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Via Electronic Mail

Public Comments Processing
Attn: FWS–HQ–ES–2014–0012
FWS–HQ–ES–2014–0013
Division of Policy and Directives Management
U.S. Tortoises and Wildlife Service
4401 N. Fairfax Drive, MS 2042–PDM
Arlington, VA 22203

Re: Comments of the United States Association of Reptile Keepers on the U.S. Tortoises and Wildlife Service’s 90-Day Findings on Petitions to List Flat-tailed tortoise (*Pyxis planicauda*) and Spider tortoise (*Pyxis arachnoides*) under the Endangered Species Act, Docket Numbers FWS–HQ–ES–2014–0012, -0013

Dear Sir/Madam:

These comments are provided in response to the U.S. Fish and Wildlife Service’s (“FWS” or the “Service”) notice of its 90-day findings on petitions to list two species of non-native tortoises, the flat-tailed tortoise (*Pyxis planicauda*) and spider tortoise (*Pyxis arachnoides*), under the Endangered Species Act (“ESA”).¹ Specifically, FWS has issued a 90-day finding that petitions submitted by WildEarth Guardians (“WEG”) and Friends of Animals (“FOA”) (collectively, “Petitioners”) present substantial scientific or commercial information and is seeking data to inform its more rigorous 12-month status review, under which it will make a determination whether the petitioned designations are warranted.

This letter is submitted on behalf of the members of the United States Association of Reptile Keepers (“USARK”). USARK is a non-profit membership organization representing breeders, hobbyists, conservationists, business owners, herpetologists, and scientists who work with or in the reptile industry. In brief, we recognize that these two tortoise species face significant threats in their native range, but also that substantial efforts are being undertaken by the government of Madagascar, the zoological community, and private conservation organizations to protect these animals and their habitat. Additionally, both species are listed on

¹ See 79 Fed. Reg. 32900 (June 9, 2014).

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Appendix I of the Convention on International Trade in Endangered Species, meaning that no international commerce in these animals is permitted.² *Pyxis planicauda* was added during the Twelfth Meeting of the Conference of the Parties in 2002 (Santiago, Chile). *Pyxis arachnoides* was added at the Thirteenth Meeting of the Conference of the Parties in 2005 (Bangkok, Thailand).

As explained below, the best scientific and commercial data suggests that intensive existing and recently developed conservation measures and newly created conservation zones protecting the majority of these species' critical habitat will prevent these species from becoming extinct in the foreseeable future. At most, therefore, the spider and flat-tailed tortoise may meet the standard of "threatened" under the ESA. Most importantly, however, the Service must recognize and distinguish the domestic, captive-bred members of these species, and shield the captive breeding programs and small amount of trade which contributes to maintenance of these species from the effects of any listing.

The comments are organized as follows: A brief overview of the status of the species is followed by a description of current conservation efforts, in Madagascar and here in the United States. USARK then provides a review of the relevant legal standards and concludes with its comments. A detailed bibliography of sources cited is included.

I. PYXIS SPECIES STATUS OVERVIEW

A. Background on Stocks Petitioned for Listing

Wild stocks suffered a large decline the past few decades, primarily due to habitat loss, as well as overharvesting. The Madagascar spider tortoise is estimated to be losing habitat at a rate of 1.2 percent per year, and remaining habitat has become fragmented. (Walker *et al.* 2013a "Proposed Action Plan"). CITES figures show that approximately 3,000 individuals of the *Pyxis* species entered the trade between 2000 and 2001. Since that time, the Malagasy government eliminated quotas and, subsequently, as mentioned, both species have been placed on CITES Appendix I. As such, no lawful international trade may occur; however, some poaching and illegal sales still occur.

