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Via Regulations.gov

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**Re: Comments on Undecided and Unlikely Species Proposals for
CITES CoP19. 87 Fed. Reg. 24,577 (April 26, 2022), Docket No. FWS–
HQ–IA–2021–0008**

Dear Dr. Gnam and Dr. Leuteritz,

Thank you for the opportunity to submit comments “concerning proposed amendments to the CITES Appendices (species proposals) that the United States might submit for consideration at” the 19th Conference of the Parties (“CoP19”) to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (“CITES”).¹ These comments are submitted on behalf of the Center for Biological Diversity (“the Center”). The Center works to secure a future for all imperiled species and their habitats around the globe through science, law, and creative media, and we have more than 1.7 million members and online activists in the United States and abroad.

We are in the midst of an extinction crisis that could unravel life as we know it. Wildlife exploitation is the leading driver of marine species loss and the secondary driver of terrestrial species loss.² Scientists estimate the loss of over 500 U.S. species of animals and plants in the past two centuries, and IUCN estimates that at least a quarter of all species are threatened with extinction. The IPBES 2019 assessment predicted that we stand to lose a million species in the coming decades unless we change business as usual.³ CITES is the primary international tool for addressing wildlife and plant exploitation. As a result, bold action is required by all CITES Parties to ensure that CITES protects as many species in need as possible.

Given the ongoing biodiversity crisis, we are gravely disappointed and perplexed why the only proposals the United States stated in its Federal Register that it is “likely”

¹ 87 Fed. Reg. 24,577 (April 26, 2022).

² IPBES (2019). Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (editors). IPBES secretariat, Bonn, Germany.

³ *Id.*

to submit for CoP19 are downlisting proposals. Our window for responding to the extinction crisis is closing and any and all resources must be directed to getting protections for species in need. A huge array of species meet the criteria in Resolution Conf. 9.24 (Rev. CoP17) that “are or may be affected by trade” and “meet at least one of the biological criteria listed in Annex I” to the Resolution.⁴ Saving these species needs to be the priority.

As a key proponent of CITES since its inception, the United States has a long history of advancing a bold global conservation agenda. We urge the United States to once again put forth a bold platform and propose, co-propose, or support amendments to the CITES appendices that will offer protections to imperiled species, especially those that are IUCN threatened, that are or may be affected by trade. It was incredibly disheartening to see the United States suggesting it would only propose downlistings at CoP19. We urge the United States to reconsider this position and put its resources toward species in need of CITES’ protections instead.

A. We Urge the Service to Propose, Co-Propose, or Support All the Species for Which It is Currently Undecided and to Reconsider Several Species that it is Unlikely to Propose.

We understand that the deadline for CITES proposals is rapidly approaching, but we still hope that the United States can propose listing species on its undecided list as well as many species on its unlikely list. Specifically, we are providing comments in support of the United States proposing, co-proposing, or supporting amendments to the CITES’ appendices to list or uplist: several species of sea cucumbers along with all *Thelenota* spp.; all freshwater turtles; all *Atelopus* spp. not currently on Appendix I; uplist the straw-headed bulbul; all *Typhochlaena* spp.; caribou (*Rangifer tarandus*); timber rattlesnake (*Crotalus horridus*); and the family Centrolenidae. We and partners have already provided separate comments to the United States regarding the need to protect sharks, including hammerhead sharks, and reiterate our support for additional shark listings at CITES.

Unfortunately, our ability to provide ready data on the U.S. market for many of these species has been hampered by the Service’s failure to provide us with LEMIS data in response to our FOIA requests. As a result, we had to rely on time consuming, on-line market research to document the role that U.S. demand is having on species included in the Service’s Federal Register notice. As a result, we were unable to provide as fulsome a response as we would have liked. We hope the following information – including updated scientific and trade information – will help ensure that the Service proposes or supports numerous listing proposals at CoP19.

⁴ Frank, E. G., & Wilcove, D. S. (2019). Long delays in banning trade in threatened species. *Science*, 363(6428), 686-688.

1. Propose Sea Cucumbers for Appendix II

The Center continues to strongly urge the United States to propose several sea cucumber species for inclusion on the Appendices at CoP19. In our original comments, we provided substantial detail supporting the inclusion of *Thelenota* sea cucumbers (*T. ananas*, *T. anax*, and *T. rubralineata*) and the chocolate chip sea cucumber (*Isostichopus badionotus*) on Appendix II and the brown sea cucumber (*Isostichopus fuscus*) on Appendix I. The Service has indicated it is undecided about proposing these species for Appendix II, pending range state consultation and more data on biological information and trade. For the reasons stated in our original comments and supported by the extensive detail provided, we strongly urge the United States to propose these sea cucumbers for protection. We refer to our original comments for scientific support.

2. Propose Including All Freshwater Turtles on At Least Appendix II

We urge the FWS to propose the inclusion of all freshwater turtles on at least Appendix II at CoP19. Almost 60 percent of turtles are currently threatened with extinction.⁵ Trade is a major threat to turtles, with overexploitation being the leading cause of decline for 80 percent of the world's most endangered chelonian species.⁶ Scientists have concluded that given global declines in reptiles, if there is no intervention, species will continue to face declines, extirpations, and extinctions.⁷ Given the size of the trade and the chelonian diversity present in the United States, the United States has a responsibility to take a leading role in ensuring that the trade in turtles is well-tracked and regulated to prevent species from becoming threatened with extinction.

The United States is a key player in the international turtle trade with exports reaching millions of live turtles each year. Additionally, many species of freshwater turtles are available for sale in the United States for the pet trade. Some of the turtles currently trending for sale online in the United States for at-home display include:⁸

⁵ Cox, N., Young, B. E., Bowles, P., Fernandez, M., Marin, J., Rapacciuolo, G., ... & Xie, Y. (2022). A global reptile assessment highlights shared conservation needs of tetrapods. *Nature*, 1-6.

⁶ Stanford, C. B., Iverson, J. B., Rhodin, A. G., van Dijk, P. P., Mittermeier, R. A., Kuchling, G., ... & Walde, A. D. (2020). Turtles and tortoises are in trouble. *Current Biology*, 30(12), R721-R735.

