



The voice of fish and wildlife agencies

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March 11, 2016

Michael J. Bean, J.D.
Principal Deputy Assistant Secretary,
Fish Wildlife and Parks
United States Department of Interior
1849 C Street NW
Washington, DC 20240

Re: **Docket No. FWS-HQ-FAC-2015-0005; FXFR13360900000-156-FF09F14000**

Dear Principal Deputy Assistant Secretary Bean:

On behalf of our state constituents of the Association of Fish and Wildlife Agencies (Association), I write to express support for the interim final rule listing certain salamander species as injurious due to the threat of the salamander chytrid fungus, *Batrachochytrium salamandrivorans* (*Bsal*). In particular, the Association recognizes the proactive nature of this rulemaking; all too often we are forced to react to threats once they have already arrived in the United States. This interim final rule demonstrates that we have the opportunity, though imperfect given the constraints of the Lacey Act, to address these types of threats in advance. We appreciate the swift action that the Department of Interior (DoI) and the US Fish and Wildlife Service (FWS) took to put it in place. The Association is pleased to promote, and to assist where possible, actions that prevent the transmission of pathogens and other threats to native fish and wildlife health in the United States.

However, after considerable discussions with our members, we would like to work with the DoI and the FWS to address several concerns with this interim final rule as written. These concerns lie in the permit requirements for interstate movement of native animals and tissues, and the unintended consequences of some of these requirements. We are concerned foremost with the impacts that these requirements could impose on our states' management activities.

We have provided our general concerns and suggested solutions, and supplied specific responses to the questions posed by the FWS in the Federal Register Notice. These were developed in coordination with our member states' staff in charge of salamander management, our Amphibian & Reptile Subcommittee, Invasive Species Committee, and Fish & Wildlife Health Committee.

Finally, while the interim final rule does have some drawbacks, the Association is also working toward solutions. We provide some suggestions for alternate approaches in our comments. Additionally, we continue to work with partners regarding the need for better authorities within the DoI to regulate pathogens of wildlife, rather than potential hosts of wildlife pathogens, where these specifically affect other wildlife and have no nexus to human or agricultural and aquacultural animal health. We have also initiated discussions with members of the hobbyist and amphibian conservation community to facilitate the testing of captive, privately held salamanders, and to explore the reliability and viability of measures toward a "clean trade" or health certification option to support responsible pet ownership.

ASSOCIATION OF FISH & WILDLIFE AGENCIES

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We applaud the efforts of the DoI toward this important, and historic, rulemaking to protect our native salamander species from the introduction of Bsal. We extend our thanks as well to FWS Director Ashe, to Assistant Director of Fisheries and Aquatic Conservation, David Hoskins, and especially to the diligent staff in the Branch of Aquatic Invasive Species, in the development of this rule.

Thank you for your attention to our comments. We appreciate the relationship that we have with the DoI and the FWS in working closely to arrive at mutually beneficial outcomes. We look forward to the opportunity to discuss our comments with you in greater depth. Please do not hesitate to contact the Association's Program Manager for Amphibians & Reptiles, and Invasive Species, Priya Nanjappa (pnanjappa@fishwildlife.org, 202.838.3463) with any questions or for further assistance.

Sincerely,

A handwritten signature in black ink that reads "David Chanda". The signature is written in a cursive, slightly slanted style.

David Chanda
President, Association of Fish and Wildlife Agencies
Director, New Jersey Division of Fish and Wildlife

Cc: Dan Ashe, David Hoskins, Gary Frazer, Paul Souza, Bryan Arroyo, Craig Martin, Jason Goldberg
Cc: Ronald Regan, Cathy Sparks, Bill Hyatt, Bob Duncan, Mark Humpert, Priya Nanjappa, Jonathan Mawdsley, Jen Mock Schaeffer, Deb Hahn, Carol Bambery, Parks Gilbert

General Comments and Concerns:

We support the intent of the interim final rule to restrict importation of high-risk salamander species, as well as to reduce the chances of transmission of this pathogen once detected in the United States. Once the threat to native species was demonstrated in the 2014 paper by Martel and colleagues, many states began exploring opportunities to impose their own importation restrictions, but changes to state laws and regulations can take years. We applaud the swift action that the DoI and the FWS took to put the interim rule in place.

