July 24, 2014

BY EFILE

Public Comments Processing
Attn: Docket No. FWS–R9–FHC–2008–0015
Division of Policy and Directives Management
U.S. Fish and Wildlife Service
4401 N. Fairfax Drive – Suite 222
Arlington, VA 22203

Re: Proposed Listing of Reticulated Python, Three Anaconda Species, and Boa Constrictor as Injurious Reptiles under the Lacey Act, FWS–R9–FHC–2008–0015

Dear Sir or Madam:

This letter is submitted on behalf of the United States Association of Reptile Keepers ("USARK"), in response to the U.S. Fish and Wildlife Service's ("FWS" or "Service") reopening of the public comment period on its proposed listing of the boa constrictor, reticulated python, and three species of anaconda as injurious under the Lacey Act.[1] 79 Fed. Reg. 35719 (June 24, 2014). USARK is a non-profit membership organization representing breeders, hobbyists, conservationists, business owners, herpetologists, and scientists who work with or in the reptile industry.

We very much appreciate that the Service has reopened the comment period. Indeed, USARK has communicated its concerns to the Service that in the intervening several years since the initial comment period closed, the information presented has grown stale, and in some instances, has been contradicted. In addition, new studies have revealed additional information about the likely range, survivability and behaviors of the species in question. USARK, therefore, reiterates its strong opposition to the proposed listing of the reticulated python

[1] 18 U.S.C. 42, as amended. The original proposal to list nine non-native species of constricting snakes as injurious was published in 2010. *See* 75 Fed. Reg. 11808 (March 12, 2010). In January 2012, the Service listed four of these species. 77 Fed. Reg. 3330 (Jan. 23, 2012) (listing *Python molurus* (which includes Burmese python *Python molurus bivittatus* and Indian python *Python molurus molurus*), Northern African python (*Python sebae*), Southern African python (*Python natalensis*), and yellow anaconda (*Eunectes notaeus*) as injurious) (hereafter, "2012 Partial Final Rule").

(*Broghammerus reticulatus* or *Python reticulatus*), boa constrictor (*Boa constrictor*), DeSchauensee's anaconda (*Eunectes deschauenseei*), green anaconda (*Eunectes murinus*), and Beni anaconda (*Eunectes beniensis*).

USARK also believes, consistent with our comments here and those communicated previously to the Service, that the original listing of the Burmese python and three other species was based on speculative and controversial scientific information, that the factual record did not support the "injurious finding," and that the regulatory process was riddled with substantive and procedural defects. As you know, USARK is currently challenging that listing in the courts. We believe, however, that the Service now has an opportunity to avoid the missteps of that listing by allowing a more rigorous review of applicable law and scientific information, via this re-opened comment period. Viewing the full record and Lacey Act in the totality, the Service can only conclude this listing is not warranted.

Below, USARK provides an Executive Summary of the points raised, followed by a discussion of some new and overlooked scientific reports relevant to this rulemaking. USARK then provides detailed comments of a legal, scientific, and economic nature.

Executive Summary

The proposal to list these five nonnative species of constricting snakes is far less justified than the flawed and speculative basis upon which FWS listed the Burmese python. None of these snakes are adapted to lengthy cold winters and other climatological and ecological conditions in the northern latitudes. Suitable habitat, if any, exists only in Hawaii, Puerto Rico, and the insular territories – all of which prohibit the importation or transportation into and possession of non-indigenous reptiles. On the continent, only areas along the Texas coast and parts of Florida, each generally confined to the southern regions, are even potentially suitable for any of these snakes, save for one subspecies that cannot be imported and has not been imported commercially since at least 1987.

Texas and Florida have each crafted laws and regulations that address its citizens' needs and concerns, striking a balance among environmental protection, human health and welfare, and the rights and interests of their citizens. These controls, in combination with the paucity of suitable habitat and the unlikely confluence of factors necessary for any of these species of non-native snakes to become established and cause damage, are more than sufficient to prevent injury to the interests protected by the Lacey Act. In short, adopting the proposed rule provides no conservation benefit, but would significantly intrude on the rights of pet owners and hobbyists, impede work of researchers, conservationists and zoological institutions, and destroy small businesses, causing economic damage.

Below, USARK initially discusses some of the new scientific information emerging since the last comment period closed. While much of this information focuses on the Burmese python, its broader context relates to the reliability of the methodology and results of the United States

Geological Survey ("USGS") risk assessment.[2] Such reliability issues extend to the five species here at issue. Further, the question of what habitat may be suitable for Burmese python is likewise relevant, as that species has by far the highest tolerance for cold temperatures of any of the nine species initially proposed for listing.

Following this discussion, USARK addresses the following points:

- **The Listing is Unjustified by the Purported Threat and, on this Record, Inconsistent with Law**

  - As a matter of law and policy, listing species that have long been extant throughout the United States and subject to pet ownership and interstate commerce for several decades, as have the boa constrictor and reticulated python, comes with a higher burden to show injury to the interests the Lacey Act protects. Principles of reasoned decisionmaking, read in light of the statute's purpose and application, require more than a speculative threat to the interests the Lacey Act protects.

  - FWS' own record shows that even under the generous assumptions present in the USGS Risk Assessment and its biologists' studies upon which the listing is predicated, neither the boa constrictor nor reticulated python have the potential to become established beyond discrete portions of southern Florida and, perhaps, Texas. These species are primarily tropical, whereas, at most, only small areas of the continental U.S. are even subtropical. None of the species exist in locations with weather as persistently cold or with the temperature extremes present here.

  - No potential risk of establishment in or ecological harm to areas within Hawaii, Puerto Rico, or the insular territories can be used to justify listing these snake species. Each of these jurisdictions already prohibits importation and possession of these animals. Their laws are enforceable through other provisions of the Lacey Act, which carry far greater criminal and civil penalties.

  - The empirical record suggests the USGS risk model overstates habitable areas. With respect to the boa constrictor, a small remnant population survives on a small parcel of land in southern Florida. That population has neither thrived nor expanded in the decades since it became established. Indeed, certain species of boas are native to Mexico, but they have not migrated into the U.S. and if they did, that is not an issue the Lacey Act can address.

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[2] Reed RN, Rodda GH (2009). *Giant Constrictors: Biological and Management Profiles and an Establishment Risk Assessment for Nine Large Species of Pythons, Anacondas, and the Boa Constrictor*, Open-File Rep. 2009-1202 (2009), (hereafter "Reed and Rodda (2009)" or "USGS Risk Assessment").

- The very small handful of human mortalities caused by nonnative constricting snakes, while tragic and sensational, does not provide a rationale for listing these animals under the Lacey Act. Incidental harm that stem from pet ownership whether due to irresponsible owners (as with incidents relating to constricting snakes or powerful dog breeds) or far more common trips and falls caused by dogs and cats— is not an issue this law was intended to address.

- The threat analysis does not account for the fact that the overwhelming number of boas and reticulated python in this country are captive bred. Most are selectively-bred "morphs" produced to display special color and pattern characteristics. These animals have never survived in the wild and are particularly sensitive to environmental conditions, particularly temperature. They cannot tolerate prolonged exposure to temperatures below 70^{o} Fahrenheit without adverse health effects.

- In sum, the species FWS proposes to list as injurious have been resident in homes, zoos, and research institutions throughout the U.S. for decades without resulting in the harms hypothesized in the proposed rule.

- When adopting the 2012 Partial Final Rule, the Service neglected relevant information and scientific reports brought to its attention during the comment period or published shortly thereafter. FWS also neglected information in reports upon which relied in listing those species contrary to conclusions drawn. In some instances, studies were selectively quoted giving misleading impressions about their findings. These legal errors cannot be repeated as FWS makes its decision with respect to the five species at issue.

- Likewise, the 2012 listing was based on unsupported assumptions and displayed evidence of outcome-oriented decisionmaking. In important instances, the Service's rationale for finding those snakes to be injurious did not comport with the effect that a Lacey Act would have on those attributes. FWS will have to reconcile these paradoxes if boas and reticulated pythons are to be listed.

➢ **Listing These Species Under the Lacey Act is Bad Policy and a Poor Use of Public Resources**

- Beyond its inconsistency with the Lacey Act as a legal matter, listing these animals represents a poor use of federal police power and an infringement on the basic liberties we enjoy as Americans.

- The proposal to list reticulated pythons and boa constrictors was, by itself, enough to cripple the small, but vibrant domestic reptile industry. Breeders, hobbyists, and prospective owners have not been willing to invest in new acquisitions with the threat of not being able to sell or even travel with their animals across state lines.

- In fact, FWS' intent to ban interstate transportation places a potentially unconstitutional burden on citizens' fundamental right to travel and serves no rational purpose. Ownership of these animals may be lawful in two contiguous states. Under the proposed rule, however, an owner could not seek care for her reticulated python if the herpetological veterinarian is located on the wrong side of a line in the metropolitan region. Further, to be an owner of boa constrictor would mean forgoing the right move to another state due to a change in family situation or to take advantage of a job or educational opportunity.

- Given that each state has the ability to protect its and its citizens' interests by adopting appropriate regulations on constricting snake ownership (as does Department of Interior over federal lands it administers), no conservation or public policy is furthered by declaring these snakes as "injurious." The only result of the proposed action would be to burden the rights of American citizens and additionally suppress the billion dollar reptile industry.

- The proposed listing also serves no conservation purpose, and may even foster some of the harms it purports to avoid.

- As to the former, more than ninety-nine percent of the continental U.S. landmass is unsuitable for these species' survival.

- Further, a large segment of USARK's membership is engaged in conservation education, both regionally and nationally. They, along with USARK as an organization, provide opportunities for students and adults alike to learn about these animals, fostering appreciation for their survival, and respect for the natural environment. The proposed listing will result in severe limitations on these efforts.

- Listing of constricting snakes also inhibits efforts to eradicate remnants of the species proposed from the Everglades National Park and other locations in south Florida where they have been found. The Burmese python example shows that many of the most knowledgeable and effective herpetological experts will either limit or cease this activity if required to euthanize the captured snakes or forbidden from bringing the animals to a more suitable location out of state.

- Similarly, a listing impairs the work of private, academic and medical researchers engaged in helping to conserve biodiversity, developing captive breeding techniques as a hedge against extinction, working to better understand these animals and their habitats, and studying these animals to develop groundbreaking new medical benefits for humans. While permits may, at the Secretary's sole discretion, be made available for some of these activities (as with the educational efforts described above), the process is both cumbersome and uncertain. As with Burmese pythons, the burdens associated with working with Lacey Act-listed species will cause some to forgo beneficial conservation and scientific research.

