

## How can I help?

Eastern Hellbender salamanders are NOT poisonous! Although they have many small sharp teeth, they do NOT bite! They are slippery and difficult to handle, but they are tough, so do NOT be afraid to pick one up to return it to where it was caught.

### Remember:

- While kayaking, canoeing, swimming, or fishing, do not move rocks! Hellbenders need these hiding places.
- If a hellbender is caught while fishing, disengage the hook or cut the line close to the hook and release it.
- Hellbenders are protected in PA and NY. Leave them in the wild.

If you would like to report a hellbender sighting, request more information, or schedule a presentation for a group, please contact:

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You may visit this website for online reporting and more information on current research: **<http://www.cryptobranchid.org>**

## Groups Supporting Hellbender Conservation

The **Pennsylvania Fish and Boat Commission (PFBC)** and the **New York State Department of Environmental Conservation (NYSDEC)** are responsible for the conservation of amphibians.

Visit the PFBC website at:

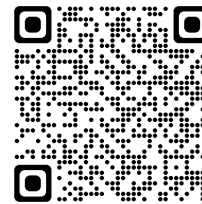
**[http://sites.state.pa.us/PA\\_Exec/Fish\\_Boat](http://sites.state.pa.us/PA_Exec/Fish_Boat)**

Visit the NYSDEC website at:

**<http://www.dec.ny.gov/>**



**Cryptobranchid Conservation** is dedicated to the scientific study and conservation of all giant salamanders, including the Eastern Hellbender. With the help of small grants and private donations, our scientists are working to clearly identify their life history requirements and develop conservation BMPs. To learn more or to make a contribution to our nascent conservation campaign, please scan this QR code or visit: **<http://www.cryptobranchid.org>**



## The Eastern Hellbender

The Eastern Hellbender (*Cryptobranchus alleganiensis*) is one of the largest salamanders in North America, attaining lengths of up to 29 inches. They require clear, fast-flowing streams with abundant rocks large enough to hide under. Hellbenders are totally aquatic, never leaving the water, and are generally active only at night when they leave their retreats to search for food.



*Adult Eastern Hellbender*

The Eastern Hellbender inhabits rivers and streams throughout much of the PA and NY, but they do not occur in the Delaware River watershed. Both PFBC and NYSDEC regulate the taking of amphibians and they no longer allow hellbenders to be taken or possessed without a special permit. The hellbender is not a threatened or endangered species in PA or NY at this time. In 2019, the Eastern Hellbender was designated as the Pennsylvania State amphibian.

## Biology

**Appearance** — Hellbenders have a flattened head and body, and sinuous skin folds along the side of the body to provide a large surface area for gas exchange. They have a pair of small silvery eyes, a pair of large gill clefts called spiracles behind the head, and an extensive system of sensory cells called neuromasts embedded in the skin.



*2-inch Larva with Feathery Gills (above)*



*4-inch Juvenile without Gills (right)*

**Reproduction** — Hellbender males excavate a cavity beneath a large rock and defend it against other males. Females deposit their eggs inside the cavities in late August and early September. The males fertilize the eggs externally then guard them until they hatch out about two months later. The newly-hatched larvae have external gills and are about 1-1/2 inches in length.

## Ecology

**Range** — The Eastern Hellbender occurs from southern New York to northern Georgia, and from the central Appalachians westward to Missouri.

**Habitat** — Hellbenders prefer shallow, clear, fast-flowing streams with abundant rock cover. They live singly beneath rocks and only rarely are two hellbenders found together. Adults will fight and wound each other with their small, sharp teeth. Most fighting appears to be in defense of cover rocks and/or nest sites. Predation on adult hellbenders is not common due to their large size and nocturnal habit, but juveniles may be eaten by predatory birds, fish, and larger hellbenders.



*Adult Hellbender Feeding on Crayfish*

**Food** — Adult hellbenders typically eat crayfish, but will also take small fish and hellgrammites when available. Gilled larvae feed on small aquatic insects, but as they grow larger they begin feeding on tiny crayfish.

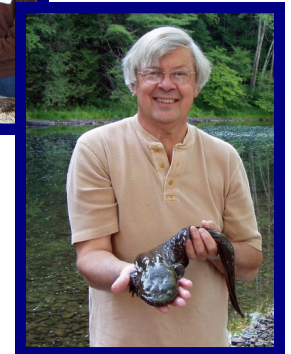
## Research & Education

**Distribution** — Hellbenders are disappearing from much of their historic range but still occur in several PA and NY streams. They are much less common now due to habitat degradation from sediment and chemical pollution.

**Population Health** — The immediate cause of mortality in PA and NY populations is not yet known. Some hellbender populations remain healthy, while others have undergone dramatic declines since the late 1990's.



*Middle School Students Study a Rare Yellow Hellbender (above)*



*25-inch Adult Hellbender (right)*

**Research** — Scientists are conducting studies of distribution, ecology, and health of the Eastern Hellbender in tributaries of the Allegheny and Susquehanna rivers. Artificial habitat structures and natural slab rock have been installed in area streams in order to improve hellbender habitat. Eggs and larvae have been collected and are being reared for future release to restore or enhance declining populations.