The Association appreciates the efforts to expedite permits for diagnostic laboratories, to ensure that surveillance efforts can begin as soon as possible. We remain concerned regarding introduction of the Bsal pathogen into the wild, and efforts to ensure early detection and rapid response must not be hindered. One positive byproduct of the interim rulemaking is that transmission of other amphibian pathogens may be reduced due to the restrictions placed on the injurious-listed species.

That said, our concerns surround the inclusion of so many native species that now require a permit for interstate movement of animals, tissues, and other samples. While the logic behind the inclusion of these species is justified with respect to minimizing the threat of Bsal transmission, the resulting permit requirements could possibly hinder our states' conservation and management activities.

While we are not taking exception to the particular genera currently included in the interim final rule, **we ask that, while Bsal remains unconfirmed in the US, if other *native* species are considered for inclusion on the injurious species list in the future, the normal public process of a proposed rule with comment period should be used, rather than another interim final rule.** We would support interim final rules for any *nonnative* species additions to the list.

Our concerns and proposed solutions are summarized as follows:

- **Concern: Permit approval timeframe.** The most vociferous concern among our member states, has been regarding the timeframe, and potential delays therein, for receiving permits for approved activities. Concerns have arisen from experiences with long delays (>6 months, in some instances) in receiving other types of federal permits. Delays to receiving permits can hinder field season activities, which in turn may delay planned and time-sensitive management actions. Unapproved permits, even if due to confusion or misunderstanding of permit application requests, can stall conservation efforts.
 - o **Solution: Permit exemptions for federally-funded activities.** State fish and wildlife agencies have primary management jurisdiction for native fish and wildlife, and shared jurisdiction for federally threatened or endangered (T&E) species. For salamanders, most conservation activities are funded through either Section 6 of the Endangered Species Act (ESA), or through State and Tribal Wildlife Grant funding, where proposed actions have been identified and approved by (various branches within) FWS. If the state's planned conservation and management activities are federally-funded, we believe that such projects should be exempt from federal permit requirements.
 - o **Solution: Permit exemptions via MOUs for approved, state sponsored or sanctioned activities.** Examples of Memoranda of Understanding (MOUs) exist between the FWS and the states to handle or manage federally threatened or endangered species or their habitats such that permits are waived (*see attached example between FWS and the Florida Fish and Wildlife Conservation Commission*). We ask that FWS consider the option of such MOUs for state fish and wildlife agency sponsored or sanctioned activities involving these injurious-listed, native species, such as recovery programs or genetic testing efforts that require movement of animals or tissues across state lines.
- **Concern: Double-containment requirements for transport and storage, and uncertainties therein.** We would like to see more explicit guidance regarding the double-containment requirements for transport, housing, or storage, or handling of animals, tissues, or other samples. Specifically, how does this apply to instances of species repatriation projects or state-approved releases of injurious-listed salamanders back into the wild?
 - o **Solution:** Permit exemptions and containment exceptions for these types of state sponsored recovery, repatriation, or relocation activities. Many states conduct health testing (in collaboration with diagnostic lab partners), and have established standards that must be met before repatriation is conducted. Such state-sponsored activities should be exempt.