- As to fostering harms FWS purports to avoid by listing, the Service should heed the comments of the Association of Fish and Wildlife Agencies ("AFWA"). AFWA expressed concern that barring interstate transportation will cause some owners to release their animals. USARK condemns such actions and has developed programs of responsible ownership with AFWA, individual states, and others to help avert purposeful or accidental release. Nonetheless, it would be willful blindness to ignore human nature that will lead some to release their boa or reticulated python if interstate transportation and commerce are forbidden.

- AFWA believes, and USARK agrees, that state level laws and regulations calibrated to the perceived threat and state/federal partnerships in "early detection and response" programs are more effective means of addressing the issue. Federal regulations place a burden on state conservation resources and are unneeded and unnecessary in forty-seven states.

- The listing also represents a poor use of FWS' own limited resources. All other matters aside, just the burden associated with processing permits to transport and/or import these species represents a waste of the Service's personnel and budgetary resources.

- Finally, as the determination of whether or not to list a species as injurious under the Lacey Act is entirely discretionary, the substantial economic impacts of the listing cannot be ignored.

- While the listing serves no justifiable public policy or conservation purpose, the proposal will definitively destroy a small, but vital, domestic industry. The reptile industry comprises passionate, responsible, and conservation-minded hobbyists, breeders, and pet owners. It also supports a large variety of associated industries, including equipment manufacturers, feed producers, transportation providers, and herpetological veterinarians, among others. The cost, in terms of lost jobs and revenue, far outweigh any benefits the listing may provide. Indeed, the benefits may be negative.

- The economic and educational lifeblood of the retile industry is its trade shows, of which there are literally hundreds all across the country each year. They provide opportunities for breeders and companies in affiliated industries to buy, sell and trade their goods. Trade shows are also open to the public and are accompanied by educational programs. The economic, social, and educational benefits will all be lost if the proposed rule is adopted. Interstate travel from pet owners and breeders, and transportation of reptiles are involved.

- **Comments on the Proposed Rule's Economic Impacts and Initial Regulatory Flexibility Analysis**

  - USARK provided FWS with an independently commissioned economic analysis of the reptile industry in general, and of the species proposed to be listed specifically.

  - In 2009, businesses that produce, sell, provide goods and services for, and manufacture products for reptiles earned revenues of $1.0 billion to $1.4 billion.

  - The segment of this industry dependent on the nine species proposed for listing, snake breeders and sellers in particular, will experience economic of losses between $76 million to $104 million from the listing of all nine species.

  - Over the first ten years, lost revenues would run between $505 million to $1.2 billion, assuming historical industry sales growth rates.

  - Many of these losses have already been realized as the proposal to list the boa constrictor and reticulated python have caused a severe drop in demand for these species.

  - FWS' initial regulatory flexibility analysis ("IRFA") is entirely inadequate. The Service has failed to recognize or assess the appropriate universe of adversely-affected small entities, which in this case is virtually the entire reptile industry.

  - The economic analysis USARK has provided clearly shows that this action, as proposed, is a major rule, which will most likely have impacts of more than $100 million annually. The IRFA fails to recognize these impacts because of the flawed economic assumptions made in the absence of any meaningful data.

  - The Small Business Administration's Office of Advocacy has provided detailed analysis of how the Service's analysis can be adjusted to conform to the law. If, as it should not, FWS decides to list any of these species, it must and should correct these deficiencies.

  - The Regulatory Flexibility Act ("RFA") requires agencies to consider meaningful alternatives that will lessen the adverse economic impacts on small entities of a regulatory action. FWS has failed to consider any true alternatives. The IFRA only considers listing different combinations of species. However, the Lacey Act requires FWS to make a determination of the injuriousness of each species individually, thus the "alternatives" are neither lawful nor meaningful.

  - An example of a feasible alternative would be to, as AFWA suggested, work with the states at risk to develop effective regulations and control mechanisms.

- **Comments on FWS' Flawed NEPA Analyses**

  - For its part, the Draft Environmental Assessment ("EA") fails to address relevant scientific information, a problem that was not rectified in the Final EA accompanying the 2012 partial final rule.

  - Further, the EA overlooks the scientific controversy surrounding the USGS risk analysis and the use of climate matching more generally, as well as the novel and controversial use of the Lacey Act to list species widely held as pets.

  - FWS failed to consider any of the adverse environmental impacts that could result from listing these snakes. Such impacts include the potential for incentivizing release of listed species, hindering conservation eradication efforts, and placing impediments on research that could deter advances in understanding these species, their conservation and enhancement, and biology, as well as medical innovations to aid humans. NEPA is designed to force agencies to examine actions on the human environment, a concept far broader than impacts on the physical environment alone.

  - The scope of alternatives considered is legally inadequate. As noted above, FWS only considered listing different combinations of non-native snakes. Because the law only allows FWS to list species deemed to be injurious, the alternatives considered are unlawful.

  - All the above constitutes a failure to take a "hard look" at the listings' impacts on the human environment, resulting in an unsupportable finding of no significant impact and a failure to develop the required environmental impact statement.

- **The Lacey Act's Scope and Application to the Proposed Listing**

  - By its plain terms, the Lacey Act's prohibitions extend to importation and "shipment" *between* the continental states as a single entity and other listed jurisdictions, such as Hawaii and Puerto Rico. FWS lacks the authority to restrict interstate transportation and commerce of a listed species between and among continental states, as does the proposed rule.

  - The Lacey Act addresses threats on a national or regional scale, not matters of purely intrastate concern. To be "injurious" within the law's meaning, the threat to humans and U.S. resources and business must be more than individualized or localized.

For all these reasons, and others explained below, FWS should decline to add these five species of non-native constricting snakes to the list of injurious species and reevaluate the listing of the four species it has already so designated. Before explaining these points in more detail, however, USARK provides the Service with a summary of new and relevant scientific information.

I. NEW SCIENTIFIC INFORMATION RELEVANT TO THE PROPOSED LISTING

Since the proposed rule's two initial comment periods lapsed, new studies, based on empirical testing, and scientific information have become available on which the public had no chance to comment. This new science, such as cold weather studies, casts substantial doubt on the conclusions reached by Reed and Rodda, authors of the USGS Risk Analysis and other work upon which FWS has based its proposed rule.[3] This new information significantly undermines the Service's justification for listing these species.

A. New and Previously Overlooked Information Relevant to the Proposed Listing

The central premise and rationale for proposing to list these constricting snake species as injurious is the likelihood that continued importation and trade could result in their becoming established in the United States. *Id.* Despite this, when FWS listed the Burmese python and three other species under the Lacey Act in 2012, it did not address major studies that cast doubt on the findings of Reed and Rodda, such as Barker and Barker (2010),[4] a detailed and exhaustively cited critique. This report's major finding is that the map generated for and used in the USGS Risk Assessment is over-inclusive of Burmese and Indian python range, including regions too cold or too arid to support these species.[5] In light of the many deficiencies and errors identified by the Barkers with respect to the USGS Risk Assessment of the Burmese python, FWS should take a searching look at its findings with respect to the boa constrictor and reticulated python.

The debate between Reed and Rodda and Pyron *et al.* and others thus is highly significant, particularly in light of the substantial "uncertainties of the climate-matching models and their projections." 77 Fed. Reg. at 3345. The chief means of testing these models is through empirical research. Since the USGS Risk Assessment and Rodda *et al.* (2009)[6] were published there have been at least three cold-weather studies, generating at least five reports, shedding light on the habitable range of Burmese pythons and, thus, provide an indication of whether maps of Reed/Rodda or those of Pyron represent the best scientific information. Specific to the proposal to list the remaining five species, if the USGS analysis overstates the potentially suitable range of

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[3] *See, e.g.*, 75 Fed. Reg. at 11809 (listing sources of information considered).

[4] Barker DG, Barker TM (2010). The distribution of the Burmese python, *Python bivittatus*, in China. *Bulletin of the Chicago Herpetological Society* **45**, 86–8.

[5] A detailed recitation of the Barker and Barker (2010) report is contained in USARK's Letter to Daniel Ashe (April 2013), appended hereto as Appendix 1 for inclusion in the record.

[6] Jarnevich CH, Reed RN (2009). What parts of the U.S. mainland are climatically suitable for invasive alien pythons spreading from Everglades National Park? *Biological Invasions* **11**, 241–51.

Burmese python, which is the only species of the nine whose native range includes large temperate areas, then it certainly overstates that of the remaining species.

Among new work emerging after the close of comments is a report led by Richard Engeman of the National Wildlife Research Center, part of the U.S. Department of Agriculture's Animal and Plant Health Inspection Service.[7] As part of a broader report on controlling invasive species, the authors examined the science relating to suitable Burmese python habitat. Among other findings, Engeman *et al*. (2011) noted the importance of correct "selection of variables applied in a climate matching analysis" to "produce an accurate reflection of where the invading species might expand its range," emphasizing "the importance of using daily extreme high and low temperatures from native ranges, rather than only mean monthly temperatures, when assessing the thermal tolerances of invasive species in their introduced ranges." *Id.* (citing Avery *et al*., 2010a). The model used by Reed and Rodda was limited to mean monthly temperatures.

The authors referred to the "unusual prolonged cold front in southern Florida during January 2010" as "provid[ing] valuable empirical information concerning thermal tolerances of Burmese pythons …." Comparing the high number of deaths during the January 2010 cold snap with the absence of "unusual mortality" during the previous winter of 2008-09, Engeman *et al.* observed that mean monthly temperatures in January of each year were essentially the same (17^{o} C in 2009 and 15^{o} C in 2010). However, in January 2009 the temperature never fell below freezing and was below 5^{o} C for six days, whereas in 2010 the temperature fell below freezing for three hours and there were seven days of temperatures below 5^{o} C. This small but significant difference led to a large python die-off. The report concludes: "Such extreme daily temperature changes rather than, or in addition to, monthly mean temperatures need to be factored into climate-matching models used to define areas at risk of invasion, not only by Burmese pythons, but also other nonnative reptiles as well."[8]

Jacobson *et al.* (2012)[9] likewise studied the importance of temperature extremes versus the use of mean monthly temperatures in assessing the ability of species such as the Burmese python to survive and expand beyond the ENP. The researchers examined six-years' worth of daily and mean monthly low and high temperatures for Homestead, Orlando and Gainesville,

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[7] Engeman R, Jacobson E, Avery ML, Meshaka WE (2011). The aggressive invasion of exotic reptiles in Florida with a focus on prominent species: a review. *Current Zoology* **57**, 599–612.

[8] *See also* Avery *et al*. (2010) ("Our results, while not definitive, support the view that climatic variables affecting the extent of a species' range are likely defined by their extremes in magnitude and duration, rather than by average values.").

[9] Jacobson, E. R., Barker, D. G., Barker, T. M., Mauldin, R., Avery, M. L., Engeman, R., & Secor, S. (2012). Environmental temperatures, physiology and behavior limit the range expansion of invasive Burmese pythons in southeastern USA. *Integrative Zoology*, ***7*(3)**, 271-285.

