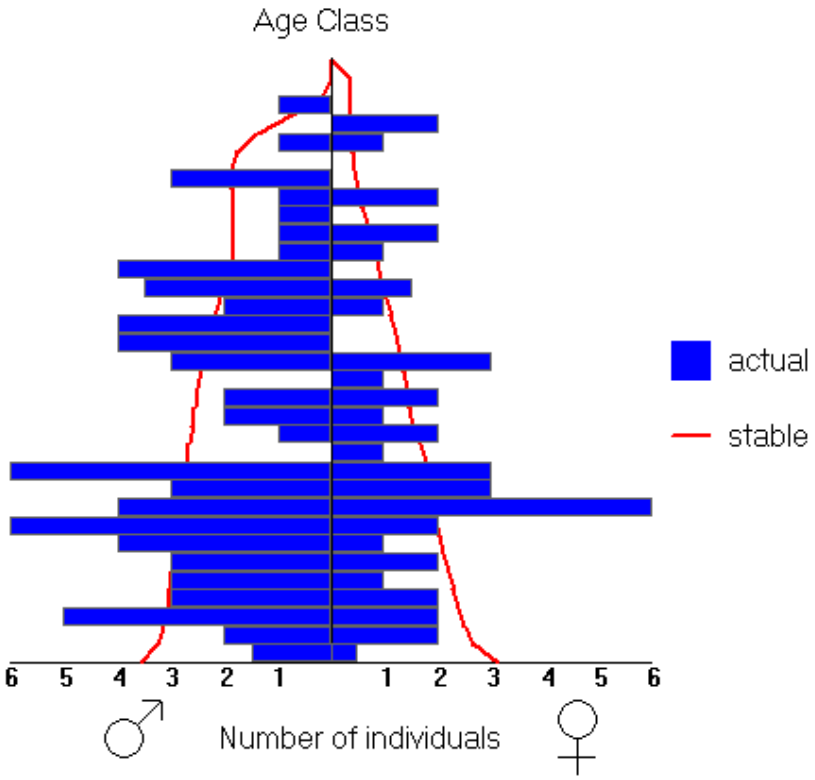
Thank you,

Joseph M. Roman
International Studbook Keeper - Baird's Tapir (*Tapirus bairdii*)
Virginia Zoological Park
3500 Granby Street
Norfolk, VA 23504 USA
Voice: +1 757-441-2499 x267
FAX: +1 757-624-9939
E-mail: joseph.roman@norfolk.gov

Map by Carlos Pedraza, Tapir Specialist Group, 2008


Total Census Data
Animals
Year
Total
Males
Females
Unknowns

Population Management 2000



Total Males = 75
Total Females = 45

Studbook Legend

Stud#: Animal's permanent studbook number. Studbook numbers may not always be assigned chronologically, due to animals being recorded as they become known to the Studbook Keeper.

Sex: M for male, m for castrated male, F for female, cont if contracepted, neut if neutered, U for unknown sex

Birth Date: Animal's birth date. A tilde mark, '~', before a date indicates that it is approximate. '??' indicates that the date is unknown.

Sire and Dam: Studbook numbers for the animal's sire and dam. 'UNK' if unknown. 'MULT' if several candidates have been identified. 'WILD' if the sire or dam was considered to be wildcaught - this animal is a founder.

Location: The institution holding the animal at the time. If the animal is no longer traceable by the Studbook Keeper, 'ltf' (lost-to-followup) will appear to the right of the last known location.

Date: The date on which the event occurred. A tilde mark, '~', before a date indicates that it is approximate. '??' indicates that the date is unknown.

Local ID: The identification assigned by the specimen's location, often its ISIS number, house number, or occasionally house name.

Event: Capture, Birth, Transfer, Loan, Ownership change, Death or Release

Identifiers: House Name, Transponder

CENTRAL AMERICAN TAPIR Studbook
(*Tapirus bairdii*)

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
1	M	????	WILD	WILD	COSTA RIC	18 Aug 1964	NONE	Capture	TITUS	
					JP LITWIN	18 Aug 1964	_____	Transfer		
					SANDIEGOZ	18 Feb 1965	165024	Transfer		
						22 Mar 1994		Death		
					[Death by: Euthanasia (medical) Unknown Generalized Metabolism]					
2	F	~ 1967	WILD	WILD	PANAMA	~ 1967	NONE	Capture	MAGGIE	
					MCMANN	~ 1967	_____	Transfer		
					SANDIEGOZ	9 Dec 1967	167329	Transfer		
						14 Oct 1981		Death		
					[Death by: Infection associated Unknown Digestive Bacterial]					
3	M	~ Jul 1966	WILD	WILD	CENTRALAM	~ Jul 1966	NONE	Capture	TOMMY	
					PAIBAUMAN	~ Jul 1966	_____	Transfer		
					LOSANGELE	12 Oct 1966	02769	Transfer		
						13 Sep 1988		Death		
					[Death by: Environ/Behav conditions Unknown Necropsy planned later]					
4	F	~ 1967	WILD	WILD	NASSAU	~ Feb 1967	NONE	Capture	TILLIE	
					MCMANN	????	_____	Transfer		
					LOSANGELE	12 Oct 1967	03416	Transfer		
						22 Nov 1978		Death		
					[Death by: Other/Unknown Incinerate Cardiovascular Mechanical abnormality]					
5	F	~ Jan 1969	WILD	WILD	PANAMA	~ 1969	NONE	Capture	MONA	
					R. WILSON	~ 1969	_____	Transfer		
					SANDIEGOZ	2 Mar 1971	171028	Transfer		
						23 Mar 1994		Death		
					[Death by: Euthanasia (medical) Unknown Generalized Metabolism]					
6	M	~ 1969	WILD	WILD	HONDURAS	~ 1969	NONE	Capture	MORGAN	
					CHASE B	~ 1969	_____	Transfer		
					COLUMBIA	23 Apr 1974	SJ0146	Loan to		
						30 Oct 1974	SJ0146	Ownership		
						31 Jan 1991		Death		
					[Death by: Euthanasia (medical) Unknown Generalized Unknown after necropsy]					
7	F	21 Dec 1970	3	4	LOSANGELE	21 Dec 1970	N00350	Birth		
						21 Dec 1970		Death		
					[Death by: Stillbirth Unknown Generalized Genetic/Prenatal]					
8	F	~ 1972	WILD	WILD	NICARAGUA	~ 1972	NONE	Capture	MAJA	
					CHASE B	~ 1972	_____	Transfer		
					METROZOO	26 Feb 1973	104	Transfer		
						4 Jul 1987		Death		
					[Death by: Other/Unknown Unknown Necropsy planned later]					

CENTRAL AMERICAN TAPIR Studbook
(*Tapirus bairdii*)

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
9	M	14 Nov 1972	1	2	SANDIEGOZ	14 Nov 1972	172290	Birth	TITUS JR.	
					GRND PRAI	19 Dec 1983	_____	Transfer		
					CLOVIS	27 Jan 1986	_____	Transfer		
					GRND PRAI	24 Jun 1987	_____	Transfer		
						23 Dec 1991		Death		
	[Death by: Infection associated Unknown Respiratory Unknown after necropsy]									
10	F	15 Jul 1973	3	4	LOSANGELE	15 Jul 1973	N00351	Birth		
						15 Jul 1973		Death		
	[Death by: Stillbirth Unknown Generalized Genetic/Prenatal]									
11	M	21 Feb 1974	1	5	SANDIEGOZ	21 Feb 1974	013059	Birth		
						2 Mar 1974		Death		
	[Death by: Other/Unknown Unknown Necropsy planned later]									
12	M	17 Sep 1974	3	4	LOSANGELE	17 Sep 1974	07547	Birth	DAVID	
					MEXICOCTY	8 Aug 1978	_____	Transfer		
						9 Jul 1986		Death		
	[Death by: Environ/Behav conditions Sold to an institution: Digestive Mechanical abnormality]									
13	M	21 Apr 1975	1	5	SANDIEGOZ	21 Apr 1975	175087	Birth	TIMONS	
					BATONROUG	5 May 1981	M950	Loan to		
					METROZOO	29 Oct 1981	908	Loan to		
					SANDIEGOZ	16 May 1984	175087	Transfer		
					HOLIDAY	22 May 1984	_____	ltf		
14	F	1 Jul 1975	1	2	SANDIEGOZ	1 Jul 1975	175166	Birth	EVE	
					BATONROUG	5 May 1981	M951	Loan to		
					METROZOO	29 Oct 1981	909	Loan to		
						9 Oct 2002		Death		
	[Death by: Infection associated Given to an institution: UNK-ZOO SOC/METROZOO Hemic/Lymph Unknown after necropsy]									
15	F	~ 1976	WILD	WILD	PANAMA	~ 1976	NONE	Capture	RACHAEL	
					COLUMBIA	28 Apr 1977	SJ0337	Transfer		
						20 Jun 1986		Death		
	[Death by: Infection associated Bury Respiratory Bacterial]									
16	F	24 Aug 1976	1	5	SANDIEGOZ	24 Aug 1976	176226	Birth		
					COLUMBIA	12 Jan 1977	SJ0321	Loan to		
						11 May 1977		Death		
	[Death by: Infection associated Incinerate Digestive Bacterial]									
17	M	3 Mar 1977	3	4	LOSANGELE	3 Mar 1977	08719	Birth	MARK	
					MOORPARK	4 Mar 1979	84	Transfer		
						7 Jan 1983		Death		
	[Death by: Infection associated Incinerate Digestive Bacterial]									
18	F	5 Dec 1977	1	2	SANDIEGOZ	5 Dec 1977	177233	Birth	CRANBERRY	
					PHILADELP	13 Apr 1978	100620	Loan to		
						17 May 1980		Death		
	[Death by: Infection associated Rendered Generalized Bacterial]									

CENTRAL AMERICAN TAPIR Studbook
(*Tapirus bairdii*)

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
19	M	11 Jun 1978	3	4	LOSANGELE	11 Jun 1978	09319	Birth	ZEKE	
					MOORPARK	20 Aug 1980	_____	Loan to		
					LOSANGELE	16 Apr 1981	09319	Transfer		
						2 Jun 1983		Death		
					[Death by: Environ/Behav conditions Incinerate Digestive Trauma]					
20	M	9 Feb 1979	1	2	SANDIEGOZ	9 Feb 1979	179031	Birth	BRODY	
					FERNDALE	19 Dec 1983	_____	Transfer		
					KEIHIN CH	~Jan 1984±6m	_____	Transfer		
					KANAZAWA	16 Jun 1984	1	Transfer		
						7 Feb 1997		Death		
					[Death by: Unknown means]					
21	F	20 Apr 1980	1	2	SANDIEGOZ	20 Apr 1980	180087	Birth	TANYA	
					LOSANGELE	3 Apr 1981	000319	Loan to		
					S BARBARA	10 Nov 1988	29722	Loan to		
					COLUMBIA	21 Nov 1989	SJ1408	Loan to		
					WUPPERTAL	17 Jun 1996	96034	Transfer		
						28 Jul 2011		Death		
					[Death by: Unknown means]					
22	M	23 Aug 1980	6	15	COLUMBIA	23 Aug 1980	SJ0541	Birth	ADAM	
					METROZOO	14 Dec 1982	M00084	Loan to		
						8 Sep 2005	M00084	Ownership		
						5 Sep 2010		Death		
					[Death by: Euthanasia (medical) Incinerate No necropsy planned]					
23	F	2 Mar 1982	1	5	SANDIEGOZ	2 Mar 1982	282048	Birth	TAWNY	
						7 Jul 1983		Death		
					[Death by: Self-inflicted injuries Unknown Unknown (after necropsy) Trauma]					
24	M	14 Aug 1982	6	15	COLUMBIA	14 Aug 1982	SJ0657	Birth	COLOMBO	
					SANDIEGOZ	12 May 1983	083661	Loan to		
					SD-WAP	21 Apr 1987	083661	Loan to		
					SANDIEGOZ	6 Aug 1987	083661	Ownership		
					SD-WAP	8 Aug 1987	083661	Ownership		
					KANAZAWA	25 May 1988	2	Transfer		
25	neutM	11 Dec 1982	19	21	LOSANGELE	11 Dec 1982	001082	Birth	BUTCH	
26	F	26 May 1983	1	5	SANDIEGOZ	26 May 1983	083802	Birth	BROOK	
					SD-WAP	21 Apr 1987	083802	Transfer		
					SANDIEGOZ	12 Jun 1987	083802	Transfer		
					KANAZAWA	25 May 1988	3	Transfer		
					ZOORASIA	6 Jun 2005	1306	Transfer		
27	F	20 Nov 1983	6	15	COLUMBIA	20 Nov 1983	SJ0759	Birth	EVE	
					LOSANGELE	19 Jul 1984	001822	Transfer		
					MILWAUKEE	30 Sep 2001	4804	Loan to		

CENTRAL AMERICAN TAPIR Studbook
(*Tapirus bairdii*)

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
28	M	17 Apr 1984	22	14	METROZOO	17 Apr 1984	M00278	Birth	WIDGET	
					SANDIEGOZ	17 Apr 1984	025114	Ownership		
					MOORPARK	15 Aug 1984	000197	Loan to		
					SANDIEGOZ	10 Mar 1989	025114	Transfer		
29	M	11 Jun 1984	19	21	LOSANGELE	11 Jun 1984	001805	Birth	SQUEAKS	
					METROZOO	4 Apr 1985	M00397	Transfer		
					METRORICH	4 May 2009	109062	Transfer		
						25 Aug 2009		Death		
			[Death by: Unknown means]							
30	F	22 Aug 1984	22	8	METROZOO	22 Aug 1984	M00310	Birth	MEGAN	
					METRORICH	4 May 2009	109063	Transfer		
						14 Jul 2009		Death		
			[Death by: Unknown means]							
31	F	16 Sep 1984	1	5	SANDIEGOZ	16 Sep 1984	025459	Birth	SCOTCH	
					COLUMBIA	6 Oct 1986	SJ0968	Loan to		
					LOSANGELE	18 Oct 1989	003433	Ownership		
					S BARBARA	16 Nov 1989	29887	Transfer		
					OMAHA	5 Jan 2000	11427	Transfer		
						29 Sep 2003		Death		
			[Death by: Old age Unknown Generalized Metabolism]							
32	M	14 Oct 1985	6	15	COLUMBIA	14 Oct 1985	SJ0897	Birth	PATRICK	
						27 Nov 1985		Death		
			[Death by: Infection associated Bury Digestive Viral]							
33	M	25 Dec 1985	1	5	SANDIEGOZ	25 Dec 1985	030382	Birth	85-3	
					BEIJING	11 Apr 1987	85-3	Transfer		
34	F	21 Apr 1986	22	8	METROZOO	21 Apr 1986	M00583	Birth	MARY JANE	00-0020-D097
					COLUMBIA	21 Apr 1986	SJ0995	Ownership		
					COLUMBUS	5 Jun 1987	872072	Loan to		
					JACKSONVL	22 Oct 1997	897071	Loan to		
						25 Aug 2005		Death		
			[Death by: Unknown means]							
35	M	27 May 1986	3	21	LOSANGELE	27 May 1986	002419	Birth	VINCENT	00-01BC-61F1
					COLUMBUS	22 Jul 1987	872121	Transfer		
					JACKSONVL	22 Oct 1997	897070	Loan to		
						9 Mar 2009	897070	Ownership		
36	F	15 Mar 1987	25	27	LOSANGELE	15 Mar 1987	002562	Birth	RACHEL	
					SANDIEGOZ	17 Jun 1988	588246	Loan to		
37	M	26 Sep 1987	3	21	LOSANGELE	26 Sep 1987	002647	Birth	CURTIS	444B514956
					S BARBARA	10 Nov 1988	29723	Loan to		
					OMAHA	9 Jan 2000	11426	Loan to		

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
38	M	19 Apr 1988	25	27	LOSANGELE	19 Apr 1988	002971	Birth	JAKE	00-0133-E8DE T
					NORFOLK	17 Nov 1988	880117	Loan to		
					GARDENCTY	12 Apr 2000	A01007	Loan to		
39	F	19 Jun 1988	1	5	SANDIEGOZ	19 Jun 1988	588245	Birth	LOLA	
						11 Mar 1990		Death		
					[Death by: Euthanasia (medical) Incinerate Generalized Bacterial]					
40	M	~ 1871	WILD	WILD	NICARAGUA	~ 1871	NONE	Capture		
					LONDON RP	15 Aug 1871	_____	Transfer		
						27 Sep 1871		Death		
					[Death by: Unknown means]					
41	F	~ 1871	WILD	WILD	NICARAGUA	~ 1871	NONE	Capture		
					LONDON RP	13 Apr 1872	_____	Transfer		
						30 Jun 1872		Death		
					[Death by: Unknown means]					
42	M	~ 1881	WILD	WILD	TRINIDAD	~ 1881	NONE	Capture		
					LONDON RP	13 Aug 1881	_____	Transfer		
						20 Jan 1885		Death		
					[Death by: Unknown means]					
43	F	~ 1893	WILD	WILD	CENTRALAM	~ 1893	NONE	Capture		
					LONDON RP	25 Jun 1893	_____	Transfer		
						2 Dec 1895		Death		
					[Death by: Unknown means]					
44	M	~ 1893	WILD	WILD	CENTRALAM	~ 1893	NONE	Capture		
					LONDON RP	2 Sep 1893	_____	Transfer		
						6 Aug 1896		Death		
					[Death by: Unknown means]					
45	M	~ Dec 1899	WILD	WILD	PANAMA	~ Dec 1899	NONE	Capture		
					PUBLIC	~ Dec 1899	_____	Transfer		
					NZP-WASH	13 Jun 1900	3877	Transfer		
						2 Jul 1900		Death		
					[Death by: Other/Unknown Given to an institution: NMNH BML Necropsy planned later]					
46	F	~ 1901	WILD	WILD	CENTRALAM	~ 1901	NONE	Capture		
					BERLINSCH	~ 1901	_____	Transfer		
						12 Apr 1906		Death		
					[Death by: Unknown means]					
47	F	~ Sep 1923	WILD	WILD	HONDURAS	~ Sep 1923	NONE	Capture		
					PUBLIC	~ Sep 1923	_____	Transfer		
					NZP-WASH	15 May 1924	11424	Transfer		
						7 Oct 1941		Death		
					[Death by: Euthanasia (medical) Bury Necropsy planned later]					

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
48	F	~ 1924	WILD	WILD	PANAMA	~ 1924	NONE	Capture		
					NY BRONX	27 Jun 1924	241305	Transfer		
						27 Apr 1936		Death		
					[Death by: Stranded Unknown No necropsy planned]					
49	M	~ Jan 1926	WILD	WILD	CENTRALAM	~ 1926	NONE	Capture		
					T BARBOUR	~ 1926	______	Transfer		
					PHILADELP	13 Aug 1926	14629	Transfer		
						17 Sep 1926		Death		
					[Death by: Unknown means]					
50	M	~ 1947	WILD	WILD	PANAMA	~ 1947	NONE	Capture		
					H.TRAPIDO	~ 1947	______	Transfer		
					NY BRONX	29 May 1947	471303	Transfer		
						3 Sep 1961		Death		
					[Death by: Unknown means]					
51	M	~ Jan 1926	WILD	WILD	CENTRALAM	~ 1926	NONE	Capture		
					T BARBOUR	~ 1926	______	Transfer		
					PHILADELP	11 Aug 1927	14630	Transfer		
						7 Sep 1933		Death		
					[Death by: Unknown means]					
52	F	~ Jan 1927	WILD	WILD	CENTRALAM	~ 1928	NONE	Capture		
					T BARBOUR	~ 1928	______	Transfer		
					PHILADELP	8 Oct 1929	14631	Transfer		
						31 Mar 1941		Death		
					[Death by: Unknown means]					
53	M	~ Feb 1929	WILD	WILD	HONDURAS	~ Feb 1929	NONE	Capture		
					PUBLIC	~ Feb 1929	______	Transfer		
					NZP-WASH	16 Aug 1929	12742	Transfer		
						5 Nov 1929		Death		
					[Death by: Other/Unknown Unknown Necropsy planned later]					
54	F	~ 1933	WILD	WILD	CENTRALAM	~ 1933	NONE	Capture	HELEN	
					CHICAGOBR	3 Feb 1934	25381	Transfer		
						24 Jun 1959		Death		
					[Death by: Other/Unknown Unknown Necropsy planned later]					
55	M	~ 1946	WILD	WILD	CENTRALAM	~ 1946	NONE	Capture		
					ST LOUIS	~ 1946	______	Transfer		
						~ 1946		Death		
					[Death by: Unknown means]					
56	F	~ 1946	WILD	WILD	CENTRALAM	~ 1946	NONE	Capture		
					ST LOUIS	~ 1946	______	Transfer		
						~ 1946		Death		
					[Death by: Unknown means]					

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
57	F	~ Jan 1950	WILD	WILD	CENTRALAM	~ 1950	NONE	Capture		
					BUCK W	~ 1950	______	Transfer		
					PHILADELP	28 Mar 1950	14632	Transfer		
						26 Feb 1968		Death		
			[Death by: Unknown means]							
58	F	~ 1949	WILD	WILD	PANAMA	~ Oct 1949	NONE	Capture		
					SAN FRAN	4 Apr 1950	______	Transfer		
						25 Nov 1961		Death		
			[Death by: Euthanasia (medical) Unknown Digestive Mechanical abnormality]							
59	?	~ Jan 1952	WILD	WILD	CENTRALAM	~ 1952	NONE	Capture		
					R CHAPMAN	~ 1952	______	Transfer		
					NZP-WASH	16 Jul 1952	22697	Transfer		
						25 Jul 1952		Death		
			[Death by: Other/Unknown Incinerate Necropsy planned later]							
60	M	~ Jan 1952	WILD	WILD	CENTRALAM	~ 1952	NONE	Capture	JODY	
					MEMPHIS	21 Aug 1952	______	Transfer		
					HANOVER Z	17 Jun 1964	______	Transfer		
						~1969 +/-4yr		Death		
			[Death by: Unknown means]							
62	?	~ 1953	WILD	WILD	BELIZE	~ 1953	NONE	Capture		
					LONDON RP	30 Jul 1953	______	Transfer		
						12 Sep 1953		Death		
			[Death by: Unknown means]							
64	F	~ Jan 1965	WILD	WILD	CENTRALAM	~ 1965	NONE	Capture		
					MEMPHIS	25 Mar 1965	______	Transfer		
						26 Apr 1969		Death		
			[Death by: Unknown means]							
65	M	~ Jan 1966	WILD	WILD	CENTRALAM	~ 1966	NONE	Capture	ICTERUS	
					T HILLMAN	~ 1966	______	Transfer		
					PHILADELP	14 Jan 1967	100247	Transfer		
						6 Jul 1983		Death		
			[Death by: Unknown means]							
66	M	~ 1967	WILD	WILD	CENTRALAM	~ 1967	NONE	Capture		
					NZP-WASH	14 Jan 1968	______	Transfer		
						~1972 +/-3yr		Death		
			[Death by: Unknown means]							
67	F	~ Sep 1968	WILD	WILD	GUATEMALA	~ Sep 1968	NONE	Capture	PATTY	
					SAN FRAN	21 Oct 1968	______	Transfer		
						21 Dec 1970		Death		
			[Death by: Infection associated Unknown Digestive Unknown after necropsy]							

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
68	M	~ 1969	WILD	WILD	BELIZE	~ 1969	NONE	Capture	MIGUEL	
					SAN FRAN	12 Jul 1969	_____	Transfer		
						20 Dec 1970		Death		
					[Death by: Infection associated Unknown Digestive Unknown after necropsy]					
69	M	~ 1971	WILD	WILD	CENTRALAM	~ 1971	NONE	Capture		
					CRANDONPK	2 Jan 1971	_____	Transfer		
					BROWNSVIL	3 Feb 1972	7326	Transfer		
						11 Mar 1973		Death		
					[Death by: Environ/Behav conditions Unknown No necropsy planned]					
70	M	~ 1971	WILD	WILD	CENTRALAM	~ 1971	NONE	Capture		
					BROWNSVIL	9 Feb 1972	7327	Transfer		
						13 Mar 1972		Death		
					[Death by: Infection associated Unknown No necropsy planned]					
71	F	????	WILD	WILD	CENTRALAM	~ 1972	NONE	Capture		
					BROWNSVIL	23 Dec 1972	7328	Transfer		
						13 Mar 1973		Death		
					[Death by: Environ/Behav conditions Unknown No necropsy planned]					
72	F	~ 1980	WILD	WILD	PANAMA	~ 1980	NONE	Capture		
					LA ESCOND	~ 1980	_____	Transfer		
						~ 1988		Death		
					[Death by: Unknown means]					
73	M	????	WILD	WILD	PANAMA	~ 1982	NONE	Capture	NORIEGA	14699F
					LA ESCOND	~ 1982	_____	Transfer		
					CEPEPE	~ Apr 1993	_____	Transfer		
					EL NISPER	~ Sep 1993	_____	Transfer		
						~Oct 2001±1m		Death		
					[Death by: Unknown means]					
74	F	~ 1983	73	72	LA ESCOND	~ 1983	_____	Birth	MONICA	1COCO8
					CEPEPE	~ Apr 1993	_____	Transfer		
					EL NISPER	~ Sep 1993	_____	Transfer		
						~Jun 2007±6m		Death		
					[Death by: Unknown means]					
75	F	~ Apr 1983	WILD	WILD	BELIZE	~ Apr 1983	NONE	Capture	APRIL	
						8 Apr 1983	_____	Transfer		
76	M	~ 1986	WILD	WILD	PANAMA P	~ 1986	NONE	Capture	MACHO	496C345E3E
					SUMMIT ZO	~ 1986	_____	Transfer		
77	F	~ 1986	WILD	WILD	PANAMA P	~ 1986	NONE	Capture	BELLE BELLE	13A6DA
					SUMMIT ZO	~ 1986	_____	Transfer		
						19 Oct 2004		Death		
					[Death by: Unknown means]					

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
78	F	~ 1987	WILD	WILD	PANAMA P	~ 1988	NONE	Capture	JUANITA	2413B8
					SUMMIT ZO	~ 1988	______	Transfer		
79	F	~ Jul 1990	WILD	WILD	PANAMA P	~ Sep 1990	NONE	Capture	CHIQUITA	1DB98E
					SUMMIT ZO	10 Mar 1991	______	Transfer		
						8 Aug 2004		Death		
			[Death by: Unknown means]							
80	M	~ 1984	WILD	WILD	PANAMA	~ 1986	NONE	Capture	BRAVO	101090
					LA ESCOND	~ 1986	______	Transfer		
					CEPEPE	~ Apr 1993	______	Transfer		
						~ Aug 1993		Death		
			[Death by: Other/Unknown Unknown Necropsy planned later]							
81	M	~ 1987	73	72	LA ESCOND	~ 1987	______	Birth	SANTANA	12391C
						~ Jan 1993		Death		
			[Death by: Unknown means]							
82	M	~ 1989	WILD	WILD	GUATEMALA	~ 1989	NONE	Capture		
					GUAT CITY	~ 1989	______	Transfer		
						~ 1993	______	ltf		
83	F	18 Feb 1989	3	21	S BARBARA	18 Feb 1989	29790	Birth	BELLE	00-01DA-5565 TR
					LOSANGELE	18 Feb 1989	003423	Ownership		
					NORFOLK	20 Nov 1989	890144	Loan to		
					GARDENCTY	12 Apr 2000	A01008	Loan to		
					YULEE	30 May 2006	Y64306	Loan to		
84	M	23 Feb 1989	29	30	METROZOO	23 Feb 1989	M01060	Birth	MILTON	
					COLUMBIA	29 Mar 1991	SJ1515	Transfer		
					FRANKLINP	6 Sep 1997	97A041	Transfer		
85	M	11 Aug 1989	25	27	LOSANGELE	11 Aug 1989	003450	Birth	FARQUHAR	
					CHATHAM	15 Oct 1992	______	Loan to		
						17 May 1995		Death		
			[Death by: Unknown means]							
86	M	10 Nov 1989	22	14	METROZOO	10 Nov 1989	M01179	Birth	ABEL	
					COLUMBIA	10 Nov 1989	7659	Ownership		
					METROZOO	28 Mar 1991	M01179	Ownership		
					AUDUBON	15 Nov 1991	1377	Transfer		
					AUDUB SSC	30 Nov 1993	M94003	Transfer		
					SLAUGHTER	21 Oct 1998	______	ltf		
87	M	~ 1968	WILD	WILD	CENTRALAM	~ 1968	NONE	Capture		
					HOGLE	5 Jan 1968	______	Transfer		
						10 Oct 1986		Death		
			[Death by: Unknown means]							

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
88	F	~ 1968	WILD	WILD	CENTRALAM	~ 1968	NONE	Capture		
					HOGLE	2 May 1968	_____	Transfer		
						4 Jan 1974		Death		
			[Death by: Unknown means]							
89	M	~ Jan 1964	WILD	WILD	UNKNOWN	~ 1964	NONE	Capture	TAPE	
					TOLEDO	22 Jul 1964	_____	Transfer		
						1 Apr 1976		Death		
			[Death by: Unknown means]							
90	F	~ Jan 1969	WILD	WILD	CENTRALAM	~ 1969	NONE	Capture		
					COSTA, C.	~ 1969	_____	Transfer		
					TOLEDO	28 May 1969	_____	Transfer		
						12 Sep 1977		Death		
			[Death by: Environ/Behav conditions Unknown Generalized Metabolism]							
91	M	~ 1976	WILD	WILD	CENTRALAM	~ 1976	NONE	Capture		
					FERNDALE	~ 1976	_____	Transfer		
					TOLEDO	~ 1976	_____	Transfer		
					FERNDALE	13 Feb 1980	_____	Transfer		
						~1983 +/-2yr		Death		
			[Death by: Unknown means]							
92	M	25 Jul 1990	29	30	METROZOO	25 Jul 1990	M01298	Birth	MELVIN	
					SEDGWICK	21 Jun 1996	7553	Loan to		
					VICTOR TX	9 Mar 2007	200703	Loan to		
						8 Jun 2007	200703	Ownership		
93	F	~ 1971	WILD	WILD	MEXICO	~ 1971	NONE	Capture	76-2	
					MEXICOCTY	~ 1971	_____	Transfer		
					BEIJING	16 Jul 1976	_____	Transfer		
						27 Dec 1992		Death		
			[Death by: Unknown means]							
94	M	~ 1972	WILD	WILD	MEXICO	~ 1972	NONE	Capture	76-1	
					MEXICOCTY	~ 1972	_____	Transfer		
					BEIJING	16 Jul 1976	_____	Transfer		
						2 Aug 1991		Death		
			[Death by: Unknown means]							
95	F	14 Oct 1989	94	93	BEIJING	14 Oct 1989	89-2	Birth	89-2	
96	M	~ May 1990	73	74	LA ESCOND	~ May 1990	_____	Birth	SAN DIEGO	240219
					CEPEPE	~ Apr 1993	_____	Transfer		
					EL NISPER	~ Sep 1993	_____	Transfer		
						~Sep 2006±6m		Death		
			[Death by: Unknown means]							

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
97	M	~ Feb 1991	WILD	WILD	PANAMA P	~ Feb 1991	NONE	Capture	GALEN	11F5F8
					COROZAL	~ 1992	______	Transfer		
					EL NISPER	~ Sep 1993	______	Transfer		
						~Oct 2001±1m		Death		
					[Death by: Unknown means]					
98	M	~ Nov 1991	WILD	WILD	GUATEMALA	~ Nov 1991	NONE	Capture		
					GUAT CITY	~ Dec 1991	______	ltf		
99	M	9 Jun 1991	35	34	COLUMBUS	9 Jun 1991	912090	Birth	TERRY	AVID*034*296*857
					GUAT CITY	22 Nov 1993	M00196	Loan to		
100	F	10 Jul 1991	25	27	LOSANGELE	10 Jul 1991	003935	Birth	FRIEDA	00001DC765
					AUDUBON	21 Mar 1992	1393	Loan to		
					AUDUB SSC	30 Nov 1993	M94004	Loan to		
						21 Jun 1998		Death		
					[Death by: Environ/Behav conditions Bury Generalized Unknown after necropsy]					
101	M	28 Oct 1991	29	30	METROZOO	28 Oct 1991	M01457	Birth	POLOC	00-061B-18AF
					XCARET	4 Dec 2003	______	Transfer		
102	M	27 Nov 1991	38	83	NORFOLK	27 Nov 1991	910088	Birth	JASPER	
					LOSANGELE	27 Nov 1991	004086	Ownership		
					SEDGWICK	28 Sep 1993	6268	Loan to		
						1 May 1996	6268	Ownership		
					WUPPERTAL	17 Jun 1996	96033	Transfer		
103	M	~ 1992	WILD	WILD	COSTA RIC	~ 1992	NONE	Capture	SALON	
					SANJOSECR	1 Jul 1994	920002	Transfer		
						23 Apr 2004		Death		
					[Death by: Other/Unknown Bury Digestive Mechanical abnormality]					
104	F	21 Jul 1992	35	34	COLUMBUS	21 Jul 1992	922089	Birth		
						23 Jul 1992		Death		
					[Death by: Euthanasia (medical) Given to an institution: OSU-DVP Hemic/Lymph Unknown after necropsy]					
105	M	17 Aug 1992	25	27	LOSANGELE	17 Aug 1992	004265	Birth	GOOBER	
					CLEVELAND	7 Jun 1994	940610	Transfer		
						9 Jul 1994		Death		
					[Death by: Other/Unknown Incinerate Musculoskeletal New growths/cancer]					
106	F	27 Oct 1992	37	31	S BARBARA	27 Oct 1992	920129	Birth	SCHNAPPS	00-0020-5828
					LOSANGELE	27 Oct 1992	004373	Ownership		
					S BARBARA	27 Oct 1992	920129	Transfer		
					SEDGWICK	25 Oct 1993	6307	Loan to		
107	M	21 Jan 1992	22	14	METROZOO	21 Jan 1992	M01481	Birth	PEEWEE	
					BREVARD	26 Jan 1994	940006	Loan to		

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
108	F	7 Dec 1992	29	30	METROZOO	7 Dec 1992	M01589	Birth	NIP	
					CLEVELAND	1 Jun 1994	940601	Loan to		
						31 Mar 1997		Death		
	[Death by: Infection associated Incinerate Generalized Unknown after necropsy]									
109	M	~ 1992	WILD	WILD	BELIZE	~ 1993	NONE	Capture	SCOTTY	
						~ Apr 1993	_____	Transfer		
						3 Aug 2011		Death		
	[Death by: Euthanasia (medical) Unknown Digestive Mechanical abnormality]									
110	M	29 Jun 1992	76	77	SUMMIT ZO	29 Jun 1992	_____	Birth	PREMIERE	1C121D
						5 Oct 2004		Death		
	[Death by: Unknown means]									
111	M	~ 1992	WILD	WILD	BELIZE	~ 1993	NONE	Capture	BULLETHEAD	
						~ 1993	_____	Transfer		
112	F	~ 1991	WILD	WILD	PANAMA P	~ 1993	NONE	Capture	QUASINORA	
					SUMMIT ZO	25 May 1993	_____	Transfer		
						13 Sep 1994		Death		
	[Death by: Unknown means]									
113	M	19 Mar 1993	84	21	COLUMBIA	19 Mar 1993	SJ1615	Birth	NORTON	
					CLEVELAND	12 Nov 1994	941123	Transfer		
					GUADALJR	28 May 2003	M02340	Transfer		
					PUBLIC	11 Nov 2005	_____	Transfer		
					GUADALJR	27 Nov 2005	M02340	Transfer		
114	F	24 Apr 1993	38	83	NORFOLK	24 Apr 1993	930019	Birth	JOSEPHINE	
					BREVARD	25 Jan 1994	940007	Loan to		
						23 Mar 2004	940007	Ownership		
115	M	29 May 1993	22	14	METROZOO	29 May 1993	M01638	Birth	EINSTEIN	
					SANDIEGOZ	29 May 1993	593608	Ownership		
					METROZOO	8 Jan 2002	M01638	Ownership		
					VICTOR TX	22 Jan 2002	200204	Transfer		
					SAN ANTON	22 Sep 2005	S05018	Loan to		
					VICTOR TX	29 Sep 2005	200204	Transfer		
					SEDGWICK	11 Mar 2007	11650	Loan to		
116	F	18 Jul 1993	25	27	LOSANGELE	18 Jul 1993	N00535	Birth		
						18 Jul 1993		Death		
	[Death by: Premature birth Unknown Necropsy planned later]									
117	M	6 Sep 1993	35	34	COLUMBUS	6 Sep 1993	932110	Birth	TONKA	00-0014-63DB
					WUPPERTAL	7 Jul 1994	94042	Loan to		
						20 Dec 2000	94042	Ownership		
						16 Dec 2011		Death		
	[Death by: Euthanasia (medical) Unknown Unknown (after necropsy)]									

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Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
118	M	~ 1991	WILD	WILD	VERAGUAS	~ 1992	NONE	Capture	ROMEO	00-004D-9F69
					VGRISELDA	~ 1992	______	Transfer		
119	F	~ 1990	WILD	WILD	DARIEN	~ 1991	NONE	Capture	JULIETA	00-001E-996D
					VGRISELDA	~ Nov 1993	______	Transfer		
120	?	~1992 +/-2yr	WILD	WILD	NICARAGUA	~1992 +/-2yr	NONE	Capture		
					JUIGALPA	~1992 +/-2yr	______	Transfer		
121	M	~ 1991	WILD	WILD	MEXICO	~1992 +/-2yr	NONE	Capture	GOYO	
					TUXTLA	30 Jul 1995	______	Transfer		
						13 Jan 2000		Death		
[Death by: Environ/Behav conditions Unknown Unknown (after necropsy) Toxicity]										
122	M	17 Apr 1994	86	100	AUDUB SSC	17 Apr 1994	M94010	Birth	JASPER	000016CB47
					LOSANGELE	17 Apr 1994	004679	Ownership		
					HATTIESBG	8 Jan 1997	M0086	Loan to		
123	M	11 Jun 1994	84	21	COLUMBIA	11 Jun 1994	SJ1678	Birth	RAY	
					PARAMUS	21 May 1996	2225	Transfer		
					CLEVELAND	23 May 2003	M30526	Loan to		
					GUADALJR	27 May 2003	M02339	Loan to		
124	M	12 Aug 1994	25	27	LOSANGELE	12 Aug 1994	004676	Birth	GOOBER	0000-71-6B41
					SAN FRAN	30 Jan 1997	197003	Transfer		
125	M	3 Oct 1994	22	14	METROZOO	3 Oct 1994	M01792	Birth	HUEY	
					YULEE	29 May 1996	960314	Transfer		
					EVANSVLLE	11 Mar 2008	108003	Loan to		
126	M	4 Dec 1994	38	83	NORFOLK	4 Dec 1994	940108	Birth	JUSTIN	00-01DA-9BA4
					LOSANGELE	4 Dec 1994	004710	Ownership		
					MONROE	9 Nov 2001	24157I	Loan to		
127	?	~ Jan 1924	WILD	WILD	PANAMA	~ Jul 1924	NONE	Capture		
					SANDIEGOZ	1 Jan 1925	018252	Transfer		
						31 Dec 1935		Death		
[Death by: Unknown means]										
128	F	~ Jan 1933	WILD	WILD	ECUADOR	~ 1933	NONE	Capture	MICKY	
					SANDIEGOZ	1 Jan 1934	018253	Transfer		
						1 Jan 1945		Death		
[Death by: Unknown means]										
131	F	~ 1993	WILD	WILD	COSTA RIC	~ Jun 1993	NONE	Capture	CHEPA	065-537-858
					LA MARINA	~ Sep 1993	LMZ#2	Transfer		
						10 Nov 2004		Death		
[Death by: Unknown means]										

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
132	F	9 Feb 1995	37	31	S BARBARA	9 Feb 1995	930184	Birth		
						10 Feb 1995		Death		
[Death by: Infection associated Incinerate Cardiovascular Genetic/Prenatal]										
133	F	2 May 1995	35	34	COLUMBUS	2 May 1995	952024	Birth		00-001DB-EDF9
						24 May 1995		Death		
[Death by: Unknown means]										
134	M	21 Jun 1995	24	26	KANAZAWA	21 Jun 1995	4	Birth	AGUA	
135	M	5 Jul 1995	107	114	BREVARD	5 Jul 1995	940089	Birth	JOPEE	
					BELLEVIEW	8 Apr 1996	_____	Transfer		
						~Dec 2003±1m		Death		
[Death by: Other/Unknown Unknown Digestive Mechanical abnormality]										
136	F	30 Aug 1995	102	106	SEDGWICK	30 Aug 1995	7312	Birth	TALLULAH	
					YULEE	3 Apr 1996	960303	Loan to		
					CHICAGOBR	13 Oct 2004	1778	Transfer		
						10 Oct 2007		Death		
[Death by: Unknown means]										
137	F	28 Sep 1995	25	27	LOSANGELE	28 Sep 1995	004893	Birth	PIGGY	
					FRANKLINP	23 May 1998	98A036	Loan to		
						13 Jun 2000		Death		
[Death by: Infection associated Bury Generalized Bacterial]										
138	M	~ Nov 1995	73	74	EL NISPER	~ Nov 1995	_____	Birth	SAN ANDRES	
						~ Sep 1997		Death		
[Death by: Unknown means]										
139	F	31 Jul 1991	37	31	S BARBARA	31 Jul 1991	910075	Birth		
						31 Jul 1991		Death		
[Death by: Stillbirth Incinerate Respiratory Mechanical abnormality]										
140	F	21 Mar 1996	22	14	METROZOO	21 Mar 1996	M01932	Birth	BLAZE	
						25 Jun 1998		Death		
[Death by: Euthanasia (medical) Incinerate Generalized Unknown after necropsy]										
141	M	22 Apr 1996	86	100	AUDUB SSC	22 Apr 1996	005	Birth	WOODY	
					SLAUGHTER	17 Nov 1997	_____	ltf		
142	neutM	27 Apr 1996	37	31	S BARBARA	27 Apr 1996	960011	Birth	FABIO	068-112-381
					LOSANGELE	10 Nov 1998	985302	Transfer		
					GARDENCTY	18 Jun 1999	991017	Loan to		
					LOSANGELE	8 Dec 1999	985302	Transfer		
					ZOORASIA	24 Mar 2005	1205	Transfer		