- **Solution:** Permit exemptions for double-containment of fixed tissues, where the threat of Bsal transmission is removed by virtue of the fixative agent.
- **Concern: Inconsistencies in permit-required activities.** The inclusion of preserved or fixed tissues coupled with the exclusion of eggs and gametes for activities that require permits. In terms of threat prevention or reduction, these two aspects of the rulemaking are contradictory; fixatives or preservatives would render the Bsal pathogen inviable, while eggs or gametes would require being transported with some form of media (water or plant materials) to remain viable, and that media could harbor Bsal, thus constituting a threat by indirectly moving disease vectors with the eggs or gametes. We understand that the Lacey Act cannot regulate the fomites in which eggs or gametes would be transported, but exclusion of these forms of tissues from permit requirements increases the risk of indirect Bsal transmission. Further, eggs at certain stages of development could contain keratinized tissues (e.g., Xie and Yu, 1992¹), which could become direct transmitters of the Bsal pathogen.
 - **Solution:** Include eggs and gametes in permit requirements, but exempt fixed animals, tissues, and parts from this requirement. This will make the permit requirements more consistent with the potential threat of transmission.
- **Concern: Need for better coordination of state and federal permits.**
 - **Solution:** We understand that the permit application form is planned for review and potential modification in the near future. We suggest that better coordination with state fish and wildlife agencies be built into this application, for example, a checkbox for the applicant to attest that they have contacted state fish and wildlife agency (or state department of agriculture for nonnative species in some states) to address state-required permits, for all states from which salamanders will exported or imported. For those activities that are not directly linked to the state fish and wildlife agency, such coordination will be important to help ensure that the state is also informed of the interstate movement activities.
- **Concern: Unintended consequences of the listings with respect to pet salamander ownership.** The lack of allowances for movement of injurious-listed species that are also pets, specifically when moved for non-commercial reasons, such as relocating residence across state lines, or for veterinary visits, demonstrates that the Lacey Act was not meant to address injurious species that also have a human interest component. The Association is already exploring ways to address this through opportunities for more modern legislation that would create permit requirements for housing, cleaning, and transportation standards that can facilitate responsible pet ownership. However, we are especially concerned with the requirement for pet owners to relinquish their injurious-listed pet salamanders when moving across state lines.
 - This can create an undue burden on state fish and wildlife agencies who will, no doubt, be contacted by pet-salamander-owning constituents to assist in temporarily housing, re-homing, or potentially euthanizing these animals, thus incurring costs of staff time, care and feeding costs, or costs of euthanization.
 - Also, the risk of releases to the wild, which, even in the absence of disease, could lead to establishment of nonnative species in the wild, or genetic pollution from species that are not native to area where released despite being native in the state.
 - While it is true that state fish and wildlife agencies have legal authority over native salamanders, and may be an appropriate office to ask for guidance in these situations, in many states, the state department of agriculture has legal authority over nonnative species. FWS should notify state department of agriculture agencies of the rulemaking, if this has not already occurred.
 - **Solution:** FWS should establish broader capacity to handle requests from the public regarding re-homing of pet salamanders, and specifically relinquished animals, that occur as a result of the rulemaking. As such, state fish and wildlife or department of agriculture agencies that are unable to handle such requests can redirect those who contact them to the appropriate FWS office.
 - **Solution:** FWS should engage in more robust outreach to pet stores and bait dealers, so that consumers can be informed about the potential consequences of their purchase with respect to restricted activities. Ideally, FWS would produce a document/outreach material package that all states could use and help to distribute.

¹ Xie, J., and H. Yu. 1992. Keratin expression during early embryonic development of *Bufo bufo gargarizans*. Cell Research 2(1): 45-52. <http://www.nature.com/cr/journal/v2/n1/full/cr19925a.html>

Specific responses to Questions in the Federal Register Notice:

(1) How many of the species listed by this rule are currently in production for wholesale or retail sale, and in how many and which States?

(2) How many businesses sell one or more of the species listed by this rule?

(3) How many businesses breed one or more of the species?

Regarding questions 1-3, we did not have detailed data available for all states, however, we are aware that some native, and nonnative species included in the rulemaking are in production in several states. Many states also prohibit, or limit, sale by biological supply companies of certain native species, and the authority to regulate nonnative species may be either with the state fish and wildlife agency, or the state department of agriculture, or shared in some instances. More information is provided in question #14.

(4) What species listed as threatened or endangered by one or more States would be affected by the introduction of Bsal?

While there is evidence that the introduction of Bsal may impact some of the species currently included in interim rule, there is not yet evidence regarding whether or how all other salamander species would be affected. Thus, the list below is simply a sampling of the state T&E or protected species (restricted or prohibited from take, possession, sale, or other activities) that, if found to be impacted by a Bsal introduction, would be a major concern for these respective states:

