



Eastern Hellbender Pennsylvania's New State Amphibian

They're not pretty. In fact, they are sometimes called snot otters, mud devils, devil dogs, Allegheny alligators, and even lasagna lizards! But beauty aside, the Eastern Hellbender is now officially Pennsylvania's official state amphibian. The Eastern hellbender is the largest salamander in North America and **they must have clean water to survive.** For years their populations have been disappearing.

Officially naming it state amphibian is meant to bring attention to efforts to preserve their habitats. That's good news for all of us. We all need clean water.

Hellbenders are canaries for healthy fresh waters. This refers to "a canary in a coal mine." In other words—creatures that are so sensitive to their surroundings they act as an early warning sign of possible danger. Coal miners would take canaries down into coal mines. If the bird died it meant dangerous gases were about to overtake the miners and they needed to escape quickly!



In addition to being the largest salamander in North America and Pennsylvania, it is the third largest in the world. The hellbender is a nocturnal salamander that can grow more than 2 feet long. The mud-colored creature, covered in a layer of mucus, breathes primarily through loose flaps of thick, wrinkled skin that look a little bit like lasagna noodles—hence the nickname lasagna lizard.

The creature's numbers have dropped a lot as its habitats have been damaged. The constant removal of trees along our streams and rivers—and the shade they provided—has allowed the water to warm up too much. The lack of trees and tree roots has meant that pollution can run too easily into the waters and cause silt to build up in streambeds.

Hellbenders breathe through their wrinkly skin.

They have numerous fleshy folds along the sides of their bodies, which provide extra surface area from which to pull oxygen from the water. They have lungs, but the lungs are mostly used for buoyancy control (to float when needed). They do not use their lungs for breathing.

They are slow-growing and long-lived. Hellbenders will not breed and produce young until they are five to eight years old. They may live 25 to 30 years in the wild.

They are crayfish-eating specialists. Almost 90 percent of the hellbender's diet consists of crayfish, but they also eat small fish, insects, worms, and even other, smaller hellbenders.





Hellbenders can see with their whole bodies. They have tiny eyes located on the tops of their heads that can detect light but are not very good at forming images. They also have light-sensitive cells located all over their bodies, especially on their tails. This might help them keep their whole bodies hidden under rocks and logs. When hunting, they likely use their keen sense of smell and their lateral line, which detects vibrations in the water.

They keep to themselves. Hellbenders are solitary animals. Outside of the breeding season, encounters between two individuals can be violent. Adults are territorial and will aggressively chase off any intruders. Equally matched combatants may fight or just go their separate ways, but if one is bigger than the other the smaller hellbender risks being eaten.

They walk underwater. Hellbenders can swim, but usually walk along the stream bottom using their sturdy limbs. Their toes have rough pads that give them extra traction on the slippery underwater surface.

They spend most of their time under rocks. Hellbenders mostly hunt at night, and spend their days hiding under flat rocks in fast-moving streams. Their flattened bodies help them slide into their hiding places and move about in fast-flowing waters.

Hellbenders live in the cool, swiftly moving waters of streams & rivers—not the calm, warm waters of the ponds & lakes. So why are we studying hellbenders this year? Because being named a State Animal is a pretty big deal. There is usually a special reason a species is chosen for this recognition. Do you know our state symbols? Here are some of them:

State Mammal—Whitetail Deer. The deer has always been an important source of food and clothing for our native Americans and later our early settlers.

State Tree— Eastern Hemlock. Many of our pioneers used the sturdy wood of hemlocks to build their cabins. The thick foliage shelters wildlife and keep our forests cool in summer. Because hemlocks block snowfall, they make it easier for deer to survive harsh winters.

State Fish—Brook Trout. Pennsylvania's 4,000 miles of cold-water streams provide the perfect habitat for this fish—the only trout native to the Commonwealth.

State Flower—Mountain Laurel. This was the favorite flower of a former Pennsylvania First Lady. The flower is actually part of a waxy-leafed shrubby bush that provides food & shelter for a number of our birds and mammals.

State Bird—Ruffed Grouse. Named for its ruffled neck feathers, this grouse was once the main food source for Pennsylvania settlers. They thrive in snow and cold