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Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
143	M	26 Aug 1996	107	114	BREVARD	26 Aug 1996	940230	Birth	HAMPTON	
					METROZOO	26 Aug 1996	97M022	Ownership		
					GULF BREZ	23 Mar 1997	A1970	Transfer		
						9 Oct 1997		Death		
		[Death by: Injury from exhibit mate Unknown Generalized Trauma]								
144	M	19 Oct 1996	35	34	COLUMBUS	19 Oct 1996	962042	Birth	HARLEY	
					MILWAUKEE	9 Jun 1998	4410	Loan to		
						31 May 2001	4410	Ownership		
145	M	30 Dec 1996	113	108	CLEVELAND	30 Dec 1996	961217	Birth		
						30 Dec 1996		Death		
		[Death by: Stillbirth Incinerate Generalized Unknown after necropsy]								
147	M	15 Dec 1997	107	114	BREVARD	15 Dec 1997	940336	Birth	SKEETER BISC	
					NORFOLK	15 Dec 1997	970147	Ownership		
					FOX D G	26 Nov 1999	_____	Transfer		
					SAV ED PK	~Jun 2000±6m	_____	Transfer		
					VOGEL K	10 Apr 2001	_____	Transfer		
148	M	????	WILD	WILD	CENTRALAM	????	NONE	Capture		
					USFWS	10 Feb 1971	_____	Transfer		
					LOSANGELE	31 Dec 1974	07941	Transfer		
					MORELIA	8 Aug 1978	_____	ltf		
149	F	26 Aug 1998	117	21	WUPPERTAL	26 Aug 1998	98052	Birth	SUSANNA	
150	M	10 Jan 1999	35	34	JACKSONVL	10 Jan 1999	899002	Birth		
						14 Jan 1999		Death		
		[Death by: Other/Unknown Unknown Necropsy planned later Unknown after necropsy]								
151	?	????	WILD	WILD	UNKNOWN	????	NONE	Capture		
					SS GORGAS	????	_____	Transfer		
					NY BRONX	7 Oct 1922	221307	Transfer		
						12 Oct 1922		Death		
		[Death by: Unknown means]								
152	F	????	UNK	UNK	UNKNOWN	????	_____	Birth		
					NY BRONX	19 Jun 1935	361304	Transfer		
					L RUHE	2 Jan 1936	_____	Transfer		
					NY BRONX	16 Feb 1941		Death		
		[Death by: Unknown means]								
153	M	????	UNK	UNK	P.J.JONES	~ 1931	_____	Transfer		
					NY BRONX	9 Sep 1931	511306	Transfer		
						11 Sep 1933		Death		
		[Death by: Unknown means]								

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Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
154	F	~ 1990	WILD	WILD	UNKNOWN	~ 1990	NONE	Capture	CLARISSA	068-062-534
					LA MARINA	~ Aug 1991	LMZ#1	Transfer		
						27 Feb 2003		Death		
		[Death by: Unknown means]								
155	M	~ 1990	WILD	WILD	UNKNOWN	~ 1993	NONE	Capture	TONIO	065-319-857
					LA MARINA	23 Dec 1994	LMZ#3	Transfer		
						17 Jun 2009		Death		
		[Death by: Unknown means]								
156	M	30 Apr 1996	155	154	LA MARINA	30 Apr 1996	LMZ#4	Birth	MARINO	
					HACIENDAT	6 Jan 1999	_____	Transfer		
157	F	3 May 1997	155	131	LA MARINA	3 May 1997	LMZ#5	Birth	CRYSTAL	065-862-630
						2 Mar 2003		Death		
		[Death by: Unknown means]								
158	F	18 Jul 1997	155	154	LA MARINA	18 Jul 1997	LMZ#6	Birth	EURA	021-369-047
					HACIENDAT	6 Jan 1999	_____	Transfer		
159	M	6 Nov 1998	155	131	LA MARINA	6 Nov 1998	LMZ#7	Birth	DAVID	
					HACIENDAT	6 Jan 1999	_____	Transfer		
160	M	17 Apr 1999	155	154	LA MARINA	17 Apr 1999	LMZ#8	Birth	JUANSO	065-522-857
						14 Apr 2009		Death		
		[Death by: Unknown means]								
161	M	20 Aug 1997	24	26	KANAZAWA	20 Aug 1997	5	Birth		
						24 Oct 1997		Death		
		[Death by: Unknown means]								
164	M	8 Jun 1995	118	119	VGRISELDA	8 Jun 1995	_____	Birth	SHAKESPEAR	4A2B44435A
165	F	7 Oct 1996	118	119	VGRISELDA	7 Oct 1996	_____	Birth	SABRINA	00-0017-16B1
166	F	25 May 1996	110	79	SUMMIT ZO	25 May 1996	_____	Birth	YERITOGUE	00-004F-07AD
					VGRISELDA	11 Oct 1997	_____	Transfer		
167	M	13 Jan 1999	WILD	WILD	COSTA RIC	13 Jan 1999	NONE	Capture	TOTO	
					SANJOSECR	24 Feb 1999	8	Transfer		
168	M	~ Feb 1991	WILD	WILD	PANAMA	~ Feb 1991	NONE	Capture	BRAVO	1D1090
					EL NISPER	~ Sep 1993	_____	Transfer		
169	M	~ 1960	WILD	WILD	BAHBLANCA	~ 1960	NONE	Capture	BILLY	
					JWGRASSEL	????	_____	Transfer		
					METROZOO	7 Jul 1965	103	Transfer		
						14 Jul 1981		Death		
		[Death by: Other/Unknown Incinerate Hemic/Lymph Mechanical abnormality]								

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
170	F	~ May 1973	UNK	UNK	UNKNOWN	~ May 1973	_____	Birth		
					BROWNSVIL	7 Nov 1973	_____	Transfer		
						24 Nov 1973		Death		
			[Death by: Unknown means]							
171	M	~ 1995	76	77	SUMMIT ZO	~ 1995	_____	Birth	KANTIQUIRI	4A24477311
						~Jan 2009±1m		Death		
			[Death by: Unknown means]							
172	M	30 Nov 1997	92	106	SEDGWICK	30 Nov 1997	8185	Birth	ELDON	037-597-619
					LOSANGELE	30 Nov 1997	985418	Ownership		
					GARDENCTY	19 Jul 1999	991021	Loan to		
					GREATBEND	17 Aug 2001	600100	Loan to		
						~ 2004		Death		
			[Death by: Unknown means]							
173	M	17 May 2000	35	34	JACKSONVL	17 May 2000	800431	Birth	TONKA	057*876*851
					COLUMBUS	17 May 2000	200073	Ownership		
					PARAMUS	20 Jun 2003	2584	Loan to		
						13 Jan 2009	2584	Ownership		
174	M	16 Jun 1996	WILD	WILD	UNKNOWN	~ 1997	NONE	Capture	ARAVA	031 586 630
					GUAT CITY	19 Feb 1997	M00195	Transfer		
176	F	~ Jun 1970	WILD	WILD	MEXICO	~ Jun 1970	NONE	Capture		
					BEIJING	16 Jul 1976	76-2	Transfer		
						27 Dec 1992		Death		
			[Death by: Unknown means]							
177	M	6 Apr 1983	94	176	BEIJING	6 Apr 1983	83-1	Birth		
					SHIH CHIA	26 Aug 1988	83-1	ltf		
178	M	7 Sep 1985	94	176	BEIJING	7 Sep 1985	85-1	Birth		
					PYONGYANG	10 Sep 1990	85-1	ltf		
179	M	15 Jun 1988	94	176	BEIJING	15 Jun 1988	88-1	Birth		
					SHANGHAI	19 Oct 1990	88-1	ltf		
180	M	19 Apr 1993	33	95	BEIJING	19 Apr 1993	93-1	Birth		
					SHENZHEN	30 Apr 1996	93-1	ltf		
181	M	22 Nov 1994	33	95	BEIJING	22 Nov 1994	94-1	Birth		
182	F	7 Jun 1996	33	95	BEIJING	7 Jun 1996	96-2	Birth		
183	F	11 Apr 1998	33	95	BEIJING	11 Apr 1998	98-2	Birth	HUA HUA	
					SHANGHAI	24 Sep 2009	_____	Transfer		
184	F	29 Nov 1999	33	95	BEIJING	29 Nov 1999	99-2	Birth		
					PANYU	24 Nov 2000	_____	ltf		

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(*Tapirus bairdii*)

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
185	F	16 Jun 1999	118	119	VGRISELDA	16 Jun 1999	_____	Birth	MARCELA	
186	F	30 Aug 1999	118	166	VGRISELDA	30 Aug 1999	_____	Birth	AGOSTO	
						~Jun 2008±6m		Death		
		[Death by: Unknown means]								
187	F	1 Sep 2000	155	131	LA MARINA	1 Sep 2000	_____	Birth	KANA	065-365-616
188	F	29 Nov 2000	33	182	BEIJING	29 Nov 2000	00-2	Birth		
						29 Dec 2000		Death		
		[Death by: Unknown means]								
190	M	????	UNK	UNK	UNKNOWN	????	_____	Birth		
					LOSANGELE	1 May 1967	03376	Transfer		
						22 Dec 1968		Death		
		[Death by: Euthanasia (medical) Unknown Musculoskeletal Trauma]								
191	M	????	WILD	WILD	CENTRALAM	????	NONE	Capture		
					HERMOSA B	28 Feb 1966	_____	Transfer		
					LOSANGELE	21 Nov 1966	91926	Transfer		
					MORELIA	13 Mar 1974	_____	ltf		
193	F	3 Mar 2002	107	114	BREVARD	3 Mar 2002	940790	Birth	CONTESSA	
					NORFOLK	3 Mar 2002	202014	Ownership		
					PARAMUS	20 Jun 2003	2585	Loan to		
						10 Jun 2005	2585	Ownership		
					TUCSON	9 Sep 2011	M11022	Loan to		
194	M	14 Nov 2001	35	34	JACKSONVL	14 Nov 2001	801382	Birth	MAC	
						14 Nov 2001		Death		
		[Death by: Anesth/Restraint assoc Bury Necropsy planned later]								
195	M	23 Nov 2001	33	95	BEIJING	23 Nov 2001	01-1	Birth	DONG DONG	
					SHANGHAI	24 Sep 2009	_____	Transfer		
196	F	18 Mar 2002	92	106	SEDGWICK	18 Mar 2002	10016	Birth		
						18 Mar 2002		Death		
		[Death by: Environ/Behav conditions Incinerate Unknown (after necropsy)]								
197	M	~Mar 2001±1m	110	79	SUMMIT ZO	~Mar 2001±1m	_____	Birth	CENTENARIO	4A2924327C
						14 Oct 2009		Death		
		[Death by: Unknown means]								
198	F	13 Dec 2002	155	157	LA MARINA	13 Dec 2002	_____	Birth	ALBA	065-281-005
199	M	6 Jan 2003	160	131	LA MARINA	6 Jan 2003	_____	Birth	OSCAR	065-621-303
200	M	31 Jan 2002	38	83	GARDENCTY	31 Jan 2002	102001	Birth	SCOOTER	
					LOSANGELE	31 Jan 2002	990565	Ownership		
					GARDENCTY	2 Dec 2003	102001	Transfer		

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
					LEON	28 Jan 2005	MAM163	Transfer		
202	F	1 May 2003	144	27	MILWAUKEE	1 May 2003	4950	Birth	ALYSSA	
					LOSANGELE	1 May 2003	990857	Ownership		
					DREHER PA	3 Apr 2004	204068	Loan to		
203	M	3 May 2003	92	106	SEDGWICK	3 May 2003	10438	Birth	SPENCER	
					METROZOO	3 May 2003	Y3M020	Ownership		
					DREHER PA	12 Feb 2004	204069	Loan to		
						3 Apr 2004	204069	Ownership		
				[Death by: Other/Unknown	Incinerate	Necropsy planned later]				
206	F	4 Mar 2004	38	83	GARDENCTY	4 Mar 2004	104006	Birth	ABBY	
					FRANKLINP	8 Nov 2005	A05044	Transfer		
207	F	1 Apr 2004	110	78	SUMMIT ZO	1 Apr 2004	_____	Birth	HOUSTON	
					NASHV ZOO	30 May 2008	3002	Transfer		
208	F	23 Aug 2004	144	27	MILWAUKEE	23 Aug 2004	5108	Birth	BOBBI	
					BATONROUG	28 Aug 2006	10068	Loan to		
209	F	21 May 1952	UNK	UNK	SAN FRAN	21 May 1952	1521	Birth		
						7 Sep 1975		Death		
[Death by: Infection associated	Given to an institution: SAN FRAN	Digestive Viral]								
211	F	~11 Jun 1967	UNK	UNK	PET FARM	~11 Jun 1967	NONE	Birth		
					EVANSVLLE	11 Jul 1967	M00717	Transfer		
						28 May 1968		Death		
[Death by: Unknown means]										
212	M	~Mar 1968±1m	UNK	UNK	PET FARM	~Mar 1968±1m	NONE	Birth		
					EVANSVLLE	21 May 1968	M00719	Transfer		
					HANOVER Z	9 May 1969	NONE	ltf		
213	M	9 Jan 2005	117	21	WUPPERTAL	9 Jan 2005	205002	Birth		
						15 Jan 2005		Death		
[Death by: Euthanasia (medical)	Incinerate	Respiratory Bacterial]								
214	M	19 Jan 2005	35	34	JACKSONVL	19 Jan 2005	805300	Birth		
						21 Jan 2005		Death		
[Death by: Infection associated	Unknown	Respiratory Unknown after necropsy]								
215	F	13 Nov 2001	164	165	VGRISELDA	13 Nov 2001	_____	Birth	PATRIA	
						~Jun 2007±6m		Death		
[Death by: Unknown means]										
216	M	6 Dec 2001	118	166	VGRISELDA	6 Dec 2001	_____	Birth	MATEO	4A262F186C
217	M	13 Nov 2003	164	165	VGRISELDA	13 Nov 2003	_____	Birth	GASPARIN	4979530800
218	M	5 Jan 2004	118	119	VGRISELDA	5 Jan 2004	_____	Birth	RONALDITO	49792F7D7C

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Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
219	M	6 Jan 2004	164	185	VGRISELDA	6 Jan 2004	_____	Birth		
						3 Apr 2004		Death		
		[Death by: Unknown means]								
220	F	7 Jan 2004	164	186	VGRISELDA	7 Jan 2004	_____	Birth		
						15 Aug 2004		Death		
		[Death by: Unknown means]								
222	F	~Jun 2003±1m	WILD	WILD	GUAT	~Jun 2003±1m	NONE	Capture	CASHI	0006F266AB
					GUAT CITY	21 Oct 2003	M00355	Transfer		
					PUEBLA	15 Dec 2011	8002	Loan to		
223	F	29 Jul 2001	168	74	EL NISPER	29 Jul 2001	_____	Birth	SARITA	
224	M	18 Mar 2004	168	74	EL NISPER	18 Mar 2004	_____	Birth	SALVADOR	
225	M	~ May 2004	WILD	WILD	CAYO	15 Jun 2004	NONE	Capture	CEIBO	
					BELIZE	17 Jun 2004	_____	Transfer		
226	M	1 Dec 2000	155	154	LA MARINA	1 Dec 2000	_____	Birth	RONGI	065-598-027
						26 Aug 2005		Death		
		[Death by: Unknown means]								
227	F	20 Feb 2001	155	157	LA MARINA	20 Feb 2001	_____	Birth	FICA	
						~Apr 2006±1m		Death		
		[Death by: Unknown means]								
228	F	13 Nov 2001	155	131	LA MARINA	13 Nov 2001	_____	Birth	SORPRESA	
						15 Nov 2001		Death		
		[Death by: Unknown means]								
230	M	6 May 2005	160	187	LA MARINA	6 May 2005	_____	Birth	ROMEO	086-068-372
					RUM CREEK	15 Jan 2008	108004	Transfer		
					NASHV ZOO	24 Oct 2008	3001	Transfer		
231	M	3 May 2005	92	106	SEDGWICK	3 May 2005	11085	Birth	CAYOS	
					MEXICOCTY	1 Dec 2008	_____	Transfer		
232	M	~ 2002	WILD	WILD	CHIAPAS	13 Nov 2002	NONE	Capture	TZIMIN	
					TUXTLA	13 Nov 2002	_____	Transfer		
233	F	~ 2000	WILD	WILD	OAXACA	6 Apr 2001	NONE	Capture	PAQUITA	
					TUXTLA	6 Apr 2001	_____	Transfer		
234	F	~ 2002	WILD	WILD	CHIAPAS	6 Nov 2002	NONE	Capture	LILIANA	
					TUXTLA	6 Nov 2002	_____	Transfer		
235	M	16 Apr 2005	118	186	VGRISELDA	16 Apr 2005	_____	Birth	CAMPEON	4A2A1C3F3C

CENTRAL AMERICAN TAPIR Studbook
(*Tapirus bairdii*)

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
236	M	13 Jan 2005	164	165	VGRISELDA	13 Jan 2005	_____	Birth	CARLITOS	4924177062
237	F	~Sep 2005±1m	WILD	WILD	DARIEN	~Dec 2005±1m	NONE	Capture	LUCIA	
					SUMMIT ZO	18 Dec 2005	_____	Transfer		
238	M	17 Nov 2005	33	95	BEIJING	17 Nov 2005	05-1	Birth		
239	M	18 Jan 2006	102	149	WUPPERTAL	18 Jan 2006	206007	Birth	CICO	968000004264012
					BERLIN TP	22 Dec 2008	M03748	Loan to		
240	M	~ 1996	WILD	WILD	WILD	~ 1998	NONE	Capture	VIUDO	
					MAMAJUA	~ 1998	0000D	Transfer		
						????		Death		
		[Death by: Unknown means]								
241	F	~ 1998	WILD	WILD	UNKNOWN	~ 1998	NONE	Capture	ROSITA	
					MAMAJUA	~ 1998	0001D	Transfer		
						1 Jan 2005		Death		
		[Death by: Unknown means]								
242	F	8 Sep 2002	240	241	MAMAJUA	8 Sep 2002	0002D	Birth	FLORECITA	
243	F	10 Nov 2004	240	241	MAMAJUA	10 Nov 2004	0003D	Birth	ROSITA II	
244	M	~ 2004	WILD	WILD	UNKNOWN	~ 2005	NONE	Capture	PITUFO	
					MAMAJUA	~ 2005	0004D	Transfer		
245	F	~ 2004	WILD	WILD	UNKNOWN	~ 2005	NONE	Capture	PITAFA	
					MAMAJUA	~ 2005	0005D	Transfer		
246	M	~ 2005	WILD	WILD	UNKNOWN	~ 2005	NONE	Capture	DANTE	
					MAMAJUA	~ 2005	0006D	Transfer		
247	M	11 Apr 2006	29	30	METROZOO	11 Apr 2006	M60027	Birth	TUPI	
					TUCSON	25 Mar 2007	T75203	Transfer		
249	M	15 May 2006	118	166	VGRISELDA	15 May 2006	_____	Birth	MEYO	
						~ 2007		Death		
		[Death by: Unknown means]								
250	M	25 May 2006	164	165	VGRISELDA	25 May 2006	_____	Birth	ADAN	
						15 Sep 2008		Death		
		[Death by: Injury from predator Unknown Unknown (after necropsy)]								
251	M	21 Jul 2006	144	27	MILWAUKEE	21 Jul 2006	5354	Birth	JAVIER	00-05FE-4995
					PUEBLA	5 Nov 2007	6552	Transfer		
252	M	~ 2002	WILD	WILD	HONDURAS	~ 2002	NONE	Capture	BRUNO	
					ZNACHONDU	~ 2002	_____	Transfer		
253	F	~ 2004	WILD	WILD	HONDURAS	~ 2004	NONE	Capture	HILLARY	

Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
					ZNACHONDU	~ 2004	______	Transfer		
254	M	~ 1999	WILD	WILD	HONDURAS	~ 1999	NONE	Capture		
					ZNACHONDU	~ 1999	______	Transfer		
255	M	~ 2002	WILD	WILD	HONDURAS	~ 2002	NONE	Capture	CACHIRO	
					ZNACHONDU	~ 2002	______	Transfer		
256	M	3 Oct 2006	117	21	WUPPERTAL	3 Oct 2006	206049	Birth	MOLI	
					COTTBUS	12 Aug 2009	5037	Loan to		
257	F	~ 2005	WILD	WILD	CAYO	~ 2006	NONE	Capture	NAVIDAD	
					BELIZE	5 Jan 2007	______	Transfer		
258	F	~Apr 2006±8m	WILD	WILD	CHETUMAL	~Jun 2006±8m	NONE	Capture	LOL-HA	
					XCARET	13 Dec 2006	______	Transfer		
259	F	13 Mar 2007	160	187	LA MARINA	13 Mar 2007	______	Birth	JULIETA	
260	M	16 Mar 2007	84	206	FRANKLINP	16 Mar 2007	F07007	Birth	SEAMUS	00-0676-C33A
					BATONROUG	9 Nov 2009	10474	Transfer		
261	F	6 Jul 2007	232	234	TUXTLA	6 Jul 2007	______	Birth		
						6 Jul 2007		Death		
		[Death by: Unknown means]								
262	F	23 Sep 2007	232	233	TUXTLA	23 Sep 2007	______	Birth		
						6 Oct 2007		Death		
		[Death by: Unknown means]								
263	F	8 Aug 2007	118	186	VGRISELDA	8 Aug 2007	______	Birth	MARIA	
264	M	10 Aug 2007	164	165	VGRISELDA	10 Aug 2007	______	Birth	LAZO	
265	F	26 Dec 2007	218	119	VGRISELDA	26 Dec 2007	______	Birth	MAGDALENA	
266	M	6 Nov 2007	216	185	VGRISELDA	6 Nov 2007	______	Birth	POPEYE	
267	M	2 May 2008	144	27	MILWAUKEE	2 May 2008	5521	Birth	CHAC	
					LOSANGELE	2 May 2008	991979	Ownership		
					YULEE	12 Nov 2009	Y94308	Loan to		
268	F	6 May 2008	160	187	LA MARINA	6 May 2008	______	Birth	AMALIA	
						19 Jun 2008		Death		
		[Death by: Unknown means]								
269	M	5 Jul 2008	197	78	SUMMIT ZO	5 Jul 2008	______	Birth	BAYANO	
270	M	22 Oct 2008	232	233	TUXTLA	22 Oct 2008	______	Birth	TSUKI	
271	M	1 Dec 2008	232	234	TUXTLA	1 Dec 2008	______	Birth	NANDO	

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Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
272	F	5 Dec 2009	84	206	FRANKLINP	5 Dec 2009	F09035	Birth		
					PARAMUS	6 Sep 2011	______	Loan to		
273	M	13 Feb 2009	115	106	SEDGWICK	13 Feb 2009	12392	Birth		
						13 Feb 2009		Death		
			[Death by: Premature birth		Incinerate Unknown (after necropsy)]					
274	F	13 Sep 2009	102	149	WUPPERTAL	13 Sep 2009	209053	Birth	BONITA	
275	M	12 Apr 2009	238	182	BEIJING	12 Apr 2009	09-1	Birth		
276	M	7 Apr 2009	33	95	BEIJING	7 Apr 2009	09-3	Birth		
						5 Nov 2011		Death		
			[Death by: Infection associated		Unknown	Digestive Unknown after necropsy]				
277	M	14 Dec 2009	225	257	BELIZE	14 Dec 2009	______	Birth		
						15 Dec 2009		Death		
			[Death by: Other/Unknown		Unknown	Cardiovascular Unknown after necropsy]				
278	M	~May 2009±1m	WILD	WILD	STANN CR	2 May 2009	NONE	Capture	INDY	
					BELIZE	5 Jun 2009	______	Transfer		
279	M	30 Apr 2010	160	187	LA MARINA	30 Apr 2010	______	Birth	ROBLE ASISCO	AVID 093 331 794
280	F	4 Feb 2009	216	185	VGRISELDA	4 Feb 2009	______	Birth	ANDREA	
281	M	29 Mar 2010	115	106	SEDGWICK	29 Mar 2010	12874	Birth	Copernicus	
					LOSANGELE	29 Mar 2010	992467	Ownership		
					BRIGHTSFA	6 Dec 2011	44	Loan to		
282	M	2 May 2010	230	207	NASHV ZOO	2 May 2010	3262	Birth	NOAH	055*047*517
					HOUSTON	18 May 2011	26451	Transfer		
283	M	21 Feb 2011	107	114	BREVARD	21 Feb 2011	11025	Birth	TUGMUTTON	
					METRORICH	26 Oct 2011	111035	Transfer		
284	M	15 Mar 2011	225	257	BELIZE	15 Mar 2011	______	Birth	MARCHISMO	
285	M	~Mar 2010±1m	WILD	WILD	CAYO	19 Apr 2010	NONE	Capture	TAMBO	
287	M	26 Aug 2010	199	259	LA MARINA	26 Aug 2010	______	Birth	PABLITO	AVID 065 882 030
288	F	18 May 2010	155	198	LA MARINA	18 May 2010	______	Birth	ANTONIA	AVID 065 878 010
289	F	16 Apr 2011	33	95	BEIJING	16 Apr 2011	J11-2	Birth		
290	F	1 May 2011	238	182	BEIJING	1 May 2011	J11-4	Birth		
291	?	19 Dec 2011	195	183	SHANGHAI	19 Dec 2011	______	Birth	JING JING	

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Historical Data

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
292	M	12 Sep 2011	230	207	NASHV ZOO	12 Sep 2011	3601	Birth		
						12 Sep 2011		Death		
		[Death by: Unknown means]								
293	M	31 Mar 2012	203	202	DREHER PA	31 Mar 2012	212035	Birth		

TOTALS: 157.113.6 (276)

Location Glossary - CENTRAL AMERICAN TAPIR Studbook

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Contact: Steve Baynes

AUDUBON Audubon Zoo
PO Box 4327, New Orleans, Louisiana, USA, 70178-4327
504.212.5369 fax: 504.212.5471 amiller@audubooninstitute.org
Contact: Linda Robledo

BAHBLANCA Jardin Zoologico de Bahia Blanca
Bahia Blanca, Buenos Aires, Argentina

BATONROUG BREC's Baton Rouge Zoo
P.O. Box 60, Baker, Louisiana, USA, 70704-0060
(225)775-3877 x205 fax: (225)620-0472 jpage@brzoo.org
Contact: Jennifer Page Data current to 21 Apr 2012

BEIJING Beijing Zoological Gardens
137 Xizhimenwai Street, Beijing, Peoples Rep.of China, 100044
86 1 89 4531 fax: 86 0106832 1959 xiaoying0303@163.com
Contact: Junyingzhou Data current to 21 Apr 2012

BELIZE The Belize Zoo & TEC
PO Box 1787, Belize City, Belize
501 45523 animalmgt@belizezoo.org
Contact: Humberto Wohlers Data current to 21 Apr 2012

BELLEVIEW Marion Nature Park (Mark Wilson,DVM)
PO Box 2319, Belleview, Florida, USA, 34421
(352)347-7800

BERLIN TP Tierpark Berlin-Friedrichsfelde GmbH
Am Tierpark 125, D-10307 Berlin, Germany
49 (0)30 25401-218 fax: 49 (0)30 25401-255 a.ochs@zoo-berlin.de
Contact: Andreas Ochs Data current to 21 Apr 2012

BERLINSCH Schorfheide (Extinct)
Berlin, Germany

BREVARD Brevard Zoo
8225 N. Wickham Rd., Melbourne, Florida, USA, 32940-7924
(321)254-9453x323 fax: (321)259-5966 tframpton@brevardzoo.org
Contact: Tracy Frampton Data current to 21 Apr 2012

BRIGHTSFA Brights Farm
PO Box 127, Limestone, Tennessee, USA, 37681
423-257-1927 david@brightszoo.org
Contact: Tony Bright, Ceo Data current to 21 Apr 2012

BROWNSVIL Gladys Porter Zoo
500 Ringgold St., Brownsville, Texas, USA, 78520
956.504.2895 fax: 956.504.2895 registar@gpz.org

BUCK W Warren E. Buck
Camden, New Jersey, USA

CAYO CAYO
Belize, Central America, American Region

CENTRALAM CENTRAL AMERICA
American Region

CEPEPE Center for Propagation of Endangered Panamanian Species
P.O. Box 973, Apo Miami, Florida, USA, 34002
507 52 6614

CHASE B Charles (Bill) P. Chase Co. Inc.
7330 NW 66th St, Miami, Florida, USA, 33166

CHATHAM Grindstone Valley Zoological (extinct)
R.R. 1 Box 290, Chatham, Illinois, USA, 62629
(217)483-3410

CHETUMAL Zoologico Payo Obispo
Avenida Insurgentes S/N, Chetumal, Quintana Roo, Mexico, CP77082
52 98321508

CHIAPAS CHIAPAS
Mexico, Central America, American Region

CHICAGOBR Chicago Zoological Park
3300 Golf Rd., Brookfield, Illinois, USA, 60513
708.688.8460 fax: (708)485-3140 debbie.johnson@czs.org
Contact: Jay Peterson Data current to 3 Jan 2005

CLEVELAND Cleveland Metroparks Zoo
3900 Wildlife Way, Cleveland, Ohio, USA, 44109
(216)635-3361 fax: (216)661-3312 pak@clevelandmetroparks.com
Contact: Pam Krentz Data current to 21 Apr 2012

CLOVIS Hillcrest Park Zoo
Box 760, Clovis, New Mexico, USA, 88101
(505)762-1101

COLUMBIA Riverbanks Zoo and Garden
PO Box 1060, Columbia, South Carolina, USA, 29202-1060
803.779.8714x1245 fax: 803.253.6381 susanreno@riverbanks.org
Contact: Susan Reno Data current to 1 Jan 2010

COLUMBUS Columbus Zoo and Aquarium
PO Box 400, Powell, Ohio, USA, 43065-0400
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Belize, Central America, American Region

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Central America, American Region

COSTA, C. _____

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Kiekebuscherstr. 5, D-03042 Cottbus, Germany
49 3 55 3 55 53 60 fax: +49 3 55 3 55 53 70 kaemmerling@zoo-cottbus.de
Contact: Dr. Jens Kammerling,director Data current to 21 Apr 2012

CRANDONPK Crandon Park (extinct see Metrozoo)
USA

DARIEN DARIEN
Panama, Central America, American Region

DREHER PA Palm Beach Zoo at Dreher Park
1301 Summit Blvd., West Palm Beach, Florida, USA, 33405-3098
561.533.0887x215 fax: 561.540.1430 glovett@palmbeachzoo.org
Contact: Gwen Lovett Data current to 21 Apr 2012

ECUADOR ECUADOR
South America, American Region

EL NISPER El Nispero Zoo & Botanical Garden
El Valle de Anton, Anton, Cocle, Panama
507.240.1468
Contact: Carlos Mauricio Caballero Data current to 9 Jun 2005

EVANSVLLE Mesker Park Zoo
2421 Bement Ave., Evansville, Indiana, USA, 47720
812.435.6143 x 405 fax: 812.435.6140 dduke@meskerparkzoo.com
Contact: Dana Duke Data current to 21 Apr 2012

FERNDALE International Animal Exchange, Inc.
25600 Woodward Ave., Suite 110, Royal Oak, Michigan, USA, 48067
248.398.6533x9 fax: 248.545.4125 lauraaswp@aol.com

FOX D G Critterland (Donnovan & Gail Fox)
Bolivar, Missouri, USA

FRANKLINP Zoo New England, Franklin Park Zoo
1 Franklin Park Rd., Boston, Massachusetts, USA, 02121
(617)989-2066 fax: (617)989-2025 jjackle@zoonewengland.com
Contact: Jeannine Jackle, Asst. Curator Data current to 21 Apr 2012

GARDENCTY Lee Richardson Zoo
312 Finnup Drive, Garden City, Kansas, USA, 67846-0499
(620)276-1230 fax: 620.276.1229 sfontenot@garden-city.org
Contact: Stephanie Fontenot Data current to 21 Apr 2012

GREATBEND Brit Spaugh Park Zoo
North Main, Hwy 281, Great Bend, Kansas, USA, 67530
(620)793-4160 fax: (620)793-4165 britspaugh@greatbend.com

GRND PRAI Wildlife Management Services (Ext.)
601 Wildlife Pky., Grand Prairie, Texas, USA, 75050
(214)263-2201

GUADALJR Guadalajara Zoo
Av. Paseo del Zoologico No. 600, Guadalajara, Jalisco, Mexico, C.P. 44390
52.33.367.44488 fax: 52.33.367.43848 labascal@zooguadalajara.com.mx
Contact: Mvz Liliana Abascal Data current to 21 Apr 2012

GUAT GUATEMALA CITY
Guatemala, Central America, American Region

GUAT CITY Zoologico Nacional La Aurora
5ta. calle int. Finca La Aurora, Guatemala City, Guatemala C.a., zona 13
502 505-68276 fax: 502 472 3912 kurtduchez@yahoo.com
Contact: Dr. Kurt Duchez Data current to 21 Apr 2012

GUATEMALA GUATEMALA
Central America, American Region

GULF BREZ The ZOO, Northwest Florida
5701 Gulf Breeze Pkwy., Gulf Breeze, Florida, USA, 32563
850.932.2229 x 104 fax: (850)932-8575 dianezoonwf@bellsouth.net

H.TRAPIDO _____

HACIENDAT _____

HANOVER Z Clifty Acres Zoo Farm
Hanover, Indiana, USA

HATTIESBG Hattiesburg Zoo
107 South 17th Ave., Hattiesburg, Mississippi, USA, 39401-6128
(601)545-4576 fax: (601)545-4653 kbarry@hattiesburg.org
Contact: Katie Barry, Anim. Care Supervisor Data current to 21 Apr 2012

HERMOSA B Hermosa Reptile and Wild Animal Farm
Hermosa Beach, California, USA

HOGLE Utah's Hogle Zoo
Utah Zoological Society, Salt Lake City, Utah, USA, 84108
animalrecords@hoglezoo.org

HOLIDAY Earl Tatum
5 Pleasant Ridge Dr., Eureka Springs, Arkansas, USA, 72632
(501)253-9696

HONDURAS HONDURAS
Central America, American Region

HOUSTON Houston Zoo, Inc.
1513 N MacGregor, Houston, Texas, USA, 77030-1603
713.533.6510 fax: 713.533.6802 jthomas@houstonzoo.org
Contact: Joann Thomas, Asst. Registrar Data current to 21 Apr 2012

JACKSONVL Jacksonville Zoo and Gardens
370 Zoo Parkway, Jacksonville, Florida, USA, 32218-5769
(904)757-4463x131 fax: (904)757-4315 rosta@jacksonvillezoo.org
Contact: Alan Rost Data current to 21 Apr 2012

JP LITWIN J. P. Litwin (Extinct)
San Jose, San Jose, Costa Rica

JUIGALPA JARDIN ZOOLOGICO THOMAS BELT
Juigalpa, Chontales, Nicaragua

JWGRASSEL _____

KANAZAWA Kanazawa Zoological Garden of Yokohama
5-15-1, Kamariya-higashi, Kanazawa-ku, Yokohama, Japan, 236-0042
81 45 783 9101 fax: 81 45 782 9972

KEIHIN CH Keihin Choju Trading Co Ltd
Riverfield Building 10-F, Naka-ku Yokohama, Japan, 231
81 45 662 1600

L RUHE Louis Ruhe GmbH (1860-1995)
Gerdag Strasse 8, 3220 Alfeld/leine, Germany

LA ESCOND La Escondida (Manuel Noriega)
David, Chiriqui, Panama

LA MARINA Wildlife Rescue Center La Marina
Foundation Rescatela, Ciudad Quesada, San, Alajuela, Costa Rica, 4400
506.474.2100 rescatela@yahoo.com
Contact: Juan Jose Rojas Alfaro Data current to 21 Apr 2012

LEON Patronato del Parque Zoologico de Leon
Camino a ibarrilla km. 6, Leon, Guanajuato, Mexico
52.477 790.4414 fax: 52.477.764.3142 biologo@zooleon.org
Contact: Carlos Guillen Data current to 21 Apr 2012

LONDON RP Zoological Society of London
Regent's Park, London, England, United Kingdom, NW1 4RY
44 20 7449 6452 fax: 44 20 7722 2852 elspeth.chaplin@zsl.org

LOSANGELE Los Angeles Zoo & Botanical Gardens
5333 Zoo Dr., Los Angeles, California, USA, 90027
(323)644-4295 fax: (323)662-9786 jennie.becker@lacity.org
Contact: Jennie Becker Data current to 21 Apr 2012

MAMAJUA Parque Nacional Zoologico
Km 16, Car A, Masaya, Mamajua, Nicaragua
505 79 297

MCMANN _____

MEMPHIS Memphis Zoological Garden & Aquarium
2000 Prentiss Place, Memphis, Tennessee, USA, 38112
901.333.6706 chesch@memphiszoo.org

METRORICH Metro Richmond Zoo
8300 Beaver Ridge Road, Moseley, Virginia, USA, 23120
(804)739-5666 fax: (804)739-6003 jmrzoo@gmail.com
Contact: Mr. Jim Andelin Data current to 21 Apr 2012

METROZOO Zoo Miami
(One Zoo Boulevard), Miami, Florida, USA, 33177-1402
(305)251-0400x253 fax: (305)378-6381 rrogers@miamidade.gov
Contact: Rachel Rogers Watkins Data current to 21 Apr 2012

MEXICO MEXICO COUNTRY
Central America, American Region

MEXICOCTY Zoologico de Chapultepec
Calle Chivatito s/n, 11850 Mexico City, Federal District, Mexico
52 55 53 6263x2000 fax: 52 55 53 6263x2005 gual@servidor.unam.mx

MILWAUKEE Milwaukee County Zoological Gardens
10001 W Bluemound Rd, Milwaukee, Wisconsin, USA, 53226-4384
414.256-5448 fax: 414.256-5450 linda.bachers@milwcnty.com
Contact: Linda Bachers Data current to 21 Apr 2012

MONROE Louisiana Purchase Gardens & Zoo
P.O. Box 123, Monroe, Louisiana, USA, 71210
318.329.2582 fax: 318-329-2887 carin.collins@ci.monroe.la.us
Contact: Carin Collins Data current to 21 Apr 2012

MOORPARK America's Teaching Zoo
Moorpark College, Moorpark, California, USA, 93021
805.378.1545 mhines@vcccd.net

MORELIA Parque Zoologico "Benito Juarez"
Calzada Juarez S/N, Morelia, Michoacan, Mexico, 58070
52 43 140488 fax: 52 43 141949 kenia_kev@hotmail.com

NASHV ZOO Nashville Zoo at Grassmere
3777 Nolensville Rd., Nashville, Tennessee, USA, 37211
615.627.3052 fax: 615.832.0871 ppellett@nashvillezoo.org
Contact: Peggy Pellett Data current to 21 Apr 2012

NASSAU Seafloor Aquarium
P.O. Box N 456, Nassau, Bahamas
(809)323-6896

NICARAGUA NICARAGUA
Central America, American Region

NORFOLK Virginia Zoological Park
3500 Granby St., Norfolk, Virginia, USA, 23504
757.441-5227 x 282 fax: 757.624-9939 james.hall@norfolk.gov
Contact: Wyn Hall Data current to 25 May 2004

NY BRONX Bronx Zoo/Wildlife Conservation Society
2300 Southern Blvd., Bronx, New York, USA, 10460-1099
718.220.8711 fax: (718)220-7114 arockmore@wcs.org

NZP-WASH Smithsonian National Zoological Park
3001 Connecticut Avenue NW, Washington, District Of Columbia, USA, 20008-2537
202.633.3244 fax: 202.633.8727 murphym@si.edu

OAXACA OAXACA
Mexico, Central America, American Region

OMAHA Omaha's Henry Doorly Zoo
3701 South 10th St., Omaha, Nebraska, USA, 68107-2200
(402)557-6932 fax: (402)738-2039 christee@omahazoo.com
Contact: Christie Eddie, Cur Small Mammals Data current to 21 Apr 2012

P.J.JONES _____

PAIBAUMAN _____

PANAMA PANAMA
Central America, American Region

PANAMA P PANAMA CITY
Panama, Central America, American Region

PANYU Panyu Xiangjiang Safari Park
Panyu City, Guangzhou, China
86 84789023

PARAMUS Bergen County Zoological Park
216 Forest Avenue, Paramus, New Jersey, USA, 07652
(201)262-3771x114 fax: (201)986-1788 cnorton@co.bergen.nj.us
Contact: Cindy Norton Data current to 21 Apr 2012

PET FARM Pet Farm (Bern Levine)
3310 NW South River Dr, Miami, Florida, USA, 33142

PHILADELP The Philadelphia Zoo
3400 W Girard Ave., Philadelphia, Pennsylvania, USA, 19104
215.243.5214 fax: (215)243-0219 bahner.beth@phillyzoo.org

PUBLIC General Public

PUEBLA Africam Safari
11 Oriente #2407, Puebla, Puebla, Mexico, CP 72007
52.222.2817000x230 fax: 52 222 2817000x257 cholguin@africamsafari.com.mx
Contact: Carolina Holguin Data current to 21 Apr 2012

PYONGYANG Pyongyang Zoological Park
Pyongyang, North Korea

R CHAPMAN _____

R. WILSON _____

RUM CREEK Center for Conserv. of Trop. Ungulates
46470 Farabee Road, Punta Gorda, Florida, USA, 33982
1.941.637.3827 fax: (863)993-4547 cctu@desoto.net

S BARBARA Santa Barbara Zoological Gardens
500 Ninos Dr., Santa Barbara, California, USA, 93103-3798
(805)962-5339x32 fax: (805)962-3056 wstanford@sbzoo.org

SAN ANTON San Antonio Zoological Gardens & Aqua
3903 N. St. Mary's Street, San Antonio, Texas, USA, 78212-3199
(210)734-7184x162 fax: (210)734-7291 zooregistrar@sazoo-aq.org
Contact: Demi Peterson Data current to 5 Aug 2003

SAN FRAN San Francisco Zoological Gardens
1 Zoo Rd., San Francisco, California, USA, 94132-1098
(415)753-7176 fax: (415)681-4749 ingridr@sfzoo.org
Contact: Ingrid Russel-White, Cur Animal Col Data current to 21 Apr 2012

SANDIEGOZ San Diego Zoo
PO Box 120551, San Diego, California, USA, 92112-0551
(619)685-3250 fax: 619.232.4117 tgiezendan@sandiegozoo.org
Contact: Toni Giezendanner

SANJOSECR Zoologico Nacional Simon Bolivar
Fundacion por Zoologicos, San Jose, Costa Rica
506 256 0012 fax: 506 223 1817 fundazoo@racsa.co.cr
Contact: Federico Chinchilla

SAV ED PK _____

SD-WAP San Diego Wild Animal Park
15500 San Pasqual Valley Rd, Escondido, California, USA, 92027
(619)685-3250 fax: 619.232.4117 tgiezendan@sandiegozoo.org
Contact: Toni Giezendanner

SEDGWICK Sedgwick County Zoo
5555 Zoo Blvd., Wichita, Kansas, USA, 67212-1698
(316)266-8237 fax: (316)942-3781 mquick@scz.org
Contact: Mike Quick Data current to 21 Apr 2012

SHANGHAI Shanghai Wild Animal Park
Sanzao, Pudong Nanhui, Shanghai, China
81 21 5853 6000

SHENZHEN Shenzhen Safari Park
Xili Lake, Shenzhen, Guangdong, China

SHIH CHIA Shijiazhuang Zoological Garden
698 Zhong Shan Xi Street, Shijiazhuang, Hebei (Hopeh), Republic Of China, 050081
86 311 363 2668