- **DE—state-listed:** Eastern tiger salamander (*Ambystoma tigrinum*); Eastern mud salamander (*Pseudotriton montanus*)
- **FL—state-listed:** Reticulated Flatwoods Salamander (*Ambystoma bishopi* state-listed federal endangered); Frosted Flatwoods Salamander (*Ambystoma cingulatum* state-listed federal threatened); Georgia blind salamander (*Eurycea wallacei* state-threatened); Striped newt (*Notophthalmus perstriatus* federal candidate);
- **GA—state-listed:** Reticulated Flatwoods Salamander (*Ambystoma bishopi*); Frosted Flatwoods Salamander (*Ambystoma cingulatum*); One-toed Amphiuma (*Amphiuma pholeter*); Hellbender (*Cryptobranchus alleganiensis* federal candidate); Green Salamander (*Aneides aeneus*); Tennessee Cave Salamander (*Gyrinophilus palleucus*); Georgia Blind Salamander (*Haideotriton [Eurycea] wallacei*); Pigeon Mountain Salamander (*Plethodon petraeus* federal candidate); Striped Newt (*Notophthalmus perstriatus*)
- **IA—state-listed:** Blue-spotted Salamander (*Ambystoma laterale* state endangered); Mudpuppy (*Necturus maculosus*); Eastern Newt (*Notophthalmus viridescens*)
- **MA—state protected:** Jefferson salamander (*Ambystoma jeffersonianum* Special Concern); Blue-spotted salamander (*Ambystoma laterale* Special Concern); Marbled Salamander (*Ambystoma opacum* Threatened)
- **MS—state listed:** Green Salamander (*Aneides aeneus*); One-Toed Amphiuma (*Amphiuma pholeter*); Spring Salamander (*Gyrinophilus porphyriticus*); Cave Salamander (*Eurycea lucifuga*); Hellbender (*Cryptobranchus alleganiensis* federal candidate)
- **NM—state-listed:** Jemez Mountains Salamander (*Plethodon neomexicanus* federal endangered, state endangered), Sacramento Mountains Salamander (*Aneides hardii* state threatened)
- **OK—year-round closed season (protected):** Three-toed Amphiuma (*Amphiuma tridactylum*); Ringed Salamander (*Amystoma annulatum*); Mole Salamander (*Ambystoma talpoideum*); Ouachita Dusky Salamander (*Desmognathus brimleyorum*); Cave Salamander (*Eurycea lucifuga*); Grotto Salamander (*Eurycea [Typhlotriton] spelaeus*); Oklahoma Salamander (*Eurycea tynerensis*); Four-toed Salamander (*Hemidactylium scutatum*); Western Slimy Salamander (*Plethodon albagula*); Ozark Salamander (*Plethodon angusticlavius*); Kiamichi Slimy Salamander (*Plethodon kiamichi*); Rich Mountain Salamander (*Plethodon ouachitae*); Sequoyah Slimy Salamander (*Plethodon sequoyah*)
- **PA—state-listed:** Blue-spotted salamander (*Ambystoma laterale*)
- **WV—top priority SGCN species from their State Wildlife Action Plan:** Streamside Salamander (*Ambystoma barbouri*); Smallmouth Salamander (*Ambystoma texanum*); Green Salamander (*Aneides aeneus*); Eastern Hellbender (*Cryptobranchus alleganiensis*); Black-bellied Salamander (*Desmognathus quadramaculatus*); Black Mountain Salamander (*Desmognathus welteri*); Cave Salamander (*Eurycea lucifuga*); West Virginia Spring Salamander (*Gyrinophilus subterraneus*); Mudpuppy (*Necturus maculosus*); Cheat Mountain Salamander (*Plethodon nettingi*); Cow Knob (White Spotted) Salamander (*Plethodon punctatus*); Shenandoah Mountain Salamander (*Plethodon virginia*); Midland Mud Salamander (*Pseudotriton montanus diastictus*)

(5) What provisions in the interim rule should the Service have considered with regard to: (a) The impact of the provision(s) (including any benefits and costs), if any, and (b) what alternatives, if any, the Service should consider, as well as the costs and benefits of those alternatives, paying specific attention to the effect of the rule on small entities?

(a) Regarding impacts, as noted above, there are additional protective benefits of the rulemaking that extend to the prevention of transmission of other amphibian pathogens, such as *Batrachochytrium dendrobatidis* (Bd) and ranavirus, among others.

With respect to costs, also as noted above, the permit requirements even for state fish and wildlife agency conservation and management activities that involve interstate movement of animals or tissues presents a cost of time, especially in the case of unforeseen delays in permit approvals. Further, the unintended consequences of the lack of allowances for permits to move pet animals across state lines due to residence relocation or other non-commercial reasons may cost state agency staff time to handle requests from the public, as well as the costs of care, placement (and time and transport to placement location) or euthanization of relinquished animals. A cost to FWS also potentially exists if state offices are contacted for the same reasons. The hobbyist and captive breeding community will incur potential losses due to inability to sell animals beyond state lines, even if no disease is present.

