



THE WILDLIFE SOCIETY

Leaders in Wildlife Science, Management and Conservation

11 March 2016

Public Comments Processing
Attn: FWS–HQ–FAC–2015–0005
Division of Policy, Performance, and Management Programs
United States Fish and Wildlife Service
MS: BPHC
5275 Leesburg Pike
Falls Church, VA 22041–3803.
Submitted online at: www.regulations.gov

RE: Injurious Wildlife Species; Listing Salamanders Due to Risk of Salamander Chytrid Fungus; Interim Rule

Dear Sir/Madam,

The Wildlife Society (TWS) is writing to express our strong conceptual support for the above-referenced U.S. Fish and Wildlife Service (FWS) Interim Rule to add all species of 20 genera of salamanders to the list of injurious amphibians under the Lacey Act, 18 USC 42.

Founded in 1937, TWS represents nearly 10,000 professional wildlife biologists and managers, dedicated to excellence in wildlife stewardship through science and education. Our mission is to inspire, empower, and enable wildlife professionals to sustain wildlife populations and habitats through science-based management and conservation.

Context

The United States has the greatest diversity of salamanders in the world. As a keystone species in many native ecosystems, salamanders play an integral role in both aquatic and terrestrial food webs and nutrient cycling. However, an emerging wildlife disease caused by the chytrid fungus, *Batrachochytrium salamandrivorans* (*Bsal*), now poses a substantial threat to salamander populations in the United States. Though currently not detected in North America, our salamander species richness, combined with the highly virulent characteristics of *Bsal* and globalization of commercial salamander trade, makes the United States highly vulnerable to a potentially devastating *Bsal* invasion.¹

¹ See generally USFWS Interim Rule, 50 C.F.R. 16 (2016), Injurious Wildlife Species: Listing Salamanders Due to Risk of Salamander Chytrid Fungus, available at <http://www.fws.gov/policy/library/2016/2016-00452.pdf> (last visited Mar. 10, 2016).

Batrachochytrium dendrobatidis (*Bd*), a similar pathogenic chytrid fungus, has already caused the global collapse of over 200 amphibian species, making it the most devastating infectious wildlife disease ever recorded.² If *Bsal* becomes established in the United States, it will likely result in major salamander declines, which would have both severe economic and ecological impacts. There are no means to control the spread of this pathogen once established in a wild host population.³

TWS recognizes wildlife pathogens as an intrinsic part of the ecological complexity and biological diversity of natural, healthy ecosystems. As a natural component of the ecosystem, such pathogens are often limited by environmental conditions or by the distribution and behavior of their natural hosts and vectors. When, however, anthropogenic factors—like international trade—introduce or facilitate the movement of a pathogen into a novel wildlife population, where no natural regulatory mechanisms exist, TWS no longer recognizes the ecological value of that pathogen.

Novel or introduced wildlife diseases can have severe consequences on native wildlife populations, especially when combined with other ecological stressors like habitat fragmentation and climate change. Preventing the introduction of infectious wildlife diseases into susceptible populations is of paramount concern for wildlife professionals.⁴

Recommendations

The potential for immediate and dire economic and ecological consequences from the introduction of *Bsal* into the United States warrants FWS's continued ban on both the importation and interstate transport of all salamander species capable of transmitting *Bsal*—whether known or suspected. We applaud the proactive approach of FWS taken in the Interim Rule, but also recognize the need for further long-term action in addressing our ability as a society to effectively respond to new emerging wildlife diseases across a greater spectrum of pathogens and hosts.

TWS foremost recommends the development of new comprehensive legislation to address the complexities of emerging wildlife diseases that encourages investment, increases professional capacity, focuses on collaborative prevention, and uses a multidisciplinary approach to better understand the interaction and transmission mechanisms of wildlife pathogens. TWS strongly recommends engagement and the sharing of information in all decision-making and implementation of wildlife disease management.⁵

In the absence of new laws allowing the government to respond effectively to emerging wildlife diseases, TWS encourages FWS to use every authority under the Lacey Act to prevent *Bsal* from

² Yap, TA; Koo, MS; Ambrose, RF; Wake, DB; & Vredenburg, VT. (2015). Averting a North American biodiversity crisis: A newly described pathogen poses a major threat to salamanders via trade. *Science*, 349(6247), 481 - 482.