SLAUGHTER Southern Exposure Wildlife Park
777 Hwy 409, Slaughter, Louisiana, USA, 70777
(504)654-7077 fax: (504)654-7094

SS GORGAS _____

ST LOUIS Saint Louis Zoological Park
1 Government Dr., St. Louis, Missouri, USA, 63110-1395
314.646.4572 haliday@stlzoo.org

STANN CR STANN CREEK
Belize, Central America, American Region

SUMMIT ZO Parque Municipal Summit
Apartado 503 - zona 1, Panama, Panama
(507)232-4850 fax: (507)232-4854 dssmithc@gmail.com
Contact: Diorene J. Smith C. Data current to 22 Apr 2012

T BARBOUR _____

T HILLMAN _____

TOLEDO Toledo Zoological Gardens
PO Box 140130, Toledo, Ohio, USA, 43614-0801
(419)389-6403x3088 fax: (419)385-8670 gfavata@toledozoo.org

TRINIDAD TRINIDAD
Trinidad And Tobago, Central America, American Region

TUCSON Reid Park Zoo
110 S Randolph Way, Tucson, Arizona, USA, 85716
(520)791-3204 fax: (520)791-5378 stacy.spurgeon-shoults@tucsonaz.gov
Contact: Stacy Spurgeon-shoults, Registrar Data current to 21 Apr 2012

TUXTLA Miguel Alvarez Del Toro Zoo
Apartado Postal No. 6, Tuxtla Gutierrez, Chiapas 29000, Mexico
98 961 23754 fax: 98 961 29943 aguilaragon@yahoo.com
Contact: Pedro Aguilar Aragon Data current to 1 Sep 2005

UNKNOWN Unknown Location

USFWS US Fish and Wildlife Service
USA

VERAGUAS VERAGUAS
Panama, Central America, American Region

VGRISELDA Villa Griselda (Ronald Kelly)
PO Box 0146, Panama City, Panama
Contact: Ronald Kelly Data current to 26 Mar 2005

VICTOR TX Texas Zoo
110 Memorial Dr., Victoria, Texas, USA, 77901
361.573.2891 fax: 361.576.1094 mmagaw@texaszoo.org
Contact: Michael Magaw, Curator Data current to 21 Apr 2012

VOGEL K _____

WILD Obtained From Wild

WUPPERTAL Zoologischer Garten Wuppertal
Hubertusallee 30, Wuppertal, N Rhine-westph, Germany, D-42117
49 202 2747 139 fax: 49 202 741888 a.stadler@zoo-wuppertal.de
Contact: Andre Stadler Data current to 21 Apr 2012

XCARET Acuario Xcaret
Km. 282 Carr.Chetumal-Pto.Juarez, Playa Del Carmen, Quintana Roo, Mexico, CP 77710
52 984 8715268 jmgomez74@yahoo.com.mx
Contact: Efrain Rios Castillo Data current to 15 Jan 2005

YULEE White Oak Conservation Center
White Oak Plantation, Yulee, Florida, USA, 32097-9807
(904)225-3383 fax: (904)225-3395 miket@wogilman.com
Contact: Mike Taylor Data current to 21 Apr 2012

ZNACHONDU _____

ZOORASIA Yokohama Zool. Gardens (ZOORASIA)
1175-1 Kamishirane-cho, Yokohama, Kanagawa-ken, Japan, 241-0001
81 45 951 1297 fax: 81 45 951 0777 watanabe.s@hama-midorinokyokai.or.jp
Contact: Satoshi Watanabe, Curator Data current to 21 Mar 2010

CENTRAL AMERICAN TAPIR Studbook
Living Population
(*Tapirus bairdii*)

Restricted to:
Status: Living during 1 Jan 2011 - 22 May 2012
Report ordered by: current/last location (geographic)

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
Tierpark Berlin-Friedrichsfelde GmbH, D-10307 Berlin, Germany										
239	M	18 Jan 2006	102	149	WUPPERTAL	18 Jan 2006	206007	Birth	CICO	968000004264012
					BERLIN TP	22 Dec 2008	M03748	Loan to		
Totals: 1.0.0 (1)										
Tierpark Cottbus, D-03042 Cottbus, Germany										
256	M	3 Oct 2006	117	21	WUPPERTAL	3 Oct 2006	206049	Birth	MOLI	
					COTTBUS	12 Aug 2009	5037	Loan to		
Totals: 1.0.0 (1)										
Zoologischer Garten Wuppertal, Wuppertal, N Rhine-Westph, Germany										
21	F	20 Apr 1980	1	2	SANDIEGOZ	20 Apr 1980	180087	Birth	TANYA	
					LOSANGELE	3 Apr 1981	000319	Loan to		
					S BARBARA	10 Nov 1988	29722	Loan to		
					COLUMBIA	21 Nov 1989	SJ1408	Loan to		
					WUPPERTAL	17 Jun 1996	96034	Transfer		
						28 Jul 2011		Death		
				[Death by: Unknown means]						
102	M	27 Nov 1991	38	83	NORFOLK	27 Nov 1991	910088	Birth	JASPER	
					LOSANGELE	27 Nov 1991	004086	Ownership		
					SEDGWICK	28 Sep 1993	6268	Loan to		
						1 May 1996	6268	Ownership		
					WUPPERTAL	17 Jun 1996	96033	Transfer		
117	M	6 Sep 1993	35	34	COLUMBUS	6 Sep 1993	932110	Birth	TONKA	00-0014-63DB
					WUPPERTAL	7 Jul 1994	94042	Loan to		
						20 Dec 2000	94042	Ownership		
						16 Dec 2011		Death		
				[Death by: Euthanasia (medical) Unknown Unknown (after necropsy)]						
149	F	26 Aug 1998	117	21	WUPPERTAL	26 Aug 1998	98052	Birth	SUSANNA	
274	F	13 Sep 2009	102	149	WUPPERTAL	13 Sep 2009	209053	Birth	BONITA	
Totals: 2.3.0 (5)										

CENTRAL AMERICAN TAPIR Studbook
Living Population
(*Tapirus bairdii*)

Restricted to:
Status: Living during 1 Jan 2011 - 22 May 2012
Report ordered by: current/last location (geographic)

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
Reid Park Zoo, Tucson, Arizona, USA										
193	F	3 Mar 2002	107	114	BREVARD	3 Mar 2002	940790	Birth	CONTESSA	
					NORFOLK	3 Mar 2002	202014	Ownership		
					PARAMUS	20 Jun 2003	2585	Loan to		
						10 Jun 2005	2585	Ownership		
					TUCSON	9 Sep 2011	M11022	Loan to		
247	M	11 Apr 2006	29	30	METROZOO	11 Apr 2006	M60027	Birth	TUPI	
					TUCSON	25 Mar 2007	T75203	Transfer		
Totals: 1.1.0 (2)										
Los Angeles Zoo & Botanical Gardens, Los Angeles, California, USA										
25 neutM		11 Dec 1982	19	21	LOSANGELE	11 Dec 1982	001082	Birth	BUTCH	
Totals: 1.0.0 (1)										
San Diego Zoo, San Diego, California, USA										
28	M	17 Apr 1984	22	14	METROZOO	17 Apr 1984	M00278	Birth	WIDGET	
					SANDIEGOZ	17 Apr 1984	025114	Ownership		
					MOORPARK	15 Aug 1984	000197	Loan to		
					SANDIEGOZ	10 Mar 1989	025114	Transfer		
36	F	15 Mar 1987	25	27	LOSANGELE	15 Mar 1987	002562	Birth	RACHEL	
					SANDIEGOZ	17 Jun 1988	588246	Loan to		
Totals: 1.1.0 (2)										
San Francisco Zoological Gardens, San Francisco, California, USA										
124	M	12 Aug 1994	25	27	LOSANGELE	12 Aug 1994	004676	Birth	GOOBER	0000-71-6B41
					SAN FRAN	30 Jan 1997	197003	Transfer		
Totals: 1.0.0 (1)										
Jacksonville Zoo and Gardens, Jacksonville, Florida, USA										
35	M	27 May 1986	3	21	LOSANGELE	27 May 1986	002419	Birth	VINCENT	00-01BC-61F1
					COLUMBUS	22 Jul 1987	872121	Transfer		
					JACKSONVL	22 Oct 1997	897070	Loan to		
						9 Mar 2009	897070	Ownership		
Totals: 1.0.0 (1)										

CENTRAL AMERICAN TAPIR Studbook
Living Population
(*Tapirus bairdii*)

Restricted to:
Status: Living during 1 Jan 2011 - 22 May 2012
Report ordered by: current/last location (geographic)

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
Palm Beach Zoo At Dreher Park, West Palm Beach, Florida, USA										
202	F	1 May 2003	144	27	MILWAUKEE	1 May 2003	4950	Birth	ALYSSA	
					LOSANGELE	1 May 2003	990857	Ownership		
					DREHER PA	3 Apr 2004	204068	Loan to		
203	M	3 May 2003	92	106	SEDGWICK	3 May 2003	10438	Birth	SPENCER	
					METROZOO	3 May 2003	Y3M020	Ownership		
					DREHER PA	12 Feb 2004	204069	Loan to		
						3 Apr 2004	204069	Ownership		
293	M	31 Mar 2012	203	202	DREHER PA	31 Mar 2012	212035	Birth		
Totals: 2.1.0 (3)										
Brevard Zoo, Melbourne, Florida, USA										
107	M	21 Jan 1992	22	14	METROZOO	21 Jan 1992	M01481	Birth	PEEWEE	
					BREVARD	26 Jan 1994	940006	Loan to		
114	F	24 Apr 1993	38	83	NORFOLK	24 Apr 1993	930019	Birth	JOSEPHINE	
					BREVARD	25 Jan 1994	940007	Loan to		
						23 Mar 2004	940007	Ownership		
Totals: 1.1.0 (2)										
White Oak Conservation Center, Yulee, Florida, USA										
83	F	18 Feb 1989	3	21	S BARBARA	18 Feb 1989	29790	Birth	BELLE	00-01DA-5565 TR
					LOSANGELE	18 Feb 1989	003423	Ownership		
					NORFOLK	20 Nov 1989	890144	Loan to		
					GARDENCTY	12 Apr 2000	A01008	Loan to		
					YULEE	30 May 2006	Y64306	Loan to		
267	M	2 May 2008	144	27	MILWAUKEE	2 May 2008	5521	Birth	CHAC	
					LOSANGELE	2 May 2008	991979	Ownership		
					YULEE	12 Nov 2009	Y94308	Loan to		
Totals: 1.1.0 (2)										
Mesker Park Zoo, Evansville, Indiana, USA										
125	M	3 Oct 1994	22	14	METROZOO	3 Oct 1994	M01792	Birth	HUEY	
					YULEE	29 May 1996	960314	Transfer		
					EVANSVLLE	11 Mar 2008	108003	Loan to		
Totals: 1.0.0 (1)										

CENTRAL AMERICAN TAPIR Studbook
Living Population
(*Tapirus bairdii*)

Restricted to:
Status: Living during 1 Jan 2011 - 22 May 2012
Report ordered by: current/last location (geographic)

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
Lee Richardson Zoo, Garden City, Kansas, USA										
38	M	19 Apr 1988	25	27	LOSANGELE	19 Apr 1988	002971	Birth	JAKE	00-0133-E8DE T
					NORFOLK	17 Nov 1988	880117	Loan to		
					GARDENCTY	12 Apr 2000	A01007	Loan to		
Totals: 1.0.0 (1)										
Sedgwick County Zoo, Wichita, Kansas, USA										
106	F	27 Oct 1992	37	31	S BARBARA	27 Oct 1992	920129	Birth	SCHNAPPS	00-0020-5828
					LOSANGELE	27 Oct 1992	004373	Ownership		
					S BARBARA	27 Oct 1992	920129	Transfer		
					SEDGWICK	25 Oct 1993	6307	Loan to		
115	M	29 May 1993	22	14	METROZOO	29 May 1993	M01638	Birth	EINSTEIN	
					SANDIEGOZ	29 May 1993	593608	Ownership		
					METROZOO	8 Jan 2002	M01638	Ownership		
					VICTOR TX	22 Jan 2002	200204	Transfer		
					SAN ANTON	22 Sep 2005	S05018	Loan to		
					VICTOR TX	29 Sep 2005	200204	Transfer		
					SEDGWICK	11 Mar 2007	11650	Loan to		
Totals: 1.1.0 (2)										
Brec's Baton Rouge Zoo, Baker, Louisiana, USA										
208	F	23 Aug 2004	144	27	MILWAUKEE	23 Aug 2004	5108	Birth	BOBBI	
					BATONROUG	28 Aug 2006	10068	Loan to		
260	M	16 Mar 2007	84	206	FRANKLINP	16 Mar 2007	F07007	Birth	SEAMUS	00-0676-C33A
					BATONROUG	9 Nov 2009	10474	Transfer		
Totals: 1.1.0 (2)										
Louisiana Purchase Gardens & Zoo, Monroe, Louisiana, USA										
126	M	4 Dec 1994	38	83	NORFOLK	4 Dec 1994	940108	Birth	JUSTIN	00-01DA-9BA4
					LOSANGELE	4 Dec 1994	004710	Ownership		
					MONROE	9 Nov 2001	24157I	Loan to		
Totals: 1.0.0 (1)										

CENTRAL AMERICAN TAPIR Studbook
Living Population
(*Tapirus bairdii*)

Restricted to:
Status: Living during 1 Jan 2011 - 22 May 2012
Report ordered by: current/last location (geographic)

Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
Zoo New England Franklin Park Zoo, Boston, Massachusetts, USA										
84	M	23 Feb 1989	29	30	METROZOO	23 Feb 1989	M01060	Birth	MILTON	
					COLUMBIA	29 Mar 1991	SJ1515	Transfer		
					FRANKLINP	6 Sep 1997	97A041	Transfer		
206	F	4 Mar 2004	38	83	GARDENCTY	4 Mar 2004	104006	Birth	ABBY	
					FRANKLINP	8 Nov 2005	A05044	Transfer		
Totals: 1.1.0 (2)										
147	M	15 Dec 1997	107	114	BREVARD	15 Dec 1997	940336	Birth	SKEETER BISC	
					NORFOLK	15 Dec 1997	970147	Ownership		
					FOX D G	26 Nov 1999	_____	Transfer		
					SAV ED PK	~Jun 2000±6m	_____	Transfer		
					VOGEL K	10 Apr 2001	_____	Transfer		
Totals: 1.0.0 (1)										
Hattiesburg Zoo, Hattiesburg, Mississippi, USA										
122	M	17 Apr 1994	86	100	AUDUB SSC	17 Apr 1994	M94010	Birth	JASPER	000016CB47
					LOSANGELE	17 Apr 1994	004679	Ownership		
					HATTIESBG	8 Jan 1997	M0086	Loan to		
Totals: 1.0.0 (1)										
Omaha's Henry Doorly Zoo, Omaha, Nebraska, USA										
37	M	26 Sep 1987	3	21	LOSANGELE	26 Sep 1987	002647	Birth	CURTIS	444B514956
					S BARBARA	10 Nov 1988	29723	Loan to		
					OMAHA	9 Jan 2000	11426	Loan to		
Totals: 1.0.0 (1)										
Bergen County Zoological Park, Paramus, New Jersey, USA										
173	M	17 May 2000	35	34	JACKSONVL	17 May 2000	800431	Birth	TONKA	057*876*851
					COLUMBUS	17 May 2000	200073	Ownership		
					PARAMUS	20 Jun 2003	2584	Loan to		
						13 Jan 2009	2584	Ownership		
272	F	5 Dec 2009	84	206	FRANKLINP	5 Dec 2009	F09035	Birth		
					PARAMUS	6 Sep 2011	_____	Loan to		
Totals: 1.1.0 (2)										

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Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
Nashville Zoo At Grassmere, Nashville, Tennessee, USA										
207	F	1 Apr 2004	110	78	SUMMIT ZO	1 Apr 2004	_____	Birth	HOUSTON	
					NASHV ZOO	30 May 2008	3002	Transfer		
230	M	6 May 2005	160	187	LA MARINA	6 May 2005	_____	Birth	ROMEO	086-068-372
					RUM CREEK	15 Jan 2008	108004	Transfer		
					NASHV ZOO	24 Oct 2008	3001	Transfer		
292	M	12 Sep 2011	230	207	NASHV ZOO	12 Sep 2011	3601	Birth		
						12 Sep 2011		Death		
		[Death by: Unknown means]								
Totals: 2.1.0 (3)										
Brights Farm, Limestone, Tennessee, USA										
281	M	29 Mar 2010	115	106	SEDGWICK	29 Mar 2010	12874	Birth	Copernicus	
					LOSANGELE	29 Mar 2010	992467	Ownership		
					BRIGHTSFA	6 Dec 2011	44	Loan to		
Totals: 1.0.0 (1)										
Houston Zoo Inc, Houston, Texas, USA										
282	M	2 May 2010	230	207	NASHV ZOO	2 May 2010	3262	Birth	NOAH	055*047*517
					HOUSTON	18 May 2011	26451	Transfer		
Totals: 1.0.0 (1)										
Texas Zoo, Victoria, Texas, USA										
92	M	25 Jul 1990	29	30	METROZOO	25 Jul 1990	M01298	Birth	MELVIN	
					SEDGWICK	21 Jun 1996	7553	Loan to		
					VICTOR TX	9 Mar 2007	200703	Loan to		
						8 Jun 2007	200703	Ownership		
Totals: 1.0.0 (1)										
Metro Richmond Zoo, Moseley, Virginia, USA										
283	M	21 Feb 2011	107	114	BREVARD	21 Feb 2011	11025	Birth	TUGMUTTON	
					METRORICH	26 Oct 2011	111035	Transfer		
Totals: 1.0.0 (1)										

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Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
Milwaukee County Zoological Gardens, Milwaukee, Wisconsin, USA										
27	F	20 Nov 1983	6	15	COLUMBIA	20 Nov 1983	SJ0759	Birth	EVE	
					LOSANGELE	19 Jul 1984	001822	Transfer		
					MILWAUKEE	30 Sep 2001	4804	Loan to		
144	M	19 Oct 1996	35	34	COLUMBUS	19 Oct 1996	962042	Birth	HARLEY	
					MILWAUKEE	9 Jun 1998	4410	Loan to		
						31 May 2001	4410	Ownership		
Totals: 1.1.0 (2)										
The Belize Zoo & Tec, Belize City, Belize										
75	F	~ Apr 1983	WILD	WILD	BELIZE	~ Apr 1983	NONE	Capture	APRIL	
						8 Apr 1983	_____	Transfer		
109	M	~ 1992	WILD	WILD	BELIZE	~ 1993	NONE	Capture	SCOTTY	
						~ Apr 1993	_____	Transfer		
						3 Aug 2011		Death		
[Death by: Euthanasia (medical) Unknown Digestive Mechanical abnormality]										
111	M	~ 1992	WILD	WILD	BELIZE	~ 1993	NONE	Capture	BULLETHEAD	
						~ 1993	_____	Transfer		
225	M	~ May 2004	WILD	WILD	CAYO	15 Jun 2004	NONE	Capture	CEIBO	
					BELIZE	17 Jun 2004	_____	Transfer		
257	F	~ 2005	WILD	WILD	CAYO	~ 2006	NONE	Capture	NAVIDAD	
					BELIZE	5 Jan 2007	_____	Transfer		
278	M	~May 2009±1m	WILD	WILD	STANN CR	2 May 2009	NONE	Capture	INDY	
					BELIZE	5 Jun 2009	_____	Transfer		
284	M	15 Mar 2011	225	257	BELIZE	15 Mar 2011	_____	Birth	MARCHISMO	
Totals: 5.2.0 (7)										
CAYO, BELIZE, Central America, AMERICAN REGION										
285	M	~Mar 2010±1m	WILD	WILD	CAYO	19 Apr 2010	NONE	Capture	TAMBO	
					PRIVATE	19 Apr 2010	_____	Transfer		
Totals: 1.0.0 (1)										

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Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
Costa Rica, Central America, American Region,										
156	M	30 Apr 1996	155	154	LA MARINA	30 Apr 1996	LMZ#4	Birth	MARINO	
					HACIENDAT	6 Jan 1999	_____	Transfer		
158	F	18 Jul 1997	155	154	LA MARINA	18 Jul 1997	LMZ#6	Birth	EURA	021-369-047
					HACIENDAT	6 Jan 1999	_____	Transfer		
159	M	6 Nov 1998	155	131	LA MARINA	6 Nov 1998	LMZ#7	Birth	DAVID	
					HACIENDAT	6 Jan 1999	_____	Transfer		
Totals: 2.1.0 (3)										
Zoologico Nacional Simon Bolivar, San Jose, Costa Rica										
167	M	13 Jan 1999	WILD	WILD	COSTA RIC	13 Jan 1999	NONE	Capture	TOTO	
					SANJOSECR	24 Feb 1999	8	Transfer		
Totals: 1.0.0 (1)										
Wildlife Rescue Center La Marina, Ciudad Quesada San, Alajuela, Costa Rica										
187	F	1 Sep 2000	155	131	LA MARINA	1 Sep 2000	_____	Birth	KANA	065-365-616
198	F	13 Dec 2002	155	157	LA MARINA	13 Dec 2002	_____	Birth	ALBA	065-281-005
199	M	6 Jan 2003	160	131	LA MARINA	6 Jan 2003	_____	Birth	OSCAR	065-621-303
259	F	13 Mar 2007	160	187	LA MARINA	13 Mar 2007	_____	Birth	JULIETA	
279	M	30 Apr 2010	160	187	LA MARINA	30 Apr 2010	_____	Birth	ROBLE ASISCO	AVID 093 331 794
287	M	26 Aug 2010	199	259	LA MARINA	26 Aug 2010	_____	Birth	PABLITO	AVID 065 882 030
288	F	18 May 2010	155	198	LA MARINA	18 May 2010	_____	Birth	ANTONIA	AVID 065 878 010
Totals: 3.4.0 (7)										
Zoologico Nacional La Aurora, Guatemala City, Guatemala C.A.										
99	M	9 Jun 1991	35	34	COLUMBUS	9 Jun 1991	912090	Birth	TERRY	AVID*034*296*857
					GUAT CITY	22 Nov 1993	M00196	Loan to		
174	M	16 Jun 1996	WILD	WILD	UNKNOWN	~ 1997	NONE	Capture	ARAVA	031 586 630
					GUAT CITY	19 Feb 1997	M00195	Transfer		
Totals: 2.0.0 (2)										

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Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
HONDURAS, Central America, American Region,										
252	M	~ 2002	WILD	WILD	HONDURAS	~ 2002	NONE	Capture	BRUNO	
					ZNACHONDU	~ 2002	_____	Transfer		
253	F	~ 2004	WILD	WILD	HONDURAS	~ 2004	NONE	Capture	HILLARY	
					ZNACHONDU	~ 2004	_____	Transfer		
254	M	~ 1999	WILD	WILD	HONDURAS	~ 1999	NONE	Capture		
					ZNACHONDU	~ 1999	_____	Transfer		
255	M	~ 2002	WILD	WILD	HONDURAS	~ 2002	NONE	Capture	CACHIRO	
					ZNACHONDU	~ 2002	_____	Transfer		
Totals: 3.1.0 (4)										
Miguel Alvarez Del Toro Zoo, Tuxtla Gutierrez, Chiapas 29000, Mexico										
232	M	~ 2002	WILD	WILD	CHIAPAS	13 Nov 2002	NONE	Capture	TZIMIN	
					TUXTLA	13 Nov 2002	_____	Transfer		
233	F	~ 2000	WILD	WILD	OAXACA	6 Apr 2001	NONE	Capture	PAQUITA	
					TUXTLA	6 Apr 2001	_____	Transfer		
234	F	~ 2002	WILD	WILD	CHIAPAS	6 Nov 2002	NONE	Capture	LILIANA	
					TUXTLA	6 Nov 2002	_____	Transfer		
270	M	22 Oct 2008	232	233	TUXTLA	22 Oct 2008	_____	Birth	TSUKI	
271	M	1 Dec 2008	232	234	TUXTLA	1 Dec 2008	_____	Birth	NANDO	
Totals: 3.2.0 (5)										
Zoologico De Chapultepec, 11850 Mexico City, Federal District, Mexico										
231	M	3 May 2005	92	106	SEDGWICK	3 May 2005	11085	Birth	CAYOS	
					MEXICOCTY	1 Dec 2008	_____	Transfer		
Totals: 1.0.0 (1)										

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Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
Guadalajara Zoo, Guadalajara, Jalisco, Mexico										
113	M	19 Mar 1993	84	21	COLUMBIA	19 Mar 1993	SJ1615	Birth	NORTON	
					CLEVELAND	12 Nov 1994	941123	Transfer		
					GUADALJR	28 May 2003	M02340	Transfer		
					PUBLIC	11 Nov 2005	_____	Transfer		
					GUADALJR	27 Nov 2005	M02340	Transfer		
123	M	11 Jun 1994	84	21	COLUMBIA	11 Jun 1994	SJ1678	Birth	RAY	
					PARAMUS	21 May 1996	2225	Transfer		
					CLEVELAND	23 May 2003	M30526	Loan to		
					GUADALJR	27 May 2003	M02339	Loan to		
Totals: 2.0.0 (2)										
Africam Safari, Puebla, Mexico										
222	F	~Jun 2003±1m	WILD	WILD	GUAT	~Jun 2003±1m	NONE	Capture	CASHI	0006F266AB
					GUAT CITY	21 Oct 2003	M00355	Transfer		
					PUEBLA	15 Dec 2011	8002	Loan to		
251	M	21 Jul 2006	144	27	MILWAUKEE	21 Jul 2006	5354	Birth	JAVIER	00-05FE-4995
					PUEBLA	5 Nov 2007	6552	Transfer		
Totals: 1.1.0 (2)										
Acuario Xcaret, Playa Del Carmen, Quintana Roo, Mexico										
101	M	28 Oct 1991	29	30	METROZOO	28 Oct 1991	M01457	Birth	POLOC	00-061B-18AF
					XCARET	4 Dec 2003	_____	Transfer		
258	F	~Apr 2006±8m	WILD	WILD	CHETUMAL	~Jun 2006±8m	NONE	Capture	LOL-HA	
					XCARET	13 Dec 2006	_____	Transfer		
Totals: 1.1.0 (2)										
Patronato Del Parque Zoologico De Leon, Leon, Guanajuato, Mexico										
200	M	31 Jan 2002	38	83	GARDENCTY	31 Jan 2002	102001	Birth	SCOOTER	
					LOSANGELE	31 Jan 2002	990565	Ownership		
					GARDENCTY	2 Dec 2003	102001	Transfer		
					LEON	28 Jan 2005	MAM163	Transfer		
Totals: 1.0.0 (1)										
Jardin Zoologico Thomas Belt, JUIGALPA, Chontales, NICARAGUA										
120	?	~1992 +/-2yr	WILD	WILD	NICARAGUA	~1992 +/-2yr	NONE	Capture		
					JUIGALPA	~1992 +/-2yr	_____	Transfer		
Totals: 0.0.1 (1)										

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Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
Parque Nacional Zoologico, Masaya, Mamajua, Nicaragua										
242	F	8 Sep 2002	240	241	MAMAJUA	8 Sep 2002	0002D	Birth	FLORECITA	
243	F	10 Nov 2004	240	241	MAMAJUA	10 Nov 2004	0003D	Birth	ROSITA II	
244	M	~ 2004	WILD	WILD	UNKNOWN	~ 2005	NONE	Capture	PITUFO	
					MAMAJUA	~ 2005	0004D	Transfer		
245	F	~ 2004	WILD	WILD	UNKNOWN	~ 2005	NONE	Capture	PITAFA	
					MAMAJUA	~ 2005	0005D	Transfer		
246	M	~ 2005	WILD	WILD	UNKNOWN	~ 2005	NONE	Capture	DANTE	
					MAMAJUA	~ 2005	0006D	Transfer		
Totals: 2.3.0 (5)										
El Nispero Zoo & Botanical Garden, Anton, Cocle, Panama										
168	M	~ Feb 1991	WILD	WILD	PANAMA	~ Feb 1991	NONE	Capture	BRAVO	1D1090
					EL NISPER	~ Sep 1993	_____	Transfer		
223	F	29 Jul 2001	168	74	EL NISPER	29 Jul 2001	_____	Birth	SARITA	
224	M	18 Mar 2004	168	74	EL NISPER	18 Mar 2004	_____	Birth	SALVADOR	
Totals: 2.1.0 (3)										
Parque Municipal Summit, Panama, Panama										
76	M	~ 1986	WILD	WILD	PANAMA P	~ 1986	NONE	Capture	MACHO	496C345E3E
					SUMMIT ZO	~ 1986	_____	Transfer		
78	F	~ 1987	WILD	WILD	PANAMA P	~ 1988	NONE	Capture	JUANITA	2413B8
					SUMMIT ZO	~ 1988	_____	Transfer		
237	F	~Sep 2005±1m	WILD	WILD	DARIEN	~Dec 2005±1m	NONE	Capture	LUCIA	
					SUMMIT ZO	18 Dec 2005	_____	Transfer		
269	M	5 Jul 2008	197	78	SUMMIT ZO	5 Jul 2008	_____	Birth	BAYANO	
Totals: 2.2.0 (4)										

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Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
Villa Griselda (ronald Kelly), Panama City, Panama										
118	M	~ 1991	WILD	WILD	VERAGUAS	~ 1992	NONE	Capture	ROMEO	00-004D-9F69
					VGRISELDA	~ 1992	_____	Transfer		
119	F	~ 1990	WILD	WILD	DARIEN	~ 1991	NONE	Capture	JULIETA	00-001E-996D
					VGRISELDA	~ Nov 1993	_____	Transfer		
164	M	8 Jun 1995	118	119	VGRISELDA	8 Jun 1995	_____	Birth	SHAKESPEAR	4A2B44435A
165	F	7 Oct 1996	118	119	VGRISELDA	7 Oct 1996	_____	Birth	SABRINA	00-0017-16B1
166	F	25 May 1996	110	79	SUMMIT ZO	25 May 1996	_____	Birth	YERITOGUE	00-004F-07AD
					VGRISELDA	11 Oct 1997	_____	Transfer		
185	F	16 Jun 1999	118	119	VGRISELDA	16 Jun 1999	_____	Birth	MARCELA	
216	M	6 Dec 2001	118	166	VGRISELDA	6 Dec 2001	_____	Birth	MATEO	4A262F186C
217	M	13 Nov 2003	164	165	VGRISELDA	13 Nov 2003	_____	Birth	GASPARIN	4979530800
218	M	5 Jan 2004	118	119	VGRISELDA	5 Jan 2004	_____	Birth	RONALDITO	49792F7D7C
235	M	16 Apr 2005	118	186	VGRISELDA	16 Apr 2005	_____	Birth	CAMPEON	4A2A1C3F3C
236	M	13 Jan 2005	164	165	VGRISELDA	13 Jan 2005	_____	Birth	CARLITOS	4924177062
263	F	8 Aug 2007	118	186	VGRISELDA	8 Aug 2007	_____	Birth	MARIA	
264	M	10 Aug 2007	164	165	VGRISELDA	10 Aug 2007	_____	Birth	LAZO	
265	F	26 Dec 2007	218	119	VGRISELDA	26 Dec 2007	_____	Birth	MAGDALENA	
266	M	6 Nov 2007	216	185	VGRISELDA	6 Nov 2007	_____	Birth	POPEYE	
280	F	4 Feb 2009	216	185	VGRISELDA	4 Feb 2009	_____	Birth	ANDREA	

Totals: 9.7.0 (16)

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Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
Beijing Zoological Gardens, Beijing, Peoples Rep.of China										
33	M	25 Dec 1985	1	5	SANDIEGOZ	25 Dec 1985	030382	Birth	85-3	
					BEIJING	11 Apr 1987	85-3	Transfer		
95	F	14 Oct 1989	94	93	BEIJING	14 Oct 1989	89-2	Birth	89-2	
181	M	22 Nov 1994	33	95	BEIJING	22 Nov 1994	94-1	Birth		
182	F	7 Jun 1996	33	95	BEIJING	7 Jun 1996	96-2	Birth		
238	M	17 Nov 2005	33	95	BEIJING	17 Nov 2005	05-1	Birth		
275	M	12 Apr 2009	238	182	BEIJING	12 Apr 2009	09-1	Birth		
276	M	7 Apr 2009	33	95	BEIJING	7 Apr 2009	09-3	Birth		
						5 Nov 2011		Death		
					[Death by: Infection associated Unknown Digestive Unknown after necropsy]					
289	F	16 Apr 2011	33	95	BEIJING	16 Apr 2011	J11-2	Birth		
290	F	1 May 2011	238	182	BEIJING	1 May 2011	J11-4	Birth		
Totals: 5.4.0 (9)										
Shanghai Wild Animal Park, Shanghai, China										
183	F	11 Apr 1998	33	95	BEIJING	11 Apr 1998	98-2	Birth	HUA HUA	
					SHANGHAI	24 Sep 2009	_____	Transfer		
195	M	23 Nov 2001	33	95	BEIJING	23 Nov 2001	01-1	Birth	DONG DONG	
					SHANGHAI	24 Sep 2009	_____	Transfer		
291	?	19 Dec 2011	195	183	SHANGHAI	19 Dec 2011	_____	Birth	JING JING	
Totals: 1.1.1 (3)										
Kanazawa Zoological Garden of Yokohama, Kanazawa-Ku, Yokohama, Japan										
24	M	14 Aug 1982	6	15	COLUMBIA	14 Aug 1982	SJ0657	Birth	COLOMBO	
					SANDIEGOZ	12 May 1983	083661	Loan to		
					SD-WAP	21 Apr 1987	083661	Loan to		
					SANDIEGOZ	6 Aug 1987	083661	Ownership		
					SD-WAP	8 Aug 1987	083661	Ownership		
					KANAZAWA	25 May 1988	2	Transfer		
134	M	21 Jun 1995	24	26	KANAZAWA	21 Jun 1995	4	Birth	AGUA	
Totals: 2.0.0 (2)										

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Stud#	Sex	Birth Date	Sire	Dam	Location	Date	LocalID	Event	Name	Transponder
Yokohama Zool Gardens (Zoorasia), Yokohama, Kanagawa-Ken, Japan										
26	F	26 May 1983	1	5	SANDIEGOZ	26 May 1983	083802	Birth	BROOK	
					SD-WAP	21 Apr 1987	083802	Transfer		
					SANDIEGOZ	12 Jun 1987	083802	Transfer		
					KANAZAWA	25 May 1988	3	Transfer		
					ZOORASIA	6 Jun 2005	1306	Transfer		
142	neutM	27 Apr 1996	37	31	S BARBARA	27 Apr 1996	960011	Birth	FABIO	068-112-381
					LOSANGELE	10 Nov 1998	985302	Transfer		
					GARDENCTY	18 Jun 1999	991017	Loan to		
					LOSANGELE	8 Dec 1999	985302	Transfer		
					ZOORASIA	24 Mar 2005	1205	Transfer		

Totals: 1.1.0 (2)

TOTALS: 80.45.2 (127)
48 Institutions

TAPIR BIBLIOGRAPHY

Abdulali, H. The "quotdipping" habit of the tapir. *J. Bombay Nat. Hist. Soc.* 1952. 50: 32-933.

Abel Remusat. Article unknown. Journal Unknown.

Acosta, H; Cavelier, Jaime, and Londo~o, S. Aportes al conocimiento de la biologia de la danta de montana, *Tapirus pinchaque,* en los Andes centrales de Colombia. [Contributions to knowledge of the biology of the mountain tapir, *Tapirus pinchaque,* in the central Andes of Colombia.]. *Biotropica.* 1996. 28(2): 258-266.

Adloff. Über das Gebiss von *Tapirus americanus.* [On the dentition of *Tapirus americanus]. Anat. Anzeiger.* 1928. Sep 4 66:132-136.

Agenbroad, Larry D. and Downs, William R. A robust tapir from northern Arizona. *Journal of the Arizona-Nevada Academy of Science.* 1984. 19(2): 91-99.

Aguilar, W. El manejo de la vida silvestre en Honduras. [The management of wildlife in Honduras]. In: Morales, R; Macfarland, D.; Incer, J., and Hobbs, A., eds. Memorias de la primera reunion regional Centroamerican sobre vida silvestre. Matagalpa, Nicaragua; 25-29 Julio 1978. Unidad de areas silvestres y cuencas del catie, 111-114. 1978.

Alexander, I. D. Actinomyces infection in a tapir (*Tapirus terrestris). Journal of Zoo Animal Medicine.* 1978. 9(4): 124-126.

Alho, D. J. R. and Lacher, T. E. Jr. Mammalian Conservation in the Pantanal of Brazil. Mare, M. A. and Schmidly, D. J., eds. *Latin American Mammalogy: History, Biodiversity, and Conservation.* Norman, Oklahoma and London: University of Oklahoma Press. 1991. 280-294.

Allen. Title unknown. *Bulletin of the American Museum of Natural History.* 1904. 20: 430.

Alston, E. R. Mammalia. In: Goodman and Salvin. *Biologia Centrali-Americana: Zoology;* 1882. 101-104, pl 8 & 9, figs. 3-5.

---. *Proceedings of the Zoological Society of London 1879.* 1880.187 and 666.

Alvarez del Toro, Miguel. A note on the breeding of Baird's tapir (*T. bairdii)* at Tuxtla Gutierrez Zoo. *International Zoo Yearbook.* 1966. (6): 196-197.

Ameghino, F. L'avant-premier dentition dans le tapir [The first/foremost teeth in the tapir]. *Anales Museo Nacional De Buenos Aires.* 1911. 13: 1-30.

---. Una nueva especie de tapir (*Tapirus spegazzinii)* [A new species of tapir (*Tapirus spegazzinii)]. Anales Museo Nacional De Buenos Aires.* 1909. Dec. 20: 31-38.

André, E. Un naturalista en la Guayana. Collección Cuatricentenario de Caracas 1964. (Traducción de la edición en inglés, publicada en 1904).

Anon. Anta arrives. *Brookfield Bison.* 1979. June/July 8.
---. Captive rearing records of tapirs at Howletts and Port Lympne. *International Zoo News.* 1980. 27(2-3): 45-46.

Anon. Cats and tapirs at Howletts and Port Lympne. *International Zoo News.* 1980. 27(2-3): 45-46.

---. Ecuador: plight of the mountain tapir. *Defenders of Wildlife News.* 1969. Jan-Feb-Mar: 81.

---. The new-born tapir. *The Illustrated London News.* 1882. LXXX (2234 - 25 Feb).

---. Results of a survey of captive tapirs taken by the Tapir Research Institute between July 1970 and March 1971. Tapir Research Institute, California. 1971. 1-22.

---. Short comparative notes on the anatomy of the Indian tapir. *Archiv. Zool.* 1910. Jun 3. 6(15): 15 pp., 7 figs.

---. Tapir de America. [Tapir of America]. *Casa, Tiro y Pesca.* 1950. 20(206-207): 11-15. Illustrated.

---. Woolly tapirs. *International Zoo News.* ~1971: 119.

---. Zum erstenmal Woltapire in einem europaischen Zoo in Frankfurt [With the first wooly tapir in a European zoo in Frankfurt]. *Das Tier.* 1968. 6(8): 32.

Anon. or unknown. Short comparative notes on the anatomyof the Indian Tapir. *Arkiv. Zool.* 1910. 6(15 -Jun 3): 15 pp., 7 figs.

Anthony, G. The tapir: Study of gaits, investigation of tapirs in captivity, pathological approach. [Dissertation]: The Faculty of Medicine of Nantes, France. 1987. 79 pp.

Anthony, R. La poche gutturale du tapir. [The gutteral pouch of the tapir]. *Bull Soc. Sc. Vet. De Lyon.* 1920. 1-15.

Asdell. Unknown title. Unknown Publication. 1964.

Ashley, Mary V; Norman, Jane E., and Stross, Larissa. Phylogenetic analysis of the perissodactyla family Tapiridae using mitochondrial cytochrome *c* oxidase (COII) sequences. *Journal of Mammalian Evolution.* 1996. 3(4): 315-326.

Ashraf, N. V. K. (Wildlife Institute of India, New Forest, Dehra Dun-248 006, India.). Conservation of some wildlife species. Animal Production and Rural Development. *Proceedings of the Sixth AAAP Animal Science Congress.* 1992. 205-218.

Ayres, J. M. and Ayres, C. (Nat. Amazonian Res. Inst. [INPA], Manaus, Brazil.). Aspectos da caca no alto Rio Aripuana [Aspects of hunting in the upper Aripuana River]. *Acta Amazonica.* 1979. 9(2): 287-298.

Ayres, J. M.; de Magalhaes Liva, D.; de Souza Martins, E., and Barreiros, J. L. K. On the track of the road: changes in subsistence hunting in a Brazilian Amazonian village. Robinson, J. G. and Redford, K. H., eds. *Neotropical Wildlife Use and Conservation.* Chicago: University of Chicago Press. 1991. 449-490.

Bänziger, H. (Department of Entomology, Faculty of Agriculture, Chiang Mai University, Chiang Mai Thailand.). Description of new moths which settle on man and animals in S.E. Asia. *Revue Suisse De Zoologie* . 1987. 94(4): 671-681.

--- (Department of Entomology, Faculty of Agriculture, Chiang Mai University, Chiang Mai, 50002, Thailand.). The heaviest tear drinkers: ecology and systematics of new and unusual notodontid moths.

Natural History Bulletin of the Siam Society. 1988. 36(1): 17-53.

---. Skin-piercing blood-sucking moths I; ecological and ethological studies on Calpe eustrigata (Lepid., Noctuidae). *Acta Tropica.* 1975. 32(2): 125-144.

---. Skin-piercing blood-sucking moths II: Studies on a further 3 adult Calyptra [*Calpe]* sp. (*Lepid., Noctuidae). Acta Tropica.* 1979. 36(1): 23-37.

Bach, F.; Mayer, H., and Poley, D. Colic in a Malayan tapir due to ingestion of sand. *Praktische Tierarzt.*1986. 67(6): 508-509.

Baker, A. B. Breeding of the Brazilian tapir. *Journal of Mammalogy.* 1920. 1(3): 143-144.

Bamberg, E; Mostl, E.; Patzl, M., and King, G. J. Pregnancy diagnosis by enzyme immunoassay of estrogens in faeces from nondomestic species. *J Zoo Wildl Med.* 1991. 22(1): 73-77.

Banerjee, S. and Ghosh, M. Prehistoric fauna of Kausarabi, near Allahabad, U.P., India. *Records of the Zoological Survey of India.* 1981. 78(1-4): 113-119.

Bangs. *Proceedings of the New England Zool. Club.* 1900. 1: 90.

Barongi, R. Panama's Macho de Monte. *ZooNooz.* 1992. LXV (8):6-11.

--. Tapir TAG 1992 Annual ReportWiese, RJ; Hutchins, M; Willis, K, and Becker, S, editors. AAZPA Annual Report on Conservation and Science 1991-92. Bethesda, MD USA: American Association of Zoological Parks and Aquariums. 122-123.