These species are also each listed on the International Union for Conservation of Nature's ("IUCN") Red List as "critically endangered." The IUCN also lists the population trend as decreasing for each species.³ Importantly, IUCN Red List Categories are not the equivalent of the standards governing the ESA. Rather than assessing a species in terms of its potential for extinction, either imminently or in the foreseeable future, as required by U.S. law, the IUCN's categorizations are based purely on rates of observed or inferred decline and a normative

² Convention on International Trade in Endangered Species of Wild Fauna and Flora, March 3, 1973, 993 U.N.T.S. 243 [hereinafter, "CITES"], Prop. 10.65 (1997).

³ See IUCN, *Red List Categories and Criteria* (2013), available at http://jr.iucnredlist.org/documents/redlist_cats_crit_en.pdf.

assessment of threats.⁴ The northern subspecies, *P. a. brygooi*, is under most severe pressures. (Walker 2009).

B. Abundance and Uncertainty in Population Status of Wild Stocks

The spider and flat-tailed tortoises are among “the least studied” and well-understood of Madagascar’s tortoises. (Rakotondriamanga *et al.* 2011; Pedrono and Smith 2013). “Vital demographic parameters such as survival rate or average clutch frequency in wild populations” are not known. (Pedrono and Smith 2013). Population estimates vary widely, with those for *arachnoides* ranging from several million to about 660,000. (*Arachnoides* Petition.) Petitioners cite several transact surveys that have been undertaken over the few decades. The results of these likewise vary significantly. (*Arachnoides* Petition.)

In point of fact, there exists no standardized survey or time series that allow for a determination of population trends, particularly on an annual basis over the time period since these animals were added to Appendix I. Dr. Ryan Walker, who focuses on and is clearly is concerned about the spider tortoise (employing modifiers “Threatened” and “Critically Endangered” to “Spider Tortoise” in his scientific papers), has conducted most of the recent research. Petitioners appear to conflate certain of Walker’s findings.

For instance, Petitioners cite the findings of Walker *et al.* 2008 of tortoise “densities of 4.63 and 2.08 tortoises per hectare in the wet and dry seasons respectively,” contrasting that with a finding reported not in a scientific journal, but in a BBC news story. The Petition claims, “It was estimated in 2012 that the average population density of the spider tortoise shrunk to just over 2 per hectare (Barley 2).”⁵ To the extent the latter figure has any basis in research, the 2008 study involved *P. a. arachnoides*, whereas in 2012, Dr. Walker’s subject of study was the much less abundant subspecies, *P. a. brygooi*.

This confusion is endemic to the discussion and reflective of the fact that different studies generally focus on particular subspecies or report findings by subspecies. Another factor to note is subpopulation or area involved in a particular study and whether the survey was conducted during the dry or wet season. Consistent with the fragmentation of habitat, results are not comparable unless done by the same methodology in the same location. The lack of a uniform time-series of consistent data makes it impossible to determine, as Petitioners assert, annual changes in population size.

⁴ See CITES, Summary of the Five Criteria (A-E) Used to Evaluate if a Taxon Belongs in an IUCN Red List Threatened Category (Critically Endangered, Endangered or Vulnerable) (Ver. 3.1) (Feb. 9, 2000), *available at* http://www.iucnredlist.org/documents/2001CatsCrit_Summary_EN.pdf.

⁵ Ironically, the story, which was based on an interview with Dr. Walker, involved a finding of an extremely high abundance of *P. a. brygooi*. The story notes that, on average, spider tortoise “an average density of just over two tortoises per hectare,” contrasting that with a 2012 discovery of a population of *brygooi* with a density of 19.8 tortoises per hectare. Shanta Barley, “Last stand of the Madagascar spider tortoise,” BBC Nature (Sept. 3, 2012), *available at* <http://www.bbc.co.uk/nature/19161652>.

