

# The New York Times

## Riled Herpetologists Press Obama Administration to Protect America's Salamanders from a Fungal Threat

By Andrew C. Revkin  
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The herpetologists I've met over the decades tend to be a retiring lot. Explore the website of the Herpetologists' League to get the idea. They hunker down and probe under rotting logs and leaf litter for salamanders or prowl deserts to study tortoises and lizards. Some study ancient specimens in dusty jars. That was the case with the first herpetologist I got to know, during a junior semester abroad in London in 1977. I approached Garth Underwood (yes), at London's Natural History Museum about undertaking a line of independent study. Underwood set me to work dissecting water snakes, some more than a century old, to look for differences between the sexes. (He passed away in 2002.)



The terrestrial eft stage of the eastern newt, which could be devastated by an Asian fungus already spreading in Europe. Credit Andrew C. Revkin

That's why it has caught my attention that herpetologists are getting righteously riled about federal inaction in the face of clear evidence of a looming biological disaster in the United States and a way to fend it off.

The threat was described in a truly frightening paper that I covered last October (along with Jim Gorman and others). When an Asian fungus that was already devastating European salamander and newt populations was tested on a keystone American species, the eastern newt, there was 100-percent mortality.

In a November Op-Ed article in The Times, two of my favorite herpetologists, Joseph R. Mendelsohn III and Karen R. Lips, noted that millions of Asian salamanders are imported through the pet trade to this continent each year and pressed the U.S. Fish and Wildlife Service to take immediate action to clamp down under the Lacey Act (which was just used to limit trade in various constricting snakes and has been used aggressively against guitar manufacturers).

Nothing happened.

Now Lips and a batch of leading biologists and conservationists have penned a fresh plea. Please read it below, share their letter with other people who care for the wild world around us and tell your elected officials about your concerns. I also encourage you to let Interior Secretary Sally Jewell and Dan Ashe, the director of the Fish and Wildlife Service, know your views via Twitter, at @SecretaryJewell and @DirectorDanAshe.

Here's the scientists' note:

It has been nearly five months since An Martel and colleagues published a paper on their alarming discovery of a devastating fungal disease, *Batrachochytrium salamandrivorans* (Bsal), with ancient origins in Asia and, thanks to global trade, fast-spreading impacts in Europe. Five months since media outlets around the world, including Dot Earth, publicized scientists' warnings about the potential for a North American salamander apocalypse.

That means the U.S. Fish and Wildlife Service has had five months to put into place protocols that could prevent this plague from reaching salamanders in the United States, which is home to the most diverse array of salamander species in the world.

And still we have seen no action.

There have already been significant global declines and even the extinctions of some amphibian species due to a similar species of fungus, called *Batrachochytrium dendrobatidis* (Bd). Without action, the same fate awaits many of our salamanders as a result of Bsal. The Fish and Wildlife Service has an unprecedented opportunity here because, unlike with Bd, we are ahead of the wave – all evidence suggests

that Bsal has not yet arrived in the United States. They have a chance to do what we were not able to do for amphibians in Australia, the Neotropics and even the western United States: prevent the arrival and spread of a deadly fungus.

The first order of business is for the federal government temporarily to bar imports of salamanders. This buys time to develop and implement an enforceable “clean trade system” that could allow salamanders to be imported again, but in a way that will minimize the chance of the pathogen reaching vulnerable wild populations in North America. Conservation groups have sent letters to the Fish and Wildlife Service to this effect, while the Amphibian Survival Alliance and a broad group of stakeholders have held several meetings with the agency to provide information on best practices. To delay action any longer, for any reason, invites devastation.

While we wait for an appropriate policy response, groups are mobilizing in the United States to address the potential threat in a number of ways, as best they can:

- The Amphibian Survival Alliance provided free salamander testing kits to encourage pet owners to test their salamanders and adopt best practices to minimize the potential for spreading the fungal disease. The Alliance is also working with the pet industry to explore options for additional testing of imported and captive salamander
- The Association of Zoos and Aquariums is working with its members to encourage all accredited zoos and aquariums to test their captive salamanders.

- The United States Geological Survey Amphibian Research and Monitoring Initiative is spearheading efforts to develop a nationwide monitoring program so that if the pathogen does land on these shores, we'll be able to detect it and respond.

- Academic institutions are trying to determine which salamander species might be most susceptible and what treatment options, such as skin probiotics and vaccinations, might be available.

- The United States-based amphibian conservation organization Amphibian Ark is developing a response plan for the worst-case scenario — if the pathogen arrives and spreads and causes widespread salamander die-offs.

– All of these groups are in communication and coordination with representatives of state fish and wildlife agencies, which manage salamander species and are in support of immediate federal action.

While these efforts are certainly laudable and will make some difference, the reality is that if we are to protect our wild species, these beautiful jewels of our forests and wetlands, we must be vigilant in preventing the pathogen from reaching them.

We can't do that without the help of the Fish and Wildlife Service.

– James Lewis, Amphibian Survival Alliance

– Anne Baker, Amphibian Ark

– Ruark Cleary, Natural Areas Association

– Alejandra Goyenechea, Defenders of Wildlife

– Peter Jenkins, Center for Invasive Species Prevention

– Karen Lips, University of Maryland

– Jennifer Loda, Center for Biological Diversity

– Nicole Paquette, Humane Society of the United States

– Bruce Stein, National Wildlife Federation

– Teresa Telecky, Humane Society International

– Russ Mittermeier

George Rabb, President Emeritus, Chicago Zoological Society (

In closing, I will note that this is a bit personal for me, given that the eastern newt is one of my favorite forest and pond creatures, as I've noted here repeatedly. Here's video I shot a few years back showing how this species remains active even when the local ponds are sheathed in ice:

<https://www.youtube.com/watch?v=Sdsm6UQhBxk>

I would hate to think that a decade or two from now, a new generation of Americans won't be able to marvel at such scenes.