⁷ Gibbon, J. Whitfield, David E. Scott, Travis J. Ryan, Kurt A. Buhlmann, Tracey D. Tuberville, Brian S. Metts, Judith L. Greene, et al. "The Global Decline of Reptiles, Déjà Vu Amphibians." *BioScience* 50, no. 8 (2000): 653. [https://doi.org/10.1641/0006-3568\(2000\)050\[0653:TGDORD\]2.0.CO;2](https://doi.org/10.1641/0006-3568(2000)050[0653:TGDORD]2.0.CO;2).

⁸ See Stacey. (Jan. 9, 2022). *30 Best Pet Turtles Experts Always Recommend [w/ Pictures & Prices!]*. Reptile Guide. Retrieved May 24, 2022 from <https://reptile.guide/best-pet-turtles/>; Whitney. (Apr. 27, 2022). *Best Beginner Pet Turtles and Tortoises*. Pet Helpful. Retrieved May 24, 2022 from [https://pethelpful.com/reptiles-amphibians/Best-Pet-Turtle-and-Tortoise](https://pethelpful.com/reptiles-amphibians/Best-Pet-Turtle-and-Tortoise;); Johnstone, G. (Mar. 7, 2022). *10 Types of Turtles that Make Great Pets*. The Spruce Pets. Retrieved May 24, 2022 from <https://www.thesprucepets.com/types-of-pet-turtles-4788330>; and Briggs, H.. (Oct. 31, 2020). *16 Best Types of Pet Turtles: The Only List You Need*. Reptile Direct. Retrieved May 24, 2022 from <https://www.reptiledirect.com/best-pet-turtles/>.

- black-knobbed map turtles,
- common snapping turtles,
- false map turtles,
- Florida redbelly turtles,
- Florida softshell turtles,
- Ouachita map turtles,
- Pearl River map turtles,⁹
- peninsula cooters,
- razor-back musk turtles,
- Rio Grande cooters,¹⁰
- spiny softshell turtles,
- stinkpot turtles, and
- yellow mud turtles.

To meet the demand for trade, populations of freshwater turtles are often depleted and, in many cases, extirpated.¹¹ Of the turtles that are currently trending in the United States, IUCN has assessed the Pearl River map turtle as endangered and the Rio Grande cooter as near threatened.¹² Some websites advertising freshwater turtles for sale highlight their rare and imported species as high value pets.¹³ Several other websites have notes about seeking captive-bred turtles, mentioning that wild-caught specimen impact the environment and the species as a whole.¹⁴ One blog recognized the impact that trends have on the viability of those species in the wild, noting that

“Unfortunately, Caspian turtles are a rare commodity these days in the pet trade. At one time, they were regularly imported from Eastern Europe and the Middle East. But declining wild populations have put a stop to that.”¹⁵

Having demand focused on specific species has the potential to lead to the overexploitation of those species. This potential satisfies the wild population decline

⁹ Backwater Reptiles. *Turtles for Sale*. Retrieved May 24, 2022 from <https://backwaterreptiles.com/turtles-for-sale.html>.

¹⁰ *Id.*

¹¹ Van Dijk, P. P., Stuart, B. L., & Rhodin, A. G. (2000). Asian Turtle Trade: Proceedings of a Workshop on Conservation and Trade of Freshwater Turtles and Tortoises in Asia--Phnom Penh, Cambodia, 1-4 December 1999. Lunenburg, Mass.: Chelonian Research Foundation.

¹² <https://www.iucnredlist.org/species/184437/97423604>;
<https://www.iucnredlist.org/species/18459/97425928>.

¹³ Backwater Reptiles. *Turtles for Sale*. Retrieved May 24, 2022 from <https://backwaterreptiles.com/turtles-for-sale.html>.

¹⁴ See, e.g., Tortoise Town. *Aquatic Turtles for Sale*. Retrieved May 24, 2022 from <https://www.tortoisetown.com/aquatic-turtles-for-sale/>.

¹⁵ Briggs, H.. (Oct. 31, 2020). *16 Best Types of Pet Turtles: The Only List You Need*. Reptile Direct. Retrieved May 24, 2022 from <https://www.reptiledirect.com/best-pet-turtles/>.

element of the criteria for listing species on Appendix I.¹⁶ Additionally, as populations diminish, demand for the trade shifts to put pressure on other populations and species.¹⁷ Given this pattern of exploitation and shifting demand, listing all freshwater species under CITES is necessary to prevent further declines.

The illegal trade in turtles is also a concern in the United States. In 2019, two men were charged with poaching thousands of Florida turtles which were then sold illegally and shipped internationally.¹⁸ These included 4,000 individual turtles of several species traded in just six months which led to the depletion of wild populations. In April of 2022, a man was sentenced to seven months in federal prison for his role in establishing a network of Florida wild turtle collectors who shipped turtles internationally.¹⁹ Listing all freshwater turtle species on at least Appendix II would ensure that the trade is more closely tracked, as all shipments of turtles would need to be accompanied by a CITES permit.

3. Propose All Remaining *Atelopus* Species for Listing on Appendix I.

We urge the United States to propose all *Atelopus* spp., commonly known as harlequin frogs or toads, not already on Appendix I for inclusion on that Appendix at CoP19. These frogs or toads meet Biological Criteria A, B, and C in Annex 1 to Resolution Conf. 9.24 (Rev CoP17) and are or may be affected by trade, and thus, a proposal for Appendix I listing is warranted.²⁰

Many if not most *Atelopus* species have small to very small populations that are being impacted by climate change, habitat loss, disease (chytrid fungus), and an increasing interest in these frogs for the pet trade. Many *Atelopus* species have been assessed as Critically Endangered or Endangered by IUCN.²¹ Due to their small numbers, limited ranges, dependence on specific environmental conditions, and decimation by disease, these frogs readily meet Biological Criteria A i) and v), Criteria B i) and iv) and Criteria C i).

We understand the concern that some *Atelopus* species are difficult to distinguish from one another. We also recognize that some members of this genus have been

¹⁶ Convention on International Trade in Endangered Species of Wild Fauna and Flora. (1994). *Conf. 9.24 (Rev CoP17): Criteria for Amendment of Appendices I and II*, 4. Retrieved May 24, 2022 from <https://cites.org/sites/default/files/document/E-Res-09-24-R17.pdf>.

¹⁷ Van Dijk, P. P., Stuart, B. L., & Rhodin, A. G. (2000). Asian Turtle Trade: Proceedings of a Workshop on Conservation and Trade of Freshwater Turtles and Tortoises in Asia--Phnom Penh, Cambodia, 1-4 December 1999. Lunenburg, Mass.: Chelonian Research Foundation.