Florida and Aiken, South Carolina,[10] comparing those with projected minimum temperature limits of python digestion, activity, and survival. These data were incorporated with "recent reports on overwinter death of Burmese python in the Everglades, Gainesville and Aiken." Finally, the authors examined whether "Burmese pythons possess the behaviors and physiology to cope with and survive winter temperatures."

The authors concluded: "As tropical Southeast Asia is the source of the Everglades Burmese pythons, we predict it is unlikely that they will be able to successfully expand to or colonize more temperate areas of Florida and adjoining states due to their lack of behavioral and physiological traits to seek refuge from cold temperatures." Further, even only as far north as Gainesville, "activity and digestion would be largely inhibited during this 5 month period [from October through February]," as "almost every day" ambient temperatures fell below critical levels. Further, "for more than half of this period, daily lows were at or below" levels that can be fatal and which "eliminat[e] a Burmese python's ability to move and defend itself effectively." In Aiken, freezing temperatures "would be encountered regularly from December through February," and commonly in October and November.

Engeman *et al.* (2011) addressed the central question involved in FWS' listing decisions: "These radically divergent projections on the potential range of the Burmese python led to spirited discussion, but empirical information detailing the fate of Burmese pythons during the aforementioned recent cold spell in Florida during the winter of 2009–2010 agree with the predictions of the more conservative model (Pyron et al., 2008), and indicated the snakes would not likely spread beyond extreme south Florida (Avery et al., 2010a; Mazzotti et al., 2010)." As a result, Engeman *et al.* (2011) found, consistent with all cold weather studies discussed here, that these snakes lack appropriate behavioral responses to survive in freezing weather.

These reports affirm the importance of temperature extremes in the ability of these non-hibernating snakes to survive, breed, and expand territory. If the Burmese python's range is more limited than that suggested by the USGS Risk Assessment, perhaps even to its current range, then none of the less adaptable five species are at all likely to establish new populations in the continental United States.

For instance, Jacobson *et al*. (2012) examined the conditions under which reptiles in general, and snakes in particular, survive in temperate regions; *i.e.*, by adopting behavioral adaptions such as hibernation.

> For the Burmese python to survive in even modestly temperate regions of North America (e.g. southern USA) would require that when exposed to decreasing temperatures they could retreat to underground refugia and remain there until temperatures increased. This is contingent on 2 factors. First, pythons need an

[10] "These sites were selected because they are located within the geographic climate envelope predicted to be suitable for the establishment of Burmese pythons, as modeled by Rodda *et al*. (2009) (Fig. 1), and include localities (Gainesville and Aiken) where the overwinter survivorship of the Burmese python has been examined (Avery *et al*. 2010; Dorcas *et al*. 2011)."

> adequate number of accessible refugia of sufficient size, depth and moisture content to ensure protection from freezing temperatures and dehydration. Second, pythons must possess the innate behavior to retreat into underground shelter with the onset of cold temperatures and remain there until temperatures warm up again.

Challenges to the survival of adult pythons, boa constrictors, and anaconda would be the lack of refugia of adequate size and depth to allow these snakes to occupy and survive freezing temperatures.[11] There are, for example, no burrowing animals even close to the 50-75 kilogram weight potential of Burmese pythons and the other of the largest constricting snakes. Further, none of these animals have the behavioral characteristics necessary to survive the cold.

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As noted at the opening of this section, these studies are important because they provide empirical evidence that can shed light on the question of whether Reed and Rodda's climate matching model, Pyron *et al.*'s ecological niche model, or perhaps a composite or experimentally-based model constitutes the best available science. That is a decision entrusted to FWS after making a reasoned evaluation of the evidence. The problem, as explained in detail below, is that although the Final EA for the partial final rule issued after most of these studies were published, none – not even Pyron *et al.* (2008) – are discussed or even referenced in the document. FWS' evaluation of risk and assessment as to whether a full EIS might be required proceeded as if there was no ongoing scientific or public controversy over the central, and perhaps only meaningful, issue relevant to the agency's decision.

II. LISTING IS UNJUSTIFIED BY THE PURPORTED THREAT AND, ON THIS RECORD, INCONSISTENT WITH LAW

A. The Current Record, Best Scientific Information, and Objective Evidence Do Not Support Listing the Reticulated Python and Boa Constrictor as Injurious

FWS proposed to list nine nonnative species of constricting snakes as injurious is "to prevent the accidental or intentional introduction of and the possible subsequent establishment of populations of these snakes in the wild in the United States." 75 Fed. Reg. at 11809. The Service also seeks to avoid establishment of populations in "new areas of the United States." *Id.* The preamble notes that "[t]housands of Indian pythons (including Burmese pythons) are now breeding in the Everglades," as are smaller populations of boa constrictors and Northern African pythons in southern Florida, while populations of reticulated pythons and yellow and green anacondas have not been found in that area. *Id.* Due to identified traits, FWS posits that "[t]here

[11] As Jacobson *et al.* note, the refuge would have to be of sufficient depth, as even the snakes in the (Dorcas *et al.* (2011) that remained in shelters one meter deep failed to survive.

is a high probability that large constrictors would establish populations in the wild within their respective thermal and precipitation limits." *Id.*

In other words, the purpose of the proposed rule is to protect native ecosystems and wildlife from invasive large snakes that are not native to those environments. To achieve this objective, FWS has only considered using the Lacey Act, which, as noted above, prevents importation of listed wildlife and certain movements of such species between areas under U.S. jurisdiction.

Given this, two key questions must be answered to determine whether or not any of the candidate species are injurious, both within the Lacey Act's meaning and as defined by FWS:

(1) Which ecosystems are potentially vulnerable to establishment and damage?

(2) Will the listing of each of these species achieve the purposes and objectives identified in the proposed rule?

One step in answering the first question is to identify what areas are at risk.[12] For this purpose, FWS primarily relied on the USGS Risk Assessment and its maps of potentially suitable locations based on climatic conditions.[13] As to the second question, the Service must look at the rules and regulations in place governing each of the nine species in the jurisdictions where vulnerable ecosystems exist. Patently, if importation or transportation into a state, possession, or territory of a nonnative snake injurious to its ecosystem is prohibited, its addition to the injurious species list adds no protection. Further, regulatory controls may exist that mitigate or eliminate risk of establishment. FWS failed to meaningfully undertake, or undertake at all, the second inquiry.

It is a fundamental precept of administrative law that "an agency [must] 'examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made.'" *Alpharma, Inc. v. Leavitt*, 460 F.3d 1, 6 (D.C. Cir. 2006) (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)) (quotations omitted). "FWS decisionmakers, of course, have the right to change their minds, reject earlier analyses, decide between conflicting pieces of evidence, and make policy decisions. But they must supply 'a reasoned analysis' when they do so …." *Conservation Force v. Salazar*, 851 F. Supp. 2d 39, 51 (D.D.C. 2012) (quoting *National Cable & Telecomm. Ass'n v. FCC*, 567 F.3d 659, 667-68 (D.C. Cir. 2009).

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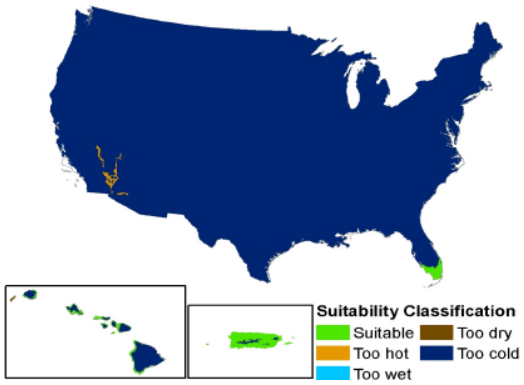
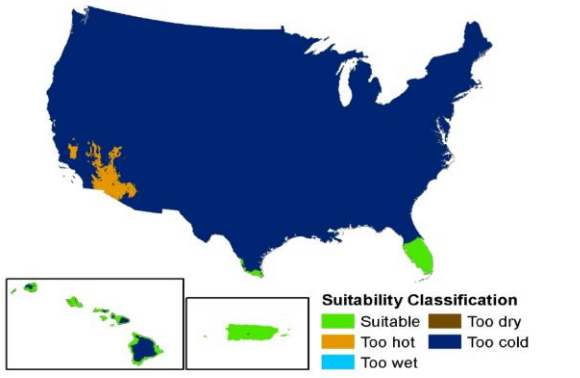
[12] Of course, answering this question also requires an assessment of damage that could occur if the species under consideration became established in an area that presents a climate match.

[13] Reed and Rodda (2009); *see also* Rodda, *et al.* (2009); FWS, *Final Environmental Assessment For Listing Large Constrictor Snakes As Injurious Wildlife under the Lacey Act*, at 7 (Jan. 2012) ("The U.S. Geological Survey's biological and management profiles and risk assessment) provided much of the information used by the Service to evaluate the listing criteria.") (citation omitted).

With respect to the proposal to list the reticulated python, the USGS identified only a small portion of extreme southern Florida as presenting a suitable climate.

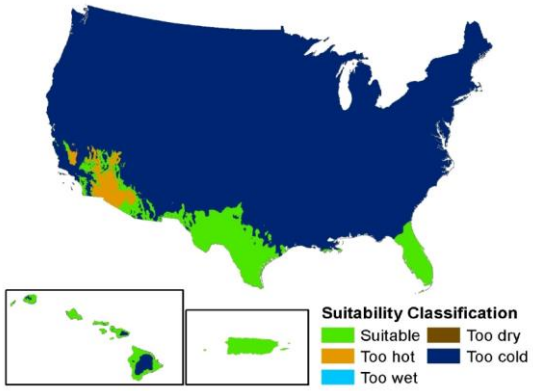


For the boa constrictor, FWS and USGS present two maps, one with all boa subspecies and another from which areas that may suit only the Argentine boa are excluded. The Argentine boa, tolerant of cooler temperatures and more climates than others, is a candidate for separate species status. Moreover, the Argentine boa is on Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora ("CITES") and has not been imported for commercial purposes since at least since 1987. Any currently in trade are bred in captivity from founder stock. These snakes have been held in captivity for decades and their offspring forever. Like all captive-bred snakes, they lack the natural instincts of wild-caught animals. Therefore, the map on the left represents potential range, according to USGS and FWS, for all boa constrictors but the Argentine, and the map on the right the same for the Argentine boa alone.[14]



Boa Constrictor (*Boa constrictor*)

Figure 10. Areas of the United States matching the climate envelope expressed by *B. constricto* in its native range, excluding records for the Argentine Boa (*B. c. occidentalis*) (Reed and Rodda 2009).



Boa Constrictor (*Boa constrictor*)

Figure 9. Areas of the United States matching the climate envelope expressed by *B. constrictor* in its native range, based on 131 known localities (Reed and Rodda 2009).

