

Salamanders as Injurious Wildlife

What It Means for Salamander Owners and Scientists

On January 13, 2016, the U.S. Fish and Wildlife Service listed 201 species of salamander as injurious wildlife under the Lacey Act. The purpose of this listing is to protect native salamander populations from *Batrachochytrium salamandrivorans* (Bsal); a fungus that is lethal to many salamander species. This factsheet was developed to answer questions about the rule and ensure a basic understanding about what the rule means for salamander owners and scientists.

General Questions:

What does it mean if a species is listed as injurious wildlife?

Under the Lacey Act, a species of wildlife can be listed as “injurious” when it has been demonstrated to be injurious to human beings, to the interests of agriculture, horticulture, or forestry, or to the wildlife or wildlife resources of the United States. The listed salamanders have been identified as carriers of Bsal and are thus considered injurious. The purpose of listing these species of salamanders as injurious wildlife is to prevent the introduction, establishment, and spread of the salamander chytrid fungus Bsal in the wild in the United States. The fungus affects only salamanders with lethal effects on many salamander species. Wildlife and wildlife resources, including their benefits to the American public, would be imperiled if Bsal was established in the United States.

What species are affected by the rule?

The rule lists 201 of the approximately 681 species of salamanders that exist worldwide. The species are found in 20 genera of the 68 genera found globally. Species that are listed by this rule are identified at http://www.fws.gov/injuriouswildlife/pdf_files/List-of-Salamander-Species.pdf.

What amphibians are *not* affected by the rule?

Species that are not on the injurious wildlife list are not affected by this rule. Frogs, toads, caecilians, and other salamanders are not affected by this rule.

Why was the rule not simply a prohibition on importation? Why is interstate movement included?

Consistent with the statutory language and congressional intent, it is the Service’s longstanding position that the Lacey Act, 18 U.S.C. 42, prohibits both the importation into the United States and all interstate transportation between states, the District of Columbia, the Commonwealth of Puerto Rico or any territory or possession of the United States of injurious species.

Why were some nonnative genera, such as *Pachytriton*, not included given that they are known to be imported into the United States?

The Service listed only species from genera for which we have scientific evidence showing that they can carry Bsal.

Why were 67 native species included?

We listed 201 species of salamander as injurious wildlife because they are capable of carrying Bsal, a fungus not yet known to be present in the United States and which is lethal to many salamander species. This includes 67 native species native to the United States, some of which are bred outside the United States and imported into the country.

Are salamander swabs that are fixed in formalin or alcohol regulated?

Swabs that are fixed in formalin or alcohol are not exempted in the injurious wildlife rule. Therefore, these items are included as "parts" in the rule consistent with the definition of "wildlife" outlined in 50 CFR Part 10.2, which "includes any part, product, egg, or offspring thereof."

Information Regarding Regulations and Permits:

To control the introduction and spread of an "injurious species," the Lacey Act prohibits the importation and interstate transport of listed species without a permit issued by the Service. This interim rule to list salamanders also includes dead salamanders or their body parts because of concerns that Bsal can be introduced through dead tissue containing keratin. Importing a listed species, moving it across state lines, or acquiring a specimen when interstate movement or importation is involved requires authorization, in the form of a permit, from the Service BEFORE the activity occurs. Only medical, scientific, zoological, and educational activities can be the basis for issuing such authorization under the Lacey Act. The Lacey Act does not restrict intrastate (within-state) transport.

If you wish to conduct activities that are otherwise prohibited under the Lacey Act (that is, import or interstate transport), you must submit an application to the Service requesting authorization (Form [3-200-42](#), <http://www.fws.gov/forms/3-200-42.pdf%20or%20http://www.fws.gov/permits>). The application includes questions about the activity you wish to carry out and provides an opportunity to explain how this activity would meet the permit issuance criteria under the Lacey Act and its implementing regulations. If a permit or other authorization is granted by the Service, you will be able to carry out your proposed activity subject to the terms and conditions of the permit.