Barongi R. Tapirs in Captivity and their Management at Miami Metrozoo. *AAZPA Annual Proceedings,* Minneapolis. 1986. 69-108.

Barongi, R. A., Curator of Mammals (San Diego Zoo). Husbandry and conservation of tapirs *Taprius* sp. *International Zoo Yearbook.* 1993. 327-15.

Barongi, R. and Kenyon K. *(Tapiridae): A Bibliography.* Washington, D.C.: AAZPA Librarians Special Interest Group, National Zoological Park. 1990.

Barongi, R.; Ventocilla, J.; Miller, P., and Seal, U., eds. Evaluacion de Viabilidade Poblacion y Habitat del Macho de Monte (*Tapirus bairdi).* [Population and Habitat Viability Assessment for Baird's Tapir (*Tapirus bairdi).]* Translations by J.B. Stoopen [Spanish/English]. ANCON, IUCN/SSC Grupo Especialista de Tapires (IUCN/SSC Tapir Specialist Group), IUCN/SSC Grupo Especialista en Cria para Conservacion (IUCN/SSC Conservation Breeding Specialist Group). Reporte de PHVA del Macho de Monte, Panama City, Panama: Wildlife Conservation Society, American Airlines, Walt Disney World Co.; December 1-3, 1994.

Barongi, Rick; Dee, Michael; Greene, Lewis; Janssen, Donald L.; Ledder, Diane; Matola, Sharon; Byers, Onnie, and Ellis, Susie. *Tapir Conservation Assessment and Management Plan [CAMP] Working Document.:* IUCN/SSC Conservation Breeding Specialist Group; 1994. 110 pp.

Barquez RM; Mares MA, and Ojeda RA. *Mammals of Tucuman [Mamiferos de Tucuman].* University of Oklahoma, Norman; 1991. p. 282.

Bartmann, W. Keeping and breeding a mixed group of large South American mammals at Dortmund Zoo. *International Zoo Yearbook.* 1980. 20: 271-274.

Baruch, Terry; Leff, Monica, and Smith, Monica, Students. Dissection of Muscles of *Tapirus.* 1973. June.

Baumann, R; Mazur, G, and Braunitzer, G (Zent. Physiol., Med. Hochsch., Hannover, München, Martinsried, FRG). Oxygen binding properties of hemoglobin from the white rhinoceros. *Respir. Physiol.* 1984. 56(1): 1-9.

Baumgartner, R. Haltung und todesfalle von tapiren (*Tapirus terrestris* und *Tapirus indicus)* im Zoologischen Garten Zurich unter besonderer berucksichtigung der tuberkulose [Death of tapirs (*Tapirus terrestris* and *Tapirus indicus)* in the Zurich Zoological Garden under special consideration from tuberculosis]. *Eker Zootiere.* 1992. 3429-33.

Beddard, F. E. Notes upon the anatomy of the American tapir (*Tapirus terrestris* L.). *Proceedings of the Zoological Society of London.* 1889. 252-258.

Billberg. Synopsis faunae Scandinaviae. In. *Mammalia, Conspectua A.* 1927. 1(1): (before p. 1).

Blainville, H. M. D. de. *Tapirus.* In. *Ostéographie . . . des Mammiferes.* Paris. 1846. 4(Z, G): 1-52, pls. 1-6. Blake, William P. A note on the occurrence of fossil remains of the tapir in California. *Amer. Jour. Sc.*1868. ser. 2 (vol. 45): 381.

Blampied, N. L. Q. and Alchurch, A. F. Illness in male Brazilian tapir - Veterinary Report. *Jersey Wildlife Preservation Trust Annual Report.* 1977. 14: 91-96.

---. Postmortem on male Brazilian tapir - Veterinary Report. *Jersey Wildlife Preservation Trust Annual Report.* 1976. 13: 108-112.

---. Removal of placental from Brazilian tapir - Veterinary Report. *Jersey Wildlife Preservation Trust Annual Report.* 1976. 13: 108-112.

Suspected ragwort poisoning in Brazilian tapir - Veterinary Report. *Jersey Wildlife Preservation Trust Annual Report.* 1975. 12: 94-96.

---. Treatment after recapture of female Brazilian tapir - Veterinary Report. *Jersey Wildlife Preservation Trust Annual Report.* 1973. 10:51-56.

Blampied, N. L. Q. and Begg, T. B. Suspected Ragwort poisoning in tapirs (*Tapirus terrestris)* - Veterinary Report. *Jersey Wildlife Preservation Trust Annual Report.* 1970. 7: 55-56.

Blampied, N. and Allchurch, A. F. Post mortem on male Brazilian tapir - Veterinary Report. *Dodo.* 1978.15: 102-106.

Blouch, R. A. Current status of the Sumatran rhino and other large mammals in Southern Sumatra. *IUCN/WWF Report 4: Project* 3033 Field Report. Bogor, Indonesia: IUCN/WWF Conservation for Development Programme. 1984. 30-32.

Blumenbach, J. F. *Handbuch der Naturgeschichte.* Dieterich, Johann Christian, ed. 1 ed. Gotingen; 1779. vol. 1, p. 129. 559 pp.

Bode, N. C. The antique tapir. *Zoonooz.* 1952. 25(12): 2-3.

Bodmer, R. E. Fruit patch size and frugivory in the lowland tapir (*Tapirus terrestris). J. Zool.* 1990. 222(1): 121-128.

--- (Dep. Zool., Mus. Paraense Emilio Goeldi, C.P. 399, 66.040 Belem, PA, Brazil). Influence of digestive morphology on resource partitioning in Amazonian ungulates. *Oecologia.* 1991. 85(3): 361-365.

--- (Large Anim. Res.Group, Dep. Zool., Univ. Cambridge, 34A Storeys Way, Cambridge CB3 0DT, UK). Responses of ungulates to seasonal inundations in the Amazon floodplane [&quotfloodplain?"]. *J. Trop. Ecol.* 1990. 6(2): 191-201.

--- (Dep. Zool., Mus. Paraense Emilio Goeldi, Caixa Postal 399, 66.040 Belem-PA, Brazil). Strategies of seed dispersal and seed predation in Amazonian ungulates. *Biotropica.* 1991. 23(3): 255-261.

---. Ungulate biomass in relation to feeding strategy within Amazonian forests. *Oecologia.* 1989. 81(4): 547-550.

--- (Dep. Zool., Large Animal Res. Group, 34A Storeys Way, Cambridge CB3 0DT,UK). Ungulate management and conservation in the Peruvian Amazon. *Biological Conservation.* 1988. 45(4): 303-310.

Bodmer, R. E.; Bendayan Acosta, N. Y.; Moya Ibanez, L, and Fang, T. G. Manego de ungulados en la amazonia peruana: analisi de su caza y comercializacion. [Management of the ungulates in the Peruvian Amazon; analysis of their hunting and commercialization]. *Bol Lima.* 1990. 12(70): 49-56.

Bodmer, R. E.; Fang, T. G.; Moya, I. L., and Gill, R. Managing wildlife to conserve Amazonian forests: population biology and economic considerations of game hunting. *Biological Conservation.* 1994. 67(1): 29-35.

Bodmer, Richard E. and Brooks, Daniel M. Status and action plan of the lowland tapir (*Tapirus terrestris)* / Evaluación del estado y plande acción del tapir de tierra baja (*Tapirus terrestris)* / Diagnóstico e plano de ação para a anta comum (*Tapirus terrestris).* In: Brooks, Daniel M.; Bodmer, Richard E., and Matola, Sharon, compilers. *Tapirs - Status Survey and Conservation Action Plan.* IUCN/SSC Tapir Specialist Group, IUCN, Gland, Switzerland and Cambridge, UK; 1997. pp. 46-56 (English), 107-117 (Spanish), 134-144 (Portuguese).

Bodmer, Richard E.; Fang, T. G., and Ibanez, L. M. Ungulate management and conservation in the Peruvian Amazon. *Biological Conservation.* 1988. 45: 303-310.

Boeuf, O. *Tapirus jeanpiveteaui* nov. sp., nouvelle espece de Tapiridae (Perissodactyla) du Pliocene de Charente (France). [*Tapirus jeanpiveteaui* nov. sp., a new species of Tapiridae (Perissodactyla) from the Pliocene of Charente (France).]. *Palaeontographica.* 1991. Abteilung A (217): 177-194.

Bonney, S. and Crotty, M. J. Breeding the mountain tapir at Los Angeles Zoo. *International Zoo Yearbook.* 1979. (19): 198-200.

Borst, G. H. A.; Vroege, C.; Poelma, F. G.; Zwart, P., and Strik, W. J. Pathological findings on animals in the Royal Zoological Gardens of the Rotterdam Zoo during the years 1963, 1964, and 1965. *Acta Zoologica Et Pathologica Antverpiensia.* 1972. 563-20.

Bourdelle, E. Ordre des perissodactyles in Grasse. *Traite De Zoologie, Paris.* 1955. 17: 1.

Brünnich. *Zoologiae Fundamenta.* 1771. 44-45.

Brambell, Michael. *Horse, Tapir & Rhinoceros.* London: The Bodley Head. 1976. 29-33.

Brehm, A. Title unknown (in German). In: Zur Strassen, O., ed. Publication unknown. 1915. (12): 625-634.

Bressou, C. La myologie du tapir (*Tapirus indicus* L.). [The myology of the tapir (*Tapirus indicus* L.)]. *Mammalia.* 1961. 25358-400.

---. Le pied des taprirides. [The feet of tapirs.]. *Mammalia.* 1950. 14: 140-144.

Brisson. *Regnum Animale.* 1762. 81.

Brogan, A. E.; Parmalee, P. W., and Polhemus, R. R. A review of fossil tapir records from Tennessee with descriptions of specimens from two new localities. *J. Tenn. Acad. Sci.* 1980. 55(1): 10-14.

Brogan, Arthur E.; Paul W. Parmalee, and Richard R. Polhemus. A review of fossil tapir records from Tennessee with descriptions of specimens from two new localities. *J. Tenn. Acad. Sci.* 1980. 55(1): 10-14.

Brooks, Daniel M. [M.Sc. thesis]. Distribution, Habitat Association, and Factors Determining Assemblage Composition of Mammals in the Paraguayan Chaco. Texas Tech University. 1993.

---. Preliminary comparisons of large mammal assemblages in five semi-arid environments of the New World. *Proc. IX Ann. Mtg. EX. Soc. Mamm.* Junction, Texas.

---. *Tapirus terrestris.* In: Brautigan, A., ed. *Draft Report to CITES Animal Committee.* Gland, Switzerland: IUCN. 1991. p. 20.

---. Title unknown. *Species.* Newsletter of the Species Survival Commission. IUCN. 21/22.

Brooks, Daniel M.; Bodmer, Richard E., and Matola, Sharon, compilers. *Tapirs - Status Survey and Conservation Action Plan.* (English, Spanish, Portuguese). Gland, Switzerland and Cambridge, UK: IUCN/SSC Tapir Specialist Group. IUCN. 1997. (viii) 164 pp.

Brown, C. E. Rearing wild animals in captivity, and gestation periods. *Journal of Mammalogy.* 1936. 17(2): 10-13.

Brown, Janine L., Citino, Scott B.; Nelson, M. F.; Miller, Chris, and Shaw, Jackie. Characterization of endocrine patterns during the estrous cycle and pregnancy in Baird's tapirs. *Biology of Reproduction.* 1992. 46(1): 176.

Brown, Janine L.; Citino, Scott B.; Shaw, Jackie, and Miller, Chris. Endocrine profiles during the estrous cycle and pregnancy in the Baird's tapir (*Tapirus bairdii). Zoo Biology.* 1994. 13(2): 107-117.

Buck, Frank and Anthony, E. *Bring 'Em Back Alive.* New York: Garden City Publishing Company. ~1930. 7-17.

Burbank, J. On the tapir trail. Is it a hog, a hippo, an elephant? *Zoo Life.* 1993. Winter: 87.

Burton, M. Tapirs. *Zoo Life.* 1956. 11(1): 12-14.

Buschelberger, P. Mitteilung zur Lebenserwartung und fortpflanzung von *Tapirus terrestris* [Information on life expectancy and reproduction in *Tapirus terrestris]. Der Zoologische Garten.* 1987. 57(5/6): 371-372.

Butler, P. M. The milk-molars of Perissodactyla, with remarks on molar occlusion. *Proceedings of the Zoological Society of London.* 1951. 121: 777-817.

---. Molarization of the premolars in the Perissodactyla. *Proceedings of the Zoological Society of London.* 1951. 121: 819-843.

Cabrera, Angel. Catalago de los mamiferos de America del Sur. Revista del Museo Argino de Ciencias Naturales. *Ciencias Zoologicas.* 1961. 4(2): 309-732.

Cabrera, Angel and Yepes, Jose. Los tapires o antas (Familia Tapiridae). In. *Mamiferos Sud-Americanos.* 2 ed. Ediar S. A. Editores; 1960. (Historia Natural Ediar, Tomo II) pp. 99-101.

Caddick, G. B. Central American tapir breeding project: Belize Zoo. *AAZPA Regional Conf. Proc. 1988.* 267-271.

Cadieux, C. L. *Wildlife Extinction.* Washington D.C. Stone Wall Press. 1991. 259 p. Illus. text and photographs by author. Drawings by Bob Hines.

Caine, N. G. Weldon P. J. (Dep. Psychol., Bucknell Univ., Lewisburg, PA 17837, USA). Responses by red-bellied tamarins (*Sanguinus labiatus)* to fecal scents of predatory and non-predatory neotropical mammals. *Biotropica.* 1989. 21(2): 186-189.

Campbell, B. The comparative myology of the forelimb of the hippopotomus, pig, and tapir. *American Journal of Anatomy.* 1936. 59: 201-247

.

---. The hindfoot musculature of some basic ungulates. *Journal of Mammology.* 1945. 26: 421-424.
Carbone, Terry. *Happy As a Tapir.* Viking Press. 1992. ISBN: 0670842273. Children's book. Illustrated by Keith Du Quette.

Carriker. In: Allen, G. M. Extinct and vanishing mammals of the Western Hemisphere with the marine species of all oceans. *American Committee for International Wildlife Protection Special Publication # 11.* 1942. p. 405

Castellanos, A. X. El tapir andino (*Tapirus pinchaque* Roulin): crianza de un ejemplar en el bosque protector de Pasochoa y notas ecológicas en el Parque Nacional Sangay, Ecuador. [Tesis de Licenciatura]. 1994. Universidad Central de Ecuador, Quito. Cattoi, N. Una especie extinguida de *Tapirus* Brisson (*Tapirus rioplatensis* nov. sp.). [An extinct species of *Tapirus* Brisson (*Tapirus rioplatensis* nov. sp.).]. *Ameghiniana.* 1957. 115-21.

Cavelier, Jaime and Etter, A. Deforestation of montane forest in Colombia, as a result of illegal plantation of Opio, *Papaver somniferum:* Neotropical Montane Forest Biodiversty and Conservation Symposium at New York Botanical Garden, Bronx, N.Y. June 21-23, 1993.

Cerdeno, E. and Ginsburg, L. Les Tapiridae (Perissodactyla, Mammalia) de l'Oligocene et du Miocene inferieur Europeens. [The Tapiridae (Perissodactyla, Mammalia) from the Oligocene and lower Miocene of Europe]. *Annales De Paleontologie.* 1988. 7471-96.

Cerdeno, E. and Morales, J. Los tapires del Mioceno inferior de Espa~a. [The tapirs of the lower Miocene of Spain.]. *Paleontologia i Evolucio.* 1986. 20125-128.

Chabaud, A. G. Revue critique des nematodes du genre *Quilonia* et du genre *Murshidia. Annales De Parasitologie Humaine Et Comparee.* 1957. 32: 98-131.

Chabaud, A. G. and Bain, O. Description of *Spirobakerus weitzeli* new genus new species and remarks on spirocercidal nematodes. *Annales De Parasitologie Humaine Et Comparee.* 1981. 56: 73-80.

Chapeau, Christine; King, Gordon J., and Bamberg, Elmar. Fecal estrogens in one primate and several ungulate species during various reproductive stages. *Animal Reproduction Science.* 1934. 2: 167-175.

Chevalier, H. J.; Bohm, K. H., and Seeger, J. Humane tuberkulose beim tapir. [Human tuberculosis in the tapir]. *Kleintierpraxis.* 1969. 14(8): 213-215.

Cobb, W. M. The cranio-facial union and the maxillary tuber in mammals. *Americal Journal of Anatomy.* 1943. 72: 39-111.

Colbert, E. H. and D.A. Hooijer. Pleistocene mammals from the limestone fissures of Szechwan, China. *Bulletin of the American Museum of Natural History.* 1953. 102: 1-134.

Conservation International. Report on biodiversity in Ecuador. Washington, D.C. Distributed to a workshop in Quito, Ecuador. 1993.

Cope, E. D. Vertebrate remains from the Port Kennedy bone deposit. *Jour. Acad. Nat. Sci. Philadelphia.* 1899. (11): 193-267.

Corbet, G. B. and Hill, J. E. *The Mammals of the Indomalayan Region: A Systematic Review.* Oxford University Press. 1992.

Crandall, Lee S. Family Tapiridae. *Management of Wild Animals in Captivity.* University of Chicago Press. 1964. 499-504.

---. The mountain tapir in the Bronx Zoo. *Animal Kingdom.* 1951. 1(54): 2-8.

Crotty, M. J. The year of the tapir. *Zoo View.* 1977. 12(1): 10.

Cuocolo, R. Reacao fibrosa da parede do estomago de *Tapirus americanus* provacada por *Physocephalus nitidulans* [Fibrous reaction of the stomach wall of *Tapirus americanus* provoked by *Physocephalus nitidulans]. Arquivos Do Instituto Biologico Sao Paulo.* 1942. 13: 271-282.

Cuvier, M. le Baron. Rapport sur un memoire de M. Roulin, ayant pour objet la decouverte d'une nouvelle espece de tapir dans l'Amerique du Sud, fait a l'Academie Royal des Sciences. *Annales Des Sciences Naturelles.* 1829. 17: 107-112.

Czelusniak, J.; Goodman, M.; Koop, B. F.; Tagle, D. A.; Shosani, J.; Braunitzer, G.; Kleinschmidt, T. K.; de Jong, W. W., and Matsuda, G. Perspectives from amino acid and nucleotide sequendes on cladistic relationships among higher taxa of eutheria. *Current Mammology* (Plenum Press). 1990. 2: 545-572.

D'Aulaire, Emily and D'Aulaire, Ola. The creature time forgot, condensed from: *International Wildlife* (Jan-Feb) 1979. *Reader's Digest.* 1980. (Sep): 169-174. ISSN: 0034-0413 (Montreal).

---. Is this the creature time forgot? *International Wildlife.* 1979. 9(1): 28-32.

Döderlein. Über das Skelett des *Tapirus Pinchacus,* Inaugural-Dissertation. 1877.

Da Cunha, M. Sobre os ciliados intestinaes dos mammiferos. *Brasil-Medico.* 1918. 32: 161.

Da Fonseca, F. Protozoarios parasitas IV. Protozoarios novos de tapirideos. *Mem. Inst. Butantan.* 1940. 14: 43-51.

DaCunha, M. and Muniz, J. Contribution to the knowledge of ciliata parasitic in Mammalia of Brazil. *Sciencia Medica.* 1925. 3: 740-747.

---. Nouveau cilie parasite caecum du *Tapirus americanus.* Decription d'un nouveau genre.[New ciliated cecal parasite of *Tapirus americanus] Comptes Rendus des Séances.* Societe De Biologie (Paris). 1928. 98: 631-632.

Dalquest, W. W. and Carpenter, R. M. Early pleistocene mammals from the Seymour foundation, Knox and Baylor Counties, Texas, exclusive of camelidae. Texas Tech University. 1988.

Dampier (?). *Dampiere's Voyages.* The two voyages to Campeachy; with a description of the coasts, products, inhabitants, logwood-cutting, trade, etc. of Yucatan, Campeachy, New Spain, etc. 1698. p. 102.

Danek, J.; Routa, V.; Sevcik, B., and Caslavka, J. (Vyzkumny Ustav Biofaktory Veterinarni Leciva, Pohori-Chotoun, 259 49 Jilove u Prahy, Czechoslovakia.). Ivermectin treatment for mange and helminthoses in ruminants and South American tapirs. *Biologizace a Chemizace Zivocisne Vyroby-Veterinaria.* 1985. 21(2): 183-192.

Darwin, Charles. *The Descent of Man, and Selection in Relation to Sex;* 1871.
In a later edition (Princeton University Press, 1981) the references are on pp. 184 and 303.

Davidson, Gladys. *Whipsnade Zoo Again.* London: Thomas Nelson & Sons Limited. 1937. 77-83.

De Azara, F. *Essais sur l'Histoire Naturelle des Quadrupèdes de la Province du Paraguay. . . .* French ed. 1801. (1): 5.

De la Tour, G. D. Confusion in zoology based on faulty translations. *Saeugetierkundliche Mitteilungen.* 1972. 20(4): 373-374.

De Landa, Diego first Bishop of Valladolid. Relación de las Cosas de Yucatán. In (?): Tozzer; 1941: 203(?). 1566.

De Sahagún, F. B. *Historia General de las Cosas de Nueva Espa~a.* 1831.

De Vos, A. Wildlife utilization on marginal langs in developing countries. Renecker, A. and Hudson, R. J., eds. *Wildlife production: conservation and sustainable development.* Fairbands, Alaska: Alaska University, Agricultural and Forestry Experiment Station. 1991. (91-6): 8-10.

De Wilde, A. J. Simposia Nac. & quotDiversidad Biologica, Conservacion y Manejode los Ecosistemasde montana en Colombia". In: Cavelier, Jaime and Uribe, A., eds. *Caramanta, un proyecto para la creacion de un nuevo parque nacional natural:* June 6-10, 1994/ Colociencias, Bogotá Universidad de los Andes.

De Wilde, A. M. Caramanta, un proyecto para la creacion de un nuevo parque nacional natural. In: Cavelier, Jaime and Uribe, A., eds. *Simposia Nac. &"Diversidad Biologica, Conservacion y Manejo de los Ecosistemas de Montana en Colombia".* Universidad de los Andes, Jun 6-10: Colciencias, Bogotá 1994.

Del LLano-Buenaventura, M. *Los Páramos de los Andes.* Bogotá, Colombia: Montoya and Araujo, Ltda. 1990.

DeMagalhaes, A. C. Anta, Tapir. *Boletim Biologico.* 1938. 3: 175-178.

Dennler de la Tour, G. Ursprung der namen tapir und anta beitrag zur etymologie sudamerikanischen tiernamen [Origin of the tapir name and its contribution to the etymology of South American animal names]. *Saugetierkundliche Mitt.* 1971. 20(1-2): 144-146.

Desmarest. *Nouv. Dict. Hist. Nat.* Nouv. ed. 1819. 32 p. 458.

Deuve, J. Note sur la famille Tapiridae au Laos. [Notes on the family Tapiridae of Laos]. *Bull. Soc. Sci. Nat. Laos.* 1961. 1(4): 47-48.

Dillehay, D. L.; Boosinger, T. R., and MacKenzie, S. (Dep. Comparative Med., University of Alabama at Birmingham, University Station, Birmingham, Alabama 35294, USA.). Coccidioidomycosis in a tapir. *Journal of the American Veterinary Medical Association.* 1985. 187(11): 1233-1234.

Ditmars, Raymond L. *Strange Animals I Have Known.* New York: Harcourt, Brace and Company. 1931.

Dittrech, L. Zwillinge [trans. Another source had no &quote"] beim flachlandtapir [cap or not?] (Linne 1758) [Twins from [get trans.] lowland tapirs (Linnaeus 1758). *Saeugetierkundliche Mitteilungen.* 1969. 17367.

Divakaran, N. N. *et. al.* Tuberculosis in a tapir (*Tapirus indicus). Indian Vet J.* 1985. 62(12): 1086-1087.

Donat, K. The auricular muscles of the *Tapirus terrestris. Anatomia, Histologia, Embryologia.* 1980. 8: 284-286.

---. Der M. cucullaris beim Amerikanisher tapir (*Tapirus terrestris* L. 1758) [The M. cucullaris of the *Tapirus terrestris* L. 1758]. *Zentralblatt Vetmed.* 1981. 10(2): 125-129.

---. Musculus cucullaris (branchiogenic muscles of shoulder) of American tapir (*Tapirus terrestris,* L. 1758). *Anat. Hist. Embryol.* 1981. 10(2): 125-129.

Donat, K. and Ucar, Y. Der M. auricularis im Amerikanisher tapir (*Tapirus terrestris* L. 1758) [The M. auriculares of the *Tapirus terrestris* L. 1758]. *Anatomia Histologia Embryologia.* 1979. 8(3): 284-286.

Downer, Craig. Uphill struggles. *BBC Wildlife,* London. 1996. 14(2): 24-30.

Downer, Craig C. Bigfoot of the Andes. *Nature Conservancy Magazine.* 1996. 8-9.

---. The gentle botanist. *Wildlife Conservation.* 1995. Aug; 98(4): 30-35.

---. The mountain tapir, endangered ‘flagship’ species of the high Andes. *Oryx.* 1996. 30(1): 45-58.

---. A paramo paradise: Colombia's Las Hermosas National Park. Washtington, D.C.: Organization of American States. 1981. 18-25.

---. Status and action plan of the mountain tapir (*Tapirus pinchaque)* / Evaluación del estado y plan de acción para el tapir Andino (*Tapirus pinchaque).* In: Brooks, Daniel M.; Bodmer, Richard E., and Matola, Sharon, compilers. *Tapirs - Status Survey and Conservation Action Plan.* IUCN/SSC Tapir Specialist Group, IUCN, Gland, Switzerland and Cambridge, UK; 1997. 10-22 (English), 75-88 (Spanish).

Dunn, F. and Adams, J. Recent records for the tapir in Templer Park. *Malay. Nat. J.* 1963. (17): 59.

Durrell, Gerald. *Island Zoo.* Philadelphia: Macrae Smith Company. 1963. 37-39.

Earle, C. The evolution of the American tapir. *Geological Magazine.* 1893. 10391-396.

---. Some points in the comparative osteology of the tapir. *Science.* 1889. 21: 118.

Eaton, Theodore H. Jr. Comparative anatomy of the vertebrates. Second ed. New York: Harper & Brothers. 1960. c.1951 p. 174.

Edinger T. Frontal sinus evolution (particularly in the Equidae). *Bulletin of the Museum of Comparative Zoology.* 1950. 103412-496.

Edinger T. and Kitts B. The foramen ovale. *Evolution.* 1954. 8389-404.

Eisenberg, J. F.; Groves, C. P., and MacKinnon, K. Tapire [Tapirs]. *Grzimeks Enzyklopedie, Saugetiere.* [*Grzimeks Encyclopedia of Mammals].* 1987. 598-608.

---. Tapirs. *Grizmek's Animal Life Encyclopedia.* Parker, S. P. ed. New York, London: McGraw Hill. 1990. Vol. 4, 598-608.

Eisenberg, John F. Introduction / Introducción / Introdução. In: Brooks, Daniel M.; Bodmer, Richard E., and Matola, Sharon, compilers. *Tapirs - Status Survey and Conservation Action Plan.* IUCN/SSC Tapir Specialist Group, IUCN, Gland, Switzerland and Cambridge, UK; 1997. pp. 1-2 (English), 65-66 (Spanish), 123-125 (Porguguese).

---. *Mammals of the Neotropic Volume One: The Northern Neotropics - Panama, Colombia, Venezuela, Guyana, Suriname, French Guiana.* Chicago: University of Chicago Press. 1989. 449 p. & 21 pls. maps, illus; Illustrated by Fiona Reid. Maps by Sigfrid James Bonner.

Eisenmann V, Guerin C. Tapirus priscus from the Upper Miocene of western Europe: paleontology, biostratigraphy, and palaeoecology. *Paleontologia i Evolucio.* 1992. 24-25113-122.

Ellerman, J. R. and Morrison-Scott, T. C. S. *Checklist of Palaearctic and Indian Mammals, 1758 to 1946.* London: British Museum (Natural History). 1951. 810 pp.

Emmons, L. H. Geographic variation in densities and diversities of non-flying mammals in Amazonia. *Biotropica.* 1984. 16(3): 210-222.

---. *Neotropical Rainforest Mammals: A Field Guide; Second Edition.* Chicago: University of Chicago Press. 1997. 396 p. Illusrations. Maps. Illustrayed by Francois Feer. Emry, R. J. A tiny new Eocene ceratomorph and comments on &quottapiroid" systematics. *Journal of Mammalogy.* 1989. 70794-804.

Enders, R. K. Mammalian life histories from Barro Colorado Island, Panama. *Bulletin of the Museum of Comparative Zoology* (Harvard). 1935. 78(4): 385-502.

Ensley, P. K.; Gerber, F. H., and Meier, J. E. Acute gastrointestinal distress in a ten-day-old Baird's tapir (*Tapirus bairdii). Journal of Zoo Animal Medicine.* 1980. 11(4): 113-117.

Erhart, M. B. Feixe atrio-ventricular de his no *Tapirus americanus. Arquivo De Anatomia e Antropologia.* 1937. 18:37-42.

Erxleben, J. C. P. *Systema Regni Animalis per Clases, Ordines, Genera, Species, Varietates, cum Synonymia et Historia Animalium.* Weygandianis, Lipsiae; 1777. (Classis I): p. 191 (and ?). 636 pp.

Evarestrova, A. Gemogramma tapira. *Proceedings of the Moscow Zoological Park.* 1946. 3: 219-220.

Fa, J. E. and Morales, L. M. Patterns of mammalian diversity in Mexico. Ramamoorthy, T. P.; Bye, R.; Lot, A, and Fa, J., eds. *Biological Diversity of Mexico: Origins and Distribution.* New York and Oxford: Oxford University Press. 1993. 319-361.

Ferrier, W. B. Tapir calf. *Journal of the Bombay Natural History Society.* 1905. (17): 242.

Ferris, W. B. Note on the Malay tapir (*Tapirus indicus)* in captivity. *Journal of the Bombay Natural History Society.* 1905. 17(5): 242-243.

Filhol MH. Note relative a la decourerte d'un animal appartenant au genre des tapirs dans les gisements de phosphates de chaux de Quercy. [A note about the discovery of an animal belonging to the genus of the tapirs within the layers of phosphates of the limes of Quercy.]. Mem. Soc. Physiques Et Naturelles. 1874. 1-3.

Finnegan M; Munson L; Barrett S, and Calle PP. Vesicular Skin Disease of Tapirs. Proceedings American Association of Zoo Veterinarians. 1993. 416-417.

Fischer. *Synopsis Mammalium, Addenda.* 1830. p. 604.

Fischer, G. *Zoognosia tabulis synopticis illustrata.* 3 (Guiana) ed. Moscow: Nicolai Sergeidis Vsevolozsky. 1814. (3): p. 292. 734 pp.
Fisher, J.; Simon, N., and Vincent, J. *Wildlife in Danger.* New York: The Viking Press. 1969.

Flesher Kevin and Ley Eduardo. A frontier model for landscape ecology: the tapir in Honduras. *Environmental and Ecological Statistics.* 1996. Jun. 3119-125.

Flesher Kevin. Preliminary notes on the conservation status of Baird's tapir *Tapirus bairdii* in northeastern Honduras. *Oryx.* 1999. 33(4): 294-300.

Flint, J.; Ryder, O. A., and Clegg, J. B. (MRC Mol. Haematol. Unit, Inst.Mol.Med., Univ. Oxford, John Radcliffe Hosp., Headington, Oxford OX3 9DU, UK). Comparison of the .alpha.-globin gene cluster structure in Perissodactyla. J. Mol. Evol. 1990. 30(1): 36-42.

Flower, S. S. Contributions to our knowledge of the duration of life in vertebrate animals. *Proceedings of the Zoological Society of London.* 1931. (5. Mammals): 145-234.

---. List of the vertebrated animals exhibited in the gardens of the Zoological Society of London, 1828-1927. Zoological Society of London. 1929. (I. Mammals): 419 pp.

Flower, W. H. Title unknown. *Proceedings of the Zoological Society of London.* 1867. (XVI): 240-241.

Foenander, E. C. Big game of Malaya. London: Batchworth Press. 1952.

Foerster, S.; Bailey, J.; Aguilar, R.; Loria, D.; and Foerster, C. Butorphanol/xylazine/ketamine immobilization of free-ranging Baird's tapairs in Costa Rica. *J. Wildlife Diseases.* 2000: 335-341.

Fontaine, Pierre A. Longevity of the Malayan Tapir (*Tapirus indicus). International Zoo Yearbook.* 1962. (3): 80.

Frädrich, Hans. Zum Fang des Wolltapirs (*Tapirus pinchaque* Roulin 1829). [On the Capture of the Woolly Tapir (*Tapirus pinchaque* Roulin 1829).]. Der Zoologischer Garten, Leipzig. 1970. 38(6): 281-296.

Frädrich, Hans and Thenius, Erich. Tapirs. In: Grzimek, B., (ed.). *Grzimek's Animal Life Encyclopedia.* New York: Van Nostrand Reinhold. 1972. (13): 17-33.

Frackowiak, H and Godynicki, S. Head arteries in the lowland tapir (*Tapirus terrestris).* Roczniki Akademii Rolniczej w Poznaniu. 1991. 22915-20.

Fragoso, J. M. The ecology and behaviour of Baird's tapir in Belize [BSc Thesis]. 1983. Trent University, Peterborough, Ontario, Canada.

Fragoso, J. and Williamson, M. Tapir discovery in Belize. *Species* (Newsl. Species Survival Comm.). 6 ed. 1986.

Fragoso, J. M. V. The effect of hunting on tapirs in Belize. Robinson JG and Redford KH, editors. Neotropical Wildlife Use and Conservation: The University of Chicago Press 1991. 154-173.

Fragoso, J. M. V. Seed-dispersal and seedling recruitment patterns by the last Neotropical megafaunal element in Amazonia, the tapir. *J. Tropical Ecology.* 2000. 16:369-385.

Fragoso, Jose. Tapir research in Belize. *Belize Audubon Society Bulletin.* 1985. 17(7): 2-3.

Fragoso, Jose M. The effects of selective logging on Baird's tapir. Mares, Michael A. and Schmidly, David J., eds. *Latin American Mammalogy: History, Biodiversity, and Conservation.* Norman, Oklahoma and London: University of Oklahoma Press. 1991.

Fredrick, D. L. Cytological changes before, during, and after pregnancy in South American tapirs. *American Association of Zoological Parks and Aquariums Regional Conference Proceedings.* 1982. 64-371.

Friant, M. Le telencephale des tapirides. *Anatomischer Anzeiger.* 1943. 94:26-41.

Frick, C. Extinct vertebrate faunas of the badlands of Bautista Creek and San Timoteo Ca~on, Southern California. *University of California Publications in Geology.* 1921. (12): 277-424.

Frolka, J. Erkrankungen beim im zoo gehalten schabrackentapir (*Tapirus indicus)* und Flachlandtapir (*Tapirus terrestris).* [Diseases of captive Malayan and lowland tapirs]. *Erkrankungen Zootiere, Berlin.* 1986. 189-193.

--- (Berlin, German Democratic Republic; Akademie-Verlag). Tuberculosis among Brazilian tapirs in a zoo and its prevention. Erkrankungen der Zootiere. Verhandlungsbericht des 31. *Internationalen Symposiums uber die Erkrankungen der Zoo-und Wildtiere, Dortmund* 1989. 281-284.

Frolka, J and Rostinska, J (Lesna Zool. Garden, 76314 Gottwaldov, Czechoslovakia. Berlin, German Democratic Republic; Akademie-Verlag). Uber die Wirksamkeit von ivermectin MSD (Ivomec, Eqvalan) gegen Sarcoptesraude und nematodenbefall bein zootierren. [Efficacy of Ivermectin MSD (Ivomec, Eqvalan) against *Sarcoptes scabiei* and nematodes in zoo animals].

Ippen, R and Schroder, H. D. Erkrankungen der Zootiere. Verhandlungsbericht des 26. Internationalen Symposiums uber die Erkrankungen der Zootiere vom 2. Mai bis 6. Mai 1984 in Brno. 1984. 455-462.

Göltenboth, R. Uber eine enterkiefergeschwulst bei einem Schabrackentapir (*Tapirus indicus* Cuv.). *IX International Symp Erkr Zootiere (Salzburg), Berlin, Akademie Verag.* 1967. 239-242.

Gale, N. and Sedgwick, C. A note on the woolly tapirs (*Tapirus pinchaque)* at the Los Angeles Zoo. *International Zoo Yearbook.* 1968. (8): 211-212.

Gambarian, P. P. How mammals run; anatomical adaptations. New York: Halsted Press Book. 1972.

Gambaryan, D. P. Morfofunktsionalinyi analiz nyshts konechnustei tapira (Tapirus americanus)/. *Zoologische Jahrbuch Akademie Naukowe Arm. Esr.* 1964. 13:5-50.

Garland Jr. T, Janis CM. Does metatarsal/femur ratio predict maximal running speed in cursorial mammals? *Journal of Zoology, London.* 1993. 229133-151.

Garton, E. R. Late Pleistocene and recent mammal remains from two caves at Bowden, West Virginia. *West Virginia Academy of Science Proceedings.* 1977. 49(1): 41.

Gaudry A. La dentition des ancestres des tapirs. [The dentition of the ancestors of the tapirs.]. *Bull. Geol. Sco. France.* 1897. 3rd ser., 25315-235.

Gaumer. Monografía de los mamíferos de Yucatán, México. 1917. p. 43.
Gazin CL, Collins RL. Remains of land mammals from the Miocene of the Chesapeake Bay region. *Smithsonian Miscelleneous Collections.* 1950. 1161-21.

Gentry, Anthea. Regnum animale...,Ed.2 (M.J. Brisson,1762): Proposed rejection, with the conservation of the mammalian generic names Philander (Marsupialia),Pteropus (Chiroptera), Glis,Cuniculus and Hydrochoerus (Rodentia),Meles, Lutra and Hyaena (Carnivora),Tapirus (Perissodactyla), Tragulus and Giraffa (Artiocactyla). *Bulletin of Zoological Nomenclature.* 1994. 51(2): 135-146.

Geroudet, P. Le tapir pinchaque doit etre protégé en Equateur. [The tapir (*T. pinchaque)* should be protected in equatorial regions.]. *Biol. Conserv.* 1970. 2(2): 139-140.

Gill. A new species of tapir from Guatemala. *American Journal of Science.* 1870. ser 2(50): 142.
---. Title unknown. *Proc. Acad. Nat. Sci.,* Philadelphia. 1865. (17): 183.

Ginsburg L; de Broin F; Crouzel R; Duranthon F; Escuillie F; Juillard F, and Lassaube S. Les vertebres du Miocene Inferieur de Barbotan-les-Thermes (Gers). [The vertebrates of the lower Miocene of Barbotan-les-Thermes (Gers).]. *Annals De Paleontologie.* 1991. 77161-216.

Glanz, W. E. Mammalian densiities at protected versus hunted sites in central Panama. Robinson, J. G. and Redford, K. H., eds. *Neotropical Wildlife Use and Conservation.* 1991. 163-173.

Gloger. *Gemeinnütziges Hand- und Hilfsbuch er Natürgeschichte. . . .* 1842. (Vol. 1): p. 124.

Gmelin, J. F. Caroli a Linné systema naturae per regna tria naturae, secondum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. *Regnum Animale.* Class I, Mammalia. 13th edition, revised by J.F. Gmelin ed. Lipsiae: G.E. Beir. 1788. (Vol. I): p. 216. 232 pp.

Goldman, probably E. A. *Smithsonian Misc. Coll.1920.* (69): 81, 83.

Gonzalez, G. and Navarro, L. D. Diversity and conservation of Mexican mammals. Mares, M. A. and Schmidly, D. J., eds. *Latin American mammalogy: History, Biodiversity, and Conservation.* Norman, Oklahoma and London: University of Oklahoma Press. 1991. 97-123.

Goodwin. Mammals of Costa Rica. *Bulletin of the American Museum of Natural History.* 1946. (87): 449-451.

---. Title unknown. *Journal of Mammalogy.* 1946. (27): 91.

Goudot, J. Nouvelles observations sur le *Tapir pinchaque. Comptes Rendus,* Academie Sciences, Paris. 1843. (16): 331-334.

Gray. *London Med. Repos.* 1821. (15): 306.

Gray, J. E. *Hand-List of the Edentate, Thick-Skinned and Ruminant Mammals in the British Museum.* 1873. p. 34.

Gray JE. Description of a young tapir from the Peruvian Amazons. *Proceedings of the Zoological Society of London.* 1872. 624-625.

---. Notes on a new species of tapir (*Tapirus leucogenys)* from the snowy regions of the Cordilleras of Ecuador and on the young spotted tapirs of North America. Proceedings *of the Zoological Society of London.* 1872. 483-492.

---. Notice of a new species of American tapir, with observations on the skulls of *Tapirus, Rhinochoerus,* and *Elasmognathus* in the collection of the British Museum. *Proceedings of the Zoological Society of London.* 1867. 876-886.

Gregory WK. Studies in comparative myology and osteology, No. V. - on the anatomy of the preorbital fossae of Equidae and other ungulates. *Bulletin of the American Museum of Natural History.* 1920. 42265-283.

Grimwood IR. Notes on the distribution and status of some Peruvian mammals. Special Publication 21 (Appendix II): *Recommendations on the conservation of wildlife and the establishment of national parks and reserves in Peru.* Bronx, New York: American Committee on International Wildlife Protection and New York Zoological Society. 1968. 77-78.

---. Notes on the distribution and status of some Peruvian mammals 1986. *Special Publications of the American Committee for International Wildlife Protection, New York Zoological Society.* 1969. 21: 1-86.

Grzimek, B. *Grzimek's Encyclopedia:* McGraw-Hill, Inc. 1990. Mammals, Vol. 4.
---. *Grzimeks Tierleben(*13): 17-35.

---. Title unknown. *International Zoo News.* 1968. (May).

Guerin C, Eisenmann V. Les tapirs (Mammalia, Perissodactyla) du Miocene Superieur d'Europe occidentale. [The tapirs (Mammalia, Perissodactyla) from the upper Miocene of western Europe.]. *Geobios.* 1994. 27113-127.

Guglielmone, A. A. and Mangold A. J. (Unidad Regional de Investigacion en Sanidad Animal, C.C. 228, 4400 Salta, Argentina.). Finding of *Amblyomma ovale* Koch, 1844 in the provinces of Salta and Jujuy, Argentina. Communication. *Veterinaria Argentina.* 1986. 3(22): 167-168.

Guglielmone, A. A.; Mangold, A. J., and Aufranc, C. R. (Grupo de Salud Animal, Estacion Experimental Agropecuaria Rafaela, CC 22, CP 2300 Rafaela (Santa Fe), Argentina). *Haemaphysalis juxtakochi, Ixodes pararicinus* (Ixodidae) and *Otobius megnini* (Argasidae) in realtion to the phytogeography of Argentina. *Annales De Parasitologie Humaine Et Comparee.* 1992. 67(3): 91-93.