[14] It is worth reiterating that Figure 9 overstates habitable area for Argentine boa, as it is based on mean temperatures. This species could not survive the coldest temperatures in these areas.

As the maps also show, of course, there are climate matches for both species in parts of both Hawaii and Puerto Rico, as well as, presumably, the insular territories.

Once areas theoretically at risk are identified, the next step is to look at the laws, regulations, and other factors that amplify, mitigate, or eliminate the risk. For instance, Hawaii, Puerto Rico, and the territories all prohibit the importation, transportation, and ownership of all the proposed non-native species by law. As such, listing under the Lacey Act adds no protection to these ecosystems in these jurisdictions. It is therefore irrational to rely on putative benefits of listing, or factor in the risks of not doing so, in any place but the continental United States.

Of the continental states, only part of Florida presents a match for the reticulated python. Florida, like all the non-continental jurisdictions, prohibits the reticulated python's importation from abroad or any other U.S. state, territory or possession. Therefore, the risk this species presents to the environment is virtually non-existent. Only if an individual broke the law by bringing a reticulated python into one of the areas with putatively suitable habitat – which is itself a violation of the Title 16 Lacey Act provisions – would any risk of harm be present. It is difficult to imagine an individual or individuals willing to violate state and federal law would be further deterred if the reticulated python were additionally designated as injurious.[15]

Practically speaking, even if one or a handful of reticulated pythons were unlawfully brought into a place like southern Florida, Hawaii, or Puerto Rico, a chain of events so improbable would have to occur before any significant environmental harm could occur. For instance, the snake or snakes would have to escape, find suitable habitat (which, as discussed below, means more than finding areas with similar mean monthly temperatures), find others of the species, and produce offspring in sufficient numbers to survive both predation and climatic extremes in numbers large enough to establish a sustaining population. Additionally, reticulated pythons are very unstable during egg incubation, requiring ideal conditions to hatch, proving a distinct contrast from the more temperature-tolerant Burmese python. The probability of this chain of events is so unlikely that listing this species as injurious on such a basis would be arbitrary and capricious.

In terms of the boa constrictor, FWS fails completely to distinguish between the Argentine and other subspecies in terms of risk. *See, e.g.* FWS, Draft Environmental Assessment For Listing Nine Large Constrictor Snakes As Injurious Wildlife under the Lacey Act ("Draft EA"), at 24 (Feb. 2010) (noting the inclusive "map is used for the overall risk assessment"). As a matter of administrative law, listing of all (current) subspecies of boa constrictor cannot be justified based upon the minimal risk to areas that only one subspecies, the Argentine boa, theoretically poses. Wild Argentine boa constrictors are not in trade. The minimal number of captive-bred Argentine boas all are from founder stock that has been held in captivity for nearly thirty years and pose no environmental threat.

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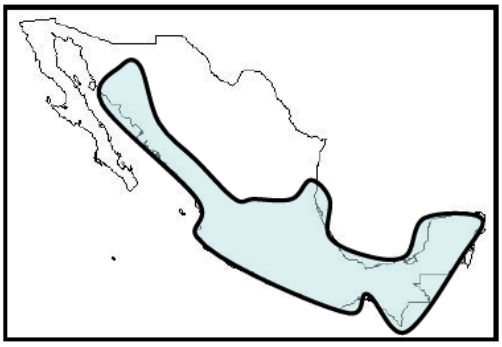
[15] It is worth noting that a violation of the Title 18 Lacey Act provisions is a misdemeanor, carrying only the potential for up to six months in prison or a civil fine. 18 U.S.C. § 42(c). Title 16 violations are felonies that can result to up to five years in prison. 16 U.S.C. § 3373(d).

The Argentine boa constrictor (*B. c. occidentalis*) was placed on Appendix I in 1987 (all boa constrictors were listed CITES Appendix II in 1977). Since that time, consistent with the regulations governing Appendix I species, no Argentine boas have been imported for commercial purposes.[16] As FWS administers CITES, including issuing permits for imports, the Service is well aware of this fact. Given that FWS controls importation of this species, including all conditions and uses, it is arbitrary and capricious to rely on the range map that includes the Argentine boa for purposes of risk assessment.

Thus, only Florida has climatic conditions even remotely suitable for those subspecies of boa constrictors that are actually in trade. Florida and Texas have gone through legislative and regulatory processes to identify and regulate what they consider to be reptile species of concern to which special restrictions apply. Notably, after lengthy legislative debates and public rulemaking processes, lawmakers, public officials, and citizens in Texas and Florida rejected the idea of banning these species.

It is further worth noting that boa constrictors are native to Mexico. *See* Map of boa constrictor native range (from USGS (Reed and Rodda) 2009 at 152 (Fig. 7.2) below. Within Mexico, inhabited areas along the eastern coast stop well short of the Texas-Mexico border. Were the Texas coastal ecosystem north of the Rio Grande suitable for this species, it would be reasonable to assume that this species would have colonized it over the eons. Yet, the northmost extent of the boa constrictor population is far south of the Texas border, suggesting that neither Texas nor the northern Mexican Gulf of Mexico coast is suitable for this species.



Florida does not limit importation of boa constrictors, which itself is a telling fact given that it has had a small remnant population that became established sometime in the 1970s.[17]

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[16] *See* 50 C.F.R. § 23.35(c) (listing criteria for import permit, including that "[t]he specimen will not be used for primarily commercial purposes"). Reed and Rodda, in the USGS Risk Analysis, claim that the "Argentine Boa is present in the live animal trade in the United States, albeit in low numbers." *Id.* at 177. No citation for this assertion is provided, but if true, such trade would only be in captive-bred animals, or *B. c. occidentalis* that have been held in captivity for more than a quarter century.

[17] *See* Florida Fish and Wildlife Conservation Commission ("FWCC"), *Nonnatives – Common Boa*, available at http://myfwc.com/wildlifehabitats/nonnatives/reptiles/common-boa/.

This population has neither thrived nor expanded in nearly a half century. The likely reason for this is that the size and impact of this population is limited by climate. *See* USGS (Reed and Rodda) 2009 at 160 (citing Snow *et al.* (2007b)). Indeed, in only one year over that time has the Deering Estates population had some breeding success. That was in 1996, when there was an "especially warm winter[]." *Id.* at 159-60. Indeed, Rodda and Reed note that "[f]our dissected boas (of putatively South American origin) from the invasive population at the Deering Estate at Cutler had litter sizes between 24 and 47, most of which were infertile ova or slugs (Snow and others, 2007b)." *Id.* at 166. Ronne (1996) noted that the primary cause of infertile ova in boa constrictors is too low temperatures and recommends not subjecting boas to temperatures lower than 74 degrees Fahrenheit.[18] The best available scientific information and empirical evidence suggests that escaped boas are unlikely to be able to establish new populations or expand within this state.

This is the reason Florida did not include boa constrictors on its list of reptiles of concern, which includes the Burmese python and others proposed for listing. This decision was made after exhaustive legislative and regulatory review and processes, reflecting the reasoned decisionmaking of experts and policymakers in the state at most risk from nonnative constricting snakes. Florida instead chose to regulate boa constrictors by establishing caging standards to which owners must adhere. FWS should respect the outcome of these democratic processes.

Given the state's preferences and the empirical record, it is clear the boa constrictor should not be listed. To the extent FWS feels that additional state regulation along the lines of those in Texas might be necessary to mitigate any residual risk, it could work with state regulators. Given the working relationship between FWS and the FWCC (which submitted the petition to list the Burmese python that initiated this rulemaking process), certainly a request for additional proactive measures is an alternative to a Lacey Act listing of the boa constrictor which, among all those proposed to be listed, accounts for most industry revenues.

In sum, the boa constrictor "threatens" only a small portion of two states, and even potentially suitable reticulated python habitat exists in no location where its importation is legal. Of these five species, only the boa constrictor has established a small population which not even FWS claims to have resulted in major damage to the local ecosystem. In decades of ownership and active trade in boas and reticulated pythons, this is the sole example of establishment anywhere in the nation.

Moreover, in its proposed rule and accompanying analysis, FWS has entirely failed to examine mitigating factors, such as state, federal, and international laws and regulations that limit or eliminate the risk to the values the proposed rule and Lacey Act are both designed to protect, which alone runs afoul of the principles of reasoned decisionmaking. FWS also considered no alternatives to this action, as required by the RFA and NEPA, despite ample, equally effective alternatives such as encouraging additional and reasonable state regulation.

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[18] Ronne, J. (1996). Revelations of a Boa Breeder. *Reptile Magazine* (Nov. 1996):24–43.

Instead, the Service's proposal maximizes damaging economic impacts and threatens educational and conservation work in all continental states. Weighed against the virtually non-existent benefits of listing these species as injurious, there is no rational way to justify the enormous costs in economic and even environmental terms. Adopting the proposed rule on the present record cannot be legally justified.

B. Listing These Snakes on the Present Record Would be Inconsistent With Applicable Law

1. The 2012 Partial Rule Was Based on Selective Science and Results-Oriented Decisionmaking Which, Fairly Evaluated, Would Not Support Listing of the Remaining Five Species

The critical issue in this rulemaking is the likelihood of any of the python, boa, and anaconda species proposed for designation as "injurious" under the Lacey Act becoming established in parts of the United States beyond extreme southern Florida. The finalized listing of the four species of constricting snakes, for instance, was premised on the assumption that Burmese pythons, at least, "could find suitable climatic conditions in roughly a third of the United States." 77 Fed. Reg. at 3332; *see also id.* at 3331 ("The purpose of listing the Burmese python and its conspecifics … as injurious wildlife is to prevent the accidental or intentional introduction of and the possible subsequent establishment of populations of these snakes in the wild in the United States."). The basis of this concern was a study using a highly imprecise climate matching model.[19] *Id.* at 3345-46 (describing the "inherent uncertainties" in climate matching science).

This study has been subject to extensive criticism. Nonetheless, FWS has defended the USGS's work as appropriate for use in "risk analysis," and defended its findings against all substantive criticism from experts in the public, other federal and state agencies, and academia in the 2012 Partial Final Rule's preamble. *See id*. In the course of this defense, however, FWS cherry-picked the most supportive statements from cold weather studies by authors sympathetic to FWS' objectives and dismissed, or altogether ignored, findings of authors critical of Reed's and Rodda's work. Also ignored were well-documented and detailed flaws identified with the model on which FWS relied.