¹⁸ <https://www.cnn.com/2019/10/19/us/florida-turtle-trafficking-ring-trnd/index.html>

¹⁹ <https://www.clickorlando.com/news/florida/2022/04/20/lizard-king-gets-7-months-for-trafficking-florida-turtles/>

²⁰ The genus *Atelopus* falls within the family *Bufo*nidae, which contains the true toads.

However, many of the physician characteristics of *Atelopus* species are more akin to frogs than toads and thus, the two terms are used interchangeably for them.

²¹ <https://www.iucnredlist.org/search?query=Atelopus&searchType=species> see also <https://www.mdpi.com/1424-2818/12/9/360/htm>

declared extinct only to be found again in very small populations.²² New species are being identified²³ and like many species, these frogs are also plagued by taxonomy challenges.²⁴ These factors taken together, all point to the need to apply the precautionary principle and list all *Atelopus* species on Appendix I rather than trying to amend the CITES' appendices to protect these frogs on a case-by-case basis as they are discovered, rediscovered, or delineated as new or previously unknown species. If all *Atelopus* species were on Appendix I, then there would be no need for identification materials. It would ease enforcement, and there would be no need to specify individual species' taxonomy, nor to address newly discovered or thought to be extinct species.

Unfortunately for these frogs, they are beautiful. As a result, they are gaining popularity and can be found pinned on Pinterest²⁵ and discussed on various chat boards.²⁶ Many U.S. pet traders are starting to bill the harlequin frogs (or toads) as easier to keep than dart frogs. We are deeply concerned that if *Atelopus* species are not protected at CoP19, it might be too late for many of them by CoP20. Their already small populations that are increasingly threatened by our changing climate and habitat loss as well as an amphibian pandemic due to chytrid fungus are not well positioned to survive exploitation for the pet trade.

A few hours of research this month into the U.S. market for harlequin frogs by one researcher revealed many different species of *Atelopus* for sale or offered for sale in the United States. Attachment 1 (detailed search results). The researcher searched for "harlequin frog for sale", "harlequin toad for sale", and "Atelopus for sale." The research revealed at least the following species currently for sale or offered for sale in the United States: *Atelopus barbotini*; *Atelopus spumarius*; *Atelopus balios*; *Atelopus elegans*; *Atelopus hoogmoedi*; and *Atelopus varius*. Many other frogs are being sold under names such as these: Yellow Atelopus Frog; *Atelopus* sp. "Arlequín de Limón"; Purple Harlequin Toad; Orange Harlequin Toad; and Green Harlequin Toad.

Despite the substantial interest in these frogs for the pet trade, most captive breeding efforts have not been successful.²⁷ There have been a few efforts to breed *Atelopus* species for conservation purposes that have succeeded, but they revealed the

²² See, e.g., <https://www.biotaxa.org/hn/article/download/60769/60728>

²³ See, e.g., <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8175953/>

²⁴ See, e.g., <https://www.mdpi.com/1424-2818/12/9/360/htm>

²⁵ <https://www.pinterest.com/pin/116882552800695538/>

²⁶ <https://www.dendroboard.com/threads/purple-and-black-atelopus-sp.81102/>

²⁷ Coloma L.A. & Almeida-Reinoso D. (2012) Ex situ management of five extant species of *Atelopus* in Ecuador - progress report. Amphibian Ark Newsletter, 20, 9-12.

<https://www.conservationevidence.com/actions/836>; Gawor A., Rauhaus A., Karbe D., VanDerStraeten K., Lötters S. & Ziegler T. (2012) Is there a chance for conservation breeding? Ex situ management, reproduction, and early life stages of the harlequin toad *Atelopus flavescens* Duméril & Bibron, 1841 (Amphibia: Anura: Bufonidae). Amphibian & Reptile Conservation, 5, 29-44.

intense biological needs of these frogs for successful captive breeding making it unlikely that commercial breeding efforts would likely succeed in the near future.²⁸

Given the significant demand for *Atelopus* species in the U.S. market and that it is unlikely that captive breeding can meet this demand, as well as concerns about laundering of wild amphibians as “captive” ones, we urge the United States to propose that all remaining *Atelopus* spp. be added to Appendix I at CoP19.

4. The Straw-headed Bulbul (*Pycnonotus zeylanicus*) Should be Up-listed to Appendix I

The Center urges the Service to propose, co-propose, or support a proposal to up-list straw-headed bulbuls (*Pycnonotus zeylanicus*) from Appendix II to Appendix I. Straw-headed bulbuls are brightly colored songbirds native to Brunei Darussalam, Indonesia, Malaysia, Myanmar, and Singapore.²⁹ Listed as critically endangered by IUCN in 2020, an estimated 600 to 1700 mature individuals exist in the wild.³⁰ Little has been recorded about straw-headed bulbuls’ reproduction in the wild, but they are estimated to lay up to two eggs per year.³¹ Straw-headed bulbuls’ habitat includes lowlands wetlands around rivers, streams, and marshes, often in areas that seasonally flood.³² This flooding prevents the development of climax communities, while human development for housing and agriculture encroaches on and breaks up areas of the habitual wetlands.³³ With its geographically concentrated populations, decreasing and fragmented habitat areas, and vulnerability to flooding in habitat areas, straw-headed bulbuls meet both the small wild population and restricted areas of distribution biological criteria for listing on Appendix I.³⁴

Exploitation, primarily capture for the caged-bird trade, poses a grave threat to straw-headed bulbuls. Highly prized as caged songbirds, straw-headed bulbuls have a market value ranging from \$450 to \$900 each.³⁵ Though there have been captive breeding efforts in several areas of Southeast Asia, wild-caught straw-headed bulbuls

²⁸ Gratwicke B (2012) Amphibian rescue and conservation project - Panama. Froglog (Bulletin of the Amphibian Survival Alliance), 102, 17-20; Silva C. (2012) A conservation program for *Atelopus* species at the Cali Zoo, Colombia. Amphibian Ark Newsletter, 19, 7.

²⁹ IUCN Red List of Threatened Species. (2022). *Straw-headed Bulbul*. Retrieved May 17, 2022 from <https://www.iucnredlist.org/species/22712603/183176477>.