Walker *et al.* 2008, did find some encouraging signs. For instance, they report that “31.2% of the specimens that were thought to be <7 years old,” and surmise that the decline of the feral pig population, which was implicated as a source of mortality in a 1995 study, may have had some beneficial effects in terms of survivors of eggs and young tortoises. The report goes on to state: “Jesu & Schimmenti (1995) estimate the population density from their data to be approximately three individuals per ha. However, during the wet season our results recorded a population density of 4.63 per ha.” Consistent with the caution above, the report does not claim this to be indicative of population growth. Noting the then-recent move of *P. arachnoides* to CITES Appendix I, Walker *et al.* 2008 simply note that “in theory [this is] a valuable conservation measure, [however] data is yet to be available demonstrating its effectiveness.”

A 2011 transect study of *P. a. arachnoides* did find lower densities than Walker *et al.* 2008, which were 2.08 to 4.63 animals per hectare in the dry or wet season, respectively. Rakotondriamanga *et al.* 2011 reported mean tortoise density of 2.2 animals per hectare in the wet season. The authors go on to discuss all the caveats and methodological problems with transect, as well as plot, surveys, particularly for cryptic species such as *Pyxis*. The report concluded: “Despite low tortoise densities being detected within this study, a great abundance of juveniles was recorded along with a balanced sex ratio in *P. a. brygooi*, indicating a depleted but still viable population.” (Rakotondriamanga *et al.* 2011). Indeed, in a study of field survey methods, Dr. Walker found detection rates of 4.15 spider tortoises per man hour using time-constrained searching, while line transect surveying yielded only 2.29 tortoises per man-hour. (Walker 2012).

In sum, there is no question that the both spider and flat-tailed tortoises are highly depleted from historic levels. What is unclear is whether the CITES listing and, more recently, conservation efforts currently underway, discussed below, have had and are having an ameliorative impact in reversing these trends.

II. EFFORTS TO CONSERVE AND REBUILD WILD STOCKS

A. Formal Madagascar Efforts

In 2005, Madagascar’s Ministry of Water and Forests invited the IUCN Species Survival Commission’s Captive Breeding Specialist Group to work with community leaders, law enforcement officials, conservation biologists, and wildlife managers to develop a Population and Habitat Viability Assessment (PHVA) for *P. arachnoides*. (Randriamahazo *et al.*, 2007; IUCN Redlist *Pyxis arachnoides*). “The results of the PHVA suggested that an 85% reduction in the harvest of tortoises, both for human consumption and the illegal pet trade, was needed to prevent further declines.” (Walker 2013). “The group recommended creation of localized effort to develop a strategy to protect tortoises from over-harvesting, repatriate confiscated individuals, promote awareness of Malagasy culture that shows respect for tortoises, update and enforce wildlife protection laws, and raise awareness through education.” (Walker 2013 *citing* Randriamahazo *et al.* 2007). These projects are currently underway.

Further, as a result of a commitment made at the 5th World Parks Congress in Durban in 2003, Madagascar's government is in the process of expanding the country's protected area coverage threefold. (Walker *et al.* 2013). While the effort is not yet complete, "[a] number of new protected areas have been recently established within the spiny forest ecoregion of the southwest, which was previously the least represented ecoregion within the protected area network." (Walker *et al.* 2013). As one example, the World Conservation Society is working in collaboration with the Malagasy government to provide funding and support to protect the Makira-Masoala Landscape, one of the last remaining pristine rain forests in the country.⁶

B. Private Conservation Efforts in Madagascar

Several nongovernmental organizations are engaged in on-the-ground-efforts to preserve these species and their habitat. Nautilus Ecology and Blue Ventures Conservation, for example, are implementing a community-based project in the Lamboara region to safeguard one of the last remaining populations of *P. a. brygooi*. (Walker *et al.* 2013). The World Wildlife Fund is engaged in a similar effort in between the Manombo and Fiherenana rivers, an area which includes *brygooi* and *arachnoides*. (Walker *et al.* 2013). The flat-tailed tortoise is protected at three sites within its range: "in the special reserve of Andranomena 6,420 ha and in the Sites of Biological Interest of (1) Analabe 2,000-12,000 ha and (2) the Kirindy Forest (Morondava) 100,000 ha by private or local interests." (Leuteritz *et al.* "Red List").