(b) Alternative solutions have been presented above, including MOUs to allow permit exemptions for state fish and wildlife agencies conducting conservation activities, similar to those in place with FWS for federal T&E species. Another alternative, as discussed with FWS in our November 2014 letter and in subsequent meetings, is to allow for a health certification program, especially in the future when more evidence of treatment methods and specifications for different species groups become more reliable. This would be useful for those species already in the US, where costs for health testing and certification would be supported by the entity engaging in interstate commerce or by individual pet owners wanting to keep their animals when moving to another state. However, checks and balances would need to exist for housing and biosecurity standards, and facility maintenance. The burden of proving certification should not rest on the state fish and wildlife agency, though collaborative efforts between the states and FWS may be possible.

(6) How could the interim rule be modified to reduce costs or burdens for some or all entities, including small entities, consistent with the Service's requirements? For example, we seek comment on the distinct benefits and costs, both quantitative and qualitative, of (a) the prohibitions on importation and (b) the prohibitions on interstate transport of the species listed by this rule. What are the costs and benefits of the modifications?

(a) As noted in our November 2014 letter, we fully support the prohibitions on importation, and we support any modifications to the interim rule that place other species in the importation prohibition.

(b) As noted above in both our general concerns and the response to the prior question, while we are not taking issue with the current set of native species included, we do feel that the permit requirements should be exempted for state fish and wildlife agencies engaging in conservation and management activities. With existing MOUs between FWS and states that allow for federal permit exemptions for state conservation and management activities of ESA-listed species (without renewal requirement), the same should be made available to states engaging in conservation and management activities of these injurious-listed species. Further, permit exemptions should exist for fixed animals, tissues, diagnostic swabs, and tissues embedded in paraffin for histology, given that the fixative agent or paraffin would render the Bsal pathogen inviable. Both of these options would reduce the costs in time and paperwork/workload for FWS permitting division as well. Finally, federally funded salamander conservation or management activities such as through State and Tribal Wildlife Grants or ESA should be exempt from permit requirements given that the activities already require approval for the funding to be granted.

(7) Is there any evidence suggesting that Bsal has been introduced into the United States or may have already established?

Not to our knowledge. Over the past 15 months, many state and federal agencies and academic partners have tested hundreds, if not thousands, of existing and new samples for Bsal, and to our knowledge, none has returned a confirmed Bsal result.

(8) Are there other pathways for Bsal into the United States that we should address? If so, what are they?

A big pathway of concern, where there appears to be little or no federal regulatory authority or enforcement, is with biological supply companies. These entities have been selling several of the injurious-listed species, both native and nonnative, and no clear information exists regarding the source of these animals. Some states may require specific permits or licenses and may restrict the species that biological supply companies in their state can sell (e.g., Wisconsin).

Internet sales involving small shipments using couriers such as FedEx or UPS are another pathway of concern. While we are not directly aware of specific instances involving the injurious-listed species, it might be worthwhile to examine traditional medicine or foreign food markets, or potential ceremonial uses of these species.

We are aware of interstate shipments of some salamanders, though not necessarily the currently included species, for the purposes of the bait trade, but we would like to see some exploration of whether there are imports for this purpose.

(9) Is there evidence suggesting that any of the species listed by this rule are not carriers of Bsal? If so, what species?
We are not aware of any. We feel that it may be more important to include eggs and gametes among those species included to ensure full protection against transmission.

(10) Is there any evidence suggesting that additional species are carriers of Bsal and should be listed by this rule? If so, what species?

While no evidence currently exists that other species might serve as Bsal carriers, the states are communicating to the research community our priority for additional susceptibility testing of those species used in the bait trade and those species listed in one or more of our states' State Wildlife Action Plans as Species of Greatest Conservation Need (SGCN). We know that many researchers are engaging in additional species susceptibility testing, and we are interested in these results.

As noted above, however, as new evidence becomes available and while Bsal remains undetected in the US, we would like to see a proposed rule with a comment period for native US species, rather than an interim final rule, before these new listings go into effect. For nonnative species, however, we would support other interim final rules to further reduce the chances of introduction via the importation pathway.

(11) Are there methods (such as thermal exposure) that would allow salamanders imported into the United States to be reliably treated to help ensure Bsal is not introduced into the United States, and how could compliance be monitored?