³⁰ *Id.*

³¹ Kumar, T. M. (2018, Dec. 1). *EAZA Best Practice Guidelines: Straw-headed Bulbul, Pycnonotus zeylanicus*, 12. Retrieved May 18, 2022 from <https://www.eaza.net/assets/Uploads/CCC/BPG-2020/2020-Pycnonotus-zeylanicus-Straw-headed-bulbul-EAZA-Best-Practice-Guidelines-Approved.pdf>.

³² IUCN Red List of Threatened Species. (2022). *Straw-headed Bulbul*. Retrieved May 17, 2022 from <https://www.iucnredlist.org/species/22712603/183176477>.

³³ *Id.*

³⁴ Resolution Conf. 9.24 (Rev. CoP17) at 3-4.

³⁵ Chng, S. C.L., Shepherd, C. R., & Eaton J.A. (2018). In the Market for Extinction: Birds for Sale at Selected Outlets in Sumatra. *TRAFFIC Bulletin*, 30(1), 15-22, at 17. Retrieved May 19, 2022 from https://www.traffic.org/site/assets/files/10567/bulletin-30_1-birds-sumatra.pdf.

are generally preferred in trade.³⁶ While much of the trade of straw-headed bulbuls occurs domestically within straw-headed bulbuls' range states and internationally in neighboring states, social media fosters international trade outside of Southeast Asia.³⁷ The importers of straw-headed bulbuls in the CITES trade records include Indonesia, Singapore, and Taiwan, which are in or close to the straw-headed bulbuls' range, and Netherlands and Kuwait, which are far outside of the straw-headed bulbuls' range.³⁸ Songbirds are often bought and kept as shows of status, especially when referring to more rare birds,³⁹ so this trade of straw-headed bulbuls in European and Middle Eastern markets is concerning due to its ability to spark a trending interest in this rare and diminishing species globally. This ongoing exploitation, with the potential global demand increase, is resulting in exploitation beyond the populations' recovery capabilities, so the population is likely to continue to decline, meeting the wild population size decline biological criteria for listing on Appendix I.⁴⁰

Though the Wild Bird Conservation Act⁴¹ slowed the trade of songbirds in the United States, there is still a demand for songbirds, including those that may be threatened in the wild.⁴² The United States recognized the vulnerability of songbirds generally, and specifically noted straw-headed bulbuls, in the jointly submitted Songbird Trade and Conservation Management document from CoP18.⁴³ Illegal capture and trade was cited as one of the leading threats to wild songbirds, with concern for increased exploitation and potential mass bird extinctions as commercial demand continues to increase globally.⁴⁴ The CITES Secretariat responded to this document with reservations about proceeding with species conservation and management efforts for non-Appendix I and non-listed species, for which there is/was a data deficit, and instead recommended increased studies on Appendix I species.⁴⁵

Listing straw-headed bulbuls under Appendix I would include them in this further study, allowing for more research on the species' status and providing a barrier to the growing commercial demand. Though only one of the three biological criteria is necessary for a species to be listed on Appendix I, the straw-headed bulbul meets all

³⁶ IUCN Red List of Threatened Species. (2022). *Straw-headed Bulbul*. Retrieved May 17, 2022 from <https://www.iucnredlist.org/species/22712603/183176477>.

³⁷ Shepherd, L. (2021, July 16). *Species Spotlight: The Straw-Headed Bulbul Sings About Extinction*. The Revelator. Retrieved May 17, 2022 from <https://therevelator.org/species-spotlight-straw-headed-bulbul/>.

³⁸ *Id.*

³⁹ Convention on International Trade in Endangered Species of Wild Fauna and Flora. (2019). *CoP18 Doc. 79: Songbird Trade and Conservation Management (Passeriformes)*, 4. Retrieved May 19, 2022 from <https://cites.org/sites/default/files/eng/cop/18/doc/E-CoP18-079.pdf>.

⁴⁰ Resolution Conf. 9.24 (Rev. CoP17) at 4.

⁴¹ Wild Exotic Bird Conservation Act, 16 U.S.C. §§ 4901-4916.

⁴² See, e.g., *Hand Fed Kakariki Babies for Sale*. (2022, Feb. 16). BirdsNow. Retrieved May 20, 2022 from <https://www.birdsnow.com/bird-ad-600261> (describing Kakariki as “becoming extinct in their natural habitat” as a selling point).

⁴³ *CoP18 Doc. 79: Songbird Trade and Conservation Management (Passeriformes)* at 2.

⁴⁴ *Id.* at 1.

⁴⁵ *Id.* at 5.

three criteria.⁴⁶ Exploitation for trade poses the greatest threat to the species, which is already threatened by habitat impairments, and reproduction is slow to make up for captured birds, so reducing trade and capture protections would imperil the birds' already shrinking populations. To avoid further rapid degradation of the species, the United States should propose, co-propose, or support a proposal for adding straw-headed bulbuls to Appendix I.

5. List All *Typhochlaena* Spp. on Appendix I

The Center urges the Service to reconsider its disinclination to propose *Typhochlaena* spp. for CITES Appendix I. These tarantulas meet Biological Criteria A and B in Annex 1 to Resolution Conf. 9.24 (Rev. CoP17), they are affected by trade, and a proposal for Appendix I listing is warranted.

In rejecting this suggested proposal, the Service said, “[t]here is insufficient information on trade to the U.S.,” pointing to LEMIS data that includes “only 5 imports of 48 spiders—all *T. seladonia*—over 10 years.”⁴⁷ However, because take of these tarantulas is prohibited by Brazilian law, import of most wild-caught tarantulas into the United States is unlawful, and consequently, they are unlikely to be declared. Indeed, the tarantulas “are constantly smuggled . . . to supply the pet trade,” and “[a] brief online search reveal[s] specimens of *Typhochlaena* spp. being sold in Germany, Spain, Czech Republic, Austria, South Africa, Poland, United Kingdom, Canada, and USA.”⁴⁸ Appendix I listing would highlight the threat of trade in these imperiled species, clarify that commercial trade is illegal, and assist nations in cracking-down on illegal trade.

The genus *Typhochlaena* includes five tarantula species—*T. amma*, *T. costae*, *T. curumim*, *T. paschoali*, and *T. seladonia*—all of which are endemic to the Atlantic rainforests of South America, with all populations and subpopulations occurring almost exclusively in Brazil.⁴⁹ Known for their brilliant colors and patterns, *Typhochlaena* are increasingly popular in the pet trade.⁵⁰ This is despite the fact that Brazilian law prohibits the collection, possession, export, and commercialization of Brazilian wildlife unless exceptional circumstances exist.⁵¹ This prohibition extends and applies to offspring from parents or ancestors that were captured in the wild many years or generations ago, but there is confusion among tarantula traders, sellers, and collectors due to differing restrictions and enforcement among nations. An Appendix I listing would alleviate this problem.