Guinan, Yvonne Nodlaig. Resolving people-park conflicts at Sangay National park, Ecuador: A case study of Alao [M.Sc. dissertation]. 1992 Sep. School of Agricultural and Forestry Science, University College of North Wales, Bangor, Gwynedd, UK.

Haarmann and K. Morphological and histological investigations on the neo cortex of several perissodactyla. *Acta Anatomica.* 1974. 90(2): 285-299.

Hatcher, J. B. Recent and fossil tapirs. *The American Journal of Science* (Fourth Series). 1896. 1(3): 161-180.

Hediger, H. *Man and animal in the zoo: Zoo biology.* 1969. Routledge and Kegan Paul, London.

Henry, J. S.; Lance, V. A., and Conlon, J. M. (Department of Biomedical Sciences, Creighton University School of Medicine, Omaha, Nebraska 68178). Primary structure of pancreatic polypeptide from four species of Perissodactyla (Prezwalski's horse, zebra, rhino, tapir). *Gen. Comp. Endocrinol.* 1991 Dec. 84(3): 440-446.

Henry, O.; F. Feer and D. Sabatier. Diet of the Lowland Tapir (*Tapirus terrestris* L.) in French Guiana. *Biotropica.* 2000. 32(2): 364-368.

---. Purification and characterization of insulin and the C-peptide of proinsulin from the Prezwalski's horse, zebra, rhino, and tapir (Perissodactyla). *Gen. Comp. Endocrinol.* 1993 Feb. 89(2): 299-308.

Heran, I. Ear marking in perissodactyla. *Lynx* (Prague). 1989. 25:29-40.

Hermann, R. Ein neuer tapir aus Brasilien und ost Bolivien [A new tapir from Brazil and Eastern Bolivia] [re: *Tapirus anulipes]. Mitteillungen Aus Dem Zoologischen Museum in Berlin.* 1924. 11: 167-168.

Hershkovitz, P. Mammals of northern Colombia, preliminary report no. 7: tapirs (genus *Tapirus)* with a systematic review of America species. *Proceedings of the United States National Museum.* 1954. 103(3329): 456-496.

Hertzog, R. E. Xylazine in exotic animal practice. *American Association of Zoo Veterinarians Annual Proceedings.* 1975. 40-42.

Heuvelmans, Bernard. On the track of unknown animals. New York: Hill and Wang. 1965. 9-10.

Hilliard, Daniel. Baird's tapir conservation in Costa Rica: ZCOG coordinates volunteer effort to assist tapir research. *Zoo Conservation Outreach Group News.* 1997. III (II): 2.

Hislop, J. A. The distribution of elephant, rhinoceros, seladang and tapir in Malaya's National Park. *Malayan Nature Journal* (Special Issue). 1961. 95-99.

---. The story of a tapir. *Malayan Nature Journal.* 1950. 5(2): 92-95.

Hofmann, L. Zur anatomie des mannlichen elefanten-tapir-und hippopotomas-genitale [On the anatomy of the male genitalia of elephants, tapirs, and hippopotomus]. *Zoologische Jahrbucher Abteilung Fur Anatomie Und Ontogenie Der Tiere.* 1923. 45: 161-212.

Hooijer, D. A. Dental anomaly in *Tapirus terrestris. Bijdragen Tot De Dierkunde.* 1961. 31: 63-64.

---. On fossil and prehistoric remains of *Tapirus* from Java, Sumatra and China. *Meded Mus Leiden.* 1947. 27253-299.

Horan, A. An outline of tapir management. *Proceedings of Assoc. of British Wild Animal Keepers.* 1983. 24-29.

Hsu, T. C. and Benirschke, K. *An Atlas of mammalian chromosomes.* New York: Springer-Verlag. 1975. 9 (folio 436): p. unpaged.

Hughes, F.; LeClerc-Cassan, M., and Marc, J. P. Anesthesie des animaux non domestiques, essai d'un nouvel anesthesique: L'association tiletamine-zolazepam (zoletil N.D.) [Anesthesia of non-domestic animals: there will be a new anesthetic: tiletamine-zolazepam]. *Recueil De Medicine Veterinaire De L'Ecole D'Alfort*. 1986. 162(3): 427-431.

Hulbert, R. C. Jr. The giant tapir, *Tapirus haysii,* from Lesley Shell Pit 1A and other Florida Irvingtonian localities. *Bulletin Florida State Museum Natural History.* 1995. 37515-551.

Hunsaker, D. and Hahn, T. Vocalization of the South American tapir (*T. terrestris). Animal Behaviour.* 1969. (13): 69-74.

Jackson, C. E. Malayan Tapir. *Malayan Nature Journal.* 1950. 5 (2): 92-95.

Jacobi, E. F. Hippopotomus, tapir, and manatee house at Amsterdam Zoo. *International Zoo Yearbook.* 1969. 9: 63-64.

Janis, C. The evolutionary strategy of the Equidae and the origins of rumen and cecal digestion. *Evolution.* 1976. 30: 756-774.

Janis C. Tapirs as living fossils. In: Eldredge, N. and Stanley, S. M., eds. *Living Fossils:* Springer Verlag. 1984. 80-86.

Janis, C. M. A climatic explanation for patterns of evolutionary diversity in ungulate mammals. *Palaeontology.* 1989. 32463-481.

Janssen D.L., Rideout B.A., and Edwards M.E. Medical Management of Captive Tapirs (*Tapirus* sp.).
---. Veterinary aspects of the tapir Taxon Advisory Group. AZA Proceedings from Honolulu; Zoological Society of San Diego, San Diego, CA 92112, USA. 8 pp.

Janzen, D. H. (Dept. Biol., Univ. Pennsylvania, Philadelphia, PA 19104, USA.). Digestive seed predation by a Costa Rican Baird's tapir. *Biotropica.* 1981. 13(2, supplement): 59-63.

--- (Dep. Biol., Univ. Pennsylvania, Philadelphia, PA 19104, USA). Seeds in tapir dung in Santa Rosa National Park, Costa Rica. *Brenesia.* 1982. 19(20): 129-135.

---. *Tapirus bairdii* (Danto, Danto, Baird's tapir). Janzen, D. H., ed. *Costa Rican Natural History.* Chicago and London: The University of Chicago Press. 1983. 496-497.

---. Wild plant acceptability to a captive Costa Rican Baird's tapir. *Brenesia.* 1982. 19(20): 99-128.

Jefferson, G. T. Late Cenozoic tapirs (Mammalia: Perissodactyla) of western North America. *Contributions in Science.* 1989. 4061-22.

---. A new specimen of tapir from Rancho la Brea. *Current Research in the Pleistocene.* 1986. 3: 68-69.

Jensen, J. M. Beta-hemolytic streptococcus associated with enteritis in a Malayan tapir. *Journal of Zoo Animal Medicine.* 1978. 9(3): 88-90.

Jones, M. L. Longevity of ungulates in captivity. *International Zoo Yearbook.* 1993. 32.

Jorgenson, J. P. Order Perissodactyla/Family Tapiridae. Dollinger, P., ed. *Identification manual, Volume 1a. Mammalia: Carnivora to Artiodactyla. Convention on International Trade in Endangered Species of Wild Fauna and Flora.* Lausanne, Switzerland: Convention on International Trade in Endangered Species of Wild Fauna and Flora. 1985. p. 199.

Kallenius, G.; Bolske, G.; Innerstedt, A.; Ramberg, M.; Roken, B. O., and Svenson, S. B. (Enheten for bakteriologi, Smittskyddsinstitutet, Stockholm.). Did the tapir infect the ape or vice versa? A new technique for tracing tuberculosis. *Lakartidningen* (SWEDEN). 1993. Dec 22. 90(51-52): 4658-4659.

Kasman, L. H.; McCowan, B., and Lasley, B. L. (San Diego Zoo, Res. Dep., POB 551, San Diego, CA 92112-0551). Pregnancy detection in tapirs by direct urinary estrone sulfate analysis. *Zoo Biology.* 1985. 4(3): 301-306.

Kathariner, F. L. Das fubskelett des tapirs [The bones of the tapir foot]. *Naturwissenschaftliche Wochenschrift* Jena. 1914. 13: 422-423.

Khan bin Momin Khan, Mohd. Status and action plan of the Malayan tapir (*Tapirus indicus).* In: Brooks, Daniel M.; Bodmer, Richard E., and Matola, Sharon, compilers. *Tapirs - Status Survey and Conservation Action Plan.* IUCN/SSC Tapir Specialist Group, IUCN, Gland, Switzerland and Cambridge, UK. 1997. 23-28.

Kauffels, T. Erstmals in einem deutschen Zoologischen Garten: Der Mittelamerikanische oder Bairds tapir, *Tapirus bairdii* (Gill, 1865). *Der Zoologische Garten (NF).* 1995. 65: 7-10.

Kirshshofer, R. Das verhalten der giraffengazzelle, elenantilope und des flachland tapirs bei der geburt: einige Bemerkungen zur vermehrungsrate und generationsfolge dieserartem im Frankfurter Zoo [The behavior of the gerenuk, tragelaphus oryx and South American lowland tapir at birth; some observations on the rate of reproduction and generations of these species in the Frankfurt Zoo]. *Zeitschrift Für Tierpsychologie.* 1963. 20: 143-159.

Kitchens, J. A. Tapir and associated Pleistocene mammals from Archer County, Texas [*Tapirus veroensus]. Texas Journal of Science.* 1988. 40(3): 363-366.

Kladetzky, J. Atlas und epistropheus vom tapir (erganzung zum Beitrag: zur entwicklung des dens epistropheis). [The first and second neck vertebra of the tapir (addition to the article: to the evolution of the second neck vertebra)]. *Gegenbaurs Morphologisches Jahrbuch.* 1956. 97: 193-201.

Klatts, or KLAITS B. G. The moving mesaxonic manus, a comparison of tapirs and rhinoceroses. *Mammalia.* 1972. 36(1): 126-145.

Klingel, H. *Communication in the Perissodactyla.* Sebeok, T. A., ed. Bloomington, Indiana; London: Indiana University Press. 1977. 715-727.

Klos, H. G. Rhino, tapir and okapi house at West Berlin Zoo. *International Zoo Yearbook.* 1966. 6: 127-128.

Koenigswald, R. V. Die tapirreste aus dem aquitan von Ulm und Mainz. [Tapir remains from the Aquitan from Ulm and Mainz]. *Palaeontographica* Stuttgart. 1930. 73:1-29.

Kono, N.; Shitsiri, S.; Hiramatsu, H.; Tasaka, K., and Saheki, Y. Some findings in thoracic cavities of Malayan tapirs (*Tapirus indicus). J. Jpn. Assoc. Zool. Gard. Aquariums.* 1989. 31(1): 11-13.

Kourist, W. Frühe Haltung von Großsäugetieren, Teil 4: Die ersten zweihörnigen Nashörner, Tapire und Wale in den Zoologischen Gärten und anderen Tiersammlungen. [Early holdings of large mammals, Part 4: The first two-horned rhinoceros, tapirs, and whales in zoos and other animal collections]. *Zool. Beitrage.* 1973. 19(1): 137-150.

Krumbiegel, I. Beitrage zur Jugendentivicklung des Schabrackentapirs (*Rhinochoerus indicus* [Cuv.]). [Contributions on juvenile development in Malayan tapirs (*Rhinochoerus indicus* [Cuv.])]. *Der Zool. Garten N.F.* 1936. 8(4/6): 96-99.

Kruska, D. Cerebralization evolution of the brain and changes in brain size as a cause of domestication within the order Perissodactyla and a comparison with the order Artiodactyla. *Zeitschrift Fuer Zoologische Systematik Und Evolutionsforschung.* 1973. 11(2): 81-103.

Kuehn, G. Tapiridae. In: Fowler ME, ed. *Zoo and Wild Animal Medicine.* 2nd ed. Philadelphia, London: WB Saunders. 1986. 931-934.

Kutschmann, K.; Albrecht, G., and Neumann, M. Zur anwendung von diazepam beim zootier. [On the application of diazepam for the zoo animal.]. *Erkrankungen Zootiere.* 1986. 185-188.

Kutzer, E. and Grunberg, W. Sarcoptes raude (*Sarcopti tapiri* nov. spec.) bei tapiren (*Tapirus terrestris).* [Sarcoptic mange (*Sarcopti tapiri* nov. spec.) among tapirs (*Tapirus terrestris).]. Zeitschrift Für Parasitenkunde.* 1967. 29: 46-60.

Lambeth, RR; A.J. Dart; L. Vogelnest; C.M. Dart;and D.R. Hodgson. Surgical management of an abdominal abscess in a Malayan tapir. *Aust Vet J.* 1998. 76(10): 664-666.

Leat, W. M. F.; Northrop, C. A.; Buttress, N., and Jones, D. M. (ARC Inst. Animal Physiology,

Barbraham, Cambridge CB2 4AT, UK.). Plasma lipids and lipoproteins of some members of the order Perissodactyla (*Tapirus indicus). Comparative Biochemistry and Physiology, B.* 1979. 63(2): 275-281.

Lechner, W. Ueber die tubendivertikel (luftsacke) beim tapir. Ein beitrag zur anatomie des tapirs (*Tapirus americanus).* [The cecum of the tapir. A contribution to the anatomy of the tapir (*Tapirus americanus)]. Anatomischer Anzeiger.* 1932. 74: 250-265.

Lee, A. R. *Management guidelines for the welfare of zoo animals: Tapirs (*Tapirus *spp.).*

London: The Federation of Zoological Gardens of Great Britain and Ireland. 1993 Sep. ISBN: 0963-1712.

Lee, C. C.; Zainal-Zahari, Z., and Krishnasamy, M. New host record of *Armillifer moniliformis* (Diesing, 1835; Sambon, 1922) in a Malayan tapir (*Tapirus indicus). Kajian Veterinar.* 1986. 18(2): 195-197.

Leffler, S. R. Fossil mammals from the Elk River Formation, Cape Blanco, Oregon. *Journal of Mammalogy.* 1964. 4553-61.

Lekagul, B. and McNeely, J. A. Asian or Malayan tapir. In: *Mammals of Thailand:* Bangkok, Kurusapha Press. 1977. 648-650.

Lindberg, Arne. Ein albinotischer Flachlandtapir (*T. terrestris)* in Kolmårdens Djurpark. [An albino lowland tapir (*T. terrestris)* in the Kolmarden Zoo]. *Der Zoologische Garten,* Jena. 1984. 54(4/5): 357-359.

Lindsay, E. H. Late Cenozoic mammals from northwestern Mexico. *Journal of Vertebrate Paleontology.* 4: 208-215.

Lizcano, D and cavelier, J. Densidad Poblacional y Disponibilidad de Hábitat de la Danta de Montana (*Tapirus pinchaque)* en los Andes Centrales. *Biotropica.* 2000. 165-173.

Lock, R. Foot problems with tapirs at Twycross Zoo. *Ratel.* 1991. 18(5): 141-143.

Lozano-Alarcón, F.; Bradley, G. A.; Houser, B. S., and Visvesvara, G. S. Primary amebic meningoencephalitis due to *Naegleria fowleri* in a South American tapir. *Vet. Pathol.* 1997. (34): 239-243.

Lundelius, E. L. Jr.; Slaughter, B. H., and Churcher, C. S. Notes on American Pleistocene tapirs. *Royal Ontario Museum Life Sciences Misc. Publ.* 1976. 226-240.

MacDonald, J. R. Review of the Miocene Wounded Kneee faunas of southwestern South Dakota. *Bulletin of the Los Angeles County Museum of Natural History.* 1970. 8:1-81.

Lynham, A.J. Camera-trapping reveals the status of Malayan tapirs in suthern Thailand raianforest remnants. *Tapir Conservation (newsletter of the IUCN/SSC Tapir Specialist Group).* 1999. 9(1): 9-10.

MacKinnon, K. Tapirs. In: MacDonald, D., ed. *The Encyclodpaedia of Mammals, Volume 2.* Toronto: George, Allen, Unwin. 1984.

Mahler, A. E. (Dep. Biol., Univ. Miami, P.O. Box 249118, Coral Gables, FL 33124,USA). Activity budgets and use of exhibit space by South American tapir (Tapirus terrestris) in a zoological park setting. *Zoo Biol.* 1984. 3(1): 35-46.

Mallinson, Jeremy J. C. American tapir *Tapirus terrestris* juvenile to adult pelage. *Jersey Wildlife Preservation Trust Annual Report.* 1968. 5:ii.

---. Establishing mammal gestation periods at the Jersey Zoological Park. *International Zoo Yearbook.* 1974. (14): 184-187.

---. Reproduction and development of Brazilian tapir, *Tapirus terrestris. Annual Report of the Jersey Wildlife Preservation Trust.* 1969. 6:47-52.

Maluf, N. S. R. The kidney of tapirs: a macroscopical study. *Anat Rec.* 1991. 231(1): 48-62.

Mann, P. C.; Bush, M.; Janssen, D. L.; Frank, E. S., and Montali, R. J. Clinicopathologic correlations of tuberculosis in large zoo animals. *J. Am. Vet. Med. Assc.* 1981. 179(11): 1123-1129.

March Mifsut, Ignacio J. (Centro de Investigaciones Ecologicas del Sureste). Situacion actual del Tapir en Mexico [Current status of the tapir in Mexico] [Monograph]. *Serie Monografica, Centro De Investigaciones Ecologicas Des Sureste.* 1994. 141 p.

Marsh, O. C. Note on *Lophiodon* from the Miocene of New Jersey. *Proc. Acad. Nat. Sci. Phil.* 1871. (23): 9-10.

---. Notice of some new vertebrate fossils. *Amer. Jour. Sci.* (14): 249-256.

Marshall L.G. Geochronology and land-mammal biochronology of the transamerican faunal interchange. In. *The great American biotic interchange.* Stehli FG and Webb SD, eds. New York: Plenum Press. 1985. 49-85.

Matola, S. News from the field: Belize. *Tapir Conservation,* IUCN/SSC Tapir Specialist Group Newsletter. 1992(3).

Matola, Sharon. Tapir Specialist Group. *Species.* Newsletter of the Species Survival Commission. IUCN 996. 26/27: 94-95.

---. Tapir Specialist Group Report. *Species.* Newsletter of the Species Survival Commission. IUCN. 1991. 16: 59.

Matola, Sharon; Cuarón, Alfredo D., and Rubio-Torgler, Heidi. Status and action plan of the Baird's tapir (*Tapirus bairdii)* / Evaluación del estado y plande acción del tapir Mesoamericano (*Tapirus bairdii).* In: Brooks, Daniel M.; Bodmer, Richard E., and Matola, Sharon, compilers. *Tapirs - Status Survey and Conservation Action Plan.* IUCN/SSC Tapir Specialist Group, IUCN, Gland, Switzerland and Cambridge, UK. 1997. 29-45 (English), 89-106 (Spanish).

Matola, Sharon and Todd, Sheryl. Tapir Specialist Group: Current field work. *Species.* Newsletter of the Species Survival Commission. IUCN. 1997. 29: 52-53.

Matthew, W. D.and W. Granger. New ungulates from the Ardyn Obo Formation of Mongolia. *American Museum Novitates.* 1925. (195): 1-12.

Matthew, W. D. and W. Granger. New fossil mammals from the Pliocene of Sze-Chuan, China. *Bulletin of the American Museum of Natural History.* 1923. (48): 563-598.

Matthew, W. D. and W. Granger. New mammals from the Shara Murun Eocene of Mongolia. *American Museum Novitates.* 1925. (196): 1-11.

Matthew, W. D. and W. Granger. The smaller perissodactyls of the Irdin Manha Formation, Eocene of Mongolia. *American Museum Novitates.* 1925. (199): 1-9.

Mazur, G. and Braunitzer, G. Perissodactyla: die primarstruktur der hamoglobine eines flachlandtapirs (*Tapirus terrestris):* Glutaminsaure in position 2 der B-Ketten. [The primary structure of the hemoglobins from a lowland tapir (*Tapirus terrestris,* perissodactyla): Glutamic acid in position 2 of the .beta. chains.].

Hoppe-Seyler's Z. Physiol. Chem. 1984. 365(9): 1097-1106.

McClearn, D. The rise and fall of a mutalism? Coatis, tapirs, and ticks on Barro Colorado Island, Panama. *Biotropica.* 1992. 24(2a): 220-222.

McClure, H. E. A wounded tapir. *Malay. Nat. J.* 1963. (17): 266-267.

McLaughlin, R. Odds & ends make a magnificent beast. *Zoonooz.* 1999. LXXII (4): 8-13.

Mead, J. I.; Roth, E. L.; Van Devender, T. R., and Steadman, D. W. The late Wisconsinan vertebrate fauna from Deadman Cave, Southern Arizona. San *Diego Society of Natural History, Transactions.* 1984. 20(14): 247-276.

Medway, Lord. Food of a tapir, *Tapirus indicus. Malayan Nature Journal.* 1974. 28(2): 90-93.

---. The Malay tapir in late Quaternary Borneo. *Sarawak Mus. J.* 1960. 8(15-16).

---. Mammals of Borneo. *Monographs of the Malaysian Branch of the Royal Asiatic Society.* Kuala Lumpur, Malaysia. 1977. (7): 43.

Meier, J. E. Treatment of salmonellosis. *Journal of Zoo Animal Medicine.* 1982. 13(1): 26-29.

Meierhenry, E. F. and Clausen, L. W. Sarcoptic mange in collared peccaries. *J. Am. Vet. Med. Assoc.* 1977. 171(9): 983-984.

Mercolli, C. and Yanosky, A. A. Estimates of tapir (*Tapirus terrestris)* habitat selection and activity level at el Bagual Ecological Reserve, Formosa, Argentina. *Misc. Zool.* 1991. (15): 227-231.

Merriam, J. C. Tapir remains from late Cenozoic beds of the Pacific Coast region. *University of California Publications, Bulletin of the Department of Geology, Geological Sciences.* 1913. 7(9): 169-175.

Michaux, J.; Sige, B., and Sudre, J. Presence de *Tapirus arvernensis* (Mammalia, Perissodactyla) dans le Pliocene superior de Bassan (Herault). [*Tapirus arvernensis* (Mammalia, Perissodactyla) from the upper Pliocene of Bassan (Herault)]. *Comptes Rendus Somm. Soc. Geol. Fr.* 1984. (4): 216-236.

Miller-Edge, Michele and Scott, Amsel. Carfentanil, ketamine, xylazine combination (CKX) for immobilization of exotic ungulates: Clinical experiences in bongo (*Tragelaphus euryceros)* and mountain tapir (*Tapirus pinchaque). Proceedings American Association of Zoo Veterinarians.* 1994. 192-195.

Miller, Wade E. and Carranza-Casta~eda, Oscar. Late Cenozoic mammals from central Mexico. *Journal of Vertebrate Paleontology.* 1984. 4(2): 216-236.

Moriena, R. A. and Lombardero, O. J. First record for Argentina of *Kiluluma longipene,* parasite of *Tapirus terrestris. Veterinaria, Argentina.* 1979. 2(2): 127-130.

Murie, J. On the Malayan tapir, *Rhinochoerus sumatranus* (Gray). *Journal of Anatomy and Physiology.* 1872. (6): 131-169.

Nair, N. D.; Valsala, K. V.; Mariyamma, K. I.; Ramachandran, K. M., and Rajan, A. Tuberculosis in a tapir (*Tapirus indicus). Indian Veterinary Journal.* 1985. 62(12): 1086-1087.

Naranjo, E. J. and Cruz, E. Ecologia del tapir (*Tapirus bairdii)* en la
Reserva de la Biosfera La Sepultura, Chiapas, Mexico. *Acta Zoologica Mexicana.* 1998. (73): 111-125.

Naundorff, Elisabeth. Meine Begegnung mit einem Bergtapir (*T. pinchaque)* [On my meeting with a mountain tapir]. *Der Zool. Garten N.F.* 1953. 20(1): 51-52.

Neuville, H. Sur l'appareil respiratoire de *Tapirus indicus.* [On the respiratory apparatus of *Tapirus indicus]. Bull. Du Mus. Paris.* 1933. (5): 346.

Nicaragua Ministerio de Agric. El danto o tapir en Nicaragua. [The danto or tapir in Nicaragua]. *Serie De Publicaciones Del Album De Vida Silvestre De Nic.* 1977.

Ojasti, J. Hunting and conservation of mammals in Latin America. *Acta Zoologica Fennica.* 1984. (172): 177-181.
---. Ungulates and large rodents of South America. *Tropical Savannas.* 1983. 427-439.

Olmos, Fábio. Tapirs as seed dispersers and predators / Tapires como dispersores y depredadores de semillas / Antas como dispersores e predadores de sementes. In: Brooks, Daniel M.; Bodmer, Richard E., and Matola, Sharon, compilers. *Tapirs - Status Survey and Conservation Action Plan.* IUCN/SSC Tapir Specialist Group, IUCN, Gland, Switzerland and Cambridge, UK. 1997. 3-9 (English), 67-74 (Spanish), 126-133 (Portuguese).

Olrog, C. C. La situacion presente de los carnivoros y ungulados argentinos. [The present situation of the carnivores and ungulates of Argentina]. *Reunion Iberoam. Zool. Vertebr.* 1977. (1): 619-623.

Olsen, S. J. Age and faunal relationship of *Tapiravus* remains from Florida. *Journal of Paleontology.* 1960. (34): 164-167.

Oria, J. Estudo embryologico do *Tapirus americanus.* 1: Nota previa: Annexos embryonarios e typo de placentacao [Embryological study of the American tapir]. *Anais Da Academia Brasileira De Ciencias.* 1937. (9): 263-267.

Ormrod, S. Milk analysis of the South American tapir (*T. terrestris). International Zoo Yearbook.* 1967. (7): 157-158.

Osborn H.F. and Wortman J.L. Perissodactyls of the lower Miocene White River beds. *Bulletin of the American Museum of Natural History.* 1895. (7): 343-375.

Otera de la Espriella, R. La danta, una riqueza sin explotar. [The tapir, a richness without exploitation.]. *Rev ESSO Agric.* 1973. 19(2): 9-12.

Overall, K. L. Coatis (*Nasua nasua),* Tapirs (*T. bairdi)* and ticks a case of mammalian interspecific grooming. *Biotropica.* 1980. 12(2): 158.

Owen, R. On the anatomy of the American tapir (*Tapirus americanus* Gmel.). *Proceedings of the Zoological Scoiety of London.* 1830. 161-164.

Padilla, Miguel and Robert C. Dowler. Tapirus terrestris. *Mammalian Species.* 1994. 481:8 p.

Pajak, AF III. The second record of *Tapirus* from the Temecula Valley, Southern California, and biostratigraphic implications. Abstracts of Proceedings, 1993 Desert Research Symposium (J. Reynolds, Ed.) San Bernardino County Museum Association Quarterly. 1993. 40(2): 30.

Parker, W. N. On some points in the anatomy of the Indian tapir (*Tapirus indicus). Proceedings of the Zoological Society.* 1882. 768-777.

Paula Couto, C. de (Inst. Geocienc. Univ. Fed. Rio Grande do Sul, Porto Alegre, RS.). Fossil mammals of the Pleistocene of Jacupiranga State of Sao Paulo Brazil. *Anais Da Academia Brasilerira De Ciencias.* 1980. 52(1): 135-142.

Peres CA. Ungulate ectoparasite removal by black caracaras and pale-winged trumpeters in Amazonian forests. *Wilson Bulletin.* 1996. 1(108): 70-175.

Peterson, O. A. New species from the Oligocene of the Uinta. *Annals of the Carnegie Museum.* 1931. (21): 61-79.

Pilgrim, G. E. The perissodactyla of the Eocene of Burma. *Mem. Geol. Sur. of India. Pal. Indica. N.S.* 1925. (8): 1-28, 2 pls. Pleticha, P. The Malay tapir (*Tapirus indicus).* Ziva. 1981. 29(1): 36.

Pournelle, G. H. When does a Malay tapir lose its spots and stripes? *Zoonooz.* 1966. 39(11): 6-7.

Prothero, D. R. and Schoch, R. M. Classification of the perissodactyla. In. The evolution of the perissodactyls (D.R. Prothero and R.M. Schoch, eds.): Oxford University Press. 1989. 13-23.

Radinsky, L. B. Early Tertiary tapiroidea of Asia. *Bulletin of the American Museum of Natural History.* 1965. (129): 183-263.

---. Evolution of the tapiroid skeleton from *Heptodon* to *Tapirus. Bulletin of the Museum of Comparative Zoology.* 1965. (134): 69-103.

---. A new genus of Eocene tapiroid (Mammalia, Perissodactyla). *Journal of Palaeontology.* 1966. (40): 740-742.

---. Origin and early evolution of North American tapiroidea. *Bulletin of The Peabody Museum of Natural History.* 1963. (17): 1-115.

Radinsky LB. The perissodactyl hallux. *American Museum Novitates.* 1963. (2145): 1-8.

Ralls, K.; Kranz, K., and Lundrigan, B. Mother-young relationships in captive ungulates: variability and clustering. *Animal Behaviour.* 1987. (34): 134-145.

Ralls, K.; Lundrigen, B., and Kranz, K. Mother-young relationships in captive ungulates: behavioral changes over time. *Ethology.* 1987. 75(1): 1-14.

Ramaekers, F. C. S.; Van Kan, P. L. E., and Blomendal, H. A comparative study of beta crystallins from ungulates, whale and dog. *Ophthalmic Research.* 1979. 11(3-4): 143-453.

Rambo, A. T. Bows, blowpipes and blunderbusses: ecological implications of weapons change among the Malaysian Negritos. *Malayan Nature Journal.* 1978. 32(2): 209-216.

Ramsay, E. C.; Moren, F.; Roser, J. F., and Lasley, B. L. Urinary steroid evaluations to monitor ovarian function in exotic ungulates (pregnancy diagnosis in perisodactyls). *Zoo Biology.* 1994. 13(2): 129-147.

Ramsay, Edward C. and Zainuddin, Zainal-Zahari. Infectious diseases of the rhinoceros and tapir. *Zoo and Wild Animal Medicine.* 1993. (3): 459-466.

Rapley, W. A. and Mehren, K. G. The clinical usage of Rompun (xylazine) in captive ungulates at the Metropolitan Toronto Zoo. *Proceedings American Association of Zoo Veterinarians.* 1975. 16-42.

Ray, C. E. and Saunders, A. E. Pleistocene tapirs in the eastern United States. *Carnegie Mus. Nat. Hist. Spec. Publ.* 1984. (8): 283-315.

Read, Bruce. Breeding and management of the Malayan tapir (*Tapirus indicus)* at St. Louis Zoo, Missouri, USA. *International Zoo Yearbook.* 1986. (24/25): 294-297.

Redford, D. H. and Eisenberg, J. F. *Mammals of the Neotropic, volume two: the southern cone - Chile, Argentina, Uruguay, Paraguay.* Chicago: University of Chicago Press. 1992.

Redford, K. H. and Robinson, J. G. Park size and the conservation of forest mammals in Latin America. Mares, M. A. and Schmidly, D. J., eds. *Latin American mammalogy: history, biodiversity, and conservation.* Norman, Oklahoma and London: University of Oklahoma Press. 1991. 227-234.

---. Subsistence and commercial use of wildlife in Latin America. Robinson, J. G. and Redford, K. H., eds. *Neotropical wildlife use and conservation.* Chicago: Univeristiy of Chicago Press. 1991. 6-23.
Reichel, K. Tapirs. In: Klos, H. G. and Lang, E. M., eds. *Handbook of Zoo Medicine.* New York, London: Van Nostrand Reinhold Co. 1983. p. 186.

Reichel, K. and Mayer, H. Herpes virusinfektion bei Tapiren. [Herpesvirus infection in tapir]. *Erkrankungen der Zootiere.* Wroclaw Symposium, Akademie Verlag, Berlin. 1972. 221-225.

Reshetov, V. Y. Early Tertiary tapiroidea of Mongolia and the USSR. *The Joint Soviet-Mongolian Paleontological Expedition.* 1979. (11): 1-144.

---. Morphology of skull of asiatic Eocene tapiroid (*Lophialetes expeditus* Matthew et Granger, 1925). *Journal of the Palaeontological Society of India.* 1975. (20): 41-47.

Reynolds, A. J. The tapirs of Burma Zoo. *Zoo Life.* 1947. (Autumn).

Richard, M. Une nouvelle forme de tapiride Oligocene: *Tapirus* (*Protapirus)* aginensis nov. sp. [A new type of Oligocene tapir: *Tapirus* (*Protapirus)* aginensis nov. sp.]. *Bull. Soc. Geol. France.* 1938. 5 ser, 8765-769.

Richter, W. von. Untersuchungen über angeborene Verhaltensweisen des Schabrackentapirs (Tapirus indicus) und des Flachlandtapirs (Tapirus terrestris). *Zoologische Beiträge.* 1966. 12: 67-159.

Robinson, J. G. and Redford, K. H., eds. *Neotropical Wildlife Use and Conservation.* 1991. 415-429.

Robinson, N. D. A description of the Pleistocene faunal remains recovered from Finger Quarry, Blount County, Tennessee. *Journal Tenn. Acad. Sci.* 1981. 56(2): 68-71.

Rodrigues, M.; Olmos, F., and Galetti, M. Seed dispersal by tapir in southeastern Brazil. *Mammalia.* 1993. 57(3): 460-461.

Rodriguez, M. A., Vaughan, C., and McCoy, M. Element composition of mineral licks utilized by wild ungulates in Palo Verde, Guanacaste, Costa Rica. *Brenesia.* 1985. 24: 391-395.

Rook, L. and Rustioni, M. *Tapirus* cf. *arvernensis* ramains from the late Turolian Bacinello V3 faunal assemblage (Grosseto, Tuscany). *Bolletino Della Societa Paleontologica Italiana.* 1991. 29325-327.

Roulin, X. Memoir pour servir a l'histoire du tapir; et description d'une espece nouvelle appartenant aux hautes regions de la Cordillere des Andes. [Contributory article on the history of tapirs and describing a new species from the upper regions of the Andes Mountains.]. *Annales Des Science Naturelle Zoologie Paris.* 1829. 17:26-55.

Rustioni, M. On Pliocene tapirs from France and Italy. *Societe Palentologia Italiana Bollettino.* . 31(3): 269-294.

Ryder, O. A. A studbook for Malayan tapirs. *Zoonooz.* 1984. 57(6): 16-17.

Saez, H.; Rinjard, J.; LeClerc-Cassac, M., and Strazielle, L. Microsporum and microsporoses: III Epizootic foci and isolated microsporoses seen in the Paris Zoological Park. *Mykosen.* 1977. 20(4): 156-162.

Saez, H.; Rinjard, J., and Strazielle, L. Infection of a tapir with Microsporum canis. *Bulletin Mensuel De La Societe Veterinaire Pratique De France.* 1974. 58(7): 335-338.

Sala B.; Ungaro S., and Vincenzi L. *Tapirus arvernensis* Croizet & Jobert del Villafranchiano inferiore de Vignola (Modena). [*Tapirus arvernensis* Croizet & Jobert from the lower Villavranchian of Vignola

(Modena).]. *Bolletino Della Societa Paleontologica Italiana.* 1990. (29): 129-136.

Salas, Leonardo A. Habitat use by lowland tapirs (*Tapirus terrestris* L.) in the Tabaro River Valley, southern Venezuela. *Canadian Journal of Zoology.* 1996. (74): 1452-1458.

Salas, Leonardo A. and Fuller, Todd K. Diet of the lowland tapir (*Tapirus terrestris* L.) in the Tabaro River Valley, southern Venezuela. *Canadian Journal of Zoology.* 1996. (74): 1444-1451.

Sanborn, C. C. and Watkins, A. R. Notes on the Malay tapir and other game animals in Siam. *Journal of Mammalogy.* 1950. 31(4): 430-433.

Santiapillai, C. and Sukohadi Ramono, W. The status and conservation of the Malayan tapir in Sumatra, Indonesia. *Tiger Paper (Bangkok).* 1990. 17(4): 6-11.

Satterfield, W. and Lester, G. A. Internal fixation of a chronic rectal prolapse in a Malaysian tapir. *Journal of Zoo Animal Medicine.* 1974. 5(3): 26.

Schönborn, C.; Seifert, S.; Braun, W., and Schmoranzer, H. Studies of cutaneous fungi of zoo animals. *Zoologische Garten.* 1971. 41(1-2): 7-25.

Schürer, U. Behavior at birth of *Tapirus terrestris. Zoologische Garten.* 1976. 46(4-5): 367-370.

Schaller, G. B. Mammals and their biomass on a Brazilian ranch. *Arquivos De Zoologia* (Sao Paulo). 1983. 31:1-36.

Schaub, S. Der Tapirschädel von Haslen. [The tapir skull from Haslen.]. Ein Beitrag zur Revision der Tapiriden Europas. *Abhld. Der Schw. Paeaeont. Ges.* 1928. 47: 1-28 (pl. 1, 7 text figures).

---. Ein tapir aus der Oligocanen Molasse der Ostschweiz. [A tapir from the Oligocene Molasse of Ostschweiz (east Switzerland).]. *Eclogae Geologicae Helvetiae.* 1990. (20): 312-316.

Schauder, W. Der gravide uterus und die placenta des tapirs mit vergleich von uterus und placenta des schweines und pferdes. [The uterus and the placenta of the tapir; their comparisons with that of the pig and the horse.]. *Gegenbaurs Morphologisches Jahrbuch.* 1944. 89: 407-456.

---. Uber anatomie, histologie und entwicklung der embryonalanhange des tapirs. [On the anatomy, histology, and evolution of the placenta of the tapir.]. *Gegenbaurs Morphologisches Jahrbuch.* 1928. 60: 105-178.

Schauenberg, P. Contribution a l'etude du Tapir pinchaque. [Contribution to the study of *Tapirus pinchaque]. Revue Suisse De Zoologie.* 1969. 76(8): 211-256.

Schiller, A. Das relief der agmina peyeri bei *Tapirus americanus.* [The projection (raised appearance) of the Peyer's patches in the American tapir.]. *Anatomischer Anzeiger.* 1915. 48: 54-59.

Schinz, H. R. Ossifikationsstudien beim neugeborenen schwein und beim neugeborenen tapir. [Studies of skeletal ossification of newborn swine and tapirs.]. *Mitteilungen Der Naturforschenden Gesellschaft in Zurich.* 1937. 82: 21-44.

Schlaikjer, Erich Maren. A new tapir from the Lower Miocene of Wyoming. *Bulletin of the Museum of Comparative Zoology.* 1937. 80: 231-251.

Schnieder, H. J.; Franz, W.; Audort, F., and Jacob, A. Zur operativen behandlung einer mandibulafraktur durch osteosynthese bei einem flachlandtapir (*Tapirus terrestris).* [Medical treatment of a mandibular fracture through osteosynthesis in a lowland tapir (*Tapirus terrestris)]. Erkrankungen Zootiere.* 1986. 28: 195-199.

Schnurrbusch, U.; Schönborn, C., and Elze, K. On the therapy of dermatomycoses in zoo animals. Erkrankungen der Zootiere. Verhandlungsbericht des XVIII. *Internationalen Symposiums uber die Erkrankungen der Zootiere vom 16. Juni bis 20.* 1976. 187-189.

Schnurrbusch, U.; Schönborn, C.; Seifert, S., and Elze, K. Griseofulvin-behandlungeiner *Microsporumcanis*-infektion bei einem bergtapir (*Tapirus pinchaque).* [Griseofulvin treatment of a *Microsporum canis* infection in a mountain tapir (*Tapirus pinchaque)]. Proceedings of the XIVth International Symposium on the Diseases of Zoo Animals,* 14-18 June,1972 in Wroclaw: Erkrankungen der Zootiere. 1972. 251-255.

Schoch, R. M. Two unusual specimens of *Helaletes* in the Yale Peabody Museum Collections and some comments on the ancestry of the Tapiridae perissodactyla mammalia. *Postilla.* 1984. 193: 1-20.

---. The type specimens of *Tapiravus validus* and ?*Tapiravus rarus* (Mammalia, Perissodactyla), with a review of the genus, and a new report of *Miotapirus* (*Miotapirus marslandensis* Schoch and Prins new species) from Nebraska. *Postilla* (Peabody Museum of Natural History, Yale University). 1984. 195: 1-12.

Schoch RM. A brief historical review of perissodactyl classification, in: The Evolution of the Perissodactyls (R. M. Schoch and D. R. Prothero, eds.). Oxford University Press. 1989. 13-23.

---. A review of the tapiroids. (DR Prothero and RM Schoch, eds.). *The Evolution of the Perissodactyls:* Oxford University Press. 1989. 298-320.

---. *Tanyops undans* Marsh, 1894: a junior subjective synonym of *Protapirus obliquidens* Wortman and Earle, 1893 (Mammalia, Perissodactyla). *Postilla* (Peabody Museum of Natural History, Yale University). 1983. 190: 1-7.

Schryver, H. F., Foose, T. J.; Williams, J., and Hintz, H. F. Calcium excretion in feces of ungulates. *Comparative Biochemisty and Physiology.* 1983. 74: 375-379.

Schultz, C. B., Martin, L. D., and Corner, R. G. Middle and Late Cenozoic tapirs from Nebraska. *Bulletin of the University of Nebraska State Museum.* 1975. 10: 1-21.

Schürer, U. Beobachtungen an einem neugeborenen Flachlandtapir, *Tapirus terrestris* (Linné 1766). *Ibid.* 1976. 46: 367-370.

Schürer, U. and T.K. Kauffels. Erste Nachzucht des Mittelamerikanischen Tapirs, *Tapirus bairdii* (Gill, 1865), im Zoologischen Garten Wuppertal. *Zool garten N.F.* 1999. 69 (3): 188-191.

Scott, W. B. The mammalia of the Duchesne River Oligocene. *Transactions of the American Philosophical Society.* 1945. 34: 209-253.

---. Two new Eocene lophiodonts. *Contributions E.M. Museum of Geology and Archeology, Princeton College.* 1883. 3: 46-53.

Seidel, B.; Schroder, H. D., and Strauss, G. Immobilization and anesthesia of tapir (Tapiridae) (R. Ippen and H.D. Schroder.). Erkrankungen der Zootiere. *Verhandlungsbericht des XXIII. Internationalen Symposiums uber die Erkrankungen der Zootiere, 24-28 Juni, 1981,* in Halle/Saale. 1981. 277-285.

Seitz, Stefan. Tapire im Zoo - Bemerkungen zu Aktivitäten, Sozialverhalten und interspezifischen Kontakten. [Tapirs in Zoos - remarks on activities, social behavior and interspecific interactions]. *Der Zoologische Garten N.F.* 1998. 68(1): 17-38.

Seitz, Stefan. In the name of the tapir: Confusions and conclusions. *International Zoo News.* 2000. 47/3(300): 148-160.