Permits may be requested by filing form [3-200-42](#) with the U.S. Fish and Wildlife Service, Division of Management Authority, 5275 Leesburg Pike, MS-IA, Falls Church, VA 22041-3803. The application form may be obtained through the Service's International Affairs website (<http://www.fws.gov/forms/3-200-42.pdf>), or by calling 1-800-358-2104.

Exporting Salamanders

The injurious wildlife provisions of the Lacey Act do not regulate exportation of listed species. Please note, however, that several of the newly listed salamander species are also listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) or the Endangered Species Act (ESA) and would require export permits. While the injurious wildlife provision of the Lacey Act does not restrict exportation of injurious wildlife, it does regulate interstate movement. Therefore, while you can export specimens of the listed salamanders, you cannot cross state lines while transporting specimens to an airport, and the aircraft cannot land in another state while in transit to its final destination. You should also consider any laws or regulations of the state from which you are exporting, as well as any requirements of the air carrier or the country of destination. (See scenarios listed on “Information for Salamander Exporters” found at www.fws.gov/le/pdf/Exporting-Injurious-Salamanders-Factsheet.pdf)

Double Escape-proof Containment

Listed specimens must be maintained in a double escape-proof containment once they are covered under a permit. For live specimens, this typically consists of a cage within a cage or closed room. This requirement is to ensure that specimens the Service has permitted as part of an otherwise prohibited activity (that is, importation or interstate transport) do not escape confinement and cause the specific environmental damage that the listing under the Lacey Act was designed to prevent. As the purpose of the injurious wildlife listing is to prevent Bsal from entering and spreading in the United States, this requirement, which would apply to both live and dead specimens, is necessary to prevent unintentional release of permitted specimens.

For live animals, a double escape-proof containment typically involves maintaining the live salamander in a tank within a larger container or room. For example, maintaining your salamander in a covered aquarium within a closed building would meet this requirement. When you are moving the animal from one location to another, such as going from the amphibian house of a zoo to the veterinary clinic at the zoo, the salamander must be transported in double escape-proof containment, such as in a travel container within a larger container. This is to ensure that if the animal escapes one enclosure, the second enclosure would restrict further escape. In addition, the double escape-proof containment requirement would apply to any offspring of the salamander that has been permitted.

For dead specimens, a double escape-proof containment could consist, in a laboratory setting, of maintaining the specimen within a test tube, petri dish, or similar containment within a closed laboratory setting. We also recommend that specimens not be left exposed (for example, on a laboratory bench) for longer than necessary to conduct the work on the specimen. Dead specimens and salamander parts found in the field and moved for diagnostic testing or other permitted purposes should also be contained with two safeguards to prevent accidental release of the dead and infectious specimens or parts outside of where it was collected.

Public Display

No permit is required for specimens that are not taken across state lines or imported.

A permit is required for exhibition or education to move specimens of an injurious species across state lines. When a permit is issued, a condition would be placed on the use of the permit to maintain the specimens and all progeny in double-escape proof containment.

While most permits apply to importation and interstate movement, any new offspring of previously permitted specimens require a permit for intrastate movement. For example, if you have captive salamanders under an existing permit, and those salamanders have offspring, you will need a new permit to move their offspring to another holding facility, even if it is within your same state.

Information Regarding Salamander Ownership:

- How does the listing affect salamander ownership? What do I need to do to be compliant?

The listing does not affect ownership of the listed species. If you own any of the listed species as a pet, there is no need to do anything as long as the animal has never been covered by a permit and remains within the state where you currently reside.

The Lacey Act does not authorize the issuance of permits to move pets across state lines that have been listed as injurious. Only medical, scientific, zoological and educational activities can be the basis for issuing injurious species permits. If you are unable to keep your pet, you should seek legal and environmentally responsible solutions for the placement of pets listed as injurious species. Such specimens should never be released into the wild, which can cause harm to local wildlife and ecosystems and may be a violation of state or local law.

Do these new regulations affect the breeding of these species?