Durrell Wildlife Conservation Trust has several community-based conservation and habitat protection programs underway.⁷ Several of these focus on conservation of endemic tortoises, as well as conservation education. The Turtle Survival Alliance ("TSA") is also engaged in several tortoise conservation projects in south-western Madagascar.⁸

C. Captive Breeding

"An important component of a conservation strategy for *Pyxis* species is the establishment of viable ex-situ assurance colonies using founder stock exported from Madagascar during 2000 and 2001." (Pearson 2013). The Durrell Wildlife Conservation Trust operates a conservation and breeding center on the Isle of Jersey. The Village des Tortues at Ifaty is the largest breeding facility and shelter for *P. a. brygooi*, with nearly 600 of this subspecies in captivity. (TSA 2009; Rakotondriamanga *et al.* (2011).

Colonies of spider and flat-tailed tortoises also have been maintained internationally in zoological institutions and private collections since 1975. (Walker *et al.* 2013); (Knoxville Zoological Garden⁹). In 2001 the Knoxville Zoological Garden was the first domestic zoo to successfully breed *P. planicauda* in captivity and maintains breeding programs for all subspecies

⁶ World Conservation Society, <http://www.wcs.org/saving-wild-places/africa/madagascar-makira-masoala.aspx>.

⁷ Durrell Conservation Trust, <http://www.durrell.org/conservation/regions/madagascar/>.

⁸ TSA (2009), <http://www.turtlesurvival.org/blog/1/53>.

⁹ See http://www.knoxville-zoo.org/animals_attractions/animal_guide/reptiles/malagasy_flat-tailed_tortoise.aspx.

of *P. arachnoides*. The Knoxville Zoo also created a studbook program in United States for Malagasy tortoises held at locations within North America, mirroring one created the year prior in Europe. (Walker *et al.* 2013). The North American captive population of all species and subspecies of *Pyxis*, both wild and captive bred, is currently comprised of nearly 600 individuals located at more than 30 public and private facilities.¹⁰

The captive breeding program is one component of the Association of Zoos and Aquaria (“AZA”) Species Survival Plan for *P. planicauda* and *arachnoides*. (Pearson 2013). A unique feature of this program is involvement of private breeders and sellers. These dedicated breeders and the AZA have an unusually close and cooperative relationship. Tortoises are loaned and traded for breeding purposes and the zoos and private individuals share knowledge and technologies for successful programs. According to James Badman, Associate Director of the Department of Animal Care and Technologies at Arizona State University and the owner of one of the largest private *Pyxis* breeding operations in this country, the success of the studbook program has depended much on private sector involvement. (Badman, *pers. com.*). The captive population of *P. planicauda* and, to a lesser extent, *P. arachnoides*, held in zoological collections simply was not large enough to establish a long-term viable population. (Badman, *pers. com.*).

As such, private involvement is essential in maintaining a viable domestic captive breeding program. *Pyxis* species are difficult to both breed and maintain. They reproduce sporadically, eggs are not easy to hatch, and occasionally animals dig down into the substrate and die. (Pearson 2013; Russ Gurley, *pers. com.*). This not a problem confined to the private sector. For instance, the Behler Chelonian Center, a state-of-the-art facility run by the Turtle Conservancy to breed endangered turtles from around the world, lost 71 percent of its captive *planicauda* population to disease over two years (*Planicauda* Petition). With the small number of *Pyxis* species in the United States, it would only take a small number of such catastrophes for the number these species in captivity to drop dramatically, even to the point of no return.