⁴⁶ Resolution Conf. 9.24 (Rev. CoP17) at 3-4.

⁴⁷ U.S. Fish & Wildlife Service, CoP19 Extended Web Version (4/26/22), Animal & Plants Species Proposals (2022), https://www.fws.gov/sites/default/files/documents/FINAL%20Extended%20FR%20%20Animals%20Plants%20Table%204_26_22.pdf.

⁴⁸ Fukushima, C. S., Cardoso, P., & Bertani, R. (2020). Description of the male of the Critically Endangered tarantula *Typhochlaena curumim* Bertani, 2012 (Araneae, Theraphosidae), with comments on tarantula trade and conservation. *ZooKeys*, 938, 125, at 132.

⁴⁹ *Id.*

⁵⁰ *Id.* at 132.

⁵¹ *Id.* (citing IBAMA 1998 – Lei de Crimes Ambientais 9605/98).

All five *Typhochlaena* species are declining in number and face increasing threats to their rainforest habitat, which is scattered and fragmented across small geographical ranges that are generally separated by river basins.⁵² None of the species overlap in terms of their distribution.⁵³

While all *Typhochlaena* species are severely imperiled, studies and field work to date indicate *T. curumim* may be most at risk of extinction. Classified as critically endangered under Brazilian law, it is known from a single location—a forested area surrounded by dry areas—and though its known area of occupancy extends farther than previously understood, it is still confined to just over 200 square kilometers.⁵⁴ It is inferred that there is a “continuing decline in the extent and quality of habitat.”⁵⁵

Demand for these tarantula species for the pet trade also poses a major threat. “Curbing tarantula trafficking is . . . complicated by the differing legislation and attitudes among the various countries. In the European Union, for example, it is allowed to acquire most non-CITES wildlife without restrictions.” Conversely, in the United States, the Lacey Act makes importing and selling wild-sourced and captive-bred *Typhochlaena* from Brazil illegal since take and trade of the species is illegal in Brazil.⁵⁶

However, many U.S. tarantula sellers and collectors do not seem to understand this fact, mistakenly telling each other that it is lawful to trade and sell a *Typhochlaena* unless it was directly captured from the wild itself.

Moreover, a recent, quick Google search shows *Typhochlaena* spp. are openly sold in or to the United States.⁵⁷ For example, a person advertised *T. seladonia*⁵⁸ Another person advertised a *T. seladonia*⁵⁹ offered a long list of tarantula species available to purchase that includes *T. seladonia*⁶⁰ and on March 1, 2022, it awarded a *T.*

⁵² *Id.* (citing Bertani 2012).

⁵³ *Id.* (citing Bertani 2012).

⁵⁴ *Id.* at 133.

⁵⁵ *Id.*

⁵⁶ 16 U.S.C. § 3372(2)(A) “[i]t is unlawful for any person to import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce any fish or wildlife taken, possessed, transported, or sold . . . in violation of any foreign law.”

⁵⁷ Fukushima 2020, at 132.

⁵⁸ Tarantula Forum (2018, June 4). *Typhochlaena seladonia 3-4i slings!!* [Msg 1]. Message posted to <https://www.tarantulaforum.com/threads/fs-typhochlaena-seladonia-3-4i-slings.22123/>.

⁵⁹ Tarantula Forum (2021, Dec. 19). *Various Tarantula Species for Sale – Updated*. Message posted to <https://tarantulaforum.com/threads/various-tarantula-species-for-sale-updated.30928/>.

⁶⁰ Seven Wonders Tarantulas, Facebook (Mar. 3, 2022), [https://www.facebook.com/sevenwonderstarantulas/posts/479885383472034?__cft__\[o\]=AZUykg4yTB46mpG5181SaJg_GmD5I9jn0o8cIQVGNZOOpZFvWebPB-Q4OHmoP3Pa238Cvq0oz4nFlR4OmHt6-YL5Mp8ZFH2nJ-sllXC6b6irZHjK5T1DNHcvDy27a8KY8O23px9Oao8VA-fjt4hj_roGr8iYjy5xP-](https://www.facebook.com/sevenwonderstarantulas/posts/479885383472034?__cft__[o]=AZUykg4yTB46mpG5181SaJg_GmD5I9jn0o8cIQVGNZOOpZFvWebPB-Q4OHmoP3Pa238Cvq0oz4nFlR4OmHt6-YL5Mp8ZFH2nJ-sllXC6b6irZHjK5T1DNHcvDy27a8KY8O23px9Oao8VA-fjt4hj_roGr8iYjy5xP-)

*seladonias*⁶¹ And at least two companies, both based in Hong Kong, currently have individual *T. seladonias*⁶²

Adding the five *Typhochlaena* to Appendix I would address these problems and is warranted under Biological Criteria A and B. Importantly, it would give tarantula collectors, breeders, and sellers a globally consistent ban on commercial trade and “control or at least make tracking the rampant trade of the genus mandatory.”⁶³ As the United States fuels a large demand for these species, it is important we ensure our market for pets does not drive these tarantulas to extinction.

6. Reindeer or Caribou (*Rangifer tarandus*) Should be Listed on Appendix I

The Center urges the Service to propose, co-propose, or support a proposal to add caribou (*Rangifer tarandus*) to Appendix I. A member of the deer family, caribou are large migratory mammals native in many regions within and surrounding the arctic circle.⁶⁴ Caribou frequent successional forests with plentiful lichen and shrubbery, their primary food sources.⁶⁵ Due to migration following glaciation changes tens of thousands of years ago, there are numerous subspecies, distinguished by their skeletal and antler measurements and behaviors.⁶⁶ Though there are nearly 3 million mature individuals within the overarching species, caribou have been assessed as vulnerable by IUCN since 2015 because of an observed decline of almost half the global population within three decades.⁶⁷ This fulfills the population size decline element of the criteria to list a species on Appendix I.⁶⁸