The Lacey Act does not regulate the breeding of listed species. If you are commercially breeding one of these listed species, or breeding as a hobby, if allowed by your state, you can continue these activities, as long as the adults or young are not subsequently transported across state lines. You should also consider any laws or regulations of the state in which you are breeding.

What do I need to do if I am transporting my salamander within the state (that is, intrastate transport)?

Except for previously permitted specimens or their offspring, no permit or other authorizations are required to move your animal within a state, unless required by any other federal, state or local law.

What do I need to do if I want to transport my salamander across state lines (i.e., interstate transport)?

If the species you are transporting across state lines is listed under this rule, you must ensure you have a valid transport permit and follow all conditions under the permit, such as keeping the salamanders in the double escape-proof container at all times. Only medical, scientific, zoological, and educational activities can be the basis for issuing injurious species permit.

Can I buy or trade these salamanders at reptile and amphibian expos?

Yes, as long as the sale or trade, and subsequent possession, is allowed by state or local laws and the animals are not transported across state lines to the expo or after purchase. Transport across state lines is prohibited unless the Service has issued a permit authorizing the transport. Permits can only be issued for medical, scientific, zoological, and educational activities.

Can I sell or purchase these salamanders on the internet?

Yes, salamanders may be sold, traded, or purchased on the internet, provided that the salamanders are not imported or transported across state lines and the sale, trade, or purchase of the salamanders on the internet does not violate any other federal, state, or local laws. For export, please see guidance at <http://www.fws.gov/le/pdf/Exporting-Injurious-Salamanders-Factsheet.pdf>.

My veterinarian is in another state. May I take my listed salamander across state lines to the veterinarian?

No, transporting a listed animal across state lines to a veterinarian is prohibited; this is not considered a “medical” activity under the Lacey Act. The animal will have to be treated by a veterinarian in the state where the animal is held.

Can I release my salamander into the wild?

No. Releasing amphibians from captivity into the wild is illegal in most, if not all, states.

Where can I find more information on surrendering my pet salamander?

An owner of a listed species should contact local authorities responsible for the disposition of unwanted pets. Additional information about the safe and ethical surrender of unwanted pets may be available through your state’s natural resources or fish and wildlife agency. The local office of the U.S. Fish and Wildlife Service may also be able to provide additional information; the Service website, <http://www.fws.gov>, can help you find your local Service office. In addition, you may also ask your local pet retailer or zoo for suggestions on ethical alternatives.

Here are some additional websites that might be of assistance:

- Pet Industry Joint Advisory Council’s Pet Pathway Toolkit: <http://www.petpathwaytoolkit.com/>
- Habitattitude: <http://www.habitattitude.net/>
- Florida Fish and Wildlife Conservation Commission’s Nonnative Amnesty Day Events <http://myfwc.com/wildlifehabitats/nonnatives/amnesty-day-events/> (If you do not live in Florida, check your state for similar events.)

I run an animal rescue center and people send me sick or unwanted salamanders. Will I be able to receive the listed species from other states?

Title 18 U.S.C. Section 42 of the U.S. Lacey Act states that any import or interstate shipment or transport of injurious listed species is prohibited. The proceeding penalty section specifies that: "whomever violates" (whomever imports or transports injurious species) may be held criminally culpable for said violation(s).

Any unsolicited imports, un-permitted imports or interstate shipments of injurious species must be immediately reported to the U.S. Fish & Wildlife Service and the appropriate state wildlife agency(s). Immediate reporting of said events will allow the Service to coordinate with the respective state wildlife agency(s) and provide the appropriate guidance and response to affected rescue centers, zoos and/or similar facilities. The Service recognizes the overall goal to safeguard native species from the effects of Bsal and works with conservation partners in both the public and private sectors to achieve this objective.

I run an education program with one of the listed species and sometimes travel to other states. Will I still be able to travel to other states with these listed species?

To move a listed salamander across state lines, even for temporary educational purposes, you must have authorization from the Service under the Lacey Act (permit application 3-200-42; <http://www.fws.gov/forms/3-200-42.pdf>). The animal must be maintained in double escape-proof containment and cannot be taken out of this containment in areas where escape could occur.