For the private sector, breeding of spider and flat-tailed tortoises is an expensive passion that depends on sales to operate. While retail prices are steep, ranging from perhaps \$700 to \$2,000 depending on the age and subspecies, this is balanced against a high cost of maintenance and low breeding success. For example, James Badman’s best year produced four *brygooi*, six *arachnoides*, and one *planicauda*, but was followed by a couple of years with low breeding success. (Badman, *pers. com.*)

IV. APPLICABLE LEGAL FRAMEWORK

ESA Section 4(b)(3)(A) states that when a petition to revise the List of Endangered and Threatened Wildlife and Plants “presents substantial scientific and commercial information,” the

¹⁰ Of the species *P. arachnoides*, the 2012 North American Studbook lists 36 *oblonga*; 121 *brygooi*; and 267 *arachnoides*. Knoxville Zoological Gardens, Madagascar Spider Tortoise (*Pyxis a. arachnoides*, *brygooi*, and *oblonga*) North American Regional Studbook, 5th Ed. (2012). There are 149 flat-tailed tortoises listed in the 2009 Studbook. Knoxville Zoological Gardens, Madagascar Flat-tailed Tortoise (*Pyxis planicauda*) North American Regional Studbook, 4th Ed. (2009).

Service must “promptly commence a review of the status of the species concerned” and publish its findings in the Federal Register.¹¹ Within 12 months of the date the petition was received, FWS must make a finding on whether the petitioned action is (a) not warranted, (b) warranted, or (c) warranted but precluded from listing by other pending proposals of higher priority.¹²

There are two key tasks associated with conducting an ESA status review. The first is to determine whether the petitioned entity qualifies as one or more species under the ESA. The ESA defines the term “species” to include “any distinct population segment of any species of vertebrate tortoises or wildlife which interbreeds when mature.”¹³ If the petitioned entity qualifies as a species, the second task is to conduct an extinction risk assessment to determine whether the species is threatened or endangered.

The standards applicable to the latter determination – that is, whether a species qualifies for ESA listing – are discussed first. That is followed by a brief explanation of the meaning of “species” under the ESA and the Service’s legal authority to treat domestic farm-raised Pyxis differently than their wild counterparts abroad.

A. Threatened/Endangered within meaning of ESA

The ESA defines the term “endangered species” as “any species which is in danger of extinction throughout all or a significant portion of its range.”¹⁴ The term “threatened species” is defined as “any species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.”¹⁵ Thus, as FWS recognizes, the key distinction is that an “endangered species” to be one that is in “imminent” danger of extinction,¹⁶ whereas a “threatened species” is only likely to become so at a later, but “foreseeable,” time.

The ESA also requires that a decision to list a species as “endangered” be based on imminent, not conjectural, threats. “The ESA applies to those species ‘so depleted in numbers that they *are* in danger of or threatened with extinction.’”¹⁷ When determining present danger, FWS has a “duty to show the relationship between the data relied upon and its conclusion to list”¹⁸ and must support its determination with “best available scientific and commercial data.”¹⁹

¹¹ 16 U.S.C. § 1533(b)(3)(A).

¹² *Id.* § (B).

¹³ *Id.* § 1532(16).

¹⁴ *Id.* § (6).

¹⁵ *Id.* § (20).

¹⁶ *See, e.g., In Re Polar Bear Endangered Species Act Listing and § 4(d) Rule Litigation*, 794 F. Supp. 2d 65, 89 (D.D.C. 2010) (upholding FWS’s “general understanding that an endangered species is” one that is “on the brink of extinction”).

¹⁷ *San Luis v. Badgley*, 136 F. Supp. 2d 1136, 149 (E.D. Cal. 2000) (16 U.S.C. § 1531(a)(2) (emphasis added)).

¹⁸ *Id.*

¹⁹ 16 U.S.C. § 1533(b)(1)(A), which in full states: “The Secretary shall make determinations required by subsection (a)(1) of this section solely on the basis of the best scientific and commercial data available to him after conducting

FWS must, moreover, be able to identify in, and from the record, a threat's potential imminent impacts on a particular species.