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⁶¹ Seven Wonders Tarantulas, Facebook (Mar. 1, 2022), [https://www.facebook.com/sevenwonderstarantulas/posts/478512163609356?__cft__\[o\]=AZXJxEeduv8o-QzDbidMs8BeY5kiWzioKlgFoARbvIv-HzysG--aDb95bqo_EPxnUanipvo3GSPji-KdL4ylDvqvmWr_pCulprJd3ZQDLkTyUvvvb-7gza39oXeU6AnTtcKQ3WVJY4TcqqsP_2Goco-roLNik3LIidX68oZwSyDCUdw&__tn__=%2CO%2CP-R](https://www.facebook.com/sevenwonderstarantulas/posts/478512163609356?__cft__[o]=AZXJxEeduv8o-QzDbidMs8BeY5kiWzioKlgFoARbvIv-HzysG--aDb95bqo_EPxnUanipvo3GSPji-KdL4ylDvqvmWr_pCulprJd3ZQDLkTyUvvvb-7gza39oXeU6AnTtcKQ3WVJY4TcqqsP_2Goco-roLNik3LIidX68oZwSyDCUdw&__tn__=%2CO%2CP-R)

⁶² My Home Nature, Brazilian Jewel Tarantula (*Typhochlaena seladonia*), <https://www.myhomenature.com/brazilian-jewel-tarantula-typhochlaena-seladonia.html> (last visited May 10, 2022); Happy Forest, Typhochlaena seladonia – Brazilian Jewel Tarantula, <https://happyforest.store/product/typhochlaena-seladonia-brazilian-jewel-tarantula/> (last visited May 10, 2022);

⁶³ Fukushima 2020, at 134.

⁶⁴ IUCN Red List of Threatened Species. (2022). *Reindeer*. Retrieved May 22, 2022 from <https://www.iucnredlist.org/species/29742/22167140>.

⁶⁵ *Id.*; Luensmann, P. (2007). *Fire Effects Information System: Rangifer tarandus*. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory. Retrieved May 22, 2023 from www.fs.fed.us/database/feis/animals/mammal/rata/all.html.

⁶⁶ IUCN Red List of Threatened Species. (2022). *Reindeer*. Retrieved May 22, 2022 from <https://www.iucnredlist.org/species/29742/22167140>.

⁶⁷ *Id.*

⁶⁸ Resolution Conf. 9.24 (Rev. CoP17).

Humans are the biggest threat to caribou both indirectly through the effects of anthropogenic climate change and directly through exploitative hunting.⁶⁹ Additionally, human development fragments and reduces the area within the migratory routes historically used by caribou.⁷⁰ As the global climate warms, caribou are exposed to new parasites and other diseases, which weaken individuals to predators.⁷¹ Increased droughts from the changing climate have led to an increase in wildfires, which destroy the lichen that caribou depend on.⁷² As both male and female caribou have antlers, both are targeted by trophy hunters for large racks, and are also hunted for their pelts and meat.⁷³ These ongoing impacts and their projected continued impacts on caribou populations strengthen the declining population size biological criteria, as well as meet the restricted area of distribution biological criteria.⁷⁴

The subspecies *Rangifer tarandus caribou* is listed as endangered in the United States under the Endangered Species Act, while the subspecies *Rangifer tarandus pearyi* and *Rangifer tarandus groenlandicus* are both under review for listing.⁷⁵ Additionally, many US states have the larger species marked as protection priorities warranting greater management efforts.⁷⁶ Despite these protections, caribou are considered valuable in the trophy hunting industry, and there is a market for U.S. hunters to travel to locations in Canada, Russia, and Greenland to hunt caribou and bring back their kills to the United States.⁷⁷ Additionally, hides and other caribou derivatives are imported from these and other Arctic nations and sold online to U.S.

⁶⁹ IUCN Red List of Threatened Species. (2022). *Reindeer*. Retrieved May 22, 2022 from <https://www.iucnredlist.org/species/29742/22167140>; Joly, K.C. & Shefferly, N. (2000). *Rangifer tarandus*. Animal Diversity Web. Retrieved May 22, 2023 from https://animaldiversity.org/accounts/Rangifer_tarandus/.

⁷⁰ IUCN Red List of Threatened Species. (2022). *Reindeer*. Retrieved May 22, 2022 from <https://www.iucnredlist.org/species/29742/22167140>.

⁷¹ *Id.*

⁷² Luensmann, P. (2007). *Fire Effects Information System: Rangifer tarandus*. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory. Retrieved May 22, 2023 from www.fs.fed.us/database/feis/animals/mammal/rata/all.html.

⁷³ Joly, K.C. & Shefferly, N. (2000). *Rangifer tarandus*. Animal Diversity Web. Retrieved May 22, 2023 from https://animaldiversity.org/accounts/Rangifer_tarandus/.

⁷⁴ Resolution Conf. 9.24 (Rev. CoP17) at 4.

⁷⁵ Luensmann, P. (2007). *Fire Effects Information System: Rangifer tarandus*. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory. Retrieved May 22, 2023 from www.fs.fed.us/database/feis/animals/mammal/rata/all.html.

⁷⁶ *See, e.g.*, Washington Department of Fish & Wildlife. (n.d.). *Woodland caribou (Rangifer tarandus)*. Retrieved May 23, 2022 from <https://wdfw.wa.gov/species-habitats/species/rangifer-tarandus#conservation>.

⁷⁷ *See, e.g.*, Efford's Hunting Adventures. (2021). *The World's Best Opportunity for Woodland Caribou Hunting*. Retrieved May 23, 2022 from <http://trophywoodlandcaribou.com>; Lax-A Angling Club. (n.d.). *Reindeer Hunting in Greenland: General Information*. Retrieved May 23, 2022 from <https://www.lax-a-hunting.com/reindeer-hunting-in-greenland/#1456922782753-7dd4fd9d-od4bd701-059c>; and Limpopo & Diana Hunting Tours. (2018). *Reindeer*. Retrieved May 23, 2022 from <https://www.diana-hunting.com/game/reindeer>.

buyers.⁷⁸ Thus, though hunting caribou is not a general practice in the United States, the U.S. market is active in generating demand for international trade of this species.