This requirement may limit your ability to use the salamander in educational programs where the animal is removed from its enclosure to be handled. To be handled by the public, the educational program must meet the "double escape-proof" requirement at all times, such as by holding the program in an interior room of a building with at least two closed doors or egresses between the animal and the outdoors. Please see "Double Escape-proof Containment" earlier in this factsheet for additional details.

How can I ensure that, if the Bsal fungus gets into the United States, I do not cause it to spread?

The goal of listing these 201 salamander species as injurious wildlife is to keep Bsal from entering, establishing, and spreading in the United States, but the regulation can only go so far to achieve that goal. We need the voluntary cooperation of salamander owners and hobbyists from across the country to keep these species healthy. Please visit <http://www.salamanderfungus.org/help/> for information on how to help make sure Bsal does not establish and spread in the United States.

Information for Salamander Scientists and Laboratory Staff:

What permits do labs need? What about other researchers?

Laboratories planning to acquire listed species by importation or interstate movement, including live or dead individuals or parts (excluding eggs and gametes), will need to apply for permits from the Service to receive those samples (<http://www.fws.gov/forms/3-200-42.pdf>; see *Information Regarding Regulations and Permits* above). Only the receiving laboratory would need to obtain a permit; the sender does not need to apply for or obtain a permit in order to ship specimens. Laboratories may apply for permits for an unspecified number of specimens of the listed salamander species to receive samples for research or diagnostic purposes due to the unpredictable, and often emergent, nature of their submissions.

For specimens being imported into the United States, please be aware that some of the species listed by this rule are also regulated under CITES or the ESA, so additional permits may be required.

Can a permit be obtained that covers multiple activities over a period of time?

Yes. Permits covering listed salamander species will be issued for multiple activities for a period of up to three years. In your application for a permit or a renewal of an existing permit, please identify in as much detail as possible the listed species that you anticipate receiving and the activities that will be undertaken.

How specific does the permitted activity need to be described? Can the permit be issued as an approval covering multiple specimens and activities? What if I know I will be conducting research on salamanders but do not know the specific circumstances?

Laboratories that are receiving specimens (solicited or unsolicited) from multiple sources do not need to provide details on which listed species or senders will be covered by the permit, as they may not know who will be sending them samples or which listed species they will receive for testing. However, if the laboratory knows at the time of applying for authorization what listed species will be involved or who will provide the specimens, the lab should provide that information with their application.

For researchers working with multiple species where specific species that could be collected or moved may not be known, list as many of the listed species that may be potentially encountered as possible in your permit application.

If I work for a laboratory and I want to request a permit to receive specimens of listed salamander specimens, how do I answer permit application questions requesting details that I may not know, such as the origin or type of specimen and their sources?

Laboratories may not have all available information when requesting a permit. Please provide as much information as you can in a cover letter with your permit application. We understand that there may be gaps in that information. Please make sure your application clearly identifies that

you are requesting the permit for purposes of receiving specimens of listed salamander species for research or diagnostic testing.

Are there any reporting requirements?

There are no annual reporting requirements at this time.

The rule states, “We also cannot list or regulate fomites (materials such as water that can transmit pathogens).” Are some diagnostic sample types considered fomites under the interim rule? What about skin swabs, preserved tissues, and whole specimens?

The Lacey Act only allows for the regulation of animals, not for the regulation of fomites such as water. This interim rule regulates salamanders and their parts that pose a threat because of their potential to transmit the Bsal pathogen. Thus, all salamander parts including skin swabs, preserved tissues, and whole specimens of species listed under the interim rule are subject to permit requirements if they are to be imported or moved interstate. For additional information on exporting, please see <http://www.fws.gov/le/pdf/Exporting-Injurious-Salamanders-Factsheet.pdf>.