³ Yap et al., *supra* at 481.

⁴ See TWS Standing Position Statement, *Wildlife Disease*, http://wildlife.org/wp-content/uploads/2015/04/SP_WildlifeDisease1.pdf (last visited Mar. 10, 2016).

⁵ *Id.*

entering our valuable and diverse native salamander populations. Therefore, with regards to FWS's request for comment, TWS developed the following recommendations with experts in our Wildlife Diseases Working Group:

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

Bsal is known to persist in a moist environment for up to seven weeks, even without an amphibian host. This creates an alarming pathway for the potential spread of *Bsal* into the United States through a variety of means not fully addressed by the Interim Rule. Even with a ban on the importation of some salamander species, the risk of *Bsal* introduction into the United States remains high given the magnitude of global salamander trade and the potential for this highly virulent pathogen to contaminate water used in shipments of previously co-housed, but currently allowable species, into the United States.⁶

We understand that contaminated materials do not qualify as injurious under the Lacey Act and therefore cannot be regulated by FWS, but this unchecked pathway of *Bsal* into the United States presents a major limitation in our ability to prevent introduction of this potentially devastating infectious wildlife disease.

One potential approach, although not ideal, includes developing a certification program aimed at controlling all potentially devastating amphibian pathogens, similar to the one proposed in Defenders of Wildlife's 2009 Petition: "To List All Live Amphibians in Trade as Injurious Unless Free of *Batrachochytrium dendrobatidis*."⁷ The 2009 Petition called for FWS to ban the importation and interstate transport of *all* amphibian species unless the "shipment complies with a certification and handling system that meets or exceeds recommendations of the World Organization for Animal Health in its Aquatic Animal Health Code."⁸ Such an approach would likely require extensive expert design and review, but would provide more safeguards against the inadvertent importation of *Bsal* contaminated water through a currently allowable species or from water collected at a naturally contaminated source. No other amphibian species, outside those listed in this Interim Rule, are currently regulated under the Lacey Act.

Such a comprehensive approach to amphibian disease prevention would allow FWS to take swift action against any new emerging infectious diseases across a broader spectrum of amphibian hosts. It would also engage members of the business/scientific community, who have a vested interest in the well-being of healthy amphibian populations, to participate in disease testing and surveillance. While supportive of the current Interim Rule, TWS does have concerns regarding the absolute ban of so many species and its potential to drive amphibian trade underground, where it will be even more difficult to regulate. Given the financial incentives driving the pet trade and the limited resources available for disease surveillance, there is no simple solution to

⁶ See generally 50 C.F.R. 16

⁷ USFWS Notice of Inquiry, 75 Fed. Reg. 56975-56976 (Sept. 17, 2010) re Defenders of Wildlife, Petition to the Secretary of the Interior: To List All Live Amphibians in Trade as Injurious Unless Free of *Batrachochytrium dendrobatidis*, available at http://www.fws.gov/injuriouswildlife/pdf_files/Petition_Salazar_Bd_amphibian.pdf (last visited Mar. 10, 2016).

⁸ *Id.*

keeping the U.S. free of transboundary diseases that could affect our native fauna. We applaud these early steps taken by FWS and encourage further research and regulatory measures designed to improve implementation of the Interim Rule and close any additional pathways of *Bsal* and other infectious pathogens into the United States.

Question (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?

TWS believes that the eggs and other reproductive material of listed salamanders should also be labeled as injurious; unless and until valid scientific evidence directly demonstrates that such material cannot definitively serve as a potential carrier of *Bsal*. Furthermore, if the live eggs are imported in water collected from the natural environment or were housed with a listed species prior to shipment, this would serve as a potential pathway for *Bsal* into the United States and should be regulated under the Interim Rule.

Thank you for considering the recommendations of wildlife professionals and working to reduce and prevent the impact of wildlife diseases on native wildlife populations. Please contact Keith Norris, AWB®, Director of Government Affairs & Partnerships at keith.norris@wildlife.org or (301) 897-9770 x309 if you require further information or have any additional question.

Sincerely,

A handwritten signature in black ink that reads "Gary E. Potts". The signature is written in a cursive, flowing style.

Gary E. Potts, CWB®
President