Listing caribou under CITES would insulate the species from further exploitation due to hunting. This protection is necessary considering the other anthropogenic climate change impacts caribou are facing. Because caribou meet the biological criteria related to diminishing habitat and declining wild population, and given the role U.S. demand plays for caribou for trophies and hides, the Service should propose, co-propose, or support a proposal to list caribou on Appendix I.⁷⁹

7. Propose Timber Rattlesnake (*Crotalus horridus*) for Appendix II.

The Center urges the United States to propose the timber rattlesnake (*Crotalus horridus*) for inclusion in Appendix II at CoP19, as suggested by Species Survival Network (SSN).⁸⁰ There is growing evidence and concern that the species is already threatened with extinction due to overharvest and other factors, and the snake certainly may become threatened with extinction unless trade is regulated.⁸¹

The timber rattlesnake's range extends across much of the eastern United States from central New England to northern Florida and west to Texas and Minnesota.⁸² The species' life history makes it vulnerable to overexploitation. The species' lifespan in the wild can exceed 40 years. Females do not reach sexual maturity until between 7-11 years and only reproduce every 3-4 years.⁸³ Scientists have concluded that "[b]ecause of their late sexual maturity and low reproductive rate, removal of even a small percentage of individuals may put the population below the threshold from which recovery is not possible."⁸⁴

While IUCN considers the snake to be "Least Concern," the outdated IUCN assessment from 2007 found "an overall consensus among virtually all scientists and

⁷⁸ See, e.g., Glacier Wear. (n.d.). *Reindeer Hide (Hair On)*. Retrieved May 23, 2022 from <https://www.glacierwear.com/reindeer-hide-hair-on.html>; Reindeer Spirit. (2010). *Buying Reindeer Products*. Retrieved May 23, 2022 from <http://www.reindeerspirit.info/buying.html>; and eBay. (n.d.). *Search Results for 'Reindeer Pelt'*. Retrieved May 23, 2022 from https://www.ebay.com/b/Reindeer-Pelt/bn_7024818578.

⁷⁹ Resolution Conf. 9.24 (Rev. CoP17) at 3-4.

⁸⁰ We also support SSN's broader request for proposal of rattlesnakes on Appendix II but focus on the timber rattlesnake, as declining U.S. species.

⁸¹ Resolution Conf. 9.24 (Rev. CoP17), Annex 2a.

⁸² Hammerson, G.A. 2007. *Crotalus horridus*. The IUCN Red List of Threatened Species 2007: e.T64318A12765920. <http://dx.doi.org/10.2305/IUCN.UK.2007.RLTS.T64318A12765920.en>.

⁸³ Species Status Assessment: Timber rattlesnake, New York State Department of Environmental Conservation (2013). Available at: https://www.dec.ny.gov/docs/wildlife_pdf/sgcntimbererrattlesnak.pdf; Brown, W. S. (1991). Female reproductive ecology in a northern population of the timber rattlesnake, *Crotalus horridus*. *Herpetologica*, 101-115

⁸⁴ Species Status Assessment: Timber rattlesnake, New York State Department of Environmental Conservation (2013). Available at: https://www.dec.ny.gov/docs/wildlife_pdf/sgcntimbererrattlesnak.pdf.

field observers that the timber rattlesnake . . . is declining over most parts of its range.”⁸⁵ A 2013 assessment estimated that timber rattlesnake population have declined between 85-90% rangewide from historical levels.⁸⁶ IUCN deemed the species’ current population trend to be “decreasing,” finding its “area of occupancy, number of subpopulations, and especially population size are probably . . . declining, possibly at a rate of more than 10% over three generations (roughly 20 to 30 years).”⁸⁷

Numerous states have concluded the timber rattlesnake to be threatened with extinction. Connecticut, Massachusetts, New Jersey, and Vermont consider the species “endangered,” and New York considers the species “threatened.”⁸⁸ Indeed, studies suggest populations in New York have been reduced by 50-75% from historical numbers.⁸⁹ The species is considered extirpated from Canada, Maine, Rhode Island, Delaware, and Michigan.⁹⁰

Documented threats to the timber rattlesnake include habitat loss and fragmentation and direct mortality caused by humans, including “commercial collecting for the pet trade.”⁹¹ Timber rattlesnakes are widely available for sale as pets online, fetching \$250 per animal.⁹² Timber rattlesnake products are also widely available online, including whole skins.⁹³ We refer to SSN’s comment for a full description of timber rattlesnakes offered for sale online. International trade in timber rattlesnakes also occurs. While recent LEMIS data is unavailable, as the Service has not produced full sets of LEMIS data since around 2015, data from 2014 documents exports of timber rattlesnakes from the United States, including multiple, wild-sourced animals traded for commercial purposes.

Given the significant demand for the timber rattlesnake in trade and the documented threat of collection for trade on this already-reduced and likely declining

⁸⁵ *Id.* Hammerson, G.A. 2007. *Crotalus horridus*. The IUCN Red List of Threatened Species 2007:

e.T64318A12765920. <http://dx.doi.org/10.2305/IUCN.UK.2007.RLTS.T64318A12765920.en>.

⁸⁶ Species Status Assessment: Timber rattlesnake, New York State Department of Environmental Conservation (2013). Available at:

https://www.dec.ny.gov/docs/wildlife_pdf/sgentimberrattlesnak.pdf.

⁸⁷ Hammerson, G.A. 2007. *Crotalus horridus*. The IUCN Red List of Threatened Species 2007: e.T64318A12765920. <http://dx.doi.org/10.2305/IUCN.UK.2007.RLTS.T64318A12765920.en>.

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ Species Status Assessment: Timber rattlesnake, New York State Department of Environmental Conservation (2013). Available at:

https://www.dec.ny.gov/docs/wildlife_pdf/sgentimberrattlesnak.pdf.

⁹¹ Hammerson, G.A. 2007. *Crotalus horridus*. The IUCN Red List of Threatened Species 2007: e.T64318A12765920. <http://dx.doi.org/10.2305/IUCN.UK.2007.RLTS.T64318A12765920.en>.

⁹² See <https://undergroundreptiles.com/product/canebrake-rattlesnake/>.

⁹³ See https://www.etsy.com/listing/1002409595/canebrake-rattlesnake-timber-co71-rattle?ga_order=most_relevant&ga_search_type=all&ga_view_type=gallery&ga_search_query=timber+rattlesnake&ref=sc_gallery-1-2&from_market_listing_grid_ad=1&plkey=fe34257b7e52aecbc5f7ddf101a6a6fc358e2c18%3A1002409

U.S. species, the United States should propose timber rattlesnakes for Appendix II at CoP19.