A court "cannot affirm the agency's decision unless the agency has 'examine[d] the relevant data and articulate[d] a satisfactory explanation for its action including a rational

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[19] *See, e.g.,* Pyron RA, Burbrink FT, Guiher TJ (2008). Claims of potential expansion throughout the U.S. by invasive python species are contradicted by ecological niche models. *PLoS ONE* **3**: e2931 (criticizing Rodda (2009) and finding only extreme southern Florida and Texas provide suitable Burmese python habitat); Rodda, G.H., C.S. Jarnevich, and R.N. Reed (2011). Challenges in identifying sites climatically matched to the native ranges of animal invaders. *PLoSOne* **6(2)**: 1-18 (authors response to this criticism); *but see* Reed *et al.* (2012) (authors recognizing climate matching as "a nascent scientific endeavor[,] which in the case of Burmese pythons has not been without controversy.").

connection between the facts found and the choice made.'" *Conservation Force v. Salazar*, 851 F. Supp. 2d 39, 51 (D.D.C. 2012) (quoting *Alpharma, Inc. v. Leavitt*, 460 F.3d 1, 6 (D.C. Cir. 2006) (alterations in original). "FWS decisionmakers, of course, have the right to change their minds, reject earlier analyses, decide between conflicting pieces of evidence, and make policy decisions. But they must supply 'a reasoned analysis' when they do so …." *Id.* (quoting *National Cable & Telecomm. Ass'n v. FCC*, 567 F.3d 659, 667-68 (D.C. Cir. 2009). In the present case, FWS' burden of proof to display impartiality is heightened, given past indications it entered this rulemaking with a closed mind. For example, then-FWS Assistant Secretary for Fish and Wildlife and Parks Thomas Strickland who told the *New York Times* that "the government was not going to back down and that it would approve the regulations by next summer."[20]

Certainly, FWS failed to meet required APA standards in promulgating the 2012 Partial Final Rule, as USARK explained in its April 2013 letter to Director Dan Ashe. For instance, FWS stated that "[i]n Mazzotti *et al*. 2010, the authors noted that all populations of large-bodied pythons and boa constrictors inhabiting areas with cool winters, including northern populations of Burmese pythons in their native range, appeared to rely on use of refugia (safe locations) to escape winter temperatures." 77 Fed. Reg. at 3332. While true as a characterization of the report cited, it is misleading because it suggests that the pythons in the ENP displayed such behaviors. In fact, the authors found that "[t]elemetered pythons appeared to exhibit maladaptive behaviors during the cold spell, as evidenced by observations that all 10 individuals were found on the surface rather than in sheltered refugia." The Service must be careful to avoid similar missteps in the current rulemaking.

Doing so means reevaluating the empirical and scientific evidence with respect to the Burmese python's range and consider the implications of this information for the more tropical species still at issue. With respect to boa constrictors, which lack sheltering instincts, for example, could the fact that the Deering Estate population has not been able to expand or even grow be due to cold winter temperatures? Given that there has only been one successful breeding season in forty years and sightings of boas that have consistently averaged two a year otherwise, the evidence suggests this is the case.

Barker and Barker (2010), which provides exhaustively detailed criticisms of Reed and Rodda (2009), was cited by at least five commentators, including even a supporter of the listing, during the initial comment periods. That supporter, the Florida Chapter of The Nature Conservancy, stated that "the points [in the Reed/Rodda model] identified by Barker and Barker (2010) should be re-assessed." Despite the controversy surrounding this listing process and the scientific debate over climate matching models, the Service did not address or cite Barker and Barker (2010) in either the Partial Final Rule or the Final EA. Before making a decision with respect to the remaining species, FWS must evaluate the potential deficiencies with the model upon which it primarily relies.

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[20] Leslie Kaufman, New York Times (Jan. 8, 2011), *available at http://www.nytimes.com/2011/01/09/science/earth/09snakes.html*.

USARK notes that one of the chief criticisms identified by the Barkers and many other biologists was the USGS Risk Assessment's decision to combine by what the consensus of herpetological geneticists believe are two different species—Indian and Burmese pythons—for purposes of defining potentially habitable range. FWS risks repeating this mistake by utilizing the climate match map for Argentine and all other boa subspecies. Even if there is not yet a similar level of agreement that *B. c. occidentalis* is a distinct species, the fact that no wild Argentine boas can be imported make it arbitrary and capricious to rely on this map.

Given its importance to the issue at hand, FWS must also consider Avery *et al*. (2010),[21] as well as contrary findings in Dorcas and Mazzotti to those upon which the agency based its 2012 decision. Finally, given that Reed and Rodda based their analysis on mean monthly temperatures, FWS must also address Engeman *et al.* (2011)'s findings relating to the importance of daily extreme high and low temperatures in accurate climate matching studies. (Parenthetically, even though Engeman *et al.* issued after the comment period closed, FWS continued reviewing literature, citing other post-comment period reports, such as Dorcas *et al*. (2011), with findings more congenial to the agency's ultimate determination. This is yet another example of the selective, results-oriented analysis which marked the 2012 Partial Final Rule.)

In sum, the initial stage of this rulemaking was riddled with classic examples of flawed decisionmaking. To avoid similar results this time, FWS must fairly evaluate all the evidence before it and fully investigate important aspects of the problem at hand. *See Anacostia Riverkeeper, Inc. v. Jackson*, 798 F. Supp. 2d 210, 239 (D.D.C. 2012) (selective quotation and omission of scientific information essential to agency decision violates the APA).

2. FWS Cannot Rely on Conclusory and Unsupported Statements to Justify the Lacey Act Listing

Conclusory statements, unsupported by the record, are entitled to no deference and are incapable of supporting an agency determination. *See Professional Pilots Federation v. FAA*, 118 F.3d 758, 771 (D.C. Cir. 1997) (a court will not "sanction agency action when the agency merely offers conclusory and unsupported postulations in defense of its decisions") (citations omitted). When "the reasons given for [a regulatory action] do not reasonably connect the data found by the federal defendants to the choice they made" that action is "arbitrary and capricious." *Sierra Club v. U.S. Army Corps of Eng'rs*, 772 F.2d 1043, 1051 (2d Cir. 1985).

Perhaps the clearest example of unreasoned decisionmaking engaged in 2012 Partial Final Rule was the "cut-and-paste" approach of its species analyses. In the final rule's "Potential Introduction and Spread" section, part of the species-specific discussion of the reasons the

[21] The only mention made to Avery *et al.* (2010) is in response to comments by USARK and others, and only went so far as to note that "two of nine (22 percent) of the Burmese pythons survived the cold spell." 77 Fed. Reg. at 3360. FWS ignored that study's ultimate conclusion: "Our empirical observations on the impacts of the cold weather event are consistent with results from recent niche modeling efforts (Pyron *et al*. 2008) and cast doubt that Burmese pythons can become established and persist beyond the southern portion of the Florida peninsula."

agency found each of the four snakes to be injurious, FWS states that Burmese python, Northern and Southern African pythons, and Yellow Anaconda each are highly likely to spread and become established in the wild due to common traits shared by the giant constrictors:

> Rapid growth to a large size with production of many offspring; ability to survive under a range of habitat types and conditions (habitat generalist); *behaviors that allow escape from freezing temperatures*; ability to adapt to live in urban and suburban areas; ability to disperse long distances (Harvey et al. 2008); and tendency to be well-concealed ambush predators.[22]

The record, however, does not support the highlighted conclusion. There is no evidence that any species beyond certain subpopulations of Burmese python ever even encounter freezing temperatures in their native range.

For instance, yellow anaconda only occasionally inhabits "localities with cold-season monthly mean temperatures around 10^{o}C (50^{o}F)." Final EA at 18. Nor do any of the species currently under consideration, save perhaps for the Argentine boa. Nonetheless, the proposed rule states that the "yellow anaconda, DeSchauensee's anaconda, and Beni anaconda exhibit many of the same biological characteristics as the previous five species that pose a risk of establishment and negative effects in the United States." 75 Fed. Reg. at 11809.

FWS also relied on identical facts to support contrary propositions in the 2012 Partial Final Rule. This approach demonstrates flexibility and pragmatism, but does not constitute informed or informative rulemaking. Similar justifications will not suffice to list the boa constrictor, reticulated python or any of the other species still outstanding.

For example, the purpose of listing these constricting snakes "as injurious wildlife is to prevent the accidental or intentional introduction of and the possible subsequent establishment of populations of these snakes in the wild in the United States." *Id*. To demonstrate that the "accidental or intentional introduction[s]," which might lead to "possible" establishment, are likely, however, the 2012 rule states that the "volume of imports and domestically bred snakes is so large" that even a small percentage irresponsible snake owners or damaged shipping containers carrying imports to a "pet owner's home" could result in large numbers of released species. 77 Fed. Reg. at 3347. FWS goes on to assert:

> Another consideration is the risk involved with transporting large, powerful snakes. While keeping a snake in a sedentary home cage may be not in itself be a difficult task**,** the situation may change when a 20-ft (6-m) snake weighing 200 pounds (91 kg) is transported in a car to a veterinarian. Unless the snake is transported in an escape-proof cage from the house to the automobile to the veterinarian, snakes may find more opportunities for escape. Conversely, small snakes may escape more easily than large ones because they are more likely to be transported casually, such as carried for show.

[22] 77 Fed. Reg. at 3338 (Burmese python); 3341 (Northern African python); 3342 (Southern African python); 3343 (yellow anaconda) (emphasis added).

Id. In other words, the 2012 rule was justified as necessary to prevent the risk of escape fostered by these large snakes' importation, ownership, and routine transportation.

In previous comments, moreover, USARK and others observed that the rule would lead to great numbers of the listed snakes being euthanized or released by owners moving out of state or breeders with expensive inventory for which the market has dried up. In response, FWS claimed that

> all owners of any of the snakes listed as injurious will be allowed to keep them under this rule…. We have no reason to believe that responsible, caring owners will kill or release them into the wild because they can keep them. Breeders may still be able to export through a port in their own State.

Id. at 3352. Thus, FWS claimed that importation and ownership (particularly by the irresponsible), and the ancillary transportation that importation and ownership of such large number of snakes entail, were primary risk factors justifying its determination that those four species are injurious.

At the same time, however, the Service touted people's ability to export and to continue owning these species as reasons that the environmental harms of release, purposeful or not, and mass slaughter of animals (itself a conservation injury worthy of analysis) will be averted. Yet FWS provided no rationale as to why transportation of nonnative snakes from ports to homes is a danger, whereas transportation from homes to ports is a benefit. Nor was any attempt made to explain why, when ownership and interstate sales of these animals is lawful, negligent or malicious releases are likely, while this concern evaporates once the species no longer have value in trade and interstate movement is prohibited. The same facts and circumstances are irrationally used as both a sword and a shield without the slightest sense of irony.

Even assuming the proposed transportation and commerce restrictions reduce risks from import and interstate movements, any benefit is likely to be swamped by the increased risk of release these listing-related proscriptions entail. Given that there are far more boa constrictors, not to mention some Argentine boas, in private ownership here in the U.S. than the four listed species combined. Thus, this issue looms even larger for the current rulemaking.