Selbitz, H. J., Elze, K., and Schüppel, K. F. Kasuistischer beitrag zu den jungtiererkrankungen beim flachlandtapir (*Tapirus terrestris).* [Case report of disease in young lowland tapir (*Tapirus terrestris).].* Erkrankungen der Zootiere. Verhandlungsbericht des XXIV. *Internationalen Symposiums uber die Erkrankungen der Zootiere vom 19. Mai bis 23.* 1982. 65-68.

Sellards, E. H. The skull of a Pleistocene tapir including description of a new species and a note on the associated fauna and flora. *Florida Geological Survey 10th and 11th Annual Reports.* 1918. 10: 57-70.

Sharpe, Sophie. Environmental enrichment for singly-housed South American tapirs. *International Zoo News.* 1997. 44(2): 85-95.

Simpson, George Gaylord. *Fossils and the History of Life.* New York: Scientific American Books, Inc. 1983. pp. 98-101.

---. Notes on Pleistocene and Recent tapirs. *Bulletin of the American Museum of Natural History.* 1945. 86(2): 33-82, pls 5-10.

---. Some Carib Indian mammal names. *American Museum Novitates.* 1941. 1119: 1-10.

Simpson, George Gaylord and Paula Couto, Count de. Fossil mammals from the cenozoic of Acre, Brazil 3. Pleistocene edentata, pilosa, proboscidea, sirenia, perissodactyla and artiodactyla. *Iheringia Serie Geologia.* 1981. (6): 11-74

.

Sinclair, W. J. The discovery of a new fossil tapir in Oregon. *Journal of Geology.* 1901. 9: 702-707, 1 text figure.

Smielowski, J. Albinism in the blue bull or nilgai, *Boselaphus tragocamelus* (Pallas, 1766). *J. Bombay Nat. Hist. Soc.* 1987. 84(2): 427-429.

---. Births of white American tapirs. *International Zoo News.* 1979. 26(3): 10-15.

Sontag, W. A. Beobachtungen an gemeinsam gehalten Flachlandtapiren (*Tapirus terrestris)* und Capybaras (*Hydrochoerus hydrochaeris)* im Zürcher Zoo. [Observation of lowland tapirs (*Tapirus terrestris)* and capybara (*Hydrochoerus hydrochaeris)* kept together in the zoo of Zurich.]. *Der Zoologische Garten* (Leipzig). 1974. 44: 317-323.

Souza, W. M.; Miglino, M. A., and Didio, L. J. A. Topography of blood vessels in the hilum of the kidney in *Tapirus americanus. Folia Anatomica Univeritatis Conimbrigensis* (Coimbra). 1988. 50: 83-88.

Stahl, Barbara J. *Vertebrate history: problems in evolution.* New York: McGraw-Hill. 1974. 495-496.
Starzynski, Witold. Cholelithiasis in an American tapir (*T. terrestris). International Zoo Yearbook.* 1965. 5: 195-196.

Stehli, Francis G. and Webb, David S., eds. *The Great American Biotic Interchange.* New York: Plenum Press. 1985. 367-368.

Stirton, R.A. and Weddle, H.W. The California tapir, *Tapirus haysii californicus* Merriam, from Santa Barbara County, California. *University of California Publications, Bulletin of the Department of Geological Sciences.* 1929 Mar 19. 18(7): 225-226.

Stock, C. Perissodactyla of the Sespe Eocene, California. *Proceedings of the National Academy of Sciences, U.S.A.* 1936. 22: 260-265.

Stovall, J. W. Chadron vertebrate fossils from below the rim rock of Presidio, Texas. *American Journal of Science.* 1949. 246: 78-95.

Strain, W. S. Blancan mammalian fauna from Rio Grande Valley, Hudspeth County, Texas. *Bulletin of the Geological Society of America.* 1959. 70: 375-378.

Stummer, Martin. Wolltapire, *Tapirus pinchaque* (Roulin), in Ecuador. *Der Zoologische Garten.* 1971. 40(3): 148-159.

Svobodnik, J. Use of Stresnil and Immobilon in *Tapirus indicus. Veterinarstvi.* 1973. 23(11): 519-520.

Taber, A. B.; Novaro, A. J.; Neris N., and Colman, F. H. The food habits of sympatric jaguar and puma in the Paraguayan Chaco. *Biotropica.* 1997. 29: 204-213.

Tapir Research Institute. Results of a survey of captive tapirs taken by the Tapir Research Institute between July of 1970 and March of 1971. Tapir Research Institute, Claremont, California. 1971. 22pp.

Tate, G. H. H. *Mammals of Eastern Asia.* London: The Macmillan Co. 1947.

---. Random observations on habits of South American mammals. *Journal of Mammalogy.* 1931. 12: 248-256.

Terwilliger, V. J. Natural history of Baird's tapir on Barro Colorado Island, Panama Canal Zone. *Biotropica.* 1978. 10(3): 211-220.

Thom, W. S. The Malay tapir. *J. Bombay Nat. Hist. Soc.* 1936 38(3): 479-483.

Timm, R. M.; Wilson, D. E.; Clauson, B. L.; LaVal, R. K., and Vaughan, C. S. Mammals of the La Selva-Braulio Carrillo Complex, Costa Rica. U.S. Fish and Wildlife Service. *N. Am. Fauna.* Washington, D.C.: U.S. Fish and Wildlife Service. 1989. 75. 162p.

Tomes, J. On the structure of the teeth of the American and Indian tapirs. *Proceedings of the Zoological Society of London.* 1851: 121-124.

Tonni, E. P. *Tapirus brisson* 1762 mammalia perissodactyla in the Lujanian Upper Pleistocene-Lower Holocene of the Entre Rios Province, Argentine Republic. *Ameghiniana.* 1992. 29(1): 3-8.

Trim, C.M.; N. Lamberski; D.I. Kissel and J.E. Quandt. Anesthesia in a Baird's tapir. *J Zoo and Wildlife Medicine.* 1998. 29(2): 195-198.

Troxell, E. L. Helaletes redefined. *American Journal of Science.* 1922. 3: 365-370.

Turner, H. N. Contributions to the anatomy of the tapir. *Proceedings of the Zoological Society of London.* 1850. 102-106.

Ubilla, M. On the presence of fossil tapirs in Uruguay, mammalia perissodactyla Tapiridae. *Rev. Fac. Humanidaes Ciencias Ser. Cienc. Tierra.* 1983. 1(3): 85-102.

Urbain, A.; Nouvel, J., and Bullier, P. Tuberculose et osteopathie hypertrophiante chey un tapir americain. [Tuberculosis and hypertrophic osteopathy in a *Tapirus americanus]. Bulletin de Academie Veterinaire de France.* 1943. 16: 132-135.

Van Waerebeke, D.; Chabaud, A. G., and Anthony, G. *Probstmayria tapiri* sp. nov., a nematode parasitic in a New World tapir. *Bulletin Du Museum National D'Histoire Naturelle, A. (Zoologie, Biologie Et Ecologie Animales).* 1988. 10(1): 3-8.

Vickers, W. The faunal components of lowland South American hunting kills. *Interciencia.* 1984. 9(6): 366-376.

Vickers, William T. Hunting yields and game composition over ten years in an Amazon Indian territory.

Robinson, J. G. and Redford, K. H., eds. Neotropical Wildlife Use and Conservation; 1991. 53-81.

Von Richter, Wolfgang. Untersuchungen uber angeborene Verhaltensweisen der Schabrackentapirs (*Tapirus indicus)* und des Flacklandtapirs (*Tapirus terrestris).* [Investigations of inherent behavior and mannerisms of the Malayan tapir (*Tapirus indicus)* and the South American lowland tapir (*Tapirus terrestris)]. Zoologische Beitrage.* 1966. (12): 67-159.

Vroege, C. and Zwart, P. Babesiasis in a Malayan tapir (*Tapirus indicus* Desmarest, 1819). *Zeitschrift Fur Parasitenkunde.* 1972. 40(2): 177-179.

Wack, Ray F. and Jones, Althea A. Suspected neonatal isoerythrolysis in two Baird's tapirs. Journal *of Zoo and Wildlife Medicine.* 1997. 28(3): 285-289.

Wall, W. P. The correlation between high limb-bone density and aquatic habits in recent mammals. *Journal of Paleontology.* 1983. 57(2): 197-207.

Wallach, J. D. and Boever, W. J. *Perissodactyla (equids, tapirs, rhinos), Proboscidae (elephants), and Hippopotamidae (hippopotamus).* W.B. Saunders ed. 1983. 761-829.

Wan-Ming, X. First discovery of Palaeotapirus in China. *Vertebrata Palasiatica.* 1979. 17: 146-148.

Webb SD. Late Cenozoic mammal dispersals between the Americas, in: *The Great American Biotic Interchange* (FG Stehli and SD Webb, eds.). New York: Plenum Press. 1985. 357-386.

Whitaker, J. O. Jr. and Mumford, R. E. Records of ectoparasites from Brazilian mammals. *Entomological News.* 1977. 88(9/10): 255-258.

Whitehead, M. P. and Lock, R. Captive management of the Malayan tapir (*Tapirus indicus)* at Twycross Zoo. Proceedings of a double symposium organised jointly by the Association of British Wild Animal Keepers and Marwell Zoological Society. 1988. 1988: 24-31.

Williams, K. Super snoots. *Wildlife Conservation.* 1991. 94(4): 70-75.

Williams, K. D. Aspects of the ecology and behavior of the Malayan Tapir (*Tapirus indicus* Desmarest) in the National Park of West Malaysia [M.Sc. thesis].: Michigan State University, East Lansing. 1978. 54 pp.

---. Radio-tracking tapirs in the primary rain forest of West Malaysia. *Malayan Nature Journal.* 1979. 32(3/4): 253-258.

---. Trapping and immobilization of the Malayan tapir in West Malaysia. *Malayan Nature Journal.* 1979. 33(2): 117-122.

Williams, K. D. and Petrides, G. A. Browse use, feeding behaviour, and management of the Malayan tapir. *Journal of Wildlife Management.* 1980. 44(2): 489-494.

Williams KD. (Michigan State University, East Lansing, MI 48824, USA.). The Central American tapir (Tapirus bairdii Gill) in northwestern Costa Rica. Dissertation Abstracts International, B (Sciences and Engineering). 1984. 45(4): 1075.

Wilson J.A. and Schiebout, J. A. Early Tertiary vertebrate faunas, trans-Pecos Texas: Ceratomorpha less Amynodontidae. *The Pearce Sellards Series.* 1984. 39: 1-47.

Wilson, Robert A. and Wilson, Sheryl. Diet of captive tapirs. *International Zoo Yearbook.* 1973. (13): 213-217.

Wissdorf, H. and Kristinsson, G. Anatomy of the reproductive organs of a 5-year-old non-pregnant tapir. *Praktische Tierarzt.* 1986. 67(1): 20, 23-25.

Wissdorf, H. and Schröder, H. D. Radiography of air sacs in the tapirIppen, R. and Schröder, H. D. Erkrankungen der Zootiere. Verhandlungsbericht des 25. Internationalen Symposiums uber die Erkrankungen der Zootiere vom.11 Mai bis 15. Mai 1983 in Wien. 1983. 385-387.

Witmer, L.M.; sampson, S.D. and Solounias, N. The proboscis of tapirs (Mammalia: Perissodactyla): a case of study in novel narial anatomy. *J. Zool., Lond.* 1999. 249:249-267.

Wolska, M. and Piechaczek, H. Some intestinal ciliates from American tapir. *Acta. Protozool.* 1970. (7): 221-227.

Wood, H. E. Perisodactyl suborders. *Journal of Mammalogy.* 19??. 18: 106.

Wortman, J. L. and Earle, C. Ancestors of the tapir from the Lower Miocene of Dakota. *Bulletin of the American Museum of Natural History.* 1893. 5: 159-180.

Yamini, B. and Van Veen, T. W. Schillhorn. Schistosomiasis and nutritional myopathy in a Brazilian Tapir (*Tapirus terrestris). Journal of Wildlife Diseases.* 1988. 24(4): 703-707.

Yin, T. U. Malayan tapir. In *The Wild Animals of Burma.* Rangoon: Rangoon Gazette Ltd. 1967. 147-148.

Young, W. A. Rearing an American tapir (*T. terrestris). International Zoo Yearbook.* 1961. (3): 14-15 (or 94-95).

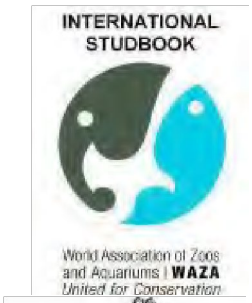
Zhanxiang, Q.; Defa , Y., and Bo, S. A new genus of Tapiridae from Shanwang, Shandong. *Vertebrata Palasiatica.* 1991. 4: 119-135.

2011
CENTRAL AMERICAN TAPIR
(*Tapirus bairdii)*

Baird's Tapir at ZooLeon Photo courtesy of ZooLeon Staff

INTERNATIONAL STUDBOOK

Studbook Keeper: Joseph Roman
Virginia
Zoological
Park
Norfolk,
Virginia
U.S.A.



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065-598-027
26 Aug 2005 Death
[Death by: Unknown means]

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~Apr 2006±1m Death
[Death by: Unknown means]

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SORPRESA
15 Nov 2001 Death
[Death by: Unknown means]

230 M 6 May 2005 160 187 LA MARINA 6 May 2005 _____ Birth ROMEO
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NASHV ZOO 24 Oct 2008 3001 Transfer

231 M 3 May 2005 92 106 SEDGWICK 3 May 2005 11085 Birth CAYOS
MEXICOCTY 1 Dec 2008 _____ Transfer

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TZIMIN
TUXTLA 13 Nov 2002 _____ Transfer

233 F ~ 2000 WILD WILD OAXACA 6 Apr 2001 NONE Capture
PAQUITA
TUXTLA 6 Apr 2001 _____ Transfer

234 F ~ 2002 WILD WILD CHIAPAS 6 Nov 2002 NONE Capture
LILIANA
TUXTLA 6 Nov 2002 _____ Transfer

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CAMPEON 4A2A1C3F3C 236 M 13 Jan 2005 164 165
VGRISELDA 13 Jan 2005 _____ Birth CARLITOS 4924177062
237 F ~Sep 2005±1m WILD WILD DARIEN ~Dec 2005±1m NONE Capture LUCIA
SUMMIT ZO 18 Dec 2005 _____ Transfer

238 M 17 Nov 2005 33 95 BEIJING 17 Nov 2005 05-1 Birth

239 M 18 Jan 2006 102 149 WUPPERTAL 18 Jan 2006 206007 Birth CICO
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BERLIN TP 22 Dec 2008 M03748

Loan to

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MAMAJUA ~ 1998 0000D Transfer
???? Death
[Death by: Unknown means]

241 F ~ 1998 WILD WILD UNKNOWN ~ 1998 NONE Capture
ROSITA
MAMAJUA ~ 1998 0001D Transfer
1 Jan 2005 Death

P.J.JONES _____

PAIBAUMAN _____

PANAMA PANAMA
Central America, American Region

PANAMA P PANAMA CITY
Panama, Central America, American Region

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PARTNERSHIP FOR SPECIES BUSINESS PLAN

CONSERVATION CENTERS FOR SPECIES SURVIVAL

SOURCE POPULATION ALLIANCE

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Challenge

For decades, the main focus of conservation breeding programs has been the Association of Zoos and Aquariums (AZA) Species Survival Plans (SSPs). Member zoos have worked together to manage over 500 species with a goal to maintain self-sustaining populations in North America. Unfortunately, hoof stock programs have still been declining in the zoo community, challenged by a loss of dedicated space, restricted reproduction and a general decline in institutional interest. The Conservation Centers for Species Survival (C2S2) established the Source Population Alliance (SPA) over a decade ago to help address this issue by connecting private landowners and AZA institutions who dedicate their unique resources to creating sustainable populations of wildlife.

In early 2023, the AZA completed an assessment of all SSP programs, which resulted in a large number of programs losing their SSP status, leaving these species without a management plan, risking hard earned conservation gains, and compromising the sustainability of the species for the future.

Solution

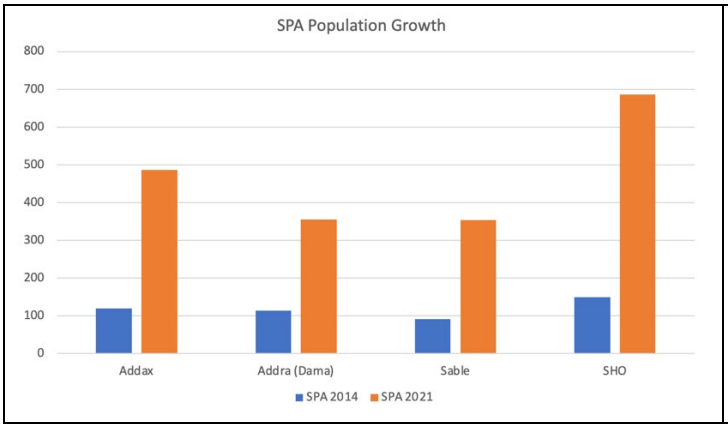
To address this challenge, the Conservation Centers For Species Survival is establishing a consortium framework called ***Partnership for Species*** (PFS) to manage these species immediately. This innovative program will be governed by C2S2 with the objective to build large, sustainable (genetically diverse and demographically varied) ex situ populations in North America for hoof stock species that were recently downgraded from an SSP.

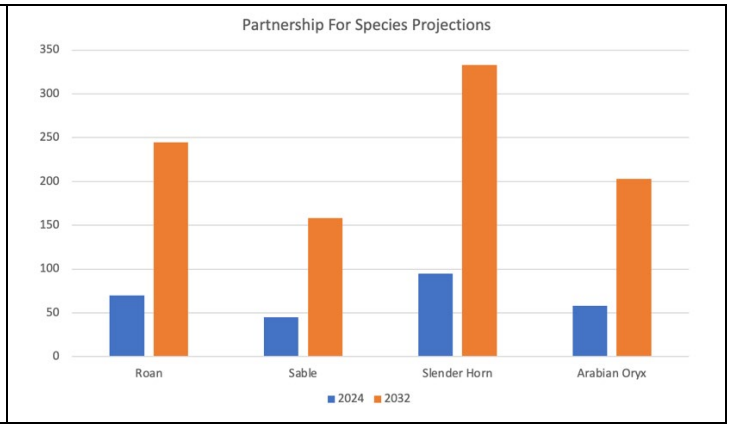
The ***Partnership for Species*** will launch with all 18 species and focus on these four target species–**Roan**, **Sable**, **Slender horned gazelles**, and **Fringe eared oryx**. As the program grows, the next cohort of target species will be selected from the following species: Giant eland, Lowland nyala, Greater kudu, Sitatunga, Wildebeest, common waterbuck, Nile lechwe, Southern gerenuk, Bontebok, Gemsbok, Arabian oryx, Cape buffalo, Somali wild ass, and Persian onager.

The common goal of the ***Partnership for Species,*** as inherited from the objectives of the SPA, is to achieve population sustainability via 1) implementation of alternate animal management practices and scientific research, 2) improve awareness amongst the public, and 3) returning populations to their native habitat. C2S2 will apply its decades of institutional knowledge and experience to ensuring the cooperative management of species no longer under SSP status to promote their conservation in human care and support future reintroduction efforts.

Success Criteria

Based on the history of SPA population growth, the ***Partnership for Species*** has adopted aggressive projections for herd growth and will push for meeting a high bar for criteria for success. Given the expertise within the group, herd growth is anticipated to achieve greater than three times growth for each species in less than ten years.





How It Works

Objective:

The objective is to manage a sustainable ex situ population for recently downgraded species through the cooperation of partnerships between AZA and private landowners. This involves implementing best animal management practices, scientific research, creating awareness among institutions, with the potential of returning populations to their native habitat.

Original species under SPA (some of these species retained SSP status and will not be managed under the PFS consortium program):

Arabian Oryx, Dama gazelle, Mountain Bongo, Roan antelope, Sable antelope, Addax, Scimitar-horned Oryx, Anoa, Banteng, and Grevy's Zebra.

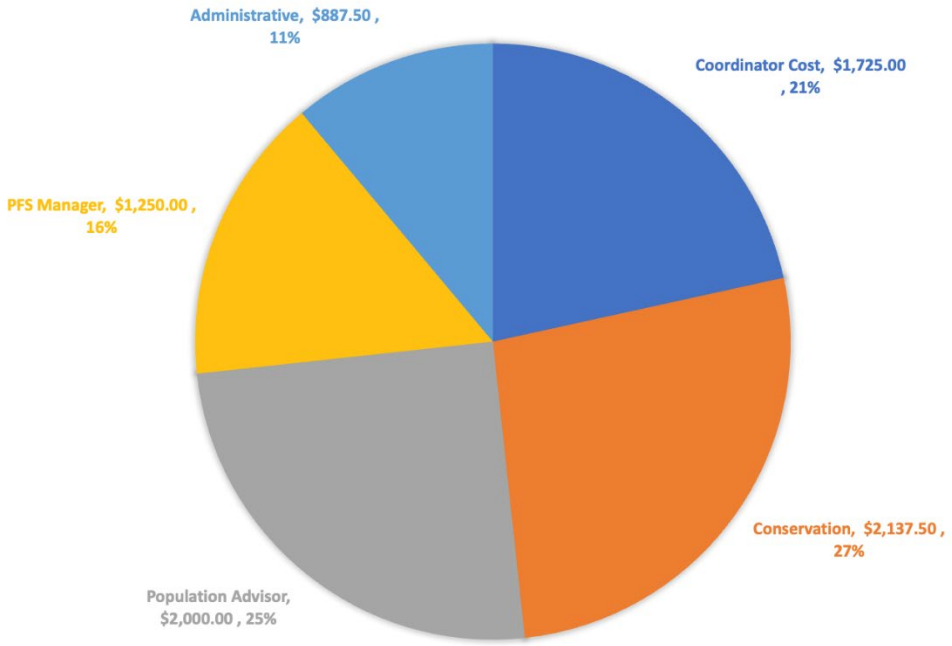
SSP downgrade species (to become consortium programs):

The Partnership For Species has identified the following 18 species for potential PFS consortium management: Giant eland, Lowland nyala, Roan antelope, Sable antelope, Greater kudu, Sitatunga, Wildebeest, common waterbuck, Nile lechwe, Southern gerenuk, Bontebok, Gemsbok, Fringe eared oryx, Slender horned gazelles, Cape buffalo, Somali wild ass, and Persian onager.

Membership fees:

We invite institutions to become partners in the PFS initiative with a membership fee of $8,000 annually. This fee covers all species under the PFS, the cost is NOT per species. This annual fee pays for the costs of administering the program, including an SPA program manager, a population biologist, individual species coordinators, and funds dedicated to supporting in situ conservation efforts. Position responsibilities are described below.

Membership Fee Breakdown During Ramp Up Period



For a full breakdown of the financial drivers of the program and how they scale with increased membership, please see the Financials section.

The Partnership For Species team has put together the membership fees with the understanding that the above factors are beneficial and necessary to achieve success.

Institution requirements:

- Provide and maintain high-standard husbandry care.
- Provide appropriate facilities and services as necessary to achieve proper performance.
- Transparency with species coordinator and all other members and/or institutions
- Willing and supportive of partnerships agreed upon within PFS both SPA members, AZA or Non-AZA

- Ensure the accuracy of any information or updates within your institution to the best of the institution's ability.
- Partner with species coordinator, population advisor, and/or studbook keeper, other SPA members to develop, oversee, promote, and support the animal management, research, husbandry, and conservation projects of the PFS.
- Communicate any PFS updates from your institution to the species coordinator by providing relevant information, updates on current ID's and/or population. Willing to openly discuss any concerns about the PFS with the species coordinator.
- Notify the species coordinator when a PFS partner becomes aware of any significant delay in performance or neglect from another institution.
- To perform assigned tasks by the species coordinator. Attend Project/Planning-related meetings–either in person or electronically.
- To provide all information, such as records and progress reports, needed by the species coordinator and/or Lead Institution to fulfill the obligations.
- Continue to support and help with the onboarding process of new institutions, could be regional help from PFS partners.
- Support the Partnership for Species and its goals and objectives by becoming a member with membership fees of $8,000. (Conservation projects will be voted upon by the majority of PFS members.

Responsibilities within the Partnership for Species (PFS)

C2S2

- Acts as the nonprofit governing party.

Partnership For Species Committee

- Oversees all roles under the Partnership For Species
- Composed of 9 members

Partnership For Species manager - to be hired

- Oversees all roles under the PFS.
- Help set up annual meetings and reports for Coordinators and members.
- Presents conservation project or projects annually for members to vote on.
- Tracks, records and updates members on the outcomes or ongoing conservation projects.
- Manages funds.

Coordinators – this role can be held by any individual as a member of the PFS.

- To act as a liaison between PFS institutions for a given species.
- To ensure all institutions are working together to reach the species' goals and objectives.
- Assist and address the wants and needs for members for that species. Assure that all partners of PFS have an opportunity to communicate their concerns and needs during the planning process.

- Ensure members participate in the planning process, via communicating/responding to emails and completing surveys as needed.
- Partner with members to oversee, promote, and support animal management, research, husbandry, and conservation projects set by the Partnership For Species.
- Seeks and obtains the approval of each member or institution before making recommendations or agreements.
- Partner with the Population Advisor and Studbook Keeper (if needed) to publish a complete Breeding and Transfer Plan every 2 years.
- Communicate any PFS updates to members by providing relevant information, updates on annual goals and to share any concerns about the PFS.
- Organization of the PFS to appropriately manage a sustainable population, and communication of recommendations and guidelines to the appropriate partners.
- Recruit new members and partnerships for that species.
- Assisting PFS Studbook Keepers with publication (if needed).
- Monitor species/region conservation programs to track increases or decreases within in-situ.

Population Advisor

- Partners with the Coordinator and Studbook Keeper to publish a completed Breeding and Transfer Plan every 2 years.
- Works with Coordinator to create a Breeding and Transfer plan template.
- Partners with Coordinators, Studbook Keepers, and members to develop, oversee, promote, and support the animal management, research, husbandry, and conservation projects set by the Partnership For Species.
- Analyze the overall genetics within the ex-situ populations.
- Partner with the Coordinator to set breeding and transfer recommendations.
- Set up an annual zoom meeting to discuss the previous year and overall genetics along with expectations for the upcoming year.
- Researching unknown or partially known pedigrees (as needed or requested).
- Assisting PFS studbook keeper with final publication.

Studbook keeper

- Update studbook data base through ZIMS, tracking births, deaths and moves within PFS. Information shared with the Coordinator and members.
- Partner with Coordinator, Population Advisor and members to develop, oversee, promote, and support the animal management, research, husbandry, and conservation projects set by the Partnership For Species.
- Partner with the Coordinator and Population Advisor to publish a complete Breeding and Transfer Plan every 2 years. This will be shared with the members.

Conservation

- Partnership For Species manager will propose 4 potential conservation projects to the members.
- Members will vote on the conservation project or projects to focus on for the year or until the project is completed. The majority of the votes will determine the conservation project/projects.
- Funds could also cover grants for members' travel/accommodations to and from conservation projects.

Benefits of membership:

- Improved access to more variety of difficult to find species.
- Enhanced ability to maintain healthy populations of non-SSP hoof stock species in your institution.
- Expanded access to a network of AZA and private sector partner institutions for acquisition and disposition of animals.
- Access to animal husbandry and scientific expertise in ***Partnership for Species*** member institutions.
- Demonstrate commitment to conservation of non-SSP hoof stock species.
- Access to genetic resources (improved genetic stock) with known genetic history.
- Access to population managers to help guide animal management decisions and regular publication of breeding and transfer recommendations to assist with receiving or placing individuals.
- Be part of a global metapopulation management effort to ensure species sustainability.
- New opportunities for staff professional development via engagement in international conservation efforts.
- Engage in conservation work and projects agreed upon by the members (annually).

Deliverables To Members

To be completed every 1-2 years.

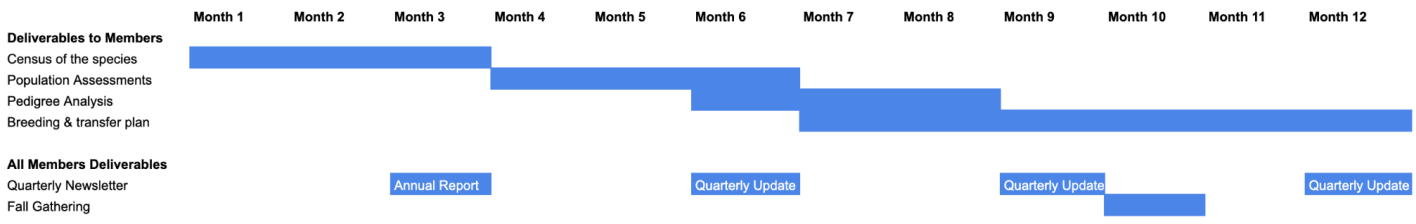
Census of the Species

Population Assessments

Pedigree Analysis

Breeding & Transfer Plan

All members will receive a quarterly newsletter detailing the progress of the program and any conservation highlights. The Partnership For Species also invites all members to attend the Source Population Alliance fall gathering to make connections, share insights, and grow their expertise.



Conservation Value

The value to species of the Partnership For Species is rooted in a North American effort but is global in reach. By bringing together private landowners, Conservation Centers, and zoos, each with an existing group (herd) of hoofstock, The Partnership For Species plays a much needed role within the conservation ecosystem of creating large 'metapopulations' of species that might otherwise continue to be diminished in their home range. These metapopulations serves as a resource for potential reintroduction projects, and an insurance population against extinction.

By participating in the Partnership For Species, members are contributing to producing more funds for conservation, management, scientific research, and population sustainability and to improving awareness of the unique conservation value of these species.

Team & Advisors

Scotty Wade

Scotty Wade holds the distinguished role of Chairman of the Source Population Alliance, playing a pivotal role as the visionary behind the consortium model, which has evolved into the esteemed Partnership for Species under the umbrella of the Source Population Alliance. In addition to spearheading the conceptualization of consortiums for the Partnership for Species, Scotty Wade is actively engaged in various capacities within conservation circles. He serves as a distinguished member of the Rhino Taxon Advisory Group, Equid Taxon Advisory Group, and assumes the role of Species Survival Plan (SSP) coordinator for Greater One-Horned (GOH) rhinos. Furthermore, Scotty serves as the program leader for the Roan Antelope Consortium. With an impressive tenure spanning over three decades, Scotty has garnered extensive expertise and knowledge by working hands-on with large herds within captive management programs. Currently serving as a Manager at White Oak Conservation and Burr Ranch, Scotty has demonstrated a profound commitment to the field of captive management and conservation. Scotty's passion for the preservation of biodiversity is evident through his active involvement in reintroduction programs. Notable achievements include his contributions to the repatriation of several species, such as the Bongo Antelope, Roan Antelope, and Southern Black Rhinos. His unwavering dedication underscores a genuine commitment to the conservation of highly threatened and endangered species, ensuring a legacy of protection for generations to come.

Matt Toy

Guided by his passion for antelope, Matt played a pivotal role in the founding and development of the Partnership For Species. In addition to his leadership role within the Partnership For Species, Matt currently serve as the Species Survival Plan (SSP) coordinator for Dama Gazelle, the Program Leader for Slender-horn gazelle, and the Program Leader for Gerenuk. With a career spanning over three decades, Matt has accumulated a wealth of knowledge through hands-on management of large herds via captive breeding management programs at three different institutions in Florida. His unwavering passion for antelope conservation is evident through his continuous exploration of novel opportunities and methods to improve species sustainability in captive care. Matt is currently serving as the Animal Collection manager at White Oak Conservation Center. Proving his dedication to wildlife preservation, Matt recently seized the opportunity to actively participate in the capture for a relocation project for Giant Eland in a preserve in the Central Republic of Africa.

Adam Eyres

Adam Eyres is the Director of Animal Care at Fossil Rim Wildlife Center. He also serves as the Interim Executive Director for the Conservation Centers for Species Survival. He has been involved with C2S2 since its inception, and stepped into this role in early 2022. He has had great opportunities throughout his career to help with endangered species conservation and traveling to the UAE and Chad for the scimitar horned oryx reintroduction program over the past decade has been a highlight. These ex situ programs are critical to the conservation of many species–and all of the ungulate species can benefit from programs like Source Population Alliance and the Partnership for Species.

Lauren Zarama

Lauren Zarama serves as Board Member and Treasurer of the Conservation Centers for Species Survival (C2S2). She takes an active role in the operational management of the Partnership For Species. Outside of her volunteer work for C2S2, she has led multiple startups from idea through to commercial enterprise, including ventures in green chemistry and biotechnology. She is currently Chief of Staff for Aquatic Labs, a startup creating a new generation of massively-deployable tools for tracking carbon, nutrients, and biodiversity throughout the world's oceans – tools that are absolutely essential and desperately needed for monitoring and verification of ocean carbon sequestration, as well as a host of other global industries.

John Seyjagat

John Seyjagat has over 43 years' experience in exotic animal management, most of which are at a supervisory or managerial level. Prior to taking the leadership role of Executive Director of the Zoological Association of America (ZAA), he spent 14 years as Curator of Australian Exhibits at the National Aquarium in Baltimore.

John started his zoological career in his homeland Trinidad where for 10 years he was Head Keeper at the Emperor Valley Zoo, Zoological Society of Trinidad, and Tobago. In 1990 he migrated to the Florida USA where he joined the Lubee Foundation as Director and spent 13 years transforming that institution into one of the world leaders in fruit bat conservation.

John has extensive experience monitoring and evaluating populations of small mammals in the wild and has done field conservation work in the Philippines, Malaysia, Borneo, Papua New Guinea, South America, the Caribbean and Australia. His most recent conservation endeavor focused on a partnership with the Territory Wildlife Park in NT Australia to pursue the sustainable population management of Yellow Footed Wallaby, Northern Quoll, Oenpelli Python and Gouldian Finch.

Dan Beetem

Dan Beetem is the Director of Animal Management for *The Wilds*, a conservation breeding and research center created on nearly 10,000 acres of reclaimed surface mine land in southeastern Ohio. His extensive background in conservation includes over 35 years experience managing wild species in human care including service on several AZA population management committees. He has worked at a variety of institutions across the country and is familiar with the operation of traditional urban zoos and larger scale breeding centers and safari parks. He worked with a Conservation Centers for Species Survival team supporting conservation efforts for the endangered saiga antelope in Russia, and a Sahara Conservation Fund team for the 2017 release of scimitar-horned oryx for the Chad reintroduction project. Dan sees the Partnership for Species as an important tool for management of ungulate populations beyond the traditional zoo-based programs.

Financials

Assumptions		
Partner Segments Annual Participation Price		
Private Sector Partner	$	8,000.00
Private Sector Partner VIP	$	100,000.00
Zoo Director	$	8,000.00
External Private Donor (Individual, Corporation)	$	15,000.00
Partner Segments Forecasted Participants		
Private Sector Partner		10
Private Sector Partner VIP		2
Zoo Director		15
External Private Donor (Individual, Corporation)		2
Partner Annual Growth		20%
Coordinators		
Cost per Coordinator	$	3,000.00
Annual Conservation Allocation		
Funds required for annual conservation projects	$	85,000.00
PFS Manager Salary	$	25,000.00
Population Advisor Salary	$	80,000.00
C2S2 Admin / Operating Costs		10%

Annual Forecast	Year 1	Year 2	Year 3	Year 4	Year 5
		Revenue			
Total Partners	**29**	**36**	**45**	**55**	**67**
Private Sector Partner	10	12	15	18	22
Private Sector Partner VIP	2	3	4	5	6
Director	15	18	22	27	33
External Private Donor (Individual, Corporat	2	3	4	5	6
Partner Revenue	$ 430,000.00	$ 585,000.00	$ 756,000.00	$ 935,000.00	$ 1,130,000.00
		Expenses			
Coordinators					
Number of Coordinators	4	8	12	16	23
Total Coordinator Cost	$ 12,000.00	$ 24,000.00	$ 36,000.00	$ 48,000.00	$ 69,000.00
Population Advisor Salary	$ 80,000.00	$ 80,000.00	$ 80,000.00	$ 80,000.00	$ 80,000.00
Annual Conservation Allocation	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00	$ 85,000.00
SPA Manager Salary	$ 25,000.00	$ 25,000.00	$ 25,000.00	$ 25,000.00	$ 25,000.00
C2S2 Admin / Operating Costs	$ 20,200.00	$ 21,400.00	$ 22,600.00	$ 23,800.00	$ 25,900.00
Expenses	$ 222,200.00	$ 235,400.00	$ 248,600.00	$ 261,800.00	$ 284,900.00
Net Income	$ 207,800.00	$ 349,600.00	$ 507,400.00	$ 673,200.00	$ 845,100.00

INVITATION TO PARTNERSHIP FOR SPECIES

SOURCE POPULATION
ALLIANCE

Introduction:

For decades, the main focus of conservation breeding programs has been the Association of Zoos and Aquariums (AZA) Species Survival Plans (SSPs). Member zoos have worked together to manage over 500 species with a goal to maintain self-sustaining populations in North America. Unfortunately, hoof stock programs have still been declining in the zoo community, challenged by a loss of dedicated space, restricted reproduction, and a general decline in institutional interest. The Conservation Centers for Species Survival's (C2S2) established the Source Population Alliance (SPA) over a decade ago to help address this issue by connecting private landowners and AZA institutions who dedicate their unique resources to creating sustainable populations of wildlife.

This problem became a greater concern in early 2023. The AZA completed an assessment of all SSP programs that resulted in a large number of programs losing their SSP status, leaving these species without a management plan. To address this uncertainty, the SPA is establishing a consortium framework to manage these species for the future. The common goal of SPA participants is to achieve population sustainability via 1) implementation of alternate animal management practices and scientific research, 2) improve awareness amongst public, and 3) returning populations to their native habitat. We believe that SPA is well positioned to address these challenges and serve as a hub for cooperative management of several species to promote their conservation in human care and support future reintroduction efforts.

Solution:

The SPA is launching an ambitious North American initiative, called ***Partnership for Species***. This innovative program will be governed by C2S2. The objective of ***Partnership for Species*** is to build sustainable (genetically diverse and demographically varied) ex situ populations in North America for hoof stock species that were recently downgraded from an SSP. We invite you to join this effort to save species.

Benefits of membership:

- Improved access to more variety of difficult to find species.
- Enhanced ability to maintain healthy populations of non-SSP hoof stock species in your institution.
- Expanded access to a network of AZA and private sector partner institutions for acquisition and disposition of animals.

Captive-Bred Wildlife Registration (CBW) Annual Report

Due: March 31st of the following year

Email to: managementauthority@fws.gov referencing "CBW Annual Report **2023** for **CBW # MA 018969-3** in subject line.

Permittee Name: Center for the Conservation of Tropical Ungulates **Reporting Year: 2023** **CBW Permit #: MA018969-3**

Scientific Name (Genus, species, and *if applicable*, subspecies)	**Common Name**	**Quantity**	**Sex/Age Ratio** (male.female.unknown sex, 10.5.2)	**# Births over the reporting year**	**# Deaths over the reporting year**	**Approx Death Date(s) and Cause of Death(s)** (attach necropsy report, as needed)
Tapirus indicus	Malayan Tapir	14	7.7.0	0	0	NA
Tapirus terrestris	South American Tapir	15	6.9.0	0.1	0.1	#122303 DOD 11/8/23 UNK
Caratotherium simum	Southern White Rhino	65	14.51.0	5.3	0.1	# 120176 Lisa DOD 8/12/23 Lightning strike
Rhinoceros unicornis	One Horned Rhino	21	12.9.0		0.1	#118002 Lulu DOD 1/5/23 parasites
Diceros bicornis	Black Rhino	0.0.0	0	0	0.0.0	N/A
Bos javanicus	Banteng	54	10.33.11	0.0.11	0	N/A

Use of this form is not mandatory. *If using an alternate form, ensure it encompasses the same information. Additional information may be attached to the report.*

Bubalus depressicornis	Anoa	20	7.12.1	0	0	N/A
Kobus leche	Red Lechwe	3	3.0.0	0	0	N/A

Complete this form (all three tables) for **ALL live, non-native, ESA-listed species, captive-bred in the U.S., covered under your current CBW registration for the above reporting year** (including individuals you have on loan with another facility, or on loan with you). Do not include non-native ESA-listed species that were not covered on your CBW permit during this year.

Year-end Inventory

Use of this form is not mandatory. *If using an alternate form, ensure it encompasses the same information. Additional information may be attached to the report.*

Activities Conducted

CBW holder is required to disclose **ALL interstate and intrastate purchases, sales, trades, and/or exports** involving species listed under their CBW that occurred during the reporting year.

Scientific Name	**Common Name**	**Activity** (Interstate or intrastate purchases, sales, and/or exports)	**Date of Activity** (mm/dd/yyyy)	**Quantity & Sex/Age** (males.females.unknown sex, 10.8.3)	**Name and Address of the other party Involved in the transaction** (include country if an export)	**CBW # of Registrant Involved in Activity**	**Identification Information** (e.g., studbook #'s, microchip #'s, band #s, etc.)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Use of this form is not mandatory. *If using an alternate form, ensure it encompasses the same information. Additional information may be attached to the report.*

Loans/Gifts/Donations Conducted

CBW holder is required it disclose **ALL loans, donations, and gifts** involving species listed under their CBW that occurred during the reporting year.

Scientific Name	**Common Name**	**Activity** (loans, donations, and gifts)	**Date of Activity** (mm/dd/yyyy)	**Quantity & Sex/Age** (males.females.unknown sex, 10.8.3)	**Name and Address of the other party Involved in the transaction**	**Information on transferred Animal(s)** (studbook #'s, microchip #'s, band #'s, tattoo #'s, etc.)
N/A	N/A	N/A	N/A	N/A	N/A	N/A

Use of this form is not mandatory. *If using an alternate form, ensure it encompasses the same information. Additional information may be attached to the report.*

OMB Control No.1018-0093
Expires 08/31/2023

U.S. Department of the Interior

NOTICES

PRIVACY ACT STATEMENT

Authority: The information requested is authorized by the following: the Bald and Golden Eagle Protection Act (16 U.S.C. 668), 50 CFR 22; the Endangered Species Act (16 U.S.C. 1531-1544), 50 CFR 17; the Migratory Bird Treaty Act (16 U.S.C. 703-712), 50 CFR 21; the Marine Mammal Protection Act (16 U.S.C. 1361, et seq.), 50 CFR 18; the Wild Bird Conservation Act (16 U.S.C. 4901-4916), 50 CFR 15; the Lacey Act: Injurious Wildlife (18 U.S.C. 42), 50 CFR 16; Convention on International Trade in Endangered Species of Wild Fauna and Flora (TIAS 8249), 50 CFR 23; General Provisions, 50 CFR 10; General Permit Procedures, 50 CFR 13; and Wildlife Provisions (Import/export/transport), 50 CFR 14.