B. Listing Standards

Congress enacted the ESA as an action-forcing conservation statute designed to ensure meaningful protections for species that, based upon the best available science, are determined to either be “endangered” or “threatened.” The best science standard precludes decisions based on simply on precaution when information is uncertain or incomplete. Indeed, courts have universally held that the decision to list a species as threatened or endangered is not to be based on speculation or a misplaced intent to err on the side of species conservation:

Under Section 4, the default position for all species is that they are not protected under the ESA. A species receives the protections of the ESA only when it is added to the list of threatened species after an affirmative determination that it is “likely to become endangered within the foreseeable future.” Although an agency must still use the best available science to make that determination, *Conner [v. Burford]*, 848 F.2d 1441 (9th Cir. 1988) cannot be read to require an agency to “give the benefit of the doubt to the species” under Section 4 if the data is uncertain or inconclusive. Such a reading would require listing a species as threatened if there is any possibility of it becoming endangered in the foreseeable future. This would result in all or nearly all species being listed as threatened.²⁰

In other words, FWS is charged with making its ESA listing decisions based solely on the information available, using its best scientific judgment.

C. Consideration of Conservation Efforts in Listing Decisions

Under the ESA, FWS must account for all conservation measures and must explain why these measures are inadequate to protect the species. A listing determination under the ESA may be made only “after taking into account those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species, whether by predator control, protection of habitat and food supply, or other conservation practices, within

a review of the status of the species and after taking into account those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species, whether by predator control, protection of habitat and food supply, or other conservation practices, within any area under its jurisdiction; or on the high seas.”

²⁰ *Trout Unlimited v. Lohn*, 645 F. Supp. 2d 929, 947 (D. Or. 2007); *see also Ctr. for Biological Diversity v. Lubchenco*, 758 F. Supp. 2d 945, 955 (N.D. Cal. 2010) (finding that the “benefit of the doubt” concept does not apply in the § 4 listing context); *Or. Nat'l Res. Council v. Daley*, 6 F. Supp. 2d 1139, 1152 (D. Or. 1998) (ESA requires a determination as to the likelihood – rather than merely the prospect – that a species will or will not become endangered in the foreseeable future); *Fed'n of Fly Tortoisers v. Daley*, 131 F. Supp. 2d 1158, 1165 (N.D. Cal. 2000) (“The ESA cannot be administered on the basis of speculation or surmise.”).

any area under its jurisdiction.”²¹ Additionally, the Secretary must consider the “inadequacy of existing regulatory mechanisms.”²²

Since 2003, FWS has interpreted and employed these requirements under its binding *Policy for Evaluation of Conservation Efforts When Making Listing Decisions* (“PECE”) as meaning that, “The [ESA] requires us to take into account all conservation efforts being made to protect a species.”²³ Courts have upheld FWS employing its PECE and considering the full array of conservation strategies employed.²⁴

D. Distinct Population Segment (“DPS”) Criteria

As mentioned, The ESA defines a species as including “any subspecies of tortoises or wildlife or plants, and any *distinct population segment* of any species of vertebrate tortoises or wildlife which interbreeds when mature.”²⁵ Under the Service’s Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the Endangered Species Act (“DPS Policy”), a species can be considered to comprise a DPS if it is both “discrete” and “significant.”²⁶

In determining if a vertebrate species is “discrete,” the Service looks at one of two factors: (1) The population “is markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors,” including genetic or morphological factors; or (2) the population being assessed “is delimited by international governmental boundaries within which differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of section 4(a)(1)(D) of the ESA.”²⁷

If this analysis leads to a determination that a population is discrete, its “biological and ecological significance” to the taxon to which it belongs will then be considered.²⁸ This inquiry includes, among other things, the following considerations: (1) The population’s “persistence”

²¹ 16 U.S.C. § 1533(b)(1)(A).

²² *Id.* § 1533(a)(1).

²³ 68 Fed. Reg. 15100, 15100 (Mar. 28, 2003) (emphasis added).