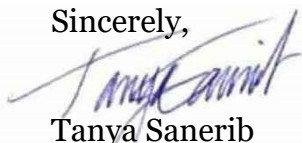
8. Support the Listing of Glass Frogs at CITES

We also urge the United States to support any proposal (or proposals) to list species in the family *Centrolenidae* at CoP19. Glass frogs are native to Central and South America countries and are popular with reptile and amphibian collectors in the United States and Europe. Many frogs in this family are of scientific concern and face numerous threats. As a demand country that fuels trade (including on the black market), we urge the United States to support listing proposals for this family.

Conclusion

We appreciate the opportunity to offer comments on proposed amendments to the CITES Appendices that the United States might submit at CoP19. We urge the Service to propose, co-propose, or at least support as many listings as possible for CoP19 in light of the back log of species threatened with extinction that are or maybe in trade that are deserving of CITES' protections. In light of the on-going extinction crisis, it is imperative that the United States plays a key role at CoP19 in pushing for conservation measures for species facing extinction. Thank you for your consideration of these comments and we look forward to working with you in preparation for CoP19.

Sincerely,



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	A	B	C	D	E	F	G	H
1	Site	description	price	seller	country of origin	search date	search term	
2								
3	https://snakesatsunset.com/purple-harlequin-toad-for-sale-atelopus-barbotini/	Purple Harlequin Toad for sale (Atelopus barbotini)	\$69.99	snakes at sunset	Suriname	5/3/2022	harlequin frog for sale	
4	https://www.morphmarket.com/us/c/amphibians/toads/739566	Antelopus barbotini the Purple Toad	\$300	Morph market	C-B	5/3/2022	harlequin frog for sale	
5	https://frogsdirect.com/product-category/live-animals/amphibians/frogs-all/dart-frogs/atelopus/	blank				5/3/2022	harlequin frog for sale	
6	https://www.bigappleherp.com/products/yellow-atelopus-frogs	Yellow Atelopus Frog	\$89.95	Big Apple Herp		5/3/2022	harlequin frog for sale	
7	https://indoorecosystems.com/collections/harlequin-toads	Atelopus sp. "Arlequin de Limón"	\$275			5/3/2022	harlequin frog for sale	
8	https://indoorecosystems.com/collections/harlequin-toads	Atelopus sp. "Arlequin de Limón"	\$275			5/3/2022	harlequin frog for sale	
9	https://indoorecosystems.com/collections/harlequin-toads	Atelopus sp. "Arlequin de Limón"	\$200			5/3/2022	harlequin frog for sale	
10	https://www.lllreptile.com/products/34191-harlequin-tree-frogs					5/3/2022	harlequin frog for sale	
11	http://www.faunaclassifieds.com/forums/showthread.php?t=654327	Purple Harlequin Toad for sale (Atelopus barbotini)	\$69.99			5/3/2022	harlequin frog for sale	
12	https://www.dfwreptarium.com/animals	Yellow Atelopus Toad				5/3/2022	harlequin frog for sale	
13							harlequin toad for sale	
14	https://undergroundreptiles.com/product/purple-harlequin-toad/	Purple Harlequin Toad (Atelopus barbotini)	\$64.99		field collected		harlequin toad for sale	
15	https://undergroundreptiles.com/product/orange-harlequin-toad/	Orange Harlequin Toad	\$84.99		field collected		harlequin toad for sale	
16	https://undergroundreptiles.com/product/green-harlequin-toad/	Green Harlequin Toad	\$99.99		field collected		harlequin toad for sale	
17	https://undergroundreptiles.com/product/yellow-harlequin-toad/	Yellow Harlequin Toad	\$69.99		field collected		harlequin toad for sale	
18	https://yourfishstore.com/products/purple-harlequin-toad	Purple Harlequin Toad (Atelopus barbotini)	90.99		field collected		harlequin toad for sale	
19	https://www.aqua-imports.com/product/purple-harlequin-toad-atelopus-barbotini/	Purple Harlequin Toad (Atelopus barbotini)	\$119.99		Suriname		harlequin toad for sale	
20	https://www.aqua-imports.com/product/yellow-harlequin-toad-atelopus-varius/	Yellow Harlequin Toad (Atelopus spumarius)	\$119.99		suriname, wild		harlequin toad for sale	
21	https://www.lllreptile.com/products/34643-yellow-harlequin-toads	Yellow Harlequin Toads					harlequin toad for sale	
22	https://www.reddit.com/r/frogs/comments/pylhh0/endangered_harlequin_toads_atelopus_balios_and/						harlequin toad for sale	
23	https://indoorecosystems.com/products/atelopus-balios	Atelopus balios	\$425		C-B, Ecuador		Atelopus for sale	
24	https://indoorecosystems.com/products/atelopus-elegans?pr_prod_strat=copurchase&pr_rec_id=b9a606ae9&pr_rec_pid=6789923537054&pr_ref_pid=6789902074014&pr_seq=uniform	Atelopus elegans	\$350		C-B, Ecuador		Atelopus for sale	
25	https://www.frogforum.net/showthread.php/23100-Atelopus-hoogmoedi	Atelopus hoogmoedi	\$400				Atelopus for sale	

	A	B	C	D	E	F	G	H
26	https://www.speciestrader.com/Atelopus/buy-Atelopus-varius-for-sale.html	Atelopus varius					Atelopus for sale	
27	https://www.reptilesncritters.com/yellow-atelopus-frog	Yellow Atelopus frogs	\$99				Atelopus for sale	
28	https://strictlyreptiles.tv/product/purple-atelopus-adult-male/	purple atelopus					Atelopus for sale	
29	https://www.facebook.com/RepXoticA/posts/atelopus-barbotiniextremely-rare/745290238824031/	Atelopus Barbotini					Atelopus for sale	
30	http://www.amphibianark.org/wp-content/uploads/2018/08/Atelopus-varius-zeteki-Husbandry-Manual.pdf						Atelopus for sale	husbandry manual for Antelopus zeteki
31	https://www.outbackreptiles.com/purple-atelopus-toad-2/	purple atelopus toad					Atelopus for sale	
32	https://www.outbackreptiles.com/purple-atelopus-toad-3/	purple atelopus toad					Atelopus for sale	
33	https://yourfishstore.com/products/orange-atelopus-toad	Orange Atelopus Toad	\$279.99		field collected		Atelopus for sale	
34	https://www.lllreptile.com/products/35945-pebas-stubfoot-toads-aka-lava-toads	Atelopus spumarius					Atelopus for sale	
35	https://hialehtreeservice.com/site/purple-harlequin-toad-for-sale-5fd082	Yellow Harlequin Toad (Atelopus spumarius)					Atelopus for sale	