Environmental or biofilm swabs are not regulated under this rule. The Service does not consider these materials to be wildlife parts. Filters collected for environmental DNA (eDNA) testing are not regulated under this rule

If I anticipate receiving research or diagnostic samples derived from listed species from international sources, what should I do?

An injurious wildlife permit is required for the import of research or diagnostic samples derived from listed species. Biosafety Level 2 (BSL-2) requirements are recommended by the research working group of the Bsal National Task Force (currently available at http://www.cdc.gov/biosafety/publications/bmb15/BMBL5_sect_IV.pdf). Please note that some of the listed species are also regulated by CITES or ESA and additional permits may be required. Also, all wildlife and their parts or products must be declared at the time of import or export using form 3-177 or its electronic counterpart (<https://edecs.fws.gov/>). All port, declaration, inspection and user fee (if applicable) requirements must be met.

If you anticipate receiving research or diagnostic samples from international sources, please contact the USFWS Office of Law Enforcement for additional guidance. Contact the port through which you expect the shipment to be imported or exported (www.fws.gov/le/inspection-offices.html).

General Permit Questions:

Who needs to apply for a permit: the sender or the receiver of the specimen?

The individual or institution receiving the specimen needs to apply for the permit. Universities can apply for one permit rather than requiring every scientist and student to apply for permits separately, but the university representative who signs the application would be responsible for

all activities conducted under the permit and ensuring that all such activities are conducted in accordance with the terms of the permit.

Any person physically transporting a sample across a U.S. or state border needs to have a copy of the permit under which they are transporting the specimen in their possession and a letter from the permittee authorizing the transport.

Is anyone exempt from permit requirements?

Federal agencies are not required to request a permit for importation and transportation of live injurious wildlife. Federal agencies must obtain a permit for importation or interstate movement of dead specimens.

Importation and interstate movement of dead natural-history specimens are exempt from permit requirements if they are accessioned into a museum collection and the import or interstate transport of the specimen is for a museum or scientific collection. Specimens that are not accessioned into a museum or scientific collection (for example, preserved animals that are moved from one state to another, including from a museum to a university for the purpose of taxonomic studies where the specimen will not stay in the recipient institution's accessioned collection) will require permits.

What is the fee for processing a permit application?

Fees for processing injurious wildlife permit applications are \$100. The fee will be waived for any federal, tribal, state, or local government agency or to any individual or institution acting on behalf of such agency.

How far in advance should I apply for a permit for my proposed activity?

While the Service will strive to process applications as quickly as possible, applicants should plan for up to 60 days for their application to be processed. Delays can be minimized by filling out the application completely and making sure that there are no gaps. If you have questions about how to answer a particular question, please let us know and we will help you address it before you submit your application.

If I ship a specimen, do I need to include a copy of the receiver's permit?

To avoid any unnecessary delays in shipping, it is best practice to include a copy of the receiver's permit if shipping to another state.

For how long will a permit be valid?

Permits can be valid for up to three years. Please note, however, that once a specimen, dead or alive, is permitted for any activity, the double escape-proof containment requirements must be adhered to for the duration of possession of the specimen and for any offspring, dead or alive, produced by the permitted specimen.

Where can I find additional information?

FWS regulations can be found on the following website <http://www.ecfr.gov/>.

- General permit procedures are found in [50 CFR part 13](#)
- Injurious species regulations are found in [50 CFR part 16](#)
- ESA regulations are found in [50 CFR part 17](#)
- CITES regulations are found in [50 CFR part 23](#)

For questions about permits, contact:

Division of Management Authority

Branch of Permits

<http://www.fws.gov/international/permits/>

E-mail: managementauthority@fws.gov

1-800-358-2104

Office of Law Enforcement

<http://www.fws.gov/le>

E-mail: lawenforcement@fws.gov

Fish and Aquatic Conservation

Injurious Wildlife website: <http://www.fws.gov/injuriouswildlife/>

E-mail: Jason_Goldberg@fws.gov or Susan_Jewell@fws.gov

General information and resources about Bsal can be found at the Bsal Task Force's website, www.salamanderfungus.org.