²⁴ *See, e.g., Colorado River Cutthroat Trout v. Salazar*, 2012 WL 4890100 (D.D.C. 2012) (consideration of voluntary conservation strategy undertaken by several states in conjunction with FWS was appropriate in its finding that trout species was not endangered under the ESA). *Greater Yellowstone Coalition, Inc. v. Servheen*, 665 F.3d 1015 (9th Cir. 2011) (FWS reasonably could conclude that National Forest Plans provide adequate regulatory mechanisms to protect Yellowstone grizzly bear as recovered species since it is legally binding on 98% of critical primary conservation area). *In re Polar Bear Endangered Species Act Listing and § 4(d) Rule Litigation*, 794 F. Supp. 2d 65 (D.D.C. 2011) (FWS properly took into account foreign conservation efforts to protect bears).

²⁵ 16 U.S.C. § 1532(16).

²⁶ 61 Fed. Reg. 4722, 4725 (Feb. 7, 1996).

²⁷ *Id.*

²⁸ *Id.*

in an “unusual or unique ecological setting”; (2) whether its loss “would result in a significant gap in the range of a taxon”; (3) whether the population “represents the only surviving natural occurrence of a taxon,” even if there are more abundant “introduced populations” beyond the species natural range; (4) differences in genetic characteristics.²⁹

As both a matter of law and of sound public policy, Congress’ creation of the non-biological category of DPS vests the Service with a significant amount of discretion to define a “species.” The only constraints on this authority are those self-imposed by the DPS Policy and Congress’ directive that this classification be used “sparingly.”³⁰ Nothing in the plain language of the ESA or the DPS Policy itself forbids the Service from considering captive-bred members of a particular species, particularly one native to foreign nations, to be a DPS.

V. COMMENTS

A. If FWS Decides to List These Species, the U.S. Herpetoculture Industry Should Be Excluded

As discussed above, the captive breeding program is a vital part of the long-term survival program for these species. Experts and conservationists such as Dr. Walker recognize captive breeding as an essential hedge against extinction, maintaining genetic integrity and a continuous supply of stock that can be used to augment and reintroduce wild populations. In the United States, the private *Pyxis* herpetoculture sector is an essential component of the domestic breeding program. Without the founder population of *P. arachnoides* and *planicauda* in private collections, there might not be sufficient stock to maintain a successful studbook program.

As such, this activity’s continued operation is fully consistent with the ESA’s purpose of “provid[ing] a program for the conservation of ... endangered species and threatened species.”³¹ Furthermore, the limited domestic trade which occurs likewise helps provide for these species’ conservation, both by enabling private collectors to maintain their breeding operations and by providing funds that can be used for conservation purposes.³² USARK therefore strongly urges FWS to use all flexibility the law provides to maintain the U.S. studbook program as it exists today. Below we provide a path to that important end.

²⁹ *Id.*

³⁰ S. REP. 96-151 (1979), reprinted in Cong. Research Serv., 97th Cong., 2d Sess., A Legislative History of the Endangered Species Act of 1973, at 1396-97.

³¹ 15 U.S.C. § 1531(b).

³² See, e.g., TSA (2009). *Recent Acquisition of Northern Spider Tortoises* (Aug. 1, 2009) (noting the acquisition of *Pyxis a. brygooi* from a private breeder, funded by three public institutions and another private breeder), http://www.turtlesurvival.org/blog/1/51#.VA4-l_eYZt.