Whether or not the concerns raised by the public are realized, they are "important aspects of the problem" which FWS failed to recognize or discuss in violation of the APA. *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43. The fact that these same assertions were irreconcilably used for entirely contradictory purposes was itself arbitrary and capricious. *See Lands Council v. U.S. Forest Service*, 395 F.3d 1019, 1026 (9th Cir. 2005) (agency acts arbitrarily "if an agency offers an explanation for the decision that is contrary to evidence, if the agency's decision is so implausible that it could not be ascribed to a difference in view or be the product of agency expertise") (quoting *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43). Similar failure in the current process will doom this rulemaking.

C. Conclusions

The present record cannot support the proposed listing. Only by continuing to ignore contrary information or selectively relying on supportive science can a finding of that any of these five species pose even more than a minimal risk be made. Similarly, the Service cannot proceed to listing without reconciling the contradictions and unsupported conclusions noted above and in USARK's April 2012 Letter.

Among these, FWS must reconcile the alleged detriment posed by transportation with the fact that it lacks authority to prohibit exports or intrastate ownership and movement.[23] Notably, both Florida and Texas have special ports from which these snakes may be exported. Nonetheless, the harms hypothesized have not come to pass. Succinctly, the Service has not shown that commerce is the problem or that the Lacey Act is the solution.

III. LISTING THESE FIVE SPECIES UNDER THE LACEY ACT IS BAD POLICY AND A POOR USE OF PUBLIC RESOURCES

Aside from being inconsistent with the Lacey Act as a legal matter, listing these animals represents a poor use of federal police power. As shown above, the threat these animals pose to major ecosystems is exceedingly minimal. On the other side of the coin, listing these species can cripple a small but vibrant industry, hamstring environmental educational programs, and impede beneficial scientific, conservation, and medical research. Furthermore, listing these snakes as injurious may even foster greater ecological damage than might otherwise occur. As has been seen with the listing of the Burmese python, an injurious listing would halt research of the biology of these species, terminating substantial and groundbreaking new medical benefits for humans. Finally, and far from least, the *ultra vires* proposal to ban interstate commerce and transportation proposed in the rule is an infringement on the basic liberties we enjoy as Americans.

The proposal to list reticulated pythons and boa constrictors was, by itself, enough to depress the market for boa constrictors and reticulated pythons. Breeders, hobbyists, and prospective owners have not been willing to invest in these snakes with the threat of not being able to sell or even travel with their animals across state lines. Listing these snakes as injurious will unnecessarily impede commerce, dealing a financial death blow to thousands of small business and professionals. It is not only hobbyists, pet keepers, and business owners that will be affected, but also educators, scientists, conservationists, researchers and other interested parties and individuals.

In fact, FWS' misreading of the Lacey Act as authorizing a ban on interstate transportation places a potentially unconstitutional burden on citizens' fundamental right to travel and serves no rational purpose. A reading of the law that holds that citizens in two adjoining states may lawfully own a reticulated python, but each may not cross that political boundary is facially absurd. In metropolitan regions covering multiple states, a herpetological veterinarian may be a matter of a few miles away from a reticulated python owner, but in another

[23] As shown in Part V, FWS also lacks the authority to prohibit interstate transportation or commerce in Lacey Act-listed species among continental states where ownership is legal.

state. FWS would deny her the right to seek care for her pet. Further, to be an owner of boa constrictor would mean forgoing the right to move to another state to retire, take advantage of a job opportunity, or get an education, even if ownership of the boa is lawful in the new location and all states between. This reading of the law places an undue burden on citizen's right to travel and serves no rational purpose.

Under our federal system, sovereign states have the primary responsibility for defining and protecting its and its citizens' interests. They are free to adopt regulations on constricting snake ownership and conditions of ownership deemed appropriate (as is the Department of Interior over federal lands it administers). Where, as here, the potential for risk exists in only, at most, two continental states, a national ban on these species is an unwarranted intrusion on states' prerogatives serving no conservation or public policy interest. Texas and Florida, the two states in question, can and have addressed their concerns with these species as they best see fit.

The proposed listing also serves no conservation purpose, and may even foster some of the harms it purports to avoid. As to the former, more than ninety-nine percent of the continental U.S. landmass is unsuitable for these species' survival. Feral pigs wreak far more havoc on natural resources than the scarce, short-lived, escaped python or boa. Further, a large segment of USARK's membership is engaged in conservation education, both regionally and nationally. They, along with USARK as an organization, provide opportunities for students and adults alike to learn about these animals, fostering appreciation for their survival, and respect for the natural environment. The proposed listing will result in severe limitations on these efforts.

Listing of constricting snakes also retards efforts to eradicate remnants of the species proposed for listing from places such as the Everglades National Park and other locations in south Florida where they have been found. The Burmese python example shows that many of the most knowledgeable and effective herpetological experts will either limit or cease this activity if either required to euthanize the captured snakes or are forbidden from bringing the animals to a more suitable location out of state. FWS' failure to recognize this impact is the direct result of the fact that it fails to recognize the passion for and esteem with which USARK members and others in the reptile community hold these animals.

Similarly, a listing impairs the work of both private and academic researchers engaged in helping to conserve biodiversity, developing captive breeding techniques as a hedge against extinction, and working to better understand these animals, their habitats, biology, and behaviors. While permits may, in the Secretary's sole discretion, be made available for some of these activities (as with the educational efforts described above), the process is both long and uncertain. As with Burmese python, the burdens associated with working with Lacey Act-listed species will cause some to forgo needful conservation and scientific research of these animals.

As to fostering harms FWS purports to avoid by listing, the Service should heed the comments of the Association of Fish and Wildlife Agencies ("AFWA"). AFWA expressed concern that barring interstate transportation will cause some owners to release their animals. USARK condemns such actions and has developed programs of responsible ownership with AFWA, individual states, and others to help avert purposeful or accidental release. Nonetheless,

it would be willful blindness to ignore the fact that human nature will lead some to release their boa or reticulated python if interstate transportation and commerce are forbidden.

The listing also represents a poor use of FWS' own limited resources. All other matters aside, just the burden associated with processing permits to transport and/or import these species represents a waste of the Service's personnel and budgetary resources. There could be literally thousands of permit applications from zoos, researchers, educators, and pet owners, all of which require Federal Register notice and comment. Given the minute threat and effective state regulations already in place, this administrative burden – on the Service and public alike – cannot be justified.

Finally, as the determination of whether or not to list a species as injurious under the Lacey Act is entirely discretionary, the economic impacts of the listing cannot be ignored. While the listing serves no public policy or conservation purpose, the proposal will have the definitive effect of destroying a small, but vital, domestic industry. The reptile industry is comprised of passionate hobbyists, breeders, and pet owners. It also supports a large variety of support industries, including equipment manufacturers, feed producers, transportation providers, and herpetological veterinarians, among others. The cost, in terms of lost jobs and revenue (described in detail below), far outweigh any benefits the listing may provide. Indeed, the benefits may be negative.

The economic and educational lifeblood of retile industry is its trade shows, of which there are literally hundreds all across the country each year. They provide opportunities for breeders and companies in the support industries to sell and display their goods. Trade shows are also open to the public and are accompanied by educational programs. The economic, social, and educational benefits will all be lost if the proposed rule is adopted.

IV. COMMENTS ON THE PROPOSED RULE'S ECONOMIC IMPACTS AND INITIAL REGULATORY FLEXIBILITY ANALYSIS

While many of the species in the original proposal are not major species in trade,[24] those that are include the boa constrictor, reticulated python, and Burmese python. In fact, the boa is by far the most commonly held and most economically important large constrictor, accounting for the majority of adverse economic consequences from the listing. The reticulated python, with many smaller-bodied localities introduced into breeding programs, is also a significant source of revenue. FWS, however, failed to adequately characterize the industry's scope or recognize the unraveling economic impacts of this first-time listing of a species widely held as pets.

[24] In fact, Beni and DeSchauensee's anacondas are not currently available in the pet trade nor have diligent searches show that they exist at all in the United States. Further, these species are unlikely to survive even in extreme southern Florida, raising questions about the utility of listing these species at all.

To fill the gap left by the Service, USARK commissioned Georgetown Economic Services ("GES") to produce a detailed profile of the U.S. reptile industry and estimate the impact of listing these nine species of constricting snakes as injurious.[25] Despite having been made available to FWS prior to the issuance of the 2012 Partial Final Rule and its obvious relevance to the agency's decision and its Regulatory Flexibility Act ("RFA"), 5 U.S.C. Chpt. 6, this information was ignored.[26] In fact, the Small Business Administration's Office of Advocacy criticized the proposed rule on these very grounds. "Advocacy believes that the IRFA published with this proposed rule does not provide an accurate analysis of the economic impacts of the proposed rule on small entities." Susan M. Walthall, Letter to Secretary Salazar (May 10, 2010).[27]

The GES study made the following findings and conclusions:

- The U.S. reptile industry encompasses a vast number of participants including pet owners, hobbyists, breeders, importers, exporters, wholesalers, pet store proprietors, pet show promoters, entertainers, veterinarians, and manufacturers of pet food and ancillary pet products.
- In 2009, businesses that sell, provide services for, and manufacture products for reptiles earned revenues of $1.0 billion to $1.4 billion.
- In 2009, 4.7 million U.S. households owned 13.6 million pet reptiles. Reptile owners are spread throughout the United States without a concentration in any one area of the country.
- The vast majority of reptile businesses are small, individual or family-run businesses.
- With regard to the listing of the nine constrictor species, the report found:
    - The industry, and snake breeders and sellers in particular, will experience significant economic losses in the short-term. Estimates of the reduction

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[25] Fenilli, R.N. and Collis, A.C. (2011). The Modern U.S. Reptile Industry. Georgetown Economic Services, LLC Economic Analysis Group, *available at* http://usark.org/wp-content/uploads/2013/02/ModernReptileIndustryGES.pdf (appended hereto as Exhibit 2); *see also* Collis, A.C. and Fenilli, R.N. (2012). Constrictors, Injurious Wildlife Listings, and the Reptile Industry. *IRCF Reptiles and Amphibians Conservation and Natural History* **19(1)**:48–54.

[26] In the final rule's preamble, FWS opined "that there is very little reliable public information available about the snake industry." 77 Fed. Reg. at 3357.

[27] Advocacy also identified other deficiencies in the IRFA, including failures to (1) "discuss significant alternatives to the proposed rule"; (2) "properly identify the small entities directly affected by the rule"; and (3) "adequately describe the impacts of the proposed rule on small businesses." *Id.*

in industry revenues were between $76 million to $104 million in the first year.

- Economic loss to the industry over the first ten years following an enactment would run between $505 million to $1.2 billion in lost revenues, assuming historical industry sales growth rates.
- Even assuming no growth, the economic loss over the first ten years following an enactment would run between $372 million to $900 million in lost revenues.

