

Eastern Hellbender (*Cryptobranchus alleganiensis alleganiensis*)

Pennsylvania Amphibian Species of Concern
State Rank: S3 (vulnerable), Global Rank: G3G4 (vulnerable)

Identification

The eastern hellbender is the largest salamander species in the northeastern United States. Males are around 17 inches in length, while females are a bit larger, averaging 21 inches. With a wide head, white tipped toes and wrinkled body, the hellbender has a bizarre monster-like appearance. Despite its odd looks, the hellbender is completely harmless. The base color is brown, and blotched with darker spots, though some adults may vary from yellowish brown to nearly black. The hellbender is one of two aquatic salamanders in Pennsylvania. The other is the mudpuppy (*Necturus maculosus*) which has distinctive external gills through adulthood and is easily distinguished from the hellbender.



Photo source: Tim Maret

The Eastern Hellbender
(*Cryptobranchus alleganiensis alleganiensis*)

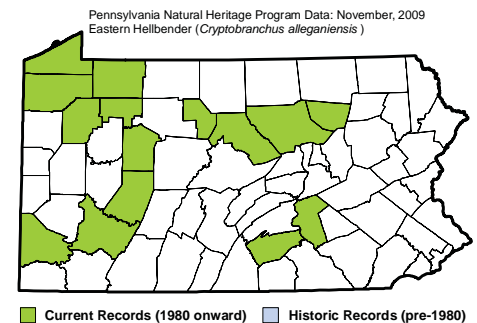
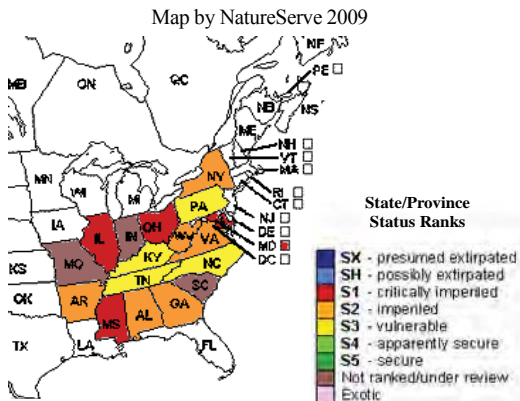
Habitat and Natural History

Inhabitants of swift-flowing, clean, clear waters, eastern hellbenders live in crevices under flat rocks on medium sized stream and river bottoms. Hellbenders feed almost exclusively on crayfish and pose no threat to game fish populations; however, they were once thought of as vicious predators of trout and other game fish and were consequently persecuted. Hellbenders are usually active at night, retreating under rocks during the daylight hours. Between late August through the end of September, adult hellbenders are seen more frequently moving about on the river bottoms in search of mates. Males construct nest chambers below rocks and lure females in for breeding. As the female deposits pearl-like strings of eggs, the male fertilizes them and guards the eggs until they hatch.

Conservation/Status

The eastern hellbender has declined in Pennsylvania for a number of reasons, but primarily due to decreases in water quality. Amphibians as a whole are particularly susceptible to chemical contamination given their permeable skin. Increased sedimentation due to soil erosion may choke out hellbender habitat, by filling in the gaps beneath rocks where they live. While some populations of hellbenders appear to be stable; many others seem to have vanished. Introductions of invasive exotic crayfish, such as the rusty crayfish (*Orconectes rusticus*) which are more aggressive than our native species, are thought to be the cause for some of these declines. Recent work has shown that predation by non-native game fish including walleye and brown trout may also lead to hellbender declines.

North American State/Province Conservation Status



References

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