B. Domestic Captive-Bred *Pyxis* Can Qualify as a Non-Threatened/Non-Endangered Species, Distinct From Foreign Wild Tortoises

There are no overarching legal mandates requiring FWS to impose threatened or endangered status on the domestic captive-bred *Pyxis* when addressing concerns of wild *Pyxis* in their native range. The domestic tortoise population today is nearly entirely captive-bred and no international commerce in these species is allowed. Sweeping in domestic tortoises into a listing provides little or no protection beyond what is already available under international agreements such as CITES.³³ Further, it would completely undermine the conservation benefits of the

To that end, we strongly urge FWS to employ the substantial discretion it has to define “species” for the purposes of the law. Nothing within the ESA prohibits the Services from recognizing a captive population of a foreign (or, for that matter, domestic) species as distinct from those in the wild. Certainly, as explained below, the populations of spider and flat-tailed tortoises currently bred for conservation and commercial purposes here in the United States can easily qualify as a DPS under the terms of the DPS Policy. Even without formally engaging in DPS analysis, FWS may simply limit any listing of these ten species to those within their native range.

1. FWS has authority to treat captive-bred *Pyxis* as a DPS

We recognize that recently, FWS has moved away from treating captive populations of a species differently than the species in the wild. The Service addressed this issue this year in both its decision to deny the petition seeking delisting of captive antelope species and its proposal with respect to captive chimpanzees.³⁴ To the extent that these decisions rest on a construction of the ESA that the law provides no authority to the Service to make a captive/wild distinction—as opposed to a determination that such distinctions were not warranted in those particular cases as a matter of policy—we strongly reject such analysis. The ESA’s definition of “species” clearly allows for the designation of a vertebrate species as a “DPS” without any further definition, instruction, or limitation. The DPS Policy, as mentioned, provides no such limitation either. This is true because “distinct population segment” is not a scientific taxonomic classification (as are “species” and “subspecies”), it is a legal fiction which FWS has the authority to define, which it has through formal notice-and-comment rulemaking.

This is especially true given the criteria FWS uses to make a determination regarding whether to recognize a DPS. Captive-bred *Pyxis* are “markedly separate” from wild populations, subject to a completely different legal regime, and are found in different political jurisdictions. Thus, they are discrete. Further, these animals are significant to the taxon as a whole for many of the reasons discussed herein, particularly with respect to the importance of this segment to overall *Pyxis* conservation goals.

³³ Notably, the ESA itself directs the FWS “to take such steps as may be appropriate to achieve the purposes of” CITES and other enumerated conservation treaties and conventions. *Id.*

³⁴ 78 Fed. Reg. 33790 (June 5, 2013) (antelopes); 78 Fed. Reg. 35201 (June 12, 2013).

Finally, it is worth noting that FWS has made decisions to treat captive-bred (or “ranched”) members of listed species differently. The most recent example was the Service’s recognition of a DPS for broad-snouted caiman in Argentina.³⁵ The case for private involvement in the domestic studbook program and continued allowance of this small commercial sector is more compelling.

C. Alternatively, FWS should allow the domestic industry to continue under a special 4(d) rule

Based on the available science, it does not appear that this species meets the standards of, or qualify as, an endangered species. Conservation efforts are ramping up and should be given time to reverse the species’ decline.

Therefore, we strongly recommend that FWS list these species only as “threatened.” So doing, allows FWS to avoid triggering automatic protections under Sections 7 and 9 of the ESA, and provides the Service with the flexibility to choose “such regulations as [the Service] deems necessary and advisable to provide for the conservation of such species.”³⁶ In the present action, FWS can tailor its regulations to protect wild spider and flat-tailed tortoises without adversely impacting private domestic herpetoculture.

VI. Conclusion

USARK appreciates the Service’s close attention to these important comments. The members of the USARK on whose behalf they are submitted stand ready to answer any questions you may have and to work with the FWS on the important goal of protecting a vital conservation-positive domestic industry and protecting wild *Pyxis* throughout their range. The Association would be pleased to provide any additional information the Service may require.

Sincerely,

/s/ Phil Goss

Phil Goss, President, USARK

Shaun M. Gehan, *Counsel for the United States Association of Reptile Keepers*

³⁵ See 78 Fed. Reg. 38162 (June 25, 2013).

³⁶ 16 U.S.C. § 1533(d).



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September 8, 2014
Page Fourteen

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