While no subsequent analysis has been conducted to measure actual impacts, USARK can confirm anecdotally that they fall within the higher end of the ranges above, based upon the continual growth of the reptile segment of the pet industry as a whole. With particular respect to the boa constrictor and the reticulated python, in fact, the uncertainty that has resulted from the agency's failure to take final action (which, as USARK demonstrates herein, should be to reject the listing of these five species) has had for many essentially the same adverse consequences as if they had been listed. In her November 29, 2012, testimony before the House Subcommittee on Fisheries, Wildlife, Oceans and Insular Affairs of the House Natural Resources Committee, herpetologist, researcher, teacher, and commercial reptile breeder Colette Sutherland testified as to the economic impact the proposal to list boa constrictors has had on her small business.[28]

Ms. Sutherland explained that in the wake of the proposed listing, the market for boas crashed. Ultimately, the Sutherland family was forced to remove 60 adult boas from their breeding program which, in the market that existed prior to FWS' proposal, would have generated approximately $2,000,000 in revenue over their natural breeding lifetime. In this light, GES' findings, based on detailed surveys, interviews, and governmental reports, are both realistic and the best available.

V. COMMENTS ON FWS' FLAWED NEPA ANALYSES

For reasons explained below, the Draft EA is legally inadequate. FWS has entirely failed to consider a legal range of alternatives; overlooked important issues and scientific reports; and completely omits discussion of the major scientific controversy surrounding the Reed and Rodda climate matching model and the USGS Risk Assessment upon which the proposed rule is premised. In light of these shortcomings, USARK believes that should the Service decide against all evidence to move forward with listing any of the five snakes, it has no alternative but to prepare and allow comment on a new EA.

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[28] These hearings were in relation to H.R. 511, a bill that would add all nine species to the Lacey Act's injurious list. All the testimony, including that referenced here, can be found on the Subcommittee's website at http://naturalresources.house.gov/calendar/eventsingle.aspx?EventID=312516. Ms. Sutherland's testimony is incorporated herein by reference.

Under NEPA, an agency has an obligation to prepare appropriate environmental analyses that in "form, content and preparation foster[s] both informed decision-making and informed public participation." *Native Ecosystems Council v. United States*, 418 F.3d 953, 958 n.4, 960 (9th Cir. 2005) (internal quotation marks omitted). In the NEPA context,

> a court will overturn an agency's decision as arbitrary and capricious under "hard look" review if it suffers from one of the following: (1) the decision does not rely on the factors that Congress intended the agency to consider; (2) the agency failed entirely to consider an important aspect of the problem; (3) the agency offers an explanation which runs counter to the evidence; or (4) the decision is so implausible that it cannot be the result of differing viewpoints or the result of agency expertise.

Sierra Club v. U.S. Army Corps of Engineers, 295 F.3d 1209, 1216 (11th Cir. 2002). "Under NEPA, if '*any* significant environmental impact *might* result' from an agency's actions, an EIS is required." *Sierra Club v. Van Antwerp*, 719 F. Supp. 2d 58, 65 (D.D.C. 2010) (quoting *Grand Canyon Trust v. FAA*, 290 F.3d 339, 339 (D.C. Cir. 2002)).

The Draft EA violates NEPA by, among other things, failing to address responsible opposing views or engaging in a reasoned discussion of major scientific objections to the USGS risk analysis' highly controversial findings. Conservation concerns raised by scientists, academics, state resource management officials, and zoological institutions were not discussed or acknowledged. Environmental issues include: adverse impacts on captive breeding operations designed to supplement and enhance threatened and endangered snakes; the likelihood a ban on interstate movement will result in releases of covered snakes; diversion of state conservation agency resources; and curtailment of conservation research and education. Resultingly, FWS did not take the requisite "hard look" at the issues and the EA cannot support a finding of no significant impact.

Under NEPA, an agency must also consider "all alternatives that appear reasonable and appropriate for study at the time of drafting the EIS, as well as significant alternatives suggested by other agencies or the public during the comment period." *Roosevelt Campobello Int'l Park Comm'n v. USEPA*, 684 F.2d 1041, 1047 (1st Cir. 1982) (internal quotations omitted). While consideration of alternative is guided by a "rule of reason,"[29] "the agency is not released from its obligation to consider alternatives 'to the fullest extent possible'…." *Natural Resources Defense Council, Inc. v. SEC*, 606 F.2d 1031, 1054 (D.C. Cir. 1979) (citing 42 U.S.C. § 4332). To meet this standard, an alternative must merely be "readily identifiable by the agency"; it does not need to be one within the authority of the agency to implement. *See Morton*, 458 F.2d at 837 (finding NEPA violation for failing to consider eliminating oil import quotas even though doing so was not with the agency's power).

The only "alternatives" FWS considered in the Draft EA were different combinations and numbers of nonnative species to list. The Service does not have legal authority to pick and

[29] *NRDC, Inc. v. Morton*, 458 F.2d 827, 834 (1972).

choose species to list—it must make an individual determination as the injuriousness of each nonnative snake. As such, the Draft EA contains no true alternatives.

In the Final EA for the 2012 Partial Final Rule, FWS summarily dismissed two true alternatives: creating a federal permitting system and relying on state "legislative initiatives." Final EA at 16. In so doing, the Service relied on the unlawful justification that enacting these measures "is not within the authorities of the injurious wildlife provisions of the Lacey Act (18 U.S.C. § 42, as amended)." *See Morton*, 458 F.2d at 837. Nor did FWS consider other legal authority which is does possess that could address the purported environmental concerns. For example, as all nine species are on either Appendix I or II, CITES regulations provide the Service authority to control trade. In essence, FWS identified trade and lax state regulation as potential problems, but artificially constrained itself to considering addressing the problem under the Lacey Act.

For these and other reasons, the EA is unlawful, as is the finding that an EIS is not required. Indeed, the record suggests that an EIS is necessary based not only on the significant environmental concerns the listing poses, but also because of the substantial scientific controversies surrounding the action and the action's novel use of the Lacey Act to regulate animals held as pets.

Undertaking an EIS, or even drafting a lawful EA, however, would be a waste of limited agency resources. Based on all evidence and the law, FWS should simply decline to list these five snake species.

VI. THE LACEY ACT'S SCOPE AND APPLICATION TO THE PROPOSED LISTING

A. The 2010 Proposed Rule

FWS' March 12, 2010, notice of proposed rulemaking to add nine species of constricting snakes "to the list of injurious reptiles" states that "[t]he proposed rule, if made final, would … prohibit *any* interstate transportation of live snakes, gametes, viable eggs, or hybrids of the nine species currently held in the United States." 75 Fed. Reg. 11808, 11808 (March 12, 2010). (emphasis added). The notice also claims that "[t]he rule would not prohibit intrastate transport of the listed constrictor snake species within States. Any regulations pertaining to the transport or use of these species within a particular State would continue to be the responsibility of that State." *Id.* at 11810. Among the "use[s] of these species" states may permit are intrastate sales. *See id.* at 11827 (RFA analysis). As originally proposed, the rule would alter the existing Lacey Act regulations for reptiles and their eggs by adding the names of nine species of snakes to the list found at 50 C.F.R. § 16.15.

In full, the proposed rule reads as follows:

1. The authority citation for part 16 continues to read as follows:

Authority: 18 U.S.C. 42.

2. Amend § 16.15 by revising paragraph (a) to read as follows:

§ 16.15 **Importation of live reptiles or their eggs.**

(a) The importation, transportation, or acquisition of any live specimen, gamete, viable egg, or hybrid of the species listed in this paragraph is prohibited except as provided under the terms and conditions set forth in § 16.22:

(1) *Boiga irregulari*s (brown treesnake).
(2) *Python molurus* (Indian [including Burmese] python).
(3) *Broghammerus reticulatus* or *Python reticulatus* (reticulated python).
(4) *Python sebae* (Northern African python).
(5) *Python natalensis* (Southern African python).
(6) *Boa constrictor* (boa constrictor).
(7) *Eunectes notaeus* (yellow anaconda).
(8) *Eunectes deschauenseei* (DeSchauensee's anaconda).
(9) *Eunectes murinus* (green anaconda).
(10) *Eunectes beniensis* (Beni anaconda).

Id. at 11829.

Similar to the proposed rule's language, FWS asserts that the effect of a Lacey Act listing is to ban "the importation into the United States and *interstate transportation between States*, the District of Columbia, the Commonwealth of Puerto Rico, or any territory or possession of the United States" of those species deemed to be injurious. *Id.* at 3330 (emphasis added).

B. The Lacey Act

The Lacey Act, adopted in 1900, is one of the Nation's earliest conservation laws. With respect to its provisions relating to injurious wildlife, the original law was quite similar to its current version. Originally, the law prohibited the "[t]he importation into the United States, or any Territory or District thereof," of certain enumerated species "and such other birds and animals as the Secretary of Agriculture may from time to time declare to be injurious to the interests of agriculture or horticulture." 18 U.S.C. § 391 (1925-1926 ed.).

Since that time, the Lacey Act went through several revisions, most substantially through the Lacey Act Amendments of 1981, which, among other things, transferred authority to administer the law to the Secretary of Interior. Pub. L. 97-79, 95 Stat. 1073 (Nov. 16, 1981). This aspect of the law, however, has remained substantially similar. It currently reads:

> The importation into the United States, any territory of the United States, the District of Columbia, the Commonwealth of Puerto Rico, or any possession of the United States, or any shipment between the continental United States, the District of Columbia, Hawaii, the Commonwealth of Puerto Rico, or any possession of the United States, of [certain enumerated species], or the offspring or eggs of any of the foregoing which the Secretary of the Interior may prescribe by regulation to be injurious to human beings, to the interests of agriculture, horticulture, forestry, or to wildlife or the wildlife resources of the United States, is hereby prohibited.

18 U.S.C. § 42(a)(1). As such, the law empowers the Interior Secretary to identify and list, by regulation, wildlife that she determines to be injurious to the listed interests. The law also describes the legal effect such listing has with respect to be injurious wildlife.

In addition to transferring the law's administration to the Interior Department, the Lacey Act Amendments of 1981 substantially modified other aspects of the original law. For example, Congress shifted the Lacey Act provisions which create a federal offense for violations of state or foreign resource laws and its labeling provisions, among other things, from the Criminal Code, Title 18, United States Code, to Title 16, United States Code, which deals with conservation. *Id.*; s*ee also* 16 U.S.C. Chapt. 53.

