

Proper handling of amphibians and reptiles

Adapted from Gauza, R., and D. Smith. 2010. *Maryland Amphibian and Reptile Atlas (MARA) Training Handbook*.
Maryland Department of Natural Resources and Natural History Society of Maryland.

Care and discretion should be used when handling amphibians and reptiles. Only handle an animal if it is needed to make a positive identification and is safe to do so. Remember that handling can cause stress, injury, and even mortality to amphibians and reptiles.

Please abide by these general procedures:

1. Do not handle dangerous herpetofauna (e.g., snapping turtles, large or venomous snakes).
 - A net, snake hook, sizeable stick, or similar tools can be used to facilitate capture.
2. Always use wet hands that are free of lotions, chemicals, etc. to handle amphibians.
3. Clasp small individuals within both hands.
4. Hold large frogs at the pelvis with legs fully extended to prevent injury and fractures.
 - This restraint technique should prevent the frog or toad from kicking and twisting.
 - Apply only gentle pressure/resistance – take care not to squeeze too hard.
5. Do not grab salamanders or lizards by the tail.
 - Although the tail can be regenerated, tail autotomy creates potential for infection and loss of an important fat reserve.
6. Support snakes at multiple points along the body.
 - Gentle pressure can be applied behind the head of the snake to reduce the potential for a bite.
 - Do not handle an agitated snake.
7. When capturing a snake is necessary, place in a pillowcase to reduce stress to the animal.
8. Lift or roll cover objects towards your body.
 - If the cover object is particularly heavy, make sure herps are clear from underneath before returning the cover object to its original position.
 - If a herp was removed, return it so that it is oriented facing the cover object so that it may return on its own.
9. Amphibian eggs should not be handled
10. Do not disturb reptile nests or hibernacula.

Disinfection procedures

Background

Chytridiomycosis, ranavirus, and other diseases are among the growing threats to amphibian populations. Respiratory and other infections also pose a major risk to turtles and other reptiles. Chytrid fungus (*Batrachochytrium dendrobatidis*), in particular, has been identified as the cause of decline and extinctions of hundreds of frog species worldwide. Like other invasive organisms, Chytrid spreads easily; it is transferred from

amphibian to amphibian as well as in water and on damp materials. Therefore **it is critical to disinfect boots, gear, and any items that come in contact with rivers, streams, wetlands (especially seasonal pools), and moist leaf litter.**

How to

The disinfection procedure consists of soaking or rinsing boots and all equipment in a 10% bleach solution for at least one minute. Equipment with a smooth surface can be scrubbed with a scrub brush using a 10% bleach solution. Wear lug sole boots only- felt sole boots/waders are major disease vectors and will not be treated under this disinfection protocol. After soaking and scrubbing have been completed, rinse with freshwater. The disinfection procedure can be easily accomplished with two spray bottles – one with a 10% bleach solution and one with freshwater. It is easiest to prepare these at the beginning of your field day and leave them in a vehicle before moving on to another site.

Skin that comes in contact with herpetofauna or water during search activities should be cleaned with alcohol-based hand sanitizer as part of the disinfection procedure. Use plastic bags only once per field day – they can be disinfected and re-used for the next visit.

Note: Please be conscientious when disposing of bleach solutions so not to disturb and pollute any freshwater habitats (particularly seasonal pools).

ADDED: Please note that collecting amphibians and reptiles is regulated and because of that, you are advised to adhere to all local, state and federal regulations pertaining to wildlife handling and collecting. See, for instance: MD Captive Reptile & Amphibian Permit/License <http://www.dnr.state.md.us/wildlife/Licenses/captive.asp>