We are aware of the heat and antifungal treatments for fire salamanders, as published by Blooi and colleagues (2015)^{2,3}, but we are not currently aware of other methods, nor of efficacy for other species.

There are also proven methods for Bd treatments, such as those in use by zoological facilities for standard quarantine procedures (Pessier & Mendelson 2010)⁴; these would need to be confirmed for Bsal treatment.

Once reliable treatment protocols that are effective for multiple species are established, limiting ports of entry for all salamanders imported and establishing quarantine and treatment facilities at these ports, perhaps in collaboration with USDA, could facilitate both prevention of introduction and compliance.

(12) Should the Service add eggs or other reproductive material of listed salamanders to the list of injurious wildlife because they may also carry Bsal?

Yes. As noted above, while we are not aware of specific documented evidence, it is plausible that eggs at certain stages of development could themselves harbor Bsal. Also, neither eggs nor gametes of salamanders could remain viable without some form of media to transport them, and that media could harbor Bsal zoospores; inclusion of eggs and gametes would avoid this potential pathway of introduction.

(13) For the species we are listing, are the scientific and common names the most appropriate ones accepted by the scientific community?

² Blooi, M., A. Martel, F. Haesebrouck, F. Vercammen, D. Bonte, and F. Pasmans. 2015a. Treatment of urodelaans based on temperature dependent infection dynamics of *Batrachochytrium salamandrivorans*. *Scientific Reports* 5: 8037, doi:10.1038/srep08037.

³ Blooi, M., F. Pasmans, L. Rouffaer, F. Haesebrouck, F. Vercammen, and A. Martel. 2015b. Successful treatment of *Batrachochytrium salamandrivorans* infections in salamanders requires synergy between voriconazole, polymyxin E and temperature. *Scientific Reports* 5: 11788, doi:10.1038/srep11788.

⁴ Pessier, A.P. and J.R. Mendelson (eds.). 2010. A Manual for Control of Infectious Diseases in Amphibian Survival Assurance Colonies and Reintroduction Programs. IUCN/SSC Conservation Breeding Specialist Group: Apple Valley, MN.

Most of the herpetological community uses the Society for the Study of Amphibians and Reptiles joint societies-endorsed list⁵; both AFWA and Partners in Amphibian and Reptile Conservation use this nomenclature in our formal publications. However, we are aware that some states use other nomenclature, while some others use older nomenclature simply due to the inability to update frequently. One example of nomenclature that is specified in state regulation is in the Oregon Department of Fish and Wildlife, where the use of Frank and Ramus (1996)⁶ is formally recognized for the state's taxonomic nomenclature.

(14) What are relevant Federal, State, or local rules that may duplicate, overlap, or conflict with the interim rule?

We are not aware of any State laws that duplicate, overlap, or conflict with the interim rule, but select laws and regulations exist that may be related and complementary. For example, several states restrict the importation of most nonnative species into their states; in particular, we know of such restrictions in Oregon, Oklahoma, and Utah, but there may be others; Oregon specifically prohibits the importation of all salamanders of the genus *Cynops*. Oklahoma also requires a permit for both the importation and exportation of native wildlife species, and sale of native amphibians is prohibited (though larval Eastern Tiger Salamanders, *Ambystoma tigrinum*, are permitted for bait sale). Missouri already prohibits the possession and sale of the injurious-listed species (among others). At least Arizona, Massachusetts, Mississippi, New York, Oregon, Pennsylvania, Utah, and Washington (among others) prohibit sale of all native amphibian species (Wisconsin also prohibits the sale of native salamander species, but allows Mudpuppies [*Necturus maculosus*] and Eastern Tiger Salamanders [*Ambystoma tigrinum*] to be sold with a Captive Wildlife Animal Farm License, required for biological supply companies in the state); Rhode Island prohibits possession of all native species.

In at least Georgia, Iowa, West Virginia and Wisconsin, nonnative species possession and sale are regulated by the state department of agriculture.

We would be happy to assist in the development of a more complete list, if needed.

⁵ Crother, B. I. (ed.). 2012. Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, With Comments Regarding Confidence In Our Understanding. SSAR Herpetological Circular 39:1-92.

⁶ Frank, N. and E. Ramus. 1996. *A Complete Guide to Scientific and Common Names of Reptiles and Amphibians of the World*. N G Publishing, Inc. Pottsville, PA.