Most importantly for present purposes, however, was the elimination of the prohibition on interstate commerce and transportation of species listed as injurious within and among the continental states. *See* 16 U.S.C. § 3378(b)(2). Until 1981, it was unlawful for "any person or persons to deliver to any common carrier, or for any common carrier to transport from one State or Territory to another State or Territory, or from the District of Columbia or Alaska, any foreign animals or birds the importation of which is prohibited." C. 553, sec. 3, 31 Stat. 188 (May 25, 1900), *codified at* 18 U.S.C. § 43 (1976 ed.). Through the Lacey Act Amendments, Congress repealed this provision. *See* 16 U.S.C. § 3378(b)(2). As currently written, the Lacey Act prohibits only "[t]he importation into the United States, any territory of the United States, the District of Columbia, the Commonwealth of Puerto Rico, or any possession of the United States, or any shipment *between* the continental United States, the District of Columbia, Hawaii, the Commonwealth of Puerto Rico, or any possession of the United States …." 18 U.S.C. § 42(a)(1).

To reiterate, the Lacey Act empowers the Secretary to list wildlife as injurious based on a finding that a species is injurious to humans or to agricultural, horticultural, forestry, or wildlife interests. No wildlife species so listed may be imported into the United States or shipped between the continental states in aggregate and the other listed jurisdictions.

C. Analysis of the Proposed Rule's Inconsistency with the Lacey Act

Just as USARK has alleged in its legal challenge with respect to the original four species FWS listed in 2012, the Service lacks the authority to prohibit either interstate commerce of these snakes within and among the continental states (save for the District of Columbia) or their "transportation" in general. Congress granted the Secretary only to determine whether or not a particular species is injurious, and to do so through Administrative Procedure Act-compliant process. The Lacey Act itself determines the prohibitions that attach once a listing occurs.

This understanding of the law is supported both by its plain text and the Lacey Act's structure. USARK will first discuss the interstate commerce issue, followed by analysis of FWS' misinterpretation of the statute's term "shipment" to mean "transportation."

1. The Lacey Act Does Not Prohibit Commerce of Injurious Species within the Continental U.S.

Congress acted purposefully when it used different language to describe the "importation" prohibition – *i.e.*, "into the United States" – and the "shipment between" provision, which specifically identifies the "continental United States," as distinct from Hawaii, the federal enclave, Puerto Rico, and U.S. possessions. The term "United States" encompasses all areas under its jurisdiction, while the "continental United States" is a geographically distinct part of that area. If Congress intended the interpretation proffered by the Service in the proposed rule, it would have prohibited importation into and "shipment within" the United States. Instead, the Lacey Act bars shipment "between" the listed jurisdictions. "Between" is a preposition meaning "from one to another." WEBSTER'S NEW COLL. DICT. 105 (150th Ann. Ed.). FWS' interpretation is not supportable.

Furthermore, in the Title 16 Lacey Act provisions, Congress specifically defined the term "state" to mean "any of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, Northern Mariana Islands, American Samoa, and any other territory, commonwealth, or possession of the United States." 16 U.S.C. § 3371(i). "Where Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion."[30] *See Bates v. United States*, 522 U.S. 23, 29-30 (1997) (citations and internal quotation marks omitted). If Congress had wanted the "shipment between" provision to apply to all states, it knew how to do so. It did not, however, adopt the "several states" formulation in 18 U.S.C. § 42.

FWS' Lacey Act regulations lead to no different conclusion. They provide: "The importation, transportation, or acquisition of any live specimen, gamete, viable egg, or hybrid of the species listed in this paragraph is prohibited except as provided under the terms and

[30] While the Lacey Act has been split between two different titles of the United States Code, the pertinent consideration is that each part derived from a common statute and, more importantly, it was the Lacey Act Amendments of 1981 that created the Title 16 provisions—including the definition of "state"—and revised section 42 of Title 18.

conditions set forth in § 16.22." 50 C.F.R. § 16.15. For its part, section 16.22 allows the FWS Director to grant permits to allow the "importation into or shipment between the continental United States, the District of Columbia, Hawaii, the Commonwealth of Puerto Rico, or any possession of the United States of injurious wildlife … for zoological, educational, medical, or scientific purposes." *Id.* § 16.22. The regulatory language is thus, in relevant part, identical to that used in the statute and has the same effect. Specifically, that the prohibition on shipment of listed species is only as to that between *all* the continental United States and the other listed jurisdictions. Neither the law nor the regulations prohibit interstate shipment or transportation among the states within the continental U.S., other than the federal enclave.

As a matter of policy, it is an issue of federalism, because the states are free to impose their own restrictions that are enforceable through the Title 16 Lacey Act provisions. The fact that the law singles out one state, Hawaii, in the list of jurisdictions between which shipments are prohibited strengthens this reading. There would be no need to specifically identify Hawaii as one of the jurisdictions between which shipments of listing species could not be made if Congress had meant to ban commerce in listed species among all states. Hawaii may have been specifically identified in the "shipments between" clause because of its vulnerable ecosystem. Regardless, Congress was clear in its command and it is not for an agency or a court to impose what it sees as a more salutary construction.

This understanding of the Lacey Act's scope is reflected in hosts of law review articles, which generally criticize the law for failing to bar most interstate commerce in injurious species.[31] More importantly, a 1993 report by the Office of Technology Assessment ("OTA") report on the problem of invasive species states: "Under the Lacey Act, interstate transport of *federally* listed species is legal." Office of Technology Assessment, 103d Cong., *Harmful Non-Indigenous Species In The United States* 22 OTA-F-565 (Sept. 1993) (emphasis in original). OTA is an office within the White House, presenting the Executive Branch's interpretation of the law. No court has ever construed the Lacey Act as prohibiting interstate commerce or transportation of injurious species among the states within the continental U.S.

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[31] *See, e.g.,* Eric Biber, *Exploring Regulatory Options for Controlling the Introduction of Nonindigenous Species to the United States,* 18 VA. ENVTL. L.J. 375, 401 n.155 (1999) (The Lacey Act "might provide authority to regulate commerce of [Non-Indigenous species] between the mainland U.S. and the insular possessions, but not the spread of NIS within the United States. However, transportation of state-listed injurious species of fish and wildlife is a Federal offense, subject to FWS enforcement") (citations omitted); Steven A. Wade, *Stemming the Tide: A Plea For New Exotic Species Legislation,* 10 J. Land Use & Envtl. L. 343, 348 (1994-1995) (criticizing the Lacey Act for lacking "a comprehensive scheme for regulating the movement of banned species through interstate commerce") (citing OTA study, *infra*). Shannon K Baruch, Note: *The Proposed Florida Nonindigenous Species Statute: A Salvation for the Lacey Act* 10 Fla. J. Int'l L. 185, 207 (1995-1996) ("Under the Lacey Act, the interstate transport of federally-listed NIS is not prohibited.") (citing same).

In sum, the law does not prohibit what the preamble to the January 2012 final rule listing four species of constricting snakes contends; that is, a prohibition on interstate commerce and transportation of such species.

2. The Lacey Act Cannot Be Construed to Ban "Transportation"

The proposed regulation's ban on "transportation" rather than "shipment" is simply an untenable construction of the law. "Shipment" is the word Congress chose. It has a commercial connotation, whereas "transportation" is a broader term encompassing all forms of conveyance. That Congress intentionally used the word "shipment" as a term of commerce is inferable not only from its legal meaning, but also from the fact that this clause replaced the language relating to "deliver to a common carrier" of former section 43 of Title 18. Further, Congress uses the word "transportation" within the Lacey Act itself, in the provision relating to humane treatment of animals in transport. *See* 18 U.S.C. § 42(c).

The general presumption is that all words in a statute should be given effect, none should be considered superfluous, and that different usages in the same statute have different meaning and intent.[32] *See Bennett v. Spear*, 520 U.S. 154, 173 (1997) ("It is the 'cardinal principle of statutory construction' ... [that] it is our duty 'to give effect, if possible, to every clause and word of a statute' ... rather than to emasculate an entire section.") (citations and internal quotation marks omitted); *see also Engine Mfrs. Ass'n v. South Coast Air Quality Management Dist*., 541 U.S. 246, 252 (2004) ("Statutory construction must begin with the language employed by Congress and the assumption that the ordinary meaning of that language accurately expresses the legislative purpose."). The Service's interpretation, however, eviscerates the distinction between these two activities that Congress itself established. Such is an act of lawmaking that belongs to the legislative branch.

3. Discussion

It is clear from what proceeds and inferable from USARK's lawsuit challenging the partial final rule that the organization believes that the Service is acting beyond its authority. As shown above, the interstate commerce ban finds no support in the law and, as far as USARK is aware, FWS has never issued an interpretive rule or memorandum providing a rationale for applying the shipment ban within the continental United States. Indeed, the only time FWS

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[32] The Supreme Court recognizes the "general principle of statutory construction that when 'Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.'" *Barnhart v. Sigmon Coal Co., Inc.*, 534 U.S. 438, 452 (2002) (quoting *Russello v. United States*, 464 U.S. 16, 23 (1983)). Courts should therefore "refrain from concluding ... that the differing language in two subsections has the same meaning in each. *Russello*, 464 U.S. at 23.

proposed to define the geographic scope of the prohibition on shipments of injurious species, it did so in the same manner as USARK explains above.[33]

USARK is aware that FWS has imposed this construction of the Lacey Act in some of its prior injurious listings. This fact does not mean the Service's interpretation is legally correct. It only means that this interpretation has not been tested judicially. That will soon no longer be the case, as the issues with respect to interstate commerce and transportation are both currently at issue in USARK's case.[34] FWS need not await a court decision, however, before rectifying its clear legal error.

Here, Congress made a clear distinction between the application of the import restriction and the shipment restriction that FWS is not free to ignore.

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USARK appreciates your close attention to these important matters. If you have any questions about the analysis contained herein, or would like to discuss these matters in greater detail, we can be reached at (202) 342-8469.

Sincerely,

/s/ Phil Goss
Phil Goss, President, USARK
Shaun M. Gehan
Joan Galvin

Counsel for the United States Association of Reptile Keepers

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[33] *See* 42 Fed. Reg. 12373 (March 7, 1977). This was a proposal to list nearly all foreign wildlife as injurious unless proven otherwise, but proposed a restructuring of the Lacey Act regulations. *See id.* As part of the restructuring, FWS would have defined "Continental United States" as including "the 48 conterminous states, the State of Alaska and the District of Columbia," *id.* at 12974 (proposed § 16.3), and included a new prohibition on shipment of listed wildlife "between any two of the following geographic areas: the continental United States, the State of Hawaii, the Commonwealth of Puerto Rico, or any possession of the United States." *Id.* at 12977 (proposed § 16.22).

[34] We note that FWS has taken the position that the challenge to the Service's defining "shipment" and "transportation" and transformation of the "continental United States" to the "several states" is not timely. USARK serves notice here, however, that in the unlikely event the court agrees with this argument, it intends to petition for a revision to the Service's regulations to conform with the law.