Purpose: The collection of contact information is to verify the individual has an eligible permit to conduct activities which affect protected species. This helps FWS monitor and report on protected species and assess the impact of permitted activities on the conservation and management of species and their habitats.

Routine Uses: The collected information may be used to verify an applicant's eligibility for a permit to conduct activities with protected wildlife; to provide the public and the permittees with permit related information; to monitor activities under a permit; to analyze data and produce reports to monitor the use of protected wildlife; to assess the impact of permitted activities on the conservation and management of protected species and their habitats; and to evaluate the effectiveness of the permit programs. More information about routine uses can be found in the System of Records Notice, Permits System, FWS-21.

Disclosure: The information requested in this form is voluntary. However, submission of requested information is required to process applications for permits authorized under the listed authorities. Failure to provide the requested information may be sufficient cause for the U.S. Fish & Wildlife Service to deny the request.

PAPERWORK REDUCTION ACT STATEMENT

We are collecting this information subject to the Paperwork Reduction Act (44 U.S.C. 3501) in order provide the U.S. Fish and Wildlife Service the information necessary, under the applicable laws governing the requested activity, for which a permit is requested. Information requested in this form is purely voluntary. However, submission of requested information is required in order to process applications for permits authorized under the applicable laws. Failure to provide all requested information may be sufficient cause for the U.S. Fish and Wildlife Service to deny the request. According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. OMB has approved this collection of information and assigned Control No. 1018-0093.

ESTIMATED BURDEN STATEMENT

We estimate public reporting for this collection of information averages 20 minutes (electronically) to 30 minutes (paper-based), including time for reviewing instructions, gathering and maintaining data and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of the form to the Service Information Clearance Officer, Fish and Wildlife Service, U.S. Department of the Interior, 5275 Leesburg Pike, MS: PRB/PERMA (JAO), Falls Church, VA 22041-3803, or via email at Info_Coll@fws.gov. Please do not send your completed form to this address.

ASSOCIATION OF ZOOS & AQUARIUMS

February 19, 2021

Dear Adam,

The AZA Animal Population Management Committee (APM) Committee has reviewed the application from the AZA Southern White Rhinoceros Species Survival Plan® (SSP) Program requesting Sustainability Partner status for Center for the Conservation of Tropical Ungulates, and we are pleased to inform you that this application has been approved. It is expected that all participating facilities will work together to meet the yearly breeding and transfer recommendations.

We appreciate your commitment to the Southern White Rhinoceros SSP Program, and we look forward to working with you on the continued success of this Program.

Sincerely,

Michael Ogle
AZA Animal Population Management Committee Vice Chair for Partnerships
Curator of Herpetology
Zoo Knoxville

CC: David Love, CCTU Director of Animal Health and Management
Jeff Holland, CCTU Institutional Representative
David Powell, AZA APM Committee Rhinoceros TAG Liaison
Joe Barkowski, AZA APM Committee Chair
Dr. Candice Dorsey, AZA Sr. VP. Conservation, Management, and Welfare Sciences

- Access to animal husbandry and scientific expertise in ***Partnership for Species*** member institutions.
- Demonstrate commitment to conservation of non-SSP hoof stock species.
- Access to genetic resources (improved genetic stock) with known genetic history.
- Access to population managers to help guide animal management decisions and regular publication of breeding and transfer recommendations to assist with receiving or placing individuals.
- Be part of a global metapopulation management effort to ensure species sustainability.
- New opportunities for staff profession development via engagement in international conservation efforts.
- Engage in conservation work and projects agreed upon by the members (annually).

Southern White Rhino Adult Males at CCTU				
Name	Accession #	DOB	Proven / Not Proven	Currently breeding / Not in a breeding situation
Tex	114125	10/26/1994	Proven	Currently Breeding
Douw	980003	11/21/1991	Proven	Currently Breeding
Thunder Ball	114135	10/02/2011	Proven	Currently Breeding
Rocky	115035	03/01/2012	Proven	Currently Breeding
Zack	120169	02/01/2017	Not Proven	Not in a breeding situation. This is the last imported Male.

If you need any more information, please let me know.

Thanks,

Trish

CCTU Southern White Rhino Breeding Herds		
Herd 1	Accession #	Sex
Tex **Breeder Male**	114125	Male
Shirley	110037	Female
Laverne	109082	Female
Willow	113237	Female
Blister	111111	Female
Monica	115028	Female
Feebee	113131	Female
Rachel	115088	Female
Tex has been out with these females for 3 years now.		
Herd 2		
Douw **Breeder Male**	980003	Male
Tamara	115037	Female
Tia	115099	Female
Douw has been out with these females for 3 years now.		
Herd 3		
Thunder Ball **Breeder Male**	114135	Male
Tahila	117075	Female
Shorty	104200	Female
Karly	108045	Female

Lisa	108119	Female
Roxy	115101	Female
Konnet	103094	Female
Snub	116102	Female
Sabie	980006	Female
Ursa	116094	Female
Cow	115023	Female
Sadie	110044	Female
Thunder Ball has been out with these females for 3 years now.		
Herd 4		
Rocky **Breeder Male**	115035	Male
Lemay	980005	Female
Zulu	101129	Female
Malaika	107004	Female
Sally	101046	Female
Rocky has been out with these females for 3 years now.		
Adult females not with breeding males.		
Zeva	109075	Female
Pebbles	117115	Female
Betty	101047	Female
Arriana	118036	Female

Rachel	116062	Female
Onyx	118010	Female
Vixen	120170	Female
Patricia	120178	Female
Kizzie	120173	Female
Liz	120171	Female
Cupid	120175	Female
Kifaru	120174	Female
Behati	120177	Female
Bethany	120172	Female
Adult male not breeding		
Zack	120169	Male
We do have any recent acquisitions or transfers. We do not have any recent dispositions or transfers.		

CAPTIVE-BRED WILDLIFE REGISTRATION ANNUAL REPORT - 2019 INVENTORY

Perimittee: Center for Conservation of Tropical Ungulates (CCTU) Permit number: MA018969-3

Address: 46470 Farabee Road, Punta Gorda FL 33982

SPECIES (Scientific name)	SPECIES (Common name)	MALES	FEMALES	UNKNOWN SEX	TOTAL # ON SITE	TOTAL # ON LOAN	TOTAL #	NOTES
Babyrousa celebensis	**North Sulawesi Babirusa**	**2**	**1**	**0**	**3**	**0**	**3**	
Kobus leche	**Red Lechwe**	**53**	**102**	**11**	**166**	**0**	**166**	
Bubalus depressicornis	**Lowland Anoa**	**34**	**58**	**9**	**101**	**0**	**101**	
Bos javanicus	**Javan Banteng**	**28**	**122**	**3**	**153**	**0**	**153**	
Tapirus terrestris	**Lowland Tapir**	**20**	**19**	**1**	**37**	**3**	**40**	**●1.0 on loan at Brookfield Zoo, Chicago IL** **●1.0 on loan at Southwick's Zoo, Mendon MA** **●0.1 on loan at a Private Insitution (born from breeding loan at Southwick's Zoo)**

SPECIES (Scientific name)	SPECIES (Common name)	MALES	FEMALES	UNKNOWN SEX	TOTAL # ON SITE	TOTAL # ON LOAN	TOTAL #	NOTES
Tapirus indicus	**Malayan Tapir**	**9**	**6**	**0**	**10**	**5**	**15**	**●1.1 at Lowry Park (0.1 to come here, 1.0 on loan - Tampa, FL)** **●1.0 on loan at Ellen Trout Zoo (Lufkin, TX)** **●1.0 at Riverbanks Zoo and Garden (to come here - Columbia, South Carolina)** **●1.0 on loan at Virginia Zoo (Norfolk, VA)**
Ceratotherium simum simum	**White Rhinoceros**	**14**	**32**	**0**	**46**	**0**	**46**	
Rhinoceros unicornis	**Greater One-horned Rhinoceros**	**10**	**11**	**0**	**20**	**1**	**21**	**● 1.0 on loan at Tanganika Wildlife Park (Goddard, KS)**

SPECIES (Scientific name)	SPECIES (Common name)	MALES	FEMALES	UNKNOWN SEX	TOTAL # ON SITE	TOTAL # ON LOAN	TOTAL #	NOTES
Diceros bicornis	**Black Rhinoceros**	**0**	**2**	**0**	**0**	**2**	**2**	**● 0.1 on loan at Little Rock Zoo (Little Rock, AR)** **● 0.1 on loan at BREC's Baton Rouge Zoo (Baton Rouge, LA)**

CAPTIVE-BRED WILDLIFE REGISTRATION ANNUAL REPORT FOR CALENDER YEAR 2019

Perimittee: Center for Conservation of Tropical Ungulates (CCTU) Permit number: MA018969-3

Address: 46470 Farabee Road, Punta Gorda FL 33982

Type of Activity	Date of Activity	Quantity/Sex (M/F/?)	Scientific Name	Common Name	Permit No./Name/ Complete Address	Comments
Birth	3/23/2019	1.0.0	*Babyrousa celebensis*	North Sulawesi babirusa	CCTU (Reporting Permitee - MA018969-3)	
Death	1/13/2019	0.1.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Dystocia complications
Death	1/22/2019	1.0.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Sepsis secondary to conspecific trauma, hypothermia
Donation: OUT	2/2/2019	2.2.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	2/6/2019	1.0.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	
Donation: OUT	2/27/2019	0.1.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	3/9/2019	1.0.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	
Donation: OUT	3/21/2019	1.5.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation: OUT	3/23/2019	5.1.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Death	4/1/2019	1.0.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Tested positive for *Brucella* spp.; euthanized for regulatory/confirmatory testing
Donation: OUT	4/8/2019	3.3.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	

Type of Activity	Date of Activity	Quantity/Sex (M/F/?)	Scientific Name	Common Name	Permit No./Name/ Complete Address	Comments
Death	4/9/2019	1.0.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Geriatric, age-related chronic disease
Death	4/10/2019	0.1.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Subadult female; capture myopathy
Donation: OUT	4/24/2019	3.3.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Ownership Transfer: IN	4/28/2019	1.1.0	*Bubalus depressicornis*	lowland anoa	From: St. Louis Zoo - Government Drive, St. Louis MO 63110	Ownership transfer only - animal already physically on-site
Birth	5/2/2019	0.0.1	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	
Death	5/27/2019	0.1.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Self inflicted hyperthermia/stress related
Donation: OUT	6/1/2019	1.4.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation: OUT	6/24/2019	2.1.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	7/1/2019	0.0.1	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	
Donation: OUT	7/29/2019	5.0.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	8/9/2019	1.0.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	
Death	8/11/2019	0.1.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Geriatric female, suspect vaccine reaction induced
Donation: OUT	8/16/2019	2.3.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	

Type of Activity	Date of Activity	Quantity/Sex (M/F/?)	Scientific Name	Common Name	Permit No./Name/ Complete Address	Comments
Birth	8/30/2019	1.0.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	
Birth	9/9/2019	0.0.1	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	
Donation: OUT	9/11/2019	4.4.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Death	10/7/2019	0.1.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Unknown cause of death, suspect conspecific aggression
Birth	10/26/2019	0.0.1	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	
Donation: OUT	11/15/2019	3.1.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	11/15/2019	0.0.1	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	
Birth	11/21/2019	0.1.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	
Death	11/22/2019	1.0.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Unknown cause of death, suspect cocklebur impaction/toxicity
Birth	1/1/2019	1.0.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	
Birth	1/5/2019	0.1.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	
Death	2/6/2019	0.1.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Hepatic lipidosis
Death	3/20/2019	0.1.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Dystocia, irreversible nerve damage; euthanized
Birth	4/18/2019	0.0.1	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	

Type of Activity	Date of Activity	Quantity/Sex (M/F/?)	Scientific Name	Common Name	Permit No./Name/ Complete Address	Comments
Death	5/10/2019	0.1.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Dystocia, complications from large calf
Birth	5/13/2019	0.0.1	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	
Birth	5/16/2019	0.1.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	
Birth	7/18/2019	0.0.1	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	
Death	10/20/2019	0.1.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Fractured pelvis; euthanized
Death	12/20/2019	0.1.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Low BCS, unknown cause of death; suspect liver flukes
Birth	12/2/2010	0.0.3	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Death	1/23/2019	0.1.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Self inflicted spinal injury, paretic in hind limbs; euthanized
Death	9/6/2019	0.1.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Geriatric female, dystocia
Death	9/25/2019	1.0.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Subadult male, coyote predation
Birth	12/4/2019	0.0.3	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Birth	12/6/2019	0.0.3	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Death	12/12/2019	1.0.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Subadult male, coyote predation
Death	2/6/2019	0.1.0	*Tapirus terrestris*	South American tapir	On Loan at: Brookfield Zoo - 8400 W. 31st Street, Brookfield IL 60513	**Cause of Death:** Unknown cause of death; died while on loan at Brookfield Zoo

Type of Activity	Date of Activity	Quantity/Sex (M/F/?)	Scientific Name	Common Name	Permit No./Name/ Complete Address	Comments
Death	4/20/2019	0.1.0	*Tapirus terrestris*	South American tapir	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Metabolic derangements secondary to intestinal torsion and bladder rupture
Birth	7/30/2019	1.0.0	*Tapirus terrestris*	South American tapir	CCTU (Reporting Permitee - MA018969-3)	
Birth	9/6/2019	0.1.0	*Tapirus terrestris*	South American tapir	CCTU (Reporting Permitee - MA018969-3)	
Death	10/16/2019	0.1.0	*Tapirus terrestris*	South American tapir	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Severe pulmonary emphysema
Death	10/22/2019	1.0.0	*Tapirus terrestris*	South American tapir	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Subadult male, cardiac arrest, suspect anesthetic compication
Death	10/23/2019	1.0.0	*Tapirus terrestris*	South American tapir	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Pulmonary hemorrhage, unknown cause
Donation: OUT	10/24/2019	3.1.0	*Tapirus terrestris*	South American tapir	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	11/2/2019	0.0.1	*Tapirus terrestris*	South American tapir	CCTU (Reporting Permitee - MA018969-3)	
Donation: OUT	11/15/2019	2.3.0	*Tapirus terrestris*	South American tapir	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	12/9/2019	1.0.0	*Tapirus terrestris*	South American tapir	CCTU (Reporting Permitee - MA018969-3)	
Death	12/10/2019	1.0.0	*Tapirus terrestris*	South American tapir	CCTU (Reporting Permitee - MA018969-3)	**Cause of Death:** Subadult male, chronic immune mediated hemolytic anemia, liver failure, and systemic thrombosis

Type of Activity	Date of Activity	Quantity/Sex (M/F/?)	Scientific Name	Common Name	Permit No./Name/ Complete Address	Comments
Donation: OUT	12/13/2019	1.0.0	*Tapirus terrestris*	South American tapir	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	12/20/2019	0.1.0	*Tapirus terrestris*	South American tapir	CCTU (Reporting Permitee - MA018969-3)	
Birth	12/28/2019	1.0.0	*Tapirus terrestris*	South American tapir	CCTU (Reporting Permitee - MA018969-3)	
Ownership Transfer: IN	1/18/2019	0.1.0	*Tapirus indicus*	Malayan tapir	From: ZooTampa at Lowry Park - 1101 W. Sligh Avenue, Tampa FL 33604	Female at 30 days old born from male on breeding loan; ownership transferred to CCTU
Birth	3/19/2019	1.0.0	*Tapirus indicus*	Malayan tapir	CCTU (Reporting Permitee - MA018969-3)	
Donation: OUT	3/29/2019	1.0.0	*Tapirus indicus*	Malayan tapir	To: Metro Richmond Zoo - 8300 Beaver Bridge Road, Moseley VA 23120	Full donation
Birth	10/7/2019	0.1.0	*Tapirus indicus*	Malayan tapir	CCTU (Reporting Permitee - MA018969-3)	
Ownership Transfer: OUT	10/31/2019	1.0.0	*Tapirus indicus*	Malayan tapir	To: San Diego Zoo - 2920 Zoo Drive, San Diego CA 92101	Male owned by CCTU had ownership transferred to San Diego
Ownership Transfer: IN	10/31/2019	1.0.0	*Tapirus indicus*	Malayan tapir	From: San Diego Zoo - 2920 Zoo Drive, San Diego CA 92101	Male owned by San Diego had ownership transferred to CCTU
Loan: OUT	12/6/2019	1.0.0	*Tapirus indicus*	Malayan tapir	To: Ellen Trout Zoo - 402 Zoo Circle, Lufkin TX 75904	Male sent to Ellen Trout Zoo on breeding loan
Birth	3/22/2019	0.1.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Birth	6/25/2019	1.0.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Birth	11/9/2019	1.0.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	

Type of Activity	Date of Activity	Quantity/Sex (M/F/?)	Scientific Name	Common Name	Permit No./Name/ Complete Address	Comments
Birth	11/22/2019	1.0.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Birth	8/25/2019	1.0.0	*Rhinoceros unicornis*	great Indian rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Birth	8/26/2019	1.0.0	*Rhinoceros unicornis*	great Indian rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Birth	10/12/2019	1.0.0	*Rhinoceros unicornis*	great Indian rhinoceros	CCTU (Reporting Permitee - MA018969-3)	

OMB No. 1018-0093
Expires: 05/31/2017

Captive-Bred Wildlife Registration Annual Report for Calendar Year 2020
(due by March 31 of following year)

This information includes activities of all animals at your facility even if they are on loan. Note: **Attach a year-end inventory of all species listed on your registration (quantity and sex).** This form may be copied. Use of this form is not mandatory; however, the same information must be submitted if using an alternate form. Additional information may be attached to the report.

Permittee Center for Conservation of Tropical Ungulates Permit number MA018969-3 Address (If location/address has changed since last year, indicate new location and date of change):

Type Of Activity[1]	Date Of Activity[2]	Quantity Sex[3] (M/F/?)	Scientific Name[4]	Common Name	Permit No./Name/Complete Address[5]	Comments
Example: Loan out	4/12/02	1.0	*Elephas maximus*	Asian elephant	San Diego Wild Animal Park	Id no. XXXXXXXX
SEE ADDENDUM SHEETS FOR	ALL INFO	REGARDIN G	INVENTORY AND TRANSACTIONS			

MAIL YOUR REPORT TO: CBW Annual Report, USFWS, Division of Management Authority (DMA), Branch of Permits, MS: IA, 5275 Leesburg Pike, Falls Church, Virginia 22041-3803

1 Type of activity: Births (if survived more than 30 days), deaths (include causes and for euthanasia, include reason for euthanasia in comment column) at your facilities, and then list other types of activities (purchase, sale, loan, donation, gift, trade, export).
2 Date of activity is date it occurred, not necessarily the date specimen was born or transferred.
3 Sex (1.0 = Male; 0.1=female; 0.0.1 = Unknown sex).
4 Include only non-native species listed as Endangered or Threatened under the U.S. Endangered Species Act.
5 CBW Registration number and/or name and address of other CBW registrant involved in the transaction.

OMB No. 1018-0093
Expires: 05/31/2017

FEDERAL FISH AND WILDLIFE PERMIT
Paperwork Reduction Act – Notice

In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501, *et seq.*), please be advised:

1. The gathering of information on fish and wildlife is authorized by:
(Authorizing statutes can be found at: http://www.gpoaccess.gov/cfr/index.html and http://www.fws.gov/permits/ltr/ltr.shtml.)
   a. Bald and Golden Eagle Protection Act (16 U.S.C. 668), 50 CFR 22;
   b. Endangered Species Act of 1973 (16 U.S.C. 1531-1544), 50CFR 17;
   c. Migratory Bird Treaty Act (16 U.S.C. 703-712), 50 CFR 21;
   d. Marine Mammal Protection Act of 1972 (16 U.S.C. 1361, *et. seq.*), 50 CFR 18;
   e. Wild Bird Conservation Act (16 U.S.C. 4901-4916), 50 CFR 15;
   f. Lacey Act: Injurious Wildlife (18 U.S.C. 42), 50 CFR 16;
   g. Convention on International Trade in Endangered Species of Wild Fauna and Flora (TIAS 8249), http://www.cites.org/, 50 CFR 23;
   h. General Provisions, 50 CFR 10;
   i. General Permit Procedures, 50 CFR 13; and
   j. Wildlife Provisions (Import/export/transport), 50 CFR 14.

2. Use of this form is not mandatory; however, the same information must be submitted if using an alternate form.

3. The relevant burden for the report conditioned by an issued Captive-Bred Wildlife Registration is 30 minutes. This burden estimate includes time for reviewing instructions, gathering and maintaining data and completing and reviewing the report. You may direct comments regarding the burden estimate to the Service Information Clearance Officer, U.S. Fish and Wildlife Service, Mail Stop 2042-PDM, U.S. Department of the Interior, 1849 C Street, NW, Washington D.C. 20240.

DO NOT RETURN THIS PAGE WITH THE APPLICATION

CAPTIVE-BRED WILDLIFE REGISTRATION ANNUAL REPORT - 2020 INVENTORY

Perimittee: Center for Conservation of Tropical Ungulates (CCTU) Permit number: MA018969-3

Address: 46470 Farabee Road, Punta Gorda FL 33982

SPECIES (Scientific name)	SPECIES (Common name)	MALES	FEMALES	UNKNOWN SEX	TOTAL # ON SITE	TOTAL # ON LOAN	TOTAL #	NOTES
Babyrousa celebensis	**North Sulawesi Babirusa**	**4**	**1**	**0**	**5**	**0**	**5**	
Kobus leche	**Red Lechwe**	**65**	**136**	**32**	**233**	**0**	**233**	
Bubalus depressicornis	**Lowland Anoa**	**14**	**23**	**0**	**37**	**0**	**37**	
Bos javanicus	**Javan Banteng**	**28**	**120**	**0**	**148**	**0**	**148**	

SPECIES (Scientific name)	SPECIES (Common name)	MALES	FEMALES	UNKNOWN SEX	TOTAL # ON SITE	TOTAL # ON LOAN	TOTAL #	NOTES
Tapirus terrestris	**Lowland Tapir**	**11**	**14**	**0**	**21**	**4**	**25**	**●1.1 on loan at Brookfield Zoo, Chicago IL** **●1.0 on loan at Southwick's Zoo, Mendon MA** **●0.1 on loan at a Private Insitution (born from breeding loan at Southwick's Zoo)**
Tapirus indicus	**Malayan Tapir**	**9**	**7**	**0**	**13**	**3**	**16**	**●1.0 at Lowry Park (Tampa, FL)** **●1.0 on loan at Ellen Trout Zoo (Lufkin, TX)** **●1.0 on loan at Virginia Zoo (Norfolk, VA)**

SPECIES (Scientific name)	SPECIES (Common name)	MALES	FEMALES	UNKNOWN SEX	TOTAL # ON SITE	TOTAL # ON LOAN	TOTAL #	NOTES
Ceratotherium simum simum	**White Rhinoceros**	**15**	**43**	**0**	**58**	**0**	**58**	
Rhinoceros unicornis	**Greater One-horned Rhinoceros**	**11**	**11**	**0**	**21**	**1**	**22**	**● 1.0 on loan at Tanganika Wildlife Park (Goddard, KS)**
Diceros bicornis	**Black Rhinoceros**	**0**	**2**	**0**	**0**	**2**	**2**	**● 0.1 on loan at Little Rock Zoo (Little Rock, AR)** **● 0.1 on loan at BREC's Baton Rouge Zoo (Baton Rouge, LA)**

CAPTIVE-BRED WILDLIFE REGISTRATION ANNUAL REPORT FOR CALENDER YEAR 2020

Perimittee: Center for Conservation of Tropical Ungulates (CCTU) Permit number: MA018969-3

Address: 46470 Farabee Road, Punta Gorda FL 33982

Type of Activity	Date of Activity	Quantity/ Sex (M/F/?)	Scientific Name	Common Name	Permit No./Name/ Complete Address	Comments
Birth	7/21/2020	2.0.0	*Babyrousa celebensis*	North Sulawesi babirusa	CCTU (Reporting Permittee - MA018969-3)	
Donation (OUT)	1/8/2020	0.3.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	1/23/2020	3.1.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	2/5/2020	0.1.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	2/20/2020	2.6.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Death	2/22/2020	0.1.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permittee- MA018969-3)	**CAUSE OF DEATH**: Geriatric animal; chronic disease
Birth	2/13/2020	1.0.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permittee- MA018969-3)	

Type of Activity	Date of Activity	Quantity/ Sex (M/F/?)	Scientific Name	Common Name	Permit No./Name/ Complete Address	Comments
Birth	2/14/2020	1.0.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permittee-MA018969-3)	
Donation (OUT)	3/4/2020	1.2.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	3/20/2020	0.2.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	5/7/2020	6.9.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	5/15/2020	3.2.1	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	6/19/2020	2.1.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	

Type of Activity	Date of Activity	Quantity/ Sex (M/F/?)	Scientific Name	Common Name	Permit No./Name/ Complete Address	Comments
Donation (OUT)	7/2/2020	1.0.0	*Bubalus depressicornis*	lowland anoa	Micanopy Zoological Preserve, LLC (Rhudy Holly): 19350 NW 123rd Ct, Micanopy, FL 32667	
Donation (OUT)	7/10/2020	4.2.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	9/9/2020	0.4.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	9/1/2020	0.0.1	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permittee-MA018969-3)	
Birth	9/12/2020	1.0.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permittee-MA018969-3)	
Donation (OUT)	9/23/2020	2.1	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	10/7/2020	1.0.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permittee-MA018969-3)	

Type of Activity	Date of Activity	Quantity/ Sex (M/F/?)	Scientific Name	Common Name	Permit No./Name/ Complete Address	Comments
Donation (OUT)	12/9/2020	0.2.0	*Bubalus depressicornis*	lowland anoa	Micanopy Zoological Preserve, LLC (Rhudy Holly): 19350 NW 123rd Ct, Micanopy, FL 32667	
Death	3/30/2020	0.1.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH:** Uknown cause of death, carcass autolysed/scavenged
Death	11/24/2020	0.1.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH**: Geriatric animal (>30 yrs); chronic noninfectious disease
Birth	11/29/2020	1.0.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	
Death	12/1/2020	1.0.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH**: Unknown cause of death, scavenged
Birth	12/1/2020	1.0.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	
Birth	12/2/2020	2.0.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	

Death	12/13/2020	1.0.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH:** Undetermined, suspect parental neglect (Less than 2 weeks old at death)
Type of Activity	**Date of Activity**	**Quantity/ Sex (M/F/?)**	**Scientific Name**	**Common Name**	**Permit No./Name/ Complete Address**	**Comments**
Death	12/18/2020	1.0.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH:** Euthanized due to heightened aggression towards humans
Birth	2/20/2020	0.0.1	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Donation (OUT)	3/4/2020	1.0.0	*Kobus leche*	red lechwe	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Death	3/18/2020	1.0.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH**: Unknown, carcass scavenged
Birth	5/30/2020	0.0.1	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Birth	7/9/2020	0.0.1	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Birth	7/16/2020	1.0.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	

Death	7/17/2020	1.0.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH**: Congenital deformity, maternal neglect
Death	8/1/2020	0.1.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH:** Dystocia
Type of Activity	**Date of Activity**	**Quantity/ Sex (M/F/?)**	**Scientific Name**	**Common Name**	**Permit No./Name/ Complete Address**	**Comments**
Birth	8/20/2020	0.0.1	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH**: Alligator predation, trauma
Birth	10/10/2020	0.0.2	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Birth	10/13/2020	0.0.1	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Birth	10/14/2020	0.0.1	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Birth	11/20/2020	0.0.2	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Birth	11/23/2020	0.0.1	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Donation (OUT)	12/3/2020	1.0.0	*Kobus leche*	red lechwe	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	

Birth	12/31/2020	0.0.1	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Birth	1/19/2020	0.1.0	*Tapirus terrestris*	South American tapir	CCTU (Reporting Permitee - MA018969-3)	
Type of Activity	**Date of Activity**	**Quantity/ Sex (M/F/?)**	**Scientific Name**	**Common Name**	**Permit No./Name/ Complete Address**	**Comments**
Donation (OUT)	1/30/2020	1.0.0	*Tapirus terrestris*	South American tapir	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	3/4/2020	0.1.0	*Tapirus terrestris*	South American tapir	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	5/18/2020	2.2.0	*Tapirus terrestris*	South American tapir	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	5/29/2020	2.0.0	*Tapirus terrestris*	South American tapir	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	7/9/2020	0.0.1	*Tapirus terrestris*	South American tapir	CCTU (Reporting Permitee - MA018969-3)	

Donation (OUT)	7/10/2020	1.0.0	*Tapirus terrestris*	South American tapir	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	9/9/2020	1.1.0	*Tapirus terrestris*	South American tapir	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Type of Activity	**Date of Activity**	**Quantity/ Sex (M/F/?)**	**Scientific Name**	**Common Name**	**Permit No./Name/ Complete Address**	**Comments**
Loan (OUT)	9/16/2020	0.1.0	*Tapirus terrestris*	South American tapir	On Loan At: Brookfield Zoo - 8400 W. 31st Street, Brookfield IL 60513	
Donation (OUT)	12/3/2020	1.0.0	*Tapirus terrestris*	South American tapir	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	12/9/2020	2.2.0	*Tapirus terrestris*	South American tapir	Micanopy Zoological Preserve, LLC (Rhudy Holly): 19350 NW 123rd Ct, Micanopy, FL 32667	
Loan Return TO US	3/19/2020	1.0.0	*Tapirus indicus*	Malayan tapir	CCTU (Reporting Permitee - MA018969-3)	From: San Diego Zoo, 2920 Zoo Dr, San Diego, CA 92101

Death	4/25/2020	0.1.0	*Tapirus indicus*	Malayan tapir	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH:** Peracute bacterial enteritis, severe, with intestinal perforation and septic peritonitis
Birth	6/9/2020	0.1.0	*Tapirus indicus*	Malayan tapir	CCTU (Reporting Permitee - MA018969-3)	
Type of Activity	**Date of Activity**	**Quantity/ Sex (M/F/?)**	**Scientific Name**	**Common Name**	**Permit No./Name/ Complete Address**	**Comments**
Birth	10/25/2020	0.1.0	*Tapirus indicus*	Malayan tapir	CCTU (Reporting Permitee - MA018969-3)	
Loan Return TO US	12/9/2020	0.1.0	*Tapirus indicus*	Malayan tapir	CCTU (Reporting Permitee - MA018969-3)	From: ZooTampa, 1101 W Sligh Ave, Tampa FL 33604
Birth	3/26/2020	0.1.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Birth	7/28/2020	1.0.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Birth	8/2/2020	1.0.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Birth	8/9/2020	0.1.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Birth	8/13/2020	1.0.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	

Birth	8/28/2020	0.1.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Death	8/31/2020	0.1.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH:** Upper airway obstruction, dam-inflicted trauma
Type of Activity	**Date of Activity**	**Quantity/ Sex (M/F/?)**	**Scientific Name**	**Common Name**	**Permit No./Name/ Complete Address**	**Comments**
Donation (OUT)	11/20/2020	2.0.0	*Ceratotherium simum simum*	southern white rhinoceros	Donated to: The Maryland Zoo in Baltimore - 1 Safari Place, Baltimore MD 21217	
Donation (IN)	11/23/2020	1.0.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	From: The Maryland Zoo in Baltimore - 1 Safari Place, Baltimore MD 21217 (physically moved from here); donated by Zoo Knoxville - 2500 Knoxville Zoo Dr., Knoxville TN 37914
Imported/Acquired (IN)	12/23/2020	1.9.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	Imported from Muller Stud near Windhoek, Namibia
Birth	1/3/2020	1.0.0	*Rhinoceros unicornis*	great Indian rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Birth	3/1/2020	1.0.0	*Rhinoceros unicornis*	great Indian rhinoceros	CCTU (Reporting Permitee - MA018969-3)	

CAPTIVE-BRED WILDLIFE REGISTRATION ANNUAL REPORT - 2021 INVENTORY

Perimittee: Center for Conservation of Tropical Ungulates (CCTU) Permit number: MA018969-3

Address: 46470 Farabee Road, Punta Gorda FL 33982

SPECIES (Scientific name)	SPECIES (Common name)	MALES	FEMALES	UNKNOWN SEX	TOTAL # ON SITE	TOTAL # ON LOAN	TOTAL #	NOTES
Babyrousa celebensis	**North Sulawesi Babirusa**	**5**	**1**	**0**	**6**	**0**	**6**	
Kobus leche	**Red Lechwe**	**24**	**12**	**4**	**40**	**0**	**40**	
Bubalus depressicornis	**Lowland Anoa**	**11**	**19**	**0**	**30**	**0**	**30**	
Bos javanicus	**Javan Banteng**	**14**	**68**	**0**	**82**	**0**	**82**	

SPECIES (Scientific name)	SPECIES (Common name)	MALES	FEMALES	UNKNOWN SEX	TOTAL # ON SITE	TOTAL # ON LOAN	TOTAL #	NOTES
Tapirus terrestris	**Lowland Tapir**	**10**	**13**	**0**	**19**	**4**	**23**	**●1.1 on loan at Brookfield Zoo, Chicago IL** **●1.0 on loan at Southwick's Zoo, Mendon MA** **●0.1 on loan at a Private Insitution (born from breeding loan at Southwick's Zoo)**
Tapirus indicus	**Malayan Tapir**	**10**	**7**	**0**	**14**	**3**	**17**	**●1.0 at Lowry Park (Tampa, FL)** **●1.0 on loan at Ellen Trout Zoo (Lufkin, TX)** **●1.0 on loan at Virginia Zoo (Norfolk, VA)**

SPECIES (Scientific name)	SPECIES (Common name)	MALES	FEMALES	UNKNOWN SEX	TOTAL # ON SITE	TOTAL # ON LOAN	TOTAL #	NOTES
Ceratotherium simum simum	**White Rhinoceros**	**13**	**46**	**0**	**59**	**0**	**59**	
Rhinoceros unicornis	**Greater One-horned Rhinoceros**	**15**	**10**	**1**	**24**	**2**	**26**	**● 1.0 on loan at Tanganika Wildlife Park (Goddard, KS)** **● 1.0 on loan at Columbus Zoo and Aquarium (Powell, OH)**
Diceros bicornis	**Black Rhinoceros**	**1**	**2**	**0**	**0**	**3**	**3**	**● 1.1 on loan at Little Rock Zoo (Little Rock, AR)** **● 0.1 on loan at BREC's Baton Rouge Zoo (Baton Rouge, LA)**

CAPTIVE-BRED WILDLIFE REGISTRATION ANNUAL REPORT FOR CALENDER YEAR 2021

Perimittee: Center for Conservation of Tropical Ungulates (CCTU) Permit number: MA018969-3

Address: 46470 Farabee Road, Punta Gorda FL 33982

Type of Activity	Date of Activity	Quantity/ Sex (M/F/?)	Scientific Name	Common Name	Permit No./Name/ Complete Address	Comments
Birth	9/2/2021	1.0.0	*Babyrousa celebensis*	North Sulawesi babirusa	CCTU (Reporting Permittee - MA018969-3)	
Donation (OUT)	1/6/2021	4.2.0	*Bubalus depressicornis*	lowland anoa	Micanopy Zoological Preserve, LLC (Rhudy Holly): 19350 NW 123rd Ct, Micanopy, FL 32667	
Donation (OUT)	6/17/2021	1.2.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	7/2/2021	1.0.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	7/14/2021	0.1.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Death	4/29/2021	1.0.0	*Bubalus depressicornis*	lowland anoa	CCTU (Reporting Permittee- MA018969-3)	**CAUSE OF DEATH**: Conspecific aggression, trauma

Donation (OUT)	7/22/2021	0.1.0	*Bubalus depressicornis*	lowland anoa	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Type of Activity	**Date of Activity**	**Quantity/ Sex (M/F/?)**	**Scientific Name**	**Common Name**	**Permit No./Name/ Complete Address**	**Comments**
Birth	1/25/2021	0.1.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	
Birth	2/10/2021	1.0.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	
Donation (OUT)	2/26/2021	5.0.0	*Bos javanicus*	Javan banteng	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	3/1/2021	1.0.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	
Donation (OUT)	3/5/2021	5.0.0	*Bos javanicus*	Javan banteng	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	3/15/2021	1.0.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	

Birth	3/16/2021	0.1.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	
Type of Activity	**Date of Activity**	**Quantity/ Sex (M/F/?)**	**Scientific Name**	**Common Name**	**Permit No./Name/ Complete Address**	**Comments**
Donation (OUT)	4/9/2021	0.25.0	*Bos javanicus*	Javan banteng	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	4/29/2021	0.25.0	*Bos javanicus*	Javan banteng	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	4/29/2021	1.0.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	
Death	6/30/2021	1.0.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH**: Chronic enteritis and diarrhea, metabolic derangements
Birth	7/7/2021	0.1.0	*Bos javanicus*	Javan banteng	CCTU (Reporting Permitee - MA018969-3)	
Donation (OUT)	8/11/2021	4.0.0	*Bos javanicus*	Javan banteng	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	

Donation (OUT)	1/6/2021	1.0.0	*Kobus leche*	red lechwe	Micanopy Zoological Preserve, LLC (Rhudy Holly): 19350 NW 123rd Ct, Micanopy, FL 32667	
Death	1/24/2021	0.1.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH**: Geriatric, advanced molar wear
Death	2/3/2021	0.1.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH:** Geriatric, advanced molar wear
Birth	4/1/2021	0.0.2	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Birth	4/3/2021	0.0.2	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Birth	4/7/2021	0.0.1	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Death	4/25/2021	0.1.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH**: Unknown cause of death, carcass scavenged/autolyzed
Birth	6/14/2021	0.2.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Type of Activity	**Date of Activity**	**Quantity/ Sex (M/F/?)**	**Scientific Name**	**Common Name**	**Permit No./Name/ Complete Address**	**Comments**

Death	6/16/2021	1.0.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH**: Euthanized due to poor prognosis/quality of life; geriatric, chronic hoof disease
Death	6/22/2021	0.1.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH:** Unknown cause of death, carcass scavenged/autolyzed - suspect dystocia
Birth	7/5/2021	0.0.1	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Death	7/7/2021	1.0.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH:** Euthanized - severe fracture of the right front limb
Donation (OUT)	7/14/2021	2.0.0	*Kobus leche*	red lechwe	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Death	7/23/2021	0.1.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH**: Capture myopathy, peracute
Donation (OUT)	7/27/2021	6.0.0	*Kobus leche*	red lechwe	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Death	7/31/2021	1.0.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH**: Uncertain, suspect gator predation
Death	8/16/2021	1.0.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH:** Hyperthermia + acute capture myopathy

Donation (OUT)	8/26/2021	5.0.0	*Kobus leche*	red lechwe	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	10/14/2021	7.0.0	*Kobus leche*	red lechwe	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Death	11/2/2021	1.0.0	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH:** Acute capture myopathy
Donation (OUT)	11/15/2021	5.0.0	*Kobus leche*	red lechwe	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	11/18/2021	5.0.0	*Kobus leche*	red lechwe	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	12/1/2021	1.36.0	*Kobus leche*	red lechwe	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	12/1/2021	0.0.1	*Kobus leche*	red lechwe	CCTU (Reporting Permitee - MA018969-3)	
Donation (OUT)	12/8/2021	4.0.0	*Kobus leche*	red lechwe	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	12/20/2021	0.1.0	*Kobus leche*	red lechwe	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	

Donation (OUT)	1/6/2021	0.1.0	*Tapirus terrestris*	South American tapir	Micanopy Zoological Preserve, LLC (Rhudy Holly): 19350 NW 123rd Ct, Micanopy, FL 32667	
Birth	3/18/2021	0.1.0	*Tapirus terrestris*	South American tapir	CCTU (Reporting Permitee - MA018969-3)	
Donation (OUT)	8/24/2021	0.1.0	*Tapirus terrestris*	South American tapir	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Donation (OUT)	8/26/2021	1.0.0	*Tapirus terrestris*	South American tapir	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Death	11/29/2021	0.1.0	*Tapirus terrestris*	South American tapir	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH:** Euthanized - acute anemia of unknown origin, severe tongue trauma
Type of Activity	**Date of Activity**	**Quantity/ Sex (M/F/?)**	**Scientific Name**	**Common Name**	**Permit No./Name/ Complete Address**	**Comments**

Birth	12/24/2021	1.0.0	*Tapirus indicus*	Malayan tapir	CCTU (Reporting Permitee - MA018969-3)	
Donation (OUT)	1/9/2021	2.0.0	*Ceratotherium simum simum*	southern white rhinoceros	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Birth	1/29/2021	0.1.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Birth	4/16/2021	1.0.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Donation (OUT)	4/17/2021	1.0.0	*Ceratotherium simum simum*	southern white rhinoceros	Timbavati Wildlife Park (Matt Schoebel): 2220 Wisconsin Dells Pkwy, Wisconsin Dells, WI 53965	
Birth	4/26/2021	0.1.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Birth	4/29/2021	0.1.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Death	5/7/2021	1.0.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH**: Euthanized - Chronic disease: chronic colitis, chronic lameness

Donation (OUT)	6/28/2021	1.0.0	*Ceratotherium simum simum*	southern white rhinoceros	The Wild Animal Park (Jim Fouts): 7621 Lakeport Road, Chittenango NY 13037	
Birth	9/8/2021	1.0.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Donation (OUT)	11/8/2021	2.0.0	*Ceratotherium simum simum*	southern white rhinoceros	The Wild Animal Park (Jim Fouts): 7621 Lakeport Road, Chittenango NY 13037	
Birth	11/30/2021	1.0.0	*Ceratotherium simum simum*	southern white rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Type of Activity	**Date of Activity**	**Quantity/ Sex (M/F/?)**	**Scientific Name**	**Common Name**	**Permit No./Name/ Complete Address**	**Comments**
Loan (OUT)	4/8/2021	1.0.0	*Rhinoceros unicornis*	great Indian rhinoceros	Columbus Zoo and Aquarium - 4850 W Powell Road, Powell OH 43065	Owned by CCTU, on loan to Columbus Zoo
Loan (IN)	4/16/2021	1.0.0	*Rhinoceros unicornis*	great Indian rhinoceros	CCTU (Reporting Permitee - MA018969-3)	Loan IN for breeding. Animal owned by Toronto Zoo and transferred from The Wilds in Zanesville OH

Birth	4/24/2021	1.0.0	*Rhinoceros unicornis*	great Indian rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Death	8/15/2021	0.1.0	*Rhinoceros unicornis*	great Indian rhinoceros	CCTU (Reporting Permitee - MA018969-3)	**CAUSE OF DEATH**: Euthanized, severe (100+lbs) sand impaction in descending colon
Birth	10/23/2021	1.0.0	*Rhinoceros unicornis*	great Indian rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Birth	11/15/2021	1.0.0	*Rhinoceros unicornis*	great Indian rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Birth	12/23/2021	0.0.1	*Rhinoceros unicornis*	great Indian rhinoceros	CCTU (Reporting Permitee - MA018969-3)	
Birth	11/13/2021	1.0.0	*Diceros bicornis*	black rhinoceros	Little Rock Zoo - 1 Zoo Drive, Little Rock AR 72205	Female owned by CCTU is on loan at the Little Rock Zoo - this baby was born there but owned by CCTU - will stay at Little Rock Zoo or be transferred to another facility after weaning

Captive-Bred Wildlife Registration (CBW) Annual Report

Due: March 31st of the following year

Email to: managementauthority@fws.gov referencing "CBW Annual Report YYYY for CBW # MA#####" in subject line.

