



NC Conservation

North Carolina has some of the healthiest populations of hellbenders within their range, so it is essential that these populations remain protected. Some current actions to help hellbenders in NC include:

- The North Carolina Giant Salamander Network works towards identifying causes of decline, creating management plans, monitoring populations, restoring stream and hellbender habitats, and testing water quality.
- WildSouth makes nesting boxes for hellbenders to provide them with homes (and us with data!)
- Environmental DNA (eDNA) techniques (looking for the presence of hellbender DNA in water) allow researchers to quickly identify their presence in streams and rivers.

How You Can Help

- Protect them from disturbance—don't move rocks in streams!
- Keep local rivers clean by joining a local environmental group that helps clean, care for, and monitor rivers.
- If you canoe, fish, tube, swim, etc., don't leave behind any trash.
- Reduce or eliminate and properly dispose of pesticides and toxic chemicals to keep them out of watersheds.
- Don't take anything out of National Forests but your experience. This includes rocks!
- If you own land next to rivers or streams, keep the area around them forested.
- Control erosion on your property, such as on steep slopes and driveways.
- **If you see a hellbender, report it to the NC Wildlife Resources Commission at (919) 707-0050 so they can track all sightings.**



The Hellbender: An Appalachian Treasure



What Are Hellbenders?

Hellbenders are the largest salamander in North America, reaching up to 29 inches. They have a big head with little eyes and a flattened body with floppy, wrinkly skin. Their coloration ranges from yellowish brown to slate gray, usually with black spots down their back. While they might not look very friendly or cuddly, they are completely harmless to humans.



Where Can You Find Hellbenders?

Hellbenders occupy shallow, clear streams from southern New York to northern Georgia, and west all the way to Missouri. They hide under rocks during the day and emerge at night to hunt. They are fully aquatic and breathe mostly through their skin, so they need clear, cool, flowing water to survive. Luckily, in North Carolina, National Forests protect many of the hellbenders' mountain watersheds. They are still declining in most of their range, and are **protected as a Special Concern species in North Carolina.**

Quick Facts

- Hellbenders are sometimes called "snot otters," "devil dogs," "mud dogs," "grampus," and "Allegheny alligators."
- False myths about hellbenders include that they are poisonous and eat game fish, but they're actually harmless and don't affect fish populations.
- Hellbenders in the wild can live at least 30 years.
- If you catch a hellbender when fishing, you should carefully unhook it, or cut the line close, and release it back into the water.



— Occupied range of hellbenders in North Carolina

Why Should We Care?

Hellbenders' sensitivity to stream disruptions make them a reliable indicator of stream health. If hellbenders are disappearing from a stream where they were once found, it's likely that stream health is declining. Identifying where and why hellbenders are declining can help us to protect water resources that fish, wildlife, and humans alike depend on.



Why Populations Are Declining

- Sediment pollution from logging, mining, road construction, etc. covers the rocks and gravel hellbenders need for shelter and nesting. It especially harms eggs and larvae.
- Dams, impounded waters, and highly impacted stream reaches result in a lack of habitat and population connectivity.
- Habitat disturbance from people lifting, moving and removing rocks from rivers reduces the number of possible shelter/nesting spots.
- People collecting and/or purposefully harming or killing hellbenders pose threats to populations and is illegal.

