

Eastern Hellbender

Kingdom: Animalia
 Phylum: Chordata
 Subphylum: Vertebrata
 Class: Amphibia
 Order: Caudata
 Family: Cryptobranchidae
 Genus: *Cryptobranchus*
 Species: *alleganiensis*
alleganiensis

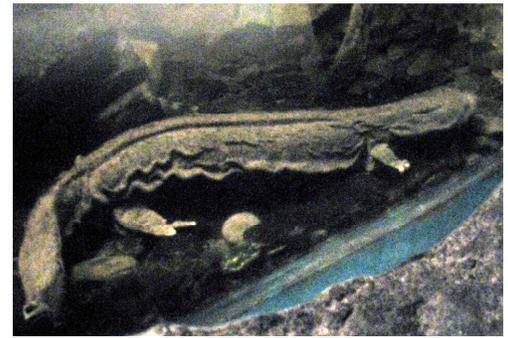


Photo courtesy of Lynne Panebianco

Habitat

- **In the Wild:** The Eastern hellbender prefers clear, cold, mountain streams found in central Missouri and from New York south to northern Alabama and extreme northeastern Mississippi. Their habitat consists of riffles (areas of a stream with swift running, fairly shallow water) where they spend most of their time underneath large, flat rocks (called flagstones) or logs.
- **Exhibit Location:** USS Antiquities

Characteristics

- Length: 20 inches (can be up to 30 inches); Weight: 4-5 pounds
- The coloration of the Eastern hellbender is variable, but it is generally described as dark green or gray dorsally and lighter on the underside. Irregular dark spots - brownish or black in color - are often present on the dorsal surface (back).
- Eastern hellbenders are stout bodied, with 4 short, well-developed limbs and a heavy, laterally compressed tail. Hellbenders retain a few juvenile traits as adults, such as an absence of eyelids and having open gill slits. Lungs are present but largely non-functional (vestigial).
- Hellbenders have extensively folded and wrinkled skin over the span of their flattened body. They breathe cutaneously (up to 95% of their oxygen is absorbed through their skin) primarily through these folds and wrinkles.
- Due to the hellbenders' cutaneous respiration, they prefer to live in streams with shallow, cold, rapid flowing water where oxygen is plentiful.
- Males and females are quite similar, but males tend to be heavier and broader.
- Hellbenders' bodies are covered in mucus that is thought to aid in protecting the hellbender from abrasion and parasites as well as being distasteful to potential predators.
- **Lifespan: In the Wild** 30 years; **In Captivity** large individuals may live as long as 30 years

Behaviors

- Hellbenders spend their entire life in the water.
- They are nocturnal animals, seeking cover by day under large rocks and logs, and becoming active at night to feed. They conceal themselves beneath rocks on the streambed with only their head protruding and seize crayfish that swim by (termed "sit-and-wait predators").
- Hellbenders are solitary creatures except for during the breeding season, when they have been known to congregate during the daytime in groups of 6-12.
- They will defend their shelter rocks from other hellbenders but are generally only aggressive towards each other during the breeding season, when nest defense increases in importance.
- **Enrichments at the Zoo:** live fish

Reproduction

- Sexual maturity is reached at 5-7 years of age. Breeding occurs in the fall.
- Males excavate nests on the streambed beneath flat rocks, crevices, and holes in bedrock. Usually these nest sites are used as den sites for the male during the non-breeding season.
- External fertilization is the mode of reproduction in hellbenders. Females enter the nest site and lay an egg mass of around 200-400 eggs on the bottom of the nest excavation where males then fertilize the eggs. Several females may deposit eggs in any one nest. Up to 2000 eggs may be found in a single hellbender nest.
- Males guard the egg mass, sometimes defending it against other hellbenders attempting to eat the eggs.
- Eggs hatch in about 72 days. Hatchlings are initially a uniform gray or brown, and are equipped with conspicuous yolk sacs that provide nourishment for the first few months of life.

Diet

- **In the Wild:** mainly crayfish but also fish and invertebrates
- **At the Zoo:** crickets, wax moth larvae, pinky mice, shiners, minnows

Conservation Status

- **IUCN status:** Near Threatened; **CITES Appendix:** Not listed
- Hellbenders are caught by fishermen who mistakenly think they are venomous and kill them.
- Hellbender populations are in decline due primarily due to habitat loss and degradation caused by agriculture, increased sediment from run-off, dams (which fragment populations), water pollution and lowered levels of oxygen.
- Collection for the pet trade has also caused population declines though it is illegal in Missouri, Ohio, Indiana, Illinois, New York, North Carolina, Virginia, and West Virginia.
- The hellbender is given varying protection status depending on the individual state within its range. In New York State, the hellbender is a species of special concern classified as S2, meaning it is considered to be “imperiled”. The hellbender is not listed as federally endangered.
- Predators: northern pike, muskellunge, turtles, water snakes, humans

Did You Know?/Fun Facts

- Hellbenders, along with the other Chryptobranchids are the largest living salamanders in the world.
- One legend has it that in the early 1800s the hellbender got its name when a distraught housewife in Oil City, Pennsylvania found her husband’s bottle of liquor hidden in a nearby stream. Eager to break his drinking habit she went to destroy the bottle but was horrified to find a hellbender “guarding” it! So the hellbender got its name by the housewife who thought this creature was somehow involved with her husband’s drinking problem when actually the hellbender was just an innocent bystander. (From an Animal Planet TV show broadcast in 2003)
- The hellbender is also known as a mudpuppy. Another name is the “snot otter” because of the filmy substance left on hands when it is held.

Sources:

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