Permittee Name: Center for Conservation of Tropical Ungulates LLC (CCTU)

Reporting Year: 2022

CBW Permit #: MA018969-3

Complete this form (all three tables) for **ALL live, non-native, ESA-listed species, captive-bred in the U.S., covered under your current CBW regis for**
the above reporting year (including individuals you have on loan with another facility, or on loan with you). Do not include non-native ESA-listed specie were not covered on your CBW permit during this year.

Year-end Inventory

Scientific Name (Genus, species, and *if applicable* , subspecies)	**Common Name**	**Quantity**	**Sex/Age Ratio** (male.female.unknown sex, 10.5.2)	**# Births over the reporting year**	**# Deaths over the reporting year**	**Approx Death Date(s) and Cause of Death(s)** (attach necropsy report, as needed)
EXAMPLE: *Loxodonta Africana*	African Elephant	17	10.5.2.	2	1	Aug 2019, old age
Kobus leche	Red Lechwe	3	3.0.0	0	5	3/15/2022 - 1.0.0 - euthanasia; chronic leg injury 9/30/2022 - 3.0.0 - natural; Found dead after Category 4/5 hurricane. No trees down in area, suspect stress 10/1/2022 - 1.0.0 - Natural; Found dead 2 days after hurricane, suspect stress or trauma

Bubalus depressicornis	Lowland anoa	20	7.12.1	1	1	1/27/2022 - 1.0.0 - Euthanasia; urinary obstruction with severe metabolic disturbances
Bos javanicus	Javan Banteng	49	13.31.5	5	0	
Tapirus terrestris	Lowland tapir	18	7.9.2	2	2	4/17/2022 - 1.0.0 - Natural; mild volvulus, devitalized small intestines, secondary enterotoxemia and shock 10/10/2022 - 0.1.0 - Natural; undetermined cause of death but suspect complications from metritis and severe stress from category 4/5 hurricane 2 weeks prior
Tapirus indicus	Malayan tapir	16	8.7.1	1	1	5/28/2022 - 1.0.0 - Natural; geriatric animal, chronic lung pathology combined with severe heat/environmental conditions, respiratory
Ceratotherium simum simum	Southern White Rhinoceros	58	9.49.0	4	0	

Rhinoceros unicornis	Greater one-horned rhinoceros	25	16.8.1	2	2	5/11/2022 - 1.0.0 - natural; complications from severe sand impaction and secondary enterotoxemia from bacterial translocation 12/27/2022 - 0.1.0 - natural; undetermined cause of death but suspect GI related due to reported intestinal perforations; histopathology pending
Diceros bicornis	Black rhinoceros	3	1.2.0	0	0	

Activities Conducted

CBW holder is required to disclose **ALL interstate and intrastate purchases, sales, trades, and/or exports** involving species listed under their CBW occurred during the reporting year.

Scientific Name	**Common Name**	**Activity** (Interstate or intrastate purchases, sales, and/or exports)	**Date of Activity** (mm/dd/yy yy)	**Quantity & Sex/Age** (males.females. unknown	**Name and Address of the other party Involved in the transaction** (include country if an export)	**CBW # of Registrant Involved in Activity**	**Identification Informa** (e.g., studbook #'s microchip #'s, band #s,
EXAMPLE: *Loxodonta Africana*	African elephant	Interstate purchase	04/12/2019	1.0.0	Sunland Zoo and Park, 300 Leopard Way, Miami, FL	MA####	Studbook #: 152

Loans/Gifts/Donations Conducted

CBW holder is required it disclose **ALL loans, donations, and gifts** involving species listed under their CBW that occurred during the reporting year.

Scientific Name	**Common Name**	**Activity** (loans, donations, and gifts)	**Date of Activity** (mm/dd/yyyy)	**Quantity & Sex/Age** (males.females. unknown sex, 10.8.3)	**Name and Address of the other party Involved in the transaction**	**Information on transferred Animal(s)** (studbook #'s, microchip #'s, band #'s, tattoo #'s, etc.)
EXAMPLE: *Loxodonta Africana*	African elephant	loan	4/12/2019	1.0.0	Sunland Zoo and Park, 300 Leopard Way, Miami, FL	Studbook # 305 Tattoo yellow 6
Babyrousa celebensis	North Sulawesi babirusa	Loan Return (back to owner)	5/24/2022	2.1.0	Audubon Zoo - 6500 Magazine St., New Orleans, LA 70118	0.1.0 "Addison" - Studbook AZA 161 Microchip 900074001622272 1.0.0 "Willis" - Studbook AZA 165 Microchip 835*597*044 1.0.0 "Chip" - Microchip 981020041697752

Babyrousa celebensis	North Sulawesi babirusa	Loan Transfer (new facility)	3/7/2022	1.0.0	Zoo Miami - 12400 SW 152nd St., Miami FL 33177	1.0.0 "Harry" - Studbook AZA 195 Microchip 981020041691396
Babyrousa celebensis	North Sulawesi babirusa	Loan Return (back to owner)	6/15/2022	2.0.0	Audubon Zoo - 6500 Magazine St., New Orleans, LA 70118	1.0.0 "Larry" - Studbook AZA 201 1.0.0 "Moe" - Studbook AZA 202
Bubalus depressicornis	Lowland anoa	Donation (OUT)	3/3/2022	0.1.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	"Abby" - Studbook AZA 571, Microchip 00-0132-D370
Bubalus depressicornis	Lowland anoa	Donation (OUT)	3/11/2022	0.1.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	"Bali" Studbook AZA 515, Microchip 00016BBBA3
Bubalus depressicornis	Lowland anoa	Donation (OUT)	3/16/2022	1.0.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	Studbook AZA 729, Ear Notch 61
Bubalus depressicornis	Lowland anoa	Donation (OUT)	4/14/2022	0.1.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	"Minahasa" - Studbook AZA 636, RFID Tag 840003241180705, Ear Notch 8
Bubalus depressicornis	Lowland anoa	Donation (OUT)	4/20/2022	1.1.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	"Nan" 0.1.0 - Studbook AZA 575, RFID tag 840003247595707, Ear Notch 17 "Hooker" 1.0.0 - Studbook AZA 573, RFID tag 840003247595708, Ear Notch 2
Bubalus depressicornis	Lowland anoa	Donation (OUT)	5/24/2022	1.3.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	"Kappa" 0.1.0 - Studbook AZA 672, Ear Notch 18 "July Johnson" 1.0.0 - Studbook AZA 684, Ear Notch 27 "Delilah" 0.1.0 - Studbook AZA 767, Microchip 840003008096543, Ear Notch 92

Bos javanicus	Javan banteng	Donation (OUT)	2/9/2022	0.20.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Bos javanicus	Javan banteng	Donation (OUT)	2/10/2022	0.21.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Bos javanicus	Javan banteng	Donation (OUT)	6/7/2022	5.0.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Kobus leche	Red lechwe	Donation (OUT)	1/12/2022	6.0.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Kobus leche	Red lechwe	Donation (OUT)	1/19/2022	2.50.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Kobus leche	Red lechwe	Donation (OUT)	2/21/2022	4.7.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Kobus leche	Red lechwe	Donation (OUT)	3/7/2022	6.0.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Kobus leche	Red lechwe	Donation (OUT)	3/11/2022	0.0.1	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Kobus leche	Red lechwe	Donation (OUT)	3/16/2022	6.0.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Kobus leche	Red lechwe	Donation (OUT)	3/25/2022	0.1.1	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	
Tapirus terrestris	South American tapir / Lowland Tapir	Donation (OUT)	2/10/2022	1.1.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	"Water-malone" 1.0.0 - Microchip 981020041703501, Ear Notch 1 "Snickers" 0.1.0 - Microchip 981020041687611, Ear Notch 8

Tapirus terrestris	South American tapir / Lowland Tapir	Donation (OUT)	3/3/2022	1.0.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	"Joe Dirt" Microchip 981020041657576, Ear Notch 10
Tapirus terrestris	South American tapir / Lowland Tapir	Donation (OUT)	3/16/2022	0.2.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	"Faye" Microchip 840003008096671 "Tina" Microchip 840003008096078, 981020041675823, and 981020041692601
Tapirus indicus	Malayan Tapir	Donation (ownership only, facility already housed animal)	10/26/2022	1.0.0	San Diego Zoo - 2920 Zoo Drive, San Diego, CA 92101	"Rosco" Microchip 840003008096583, Ear Notch 3, Studbook AZA 850
Ceratotherium simum simum	Southern White Rhinoceros	Donation (OUT)	4/18/2022	2.0.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	"JB" Ear Notch 60, Studbook AZA 2287 "Hercules" Studbook AZA 2337
Ceratotherium simum simum	Southern White Rhinoceros	Donation (OUT)	7/8/2022	1.0.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	"Thor" Ear Notch 41, Studbook AZA 2335, Microchip 840003008096683
Ceratotherium simum simum	Southern White Rhinoceros	Donation (OUT)	9/18/2022	1.0.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	"Banner" Ear Notch 44, Studbook AZA 2336, Microchp 840003008096687
Ceratotherium simum simum	Southern White Rhinoceros	Donation (OUT)	11/7/2022	1.0.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	"Billy Ray" No ear notch, hand raised
Rhinoceros unicornis	Greater One-horned rhinoceros	Donation (IN)	1/22/2022	1.0.0	FROM: San Diego Zoo Safari Park - 15500 San Pasquel Valley Road, Escondido CA 92027	"Bhopu" - Studbook AZA 351, Microchip 00-000B-D432
Rhinoceros unicornis	Greater One-horned rhinoceros	Loan (OUT)	1/26/2022	1.0.0	San Diego Zoo Safari Park - 15500 San Pasquel Valley Road, Escondido CA 92027	"Bhramputra" - Studbook AZA 330, Microchip 00-0689-A477

Rhinoceros unicornis	Greater One-horned rhinoceros	Loan (OUT)	5/4/2022	1.0.0	Safari Enterprises (Larry Johnson): 35 Rust Lane, Boerne TX 78006	"Benito" - no ear notch, hand raised

NOTICES PRIVACY ACT STATEMENT

Authority: The information requested is authorized by the following: the Bald and Golden Eagle Protection Act (16 U.S.C. 668), 50 CFR 22; the Endangered Species Act (16 U.S.C. 1531-1544), 50 CFR 17; the Migratory Bird Treaty Act (16 U.S.C. 703-712), 50 CFR 21; the Marine Mammal Protection Act (16 U.S.C. 1361, et seq.), 50 CFR 18; the Wild Bird Conservation Act (16 U.S.C. 4901-4916), 50 CFR 15; the Lacey Act: Injurious Wildlife (18 U.S.C. 42), 50 CFR 16; Convention on International Trade in Endangered Species of Wild Fauna and Flora (TIAS 8249), 50 CFR 23; General Provisions, 50 CFR 10; General Permit Procedures, 50 CFR 13; and Wildlife Provisions (Import/export/transport), 50 CFR 14.

Purpose: The collection of contact information is to verify the individual has an eligible permit to conduct activities which affect protected species. This helps FWS monitor and report on protected species and assess the impact of permitted activities on the conservation and management of species and their habitats.

Routine Uses: The collected information may be used to verify an applicant's eligibility for a permit to conduct activities with protected wildlife; to provide the public and the permittees with permit related information; to monitor activities under a permit; to analyze data and produce reports to monitor the use of protected wildlife; to assess the impact of permitted activities on the conservation and management of protected species and their habitats; and to evaluate the effectiveness of the permit programs. More information about routine uses can be found in the System of Records Notice, Permits System, FWS-21.

Disclosure: The information requested in this form is voluntary. However, submission of requested information is required to process applications for permits authorized under the listed authorities. Failure to provide the requested information may be sufficient cause for the U.S. Fish & Wildlife Service to deny the request.

PAPERWORK REDUCTION ACT STATEMENT

We are collecting this information subject to the Paperwork Reduction Act (44 U.S.C. 3501) in order provide the U.S. Fish and Wildlife Service the information necessary, under the applicable laws governing the requested activity, for which a permit is requested. Information requested in this form is purely voluntary. However, submission of requested information is required in order to process applications for permits authorized under the applicable laws. Failure to provide all requested information may be sufficient cause for the U.S. Fish and Wildlife Service to deny the request. According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. OMB has approved this collection of information and assigned Control No. 1018-0093.

ESTIMATED BURDEN STATEMENT

We estimate public reporting for this collection of information averages 20 minutes (electronically) to 30 minutes (paper-

We estimate public reporting for this collection of information averages 20 minutes (electronically) to 30 minutes (paper-based), including time for reviewing instructions, gathering and maintaining data and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of the form to the Service Information Clearance Officer, Fish and Wildlife Service, U.S. Department of the Interior, 5275 Leesburg Pike, MS: PRB/PERMA (JAO), Falls Church, VA 22041-3803, or via email at Info_Coll@fws.gov. Please do not send your completed form to this address.

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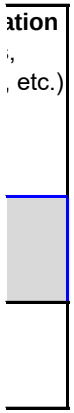

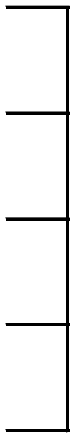

Captive-Bred Wildlife Registration (CBW) Annual Report

Due: March 31st of the following year

Email to: managementauthority@fws.gov referencing "CBW Annual Report **2023** for **CBW # MA 018969-3** in subject line.

Permittee Name: Center for the Conservation of Tropical Ungulates **Reporting Year: 2023** **CBW Permit #: MA018969-3**

Scientific Name (Genus, species, and *if applicable*, subspecies)	**Common Name**	**Quantity**	**Sex/Age Ratio** (male.female.unknown sex, 10.5.2)	**# Births over the reporting year**	**# Deaths over the reporting year**	**Approx Death Date(s) and Cause of Death(s)** (attach necropsy report, as needed)
Tapirus indicus	Malayan Tapir	14	7.7.0	0	0	NA
Tapirus terrestris	South American Tapir	15	6.9.0	0.1	0.1	#122303 DOD 11/8/23 UNK
Caratotherium simum	Southern White Rhino	65	14.51.0	5.3	0.1	# 120176 Lisa DOD 8/12/23 Lightning strike
Rhinoceros unicornis	One Horned Rhino	21	12.9.0		0.1	#118002 Lulu DOD 1/5/23 parasites
Diceros bicornis	Black Rhino	0.0.0	0	0	0.0.0	N/A
Bos javanicus	Banteng	54	10.33.11	0.0.11	0	N/A

Use of this form is not mandatory. *If using an alternate form, ensure it encompasses the same information. Additional information may be attached to the report.*

Bubalus depressicornis	Anoa	20	7.12.1	0	0	N/A
Kobus leche	Red Lechwe	3	3.0.0	0	0	N/A

Complete this form (all three tables) for **ALL live, non-native, ESA-listed species, captive-bred in the U.S., covered under your current CBW registration for the above reporting year** (including individuals you have on loan with another facility, or on loan with you). Do not include non-native ESA-listed species that were not covered on your CBW permit during this year.

Year-end Inventory

Use of this form is not mandatory. *If using an alternate form, ensure it encompasses the same information. Additional information may be attached to the report.*

Activities Conducted

CBW holder is required to disclose **ALL interstate and intrastate purchases, sales, trades, and/or exports** involving species listed under their CBW that occurred during the reporting year.

Scientific Name	**Common Name**	**Activity** (Interstate or intrastate purchases, sales, and/or exports)	**Date of Activity** (mm/dd/yyyy)	**Quantity & Sex/Age** (males.females.unknown sex, 10.8.3)	**Name and Address of the other party Involved in the transaction** (include country if an export)	**CBW # of Registrant Involved in Activity**	**Identification Information** (e.g., studbook #'s, microchip #'s, band #s, etc.)
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Use of this form is not mandatory. *If using an alternate form, ensure it encompasses the same information. Additional information may be attached to the report.*

Loans/Gifts/Donations Conducted

CBW holder is required it disclose **ALL loans, donations, and gifts** involving species listed under their CBW that occurred during the reporting year.

Scientific Name	**Common Name**	**Activity** (loans, donations, and gifts)	**Date of Activity** (mm/dd/yyyy)	**Quantity & Sex/Age** (males.females.unknown sex, 10.8.3)	**Name and Address of the other party Involved in the transaction**	**Information on transferred Animal(s)** (studbook #'s, microchip #'s, band #'s, tattoo #'s, etc.)
N/A	N/A	N/A	N/A	N/A	N/A	N/A

Use of this form is not mandatory. *If using an alternate form, ensure it encompasses the same information. Additional information may be attached to the report.*

Re: [EXTERNAL] Re: Inquiry Regarding CS6164280 - 3-200-41: CBW Registration

John Seyjagat [redacted]
Fri 8/9/2024 9:44 AM
To:Ketram, Natchanon N <natchanon_ketram@fws.gov>

Ketcham
CCTU no longer maintains a FWC Class III wildlife license or Class III animals.
Sincerely
John Seyjagat

On Fri, Aug 9, 2024 at 9:02 AM Ketram, Natchanon N <natchanon_ketram@fws.gov> wrote:

> Good morning Mr. Seyjagat,
>
> I am doing a final review of your submitted materials this morning. Do you have the latest version of the Florida Class III license? The latest one I have in your file expired February 14, 2024.
>
> Thank you,
>
> Natchanon Ketram
> Permit Biologist
> Branch of Permits
> Division of Management Authority
> International Affairs Program
> U.S. Fish and Wildlife Service
> Falls Church, VA, USA
>
> ---
>
> **From:** John Seyjagat <[redacted]
> **Sent:** Tuesday, August 6, 2024 2:25 PM
> **To:** Ketram, Natchanon N <natchanon_ketram@fws.gov>
> **Subject:** Re: [EXTERNAL] Re: Inquiry Regarding CS6164280 - 3-200-41: CBW Registration
>
> Thank you.
> No worries.
> John Seyjagat
>
> On Tue, Aug 6, 2024, 12:52 PM Ketram, Natchanon N <natchanon_ketram@fws.gov> wrote:
>
> > Good afternoon Mr. Seyjagat,
> >
> > Thank you for the information you have provided thus far. I apologize for not responding to your emails recently. We have had a few turnovers in the team and I have been on the receiving end of reassigned applications. I have received your other emails and will review them and circle back with you if we have any other questions.
> >
> > Thank you,
> >
> > Natchanon Ketram
> > Permit Biologist
> > Branch of Permits
> > Division of Management Authority

International Affairs Program
U.S. Fish and Wildlife Service
Falls Church, VA, USA

From: John Seyjagat <[redacted]
Sent: Tuesday, August 6, 2024 10:03 AM
To: Ketram, Natchanon N <natchanon_ketram@fws.gov>
Subject: Re: [EXTERNAL] Re: Inquiry Regarding CS6164280 - 3-200-41: CBW Registration

Good Morning
As mentioned previously, CCTU works with the SSP but has the ability to also do captive breeding within its collection based on the following :

CCTU has 1/3 (14.51) of all White Rhinos in the United States.

With this, CCTU can manage genetic diversity while waiting for the SSP to make recommendations.

CCTU is not solely reliant on the SSP to continue breeding with adequate genetic diversity.

In a research study conducted by the Smithsonian Biological Institute, it showed that private breeders loosely managing genetic diversity did as well or better in the 100 year outlook compared to the SSP.

CCTU will continue to collaborate with the White Rhino and GOH Rhino SSPs as much as possible.

Thank you
Sincerely
John Seyjagat

On Wed, Jul 31, 2024 at 9:25 AM John Seyjagat [redacted] wrote:

> Mr. Natchanon Ketram
> As mentioned in my previous email dated July 16th, I am now attaching CCTU's Southern White Rhino Breeding Plans for this year. Recently a breeding male was transferred from San Diego Wild Animal Park to CCTU.Please see the breeding list below.
> Sincerely
> John Seyjagat
>
> On Tue, Jul 16, 2024 at 8:55 PM John Seyjagat [redacted] wrote:
>
> > Mr. Natchanon Ketram
> > Good Morning
> > My apologies. I am unable to give you a precise answer as I am away from my office in Mumbai India and do not have access to animal records and am hindered by a 10 hour time difference.
> >
> > In order to keep this application active I will give you the framework on which my official response will be based. I hope to have my official response to you by the time I get back to the USA on July 28.
> >
> > Your question: " Although your institution is not listed under the latest available SSP, in order for us to assess how the captive population is being managed to maintain genetic vitality, can you provide the latest SSP for the southern white rhino."

CCTU has the largest herd of Southern White Rhinos in captivity in the USA. This herd includes some recently imported animals and unrepresented males. In 2025 CCTU will be represented in the SSP breeding and transfer plans. The SSP Coordinator is looking at making breeding recommendations for CCTU **within its own herd** prior to the 2025 breeding plans.

CCTU's has enough unrepresented animals in its herd to allow independent breeding for the next 5 years that favors both CCTU and the SSP. With gestation period , prefered pairings and some movement of animals, CCTU can bridge the time gap in the SSP for 2024-2025. CCTU has already done some pairing and has a few pregnant animals.

CCTU's breeding plan is a simple breeding program that looks at dam /sire pedigree and representation within CCTU. Due to the number of animal in the herd and the sex ratio , present breeding allows no more than 2 offsprings per dam /sire pairing.

Again, my apologies. My official response will follow in the coming week or so.

Sincerely
John Seyjagat

On Mon, Jul 15, 2024 at 3:51 PM Ketram, Natchanon N <natchanon_ketram@fws.gov> wrote:

> Good afternoon,
>
> I apologize for the delay in response. We do have one follow-up question for you about the southern white rhino. I will mention in below:
>
> 1. Thank you for the clarification you provided on the letter and the valid period of the letter. Although your institution is not listed under the latest available SSP, in order for us to assess how the captive population is being managed to maintain genetic vitality, can you provide the latest SSP for the southern white rhino?
>
> Thank you,
>
> Natchanon Ketram
> Permit Biologist
> Branch of Permits
> Division of Management Authority
> International Affairs Program
> U.S. Fish and Wildlife Service
> Falls Church, VA, USA
>
> ---
>
> **From:** John Seyjagat [redacted]
> **Sent:** Friday, June 14, 2024 7:12 PM
> **To:** Ketram, Natchanon N <natchanon_ketram@fws.gov>
> **Subject:** Re: [EXTERNAL] Re: Inquiry Regarding CS6164280 - 3-200-41: CBW Registration
>
> Natchanon
> The SWR SSP/Partnership letters are good for 5 years. CCTU's letter of partnership is good until February 2025. CCTU is an active participating partner. CCTU missed the SSP proposed recommendations for 2024 due to administration and staff changes. At the 2024 AZA Mid Year

Meeting in Memphis The SWR SSP coordinator excused CCTU for their tardy and non submission of data. As a result CCTU was not included in the breeding and transfer plans for 2024. CCTU 's data will be included in the 2025 Breeding and Transfer Plans. Discussions are being held with the SSP Coordinator on breeding pairings of CCTU's animals for 2025.
Hope this helps.
Sincerely
John Seyjagat.

On Fri, Jun 14, 2024 at 9:13 AM Ketram, Natchanon N <natchanon_ketram@fws.gov> wrote:

Good morning,

Thank you for the new information you provided. We do have one more follow-up question for you. I will include it below:

1. For the southern white rhino, you referenced a statement from the SSP coordinator Adam Ayers, that your organization will be included in the upcoming SSP. Was this statement provided as part of a previous email? I may have miss it but looking through the documents you provided, the closest related document I could find was a February 19, 2021 from Michael Ogle. From your statement, it sounds like there is a more recent email from one Adam Ayers?

Thank you,

Natchanon Ketram
Permit Biologist
Branch of Permits
Division of Management Authority
International Affairs Program
U.S. Fish and Wildlife Service
Falls Church, VA, USA

From: John Seyjagat [redacted]
Sent: Monday, June 10, 2024 9:19 AM
To: Ketram, Natchanon N <natchanon_ketram@fws.gov>
Subject: Re: [EXTERNAL] Re: Inquiry Regarding CS6164280 - 3-200-41: CBW Registration

1. For the banteng (*Bos javanicus*), I see that your organization is mentioned under the Appendix section for Pedigree Assumptions. However, your institution is not listed under the Recommendations by Institutions. Can you provide a letter of recommendation from the SSP coordinator for this species confirming your participation in the banteng SSP? I cannot provide a letter at this time but will do so as soon as the Banteng GSMP gets organized. Banteng is no longer managed by an AZA SSP. The AZA population is represented by 38 animals with high genetics and low breeding. The species is now managed as a Global Species Managed Program (GSMP). CCTU was not a member of the original Banteng SSP but participated/supported the breeding program with selected institutions. Animals from CCTU were loaned to participating institutions that are listed in the 2021 breeding and transfer plans and are identified as MULT (multiple sire) by their participating institution. CCTU has a viable population of Banteng and maintains an internal breeding program to preserve the genetics of the CCTU population. CCTU is stepping up its Banteng breeding program and initiating participation in the GSMP. The Banteng GSMP is without leadership (

Steve Metzler former SSP Coordinator of San Diego Zoo left the zoo industry just as the AZA down graded Banteng from an SSP to a GSMP) and studbook keeper Curt Coleman of The Wilds is awaiting the appointment of a new program coordinator in order to approve new participating members and add animals to the managed program. Banteng is a targeted species of the PFS.

2. For the tapirs, your institution is registered for two tapir species, the South American tapir (*Tapirus terrestris*) and the Asian tapir (*Tapirus indicus*). For the former, you provided the studbook for the Baird's (Central American) tapir (*Tapirus bairdii*). Can you provide the breeding and transfer plans for the South American tapir? Alternatively, can you provide more information including documentation on how these efforts will manage genetic vitality and make breeding and transfer recommendations for the managed population? There is no studbook for the Lowland tapir. The tapir TAG does not currently have a program for Lowland Tapir T. terrestris. The TAG Chair Martin Ramirez General Curator at Woodland Park Zoo mentions that this species is quite stable and as such the AZA focused on the species of greater concern. Without a managed plan for this species there are no breeding and transfer recommendations. It is left up to the institution to individually manage the genetics of this collection. CCTU has several pairs of breeding aged Lowland tapirs and continues to breed this species using an internal breeding/pedigree plan. CCTU's breeding program and number of animals allows for the propagation of this species for the next 3-5 years based on present collection, gestation periods and sexual maturity. CCTU is already working with other zoological institutions moving animals around to improve breeding and genetics of Lowland tapir. In addition, CCTU is pursuing partnership with the Smithsonian National Zoo and Conservation Biology Institute at Fort Royal to promote conservation research on Lowland tapir Nutrition and Reproduction. Reproductive research to properly gauge peak estrous cycle will promote higher success in breeding and research in neonatal nutrition will improve calf survivability. Conservation Centers for Species Survival (C2S2) and the Partnership For Species has Tapirs as a target species in the future.
3. For the southern white rhino (*Ceratotherium simum simum*), thank you for the confirmation letter from the SSP coordinator. Can you provide the breeding and transfer plan for this species? CCTU , although a participant in the Southern White Rhino SSP , was not included in the 2023-2024 breeding and transfer plans because of the organization administration changes and late submission of collection data. Adam Ayers of Fossil Rim Wildlife Center (SSP Coordinator) indicated that CCTU's collection data was received by the SWR SSP and will be included in the 2025 breeding and transfer plans due at the AZA Mid Year Meeting April next year.
4. Reviewing the PFS writeup, the proposed plan mentioned target species that they will be focusing on. For the initial four species and the subsequent ones, with the exception of the anoa and banteng which sounds like they will be managed under an SSP, I do not see your registered species on there as species of focus. Of your registered species, can you let me know which of them will be managed under PFS? All the rhino species are still managed by the AZA SSP. The PFS already has Anoa and Bantang as target species which are still managed by the SSP. Lechwe no longer has a SSP and will be a managed species by the PFS. Malayan Tapir is managed by the AZA Tapir TAG and the Malayan Tapir SSP. There is no AZA program at this time for Lowland Tapir. The PFS would initiate a program for Lowland Tapir once members sign up to participate. Additionally, since they are not mentioned in the proposed plan, is there an intent to add these species as species of focus in the future? The PFS has prioritized species based on those that were managed by SSPs that are now defunct. As TAG Chairs , SSP Coordinators and Studbook Keepers of these defunct SSPs decide the future of these animal programs and their personal roles and participation, the PFS is there to assist with a transition to provide continuity of these programs and sustain them under the PFS. As these transitions occur we will see more species added to the PFS.

Sincerely
John Seyjagat

On Wed, May 29, 2024 at 10:58 AM Ketram, Natchanon N <natchanon_ketram@fws.gov> wrote:

Good morning,

Thank you for the new information you provided. We do have a few follow-up questions for you. I will include them below:

1. For the banteng (*Bos javanicus*), I see that your organization is mentioned under the Appendix section for Pedigree Assumptions. However, your institution is not listed under the Recommendations by Institutions. Can you provide a letter of recommendation from the SSP coordinator for this species confirming your participation in the banteng SSP?
2. For the tapirs, your institution is registered for two tapir species, the South American tapir (*Tapirus terrestris*) and the Asian tapir (*Tapirus indicus*). For the former, you provided the studbook for the Baird's (Central American) tapir (*Tapirus bairdii*). Can you provide the breeding and transfer plans for the South American tapir? Alternatively, can you provide more information including documentation on how these efforts will manage genetic vitality and make breeding and transfer recommendations for the managed population?
3. For the southern white rhino (*Ceratotherium simum simum*), thank you for the confirmation letter from the SSP coordinator. Can you provide the breeding and transfer plan for this species?
4. Reviewing the PFS writeup, the proposed plan mentioned target species that they will be focusing on. For the initial four species and the subsequent ones, with the exception of the anoa and banteng which sounds like they will be managed under an SSP, I do not see your registered species on there as species of focus. Of your registered species, can you let me know which of them will be managed under PFS? Additionally, since they are not mention in the proposed plan, is there an intent to add these species as species of focus in the future? As a reminder, here is the list of your registered species:
    a. Bubalus depressicornis Lowland anoa
    b. Bos javanicus Java Banteng
    c. Kobus leche Red lechwe
    d. Tapirus terrestris South American tapir
    e. Tapirus indicus Asian tapir
    f. Rhinoceros unicornis Great Indian Rhinoceros
    g. Diceros bicornis Black rhinoceros
    h. Ceratotherium simum simum Southern white rhino

Thank you,

Natchanon Ketram
Permit Biologist
Branch of Permits
Division of Management Authority
International Affairs Program
U.S. Fish and Wildlife Service
Falls Church, VA, USA

From: John Seyjagat [redacted]
Sent: Friday, May 17, 2024 1:17 PM
To: Ketram, Natchanon N <natchanon_ketram@fws.gov>
Subject: Re: [EXTERNAL] Re: Inquiry Regarding CS6164280 - 3-200-41: CBW Registration

Ketram
Good Morning
here are the AR 2023 and the SWR SSP participation letter valid until 2025.
Please let me know if you need anything else.
Thank you.
Sincerely
John Seyjagat

On Wed, May 1, 2024 at 1:44 PM Ketram, Natchanon N <natchanon_ketram@fws.gov> wrote:

> Good afternoon,
>
> Your predecessor was David Love correct? In the email correspondence our office has with him, he has submitted the AR on 3/17/2023 for calendar year 2022. I see that he has submitted the initial renewal request to us on 11/3/23. However, it was not uploaded to e-permit until 12/27/23. I don't know when you took over from David Love but the 2023 annual report was due 03/31/2024. So the 2023 report is probably something you would have needed to put together unless David sent something to us in January or February this year. However, in our inbox, the last message in our inbox was the email for AR22.
>
> Thank you,
>
> Natchanon Ketram
> Permit Biologist
> Branch of Permits
> Division of Management Authority
> International Affairs Program
> U.S. Fish and Wildlife Service
> Falls Church, VA, USA
>
> ---
>
> **From:** John Seyjagat [redacted]
> **Sent:** Wednesday, May 1, 2024 11:26 AM
> **To:** Ketram, Natchanon N <natchanon_ketram@fws.gov>
> **Subject:** Re: [EXTERNAL] Re: Inquiry Regarding CS6164280 - 3-200-41: CBW Registration
>
> Ketram
> Good Morning
> Did you have any success in locating the last CBW annual report for CCTU?
> Thanks
> John Seyjagat.
>
> On Thu, Apr 25, 2024 at 9:26 AM Ketram, Natchanon N <natchanon_ketram@fws.gov> wrote:
>
> > Good morning,

Thank you for confirming your request for an extension. Your new deadline to provide to us the requested information is now June 20, 2024. As we get closer to this date and if you still need more time, please let me know and I can get in touch with my supervisor to see if you can get a shorter extension.

In accordance with 50 CFR 13.11(e), if the requested information is not received by this office by **June 20, 2024**, your application will be abandoned and administratively closed. Once a file is closed you will need to submit a new application and all required fees for the Service to consider your proposed activity. Please refer to permit application number CS6164280 in your correspondence.

Thank you,

Natchanon Ketram
Permit Biologist
Branch of Permits
Division of Management Authority
International Affairs Program
U.S. Fish and Wildlife Service
Falls Church, VA, USA

From: John Seyjaga [redacted]
Sent: Wednesday, April 24, 2024 5:34 PM
To: Ketram, Natchanon N <natchanon_ketram@fws.gov>
Subject: Re: [EXTERNAL] Re: Inquiry Regarding CS6164280 - 3-200-41: CBW Registration

Mr. Ketram
I wish to apply for a 45 day extension to complete the response and supply the needed information to my application.
Thank you for your consideration.
Sincerely.
John Seyjagat.

On Wed, Apr 24, 2024 at 4:29 PM Ketram, Natchanon N <natchanon_ketram@fws.gov> wrote:

> Good afternoon Mr. Seyjagat,
>
> Thank you for the new information you provided. I have not had a chance to look in detail at your answers and the new documents you provided. I wanted to get this word out to you to acknowledge that your application is still under review. Besides that, going back to the original email I sent, the deadline I provided for you to provide to us the requested information was for May 6, 2024. However, as reviewers, I am allow to give applicants one additional 45-days extension from the deadline date. If you need more time to compile the new information Mr. Seyjaget, please let me know and I can give you your new deadline to provide the information we requested from you.
>
> Thank you,
>
> Natchanon Ketram
> Permit Biologist

Branch of Permits
Division of Management Authority
International Affairs Program
U.S. Fish and Wildlife Service
Falls Church, VA, USA

From: John Seyjagat [redacted]
Sent: Monday, April 22, 2024 10:04 AM
To: Ketram, Natchanon N <natchanon_ketram@fws.gov>
Subject: Re: [EXTERNAL] Re: Inquiry Regarding CS6164280 - 3-200-41: CBW Registration

Mr. Natchanon
The Southern White Rhino SSP Coordinator is out of town and has promised to make available the SSP letter of support for CCTU as soon as he returns, which is later this week.
I am in contact with the previous owner of CCTU and their attorney's office to get a copy of the 2022-23 CBW annual report. As soon as I get that I will forward it to you.
I am sending what I have so far to keep the application active. Please bear with me and thank you for your patience.
Please find answers to your questions below.
Sincerely
John Seyjagat

Thank you for the new information and documents you provided. We do a few follow-up questions for you. I will include those below:

1. You mention that the SSP for multiple ungulate species have been retired and downgraded. As a result, for many of these species, the Source Population Alliance (SPA), in collaboration with the TAG for these species, is developing a new framework under the Partnership for Species (PFS) program to manage these populations. Can you provide more information including documentation on how these efforts will manage genetic vitality and make breeding and transfer recommendations for the managed population? If there is some kind of draft document on how these populations will be managed going forward, can you provide that to me? The PFS is in the making and was released to the Ungulate TAG and the AZA at the last Mid Year Meeting at the Ungulate TAG Meeting on Sunday March17th 2024. I have attached the PFS outline in the attachment below.
2. For the species you provided an SSP with, we do have specific questions on them which are:
    a. For the Java banteng and Great Indian rhinoceros (Rhinoceros unicornis), can you provide the executive summary of the breeding and transfer plans? Alternatively, you can just send over the full SSP breeding and transfer plan. The latest summaries are attached below for Java Banteng and Greater One Horned Rhino
    b. For the southern white rhino, we can either wait for the final draft of the revised SSP or alternatively, you can submit to us a signed letter from the SSP coordinator that confirms CCTU participation in the SSP. I am awaiting the letter from the SSP Coordinator for CCTU under the new ownership.I will make the partnership letter available as soon as I get it.

3. For species with only studbook participation, studbook participation, while beneficial, is not a breeding program as for species with an active SSP, the information from the studbook would have been used to make breeding and transfer recommendations. Can you elaborate on how you will maintain genetic vitality within your captive population for these species? This question may tie to the first question regarding the efforts of the PFS. As there are no SSPs and studbooks for these species , CCTU will work with the Ungulate TAG and the PFS. At present the PFS has targeted a few species with which to begin. The Ungulate TAG will remain a viable working group of the AZA and will work with the PFS making recommendations for target program species. Species already targeted by the SPA/PFS are Arabian Oryx, Dama gazelle, Mountain Bongo, Roan antelope, Sable antelope, Addax, Scimitar-horned Oryx, Anoa, Banteng, and Grevy's Zebra. Downgraded species to be developed into PFS programs are Giant eland, Lowland nyala, Roan antelope, Sable antelope, Greater kudu, Sitatunga, Wildebeest, common waterbuck, Nile lechwe, Southern gerenuk, Bontebok, Gemsbok, Fringe eared oryx, Slender horned gazelles, Cape buffalo, Somali wild ass, and Persian onager. CCTU will adhere to breeding recommendations of the PFS whenever and wherever possible. Additionally CCTU will continue with its heard management and breeding plans for the species listed in the CBW (Red Lechwe). Attached is paper titled "Breeding Centers, Private Ranches, and Genomics for Creating Sustainable Wildlife Populations **by DAVID WILDT, PHILIP MILLER, KLAUS-PETER KOEPFLI, BUDHAN PUKAZHENTHI, KATY PALFREY, GAVIN LIVINGSTON, DAN BEETEM, STEPHEN SHURTER, JIMMY GREGORY, MICHAEL TAKÁCS, AND KELLEY SNODGRASS. This paper shows that heard management and group breedings in ungulates may have an edge in genetic diversity to pedigree pairings of the SSP.**
    a. On the note of studbook participation, you included the studbook for pygmy hippopotamus (*Choeropsis liberiensis*). This species is currently not part of your CBW. Are you applying to have this species register as well? NO! I am not applying for CBW for Pygmy Hippo. This data inclusion is to emphasise CCTU's participation and cooperation with zoological sustainability programs.

4. Shifting gear to the annual reports, although you may have provide this to us already, can you provide the AR for reporting year 2023? I am having trouble locating it in our mailboxes and database.

On Thu, Apr 4, 2024 at 2:16 PM Ketram, Natchanon N <natchanon_ketram@fws.gov> wrote:

> Good afternoon,
>
> Thank you for the new information and documents you provided. We do a few follow-up questions for you. I will include those below:
>
> 1. You mention that the SSP for multiple ungulate species have been retired and and downgraded. As a result, for many of these species, the Source Population Alliance (SPA), in collaboration with the TAG for these species, is developing a new framework under the Partnership for Species (PFS) program to manage these populations. Can you provide more information including documentation on how these efforts will manage genetic vitality and make breeding and transfer recommendations for the managed population? If there is some kind of draft

document on how these populations will be managed going forward, can you provide that to me?

2. For the species you provided an SSP with, we do have specific questions on them which are:
    a. For the Java banteng and Great Indian rhinoceros (Rhinoceros unicornis), can you provide the executive summary of the breeding and transfer plans? Alternatively, you can just send over the full SSP breeding and transfer plan.
    b. For the southern white rhino, we can either wait for the final draft of the revised SSP or alternatively, you can submit to us a signed letter from the SSP coordinator that confirms CCTU participation in the SSP.

3. For species with only studbook participation, studbook participation, while beneficial, is not a breeding program as for species with an active SSP, the information from the studbook would have been used to make breeding and transfer recommendations. Can you elaborate on how you will maintain genetic vitality within your captive population for these species? This question may tie to the first question regarding the efforts of the PFS.
    a. On the note of studbook participation, you included the studbook for pygmy hippopotamus (*Choeropsis liberiensis*). This species is currently not part of your CBW. Are you applying to have this species register as well?

4. Shifting gear to the annual reports, although you may have provide this to us already, can you provide the AR for reporting year 2023? I am having trouble locating it in our mailboxes and database.

Thank you,

Natchanon Ketram
Permit Biologist
Branch of Permits
Division of Management Authority
International Affairs Program
U.S. Fish and Wildlife Service
Falls Church, VA, USA

From: John Seyjagat [redacted]
Sent: Friday, March 29, 2024 4:19 PM
To: Ketram, Natchanon N <natchanon_ketram@fws.gov>
Subject: [EXTERNAL] Re: Inquiry Regarding CS6164280 - 3-200-41: CBW Registration

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Mr. Natchanon

Attached are the breeding and transfer plans as available to the latest updates from the required Taxon Advisory Groups (TAG) and Studbooks
Sincerely
John Seyjagat

On Fri, Mar 22, 2024 at 12:15 PM Ketram, Natchanon N <natchanon_ketram@fws.gov> wrote:

Good afternoon,

The USFWS has a few questions regarding the registration (renewal) of your CBW. I will provide these questions below.

1. Looking at your previously issued CBW, I saw that you were registered for the southern white rhino (*Ceratotherium simum simum*). However, I do not see this entity on your new application. Was it your intent to retain this subspecies in your registration?
2. Your application stated that you participated in both the SSP and AMP for your registered species. For AMP and SSP that you are a participating member, can you provide the executive summary of the breeding and transfer plans/population status and breeding recommendation and the page that identify your institution participation? If you are not listed in the SSP or AMP but are a participant, please provide a signed letter from the SSP/AMP coordinator confirming your participation. If you are not part of the SSP or AMP, please provide documentation demonstrating how you are maintaining the genetic vitality of your captive population for the species.
3. Per question 4 of the form, please "provide copies of any license or registration under the Animal Welfare Act regulations of the U.S. Department of Agriculture (9 CFR 2) (if required). If available, provide a copy of your last two (2) USDA AWA inspection reports." If you do not have or are not required to have these licenses, please provide an explanation.

In accordance with 50 CFR 13.11(e), if the requested information is not received by this office by **May 6, 2024**, your application will be abandoned and administratively closed. Once a file is closed you will need to submit a new application and all required fees for the Service to consider your proposed activity. Please refer to permit application number CS6164280 in your correspondence.

Thank you,

Natchanon Ketram
Permit Biologist
Branch of Permits
Division of Management Authority
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U.S. Fish and Wildlife Service
Falls Church, VA, USA