

# Monsters in the Water?

It's not often that you run across something as bizarre and unusual as the Hellbender or Mudpuppy. Not many people have had the chance to see them but those who have will never forget the experience. They are often seen by fishermen or others who may have encountered them while engaging in water activities. These unique salamanders have their share of myths and stories, but in reality they are gentle species fighting to survive within Pennsylvania's waterways.



The Hellbender

At first look the Hellbender may resemble something out of a science fiction movie. It has a large stout body, laterally compressed head and wrinkled skin. The Hellbender, unlike many other salamanders, spends its entire lifetime in fast-flowing cold streams and rivers that have an abundance of large rocks. The coloration of a Hellbender ranges from yellowish or greenish brown to blackish brown or slate grey, with many irregular dark blotches. Though their name and appearance may make you believe otherwise, these creatures are a good indicator of clean, high quality water, and are an important part of the waterways ecosystem.



The Mudpuppy

The Mudpuppy, like the Hellbender, is an aquatic salamander. They may be found in clear open lakes with sandy bottoms, ponds, and fast-flowing streams or creeks. The Mudpuppy, unlike the Hellbender, is neotonic, meaning it keeps its external branching gills throughout its life. It also lacks the wrinkly folds of skin that are characteristic of the Hellbender. The Mudpuppy varies in color from greyish brown, reddish brown to black that becomes lighter in color on the sides of the body. The top surface of the body has a series of irregular blotches with small blotches that may extend onto the back area of the head. Its belly is beige or cream to pinkish grey and sometimes may be covered with small bluish black blotches. The head has a dark stripe that extends from the nares through the eyes and ends at the gills.

## Conservation and Habitat Concerns

Like all salamanders, Hellbenders and Mudpuppies are very sensitive to changes within their environment. Both are listed as species of concern in the state of Pennsylvania. They are declining throughout their range, and much of their range and distribution is poorly understood. Chemical water pollution (industrial and agricultural), siltation, dams, and mine waste play a big role in the decline of these species. Other factors involve commercial collection for the pet trade and fishing bait. Many animals are also hooked or netted while fishing and killed or left on the shore due to common myths and fears associated with these two salamanders. If you're a fisherman and should happen to hook one of these salamanders, please release it back into the water.

## Myths

Hellbenders and Mudpuppies are often thought to be poisonous or venomous, and believed to kill off fish populations. This is not true. Mudpuppies are not known to bite, but the Hellbenders may if they're provoked. Neither of these salamanders carry any type of poison or venom. The Hellbender does emit a toxic secretion on its skin, but it's not harmful to humans unless it is ingested or comes in contact with your eyes. If you handle a Hellbender, be sure to wash your hands afterwards. The diet of both species consists of crayfish, small fish, bugs, tadpoles and other small aquatic crustaceans. Neither species eat trout or other large species of fish.