

Northern Cavefish (*Amblyopsis spelaea*)

Do they have any other names?

The northern cavefish is also known as northern blindfish.

Why are they called northern cavefish?

They are called northern cavefish because they are only found in cave streams and this species is found north of the habitats of other species of cavefish. *Amblyopsis* is Greek for “insensible vision.”

What do they look like?

Northern cavefish are small, eyeless fish that are white-clear in color due to lack of pigments in their skin. These fish have no eyes or skin pigments due to the complete darkness of the cave streams; eyes were not used and so slowly stopped developing in new generations through many years. Also, because of the darkness, camouflage is not needed to avoid predation. Northern cavefish have small pelvic fins, unlike most cavefishes which do not have pelvic fins. They also have rows of sensory papillae on their skin that help them to navigate their environment without light.



Photo Credit: Indiana DNR

Where do they live in Indiana?

Northern cavefish are only found in southern Indiana and north central Kentucky. They live in the following Indiana cave streams:

- Wesley Chapel Gulf Cave System in Orange County
- Pioneer Mother's Spring
- Dillon and Springs Spring Caves in Orange County
- Henshaw Bend Cave in Lawrence County
- Wyandotte Caves State Recreation Area
- Bronson-Donaldson Cave System in Spring Mill State Park in Lawrence County
- a few other caves in the Hoosier National Forest

Northern cavefish are not found north of the East Fork of the White River and are not found south of the Mammoth Caves in Kentucky.

What kind of habitat do they need?

Northern cavefish live in the streams of limestone caves. They are very vulnerable to contamination or habitat changes that occur in the cave stream.

How do they reproduce?

The northern cavefish breeds from February through April. The females carry the eggs in the gill cavities until the eggs hatch, and then they continue to carry the young until the yolk sacs are absorbed.

How old are they when they reproduce?

Northern cavefish begin reproducing at the age of 3 to 4 years old.

How long do they live?

Northern cavefish have a maximum age of 12 to 15 years but sometimes they can live as long as 30 to 40 years.

How fast do they grow in Indiana?

Northern cavefish grow to about 4 or 5 inches long.

What do they eat?

Northern cavefish are the top predator in their environments and they eat small invertebrates and even other small cavefish. They also have a low metabolic rate that allows them to live for long periods of time on fat reserves.

What eats them?

Besides habitat dependent vulnerabilities, the only predator for northern cavefish comes from cannibalism in areas with a larger population of cavefish.

Are they safe to eat?

Northern cavefish are a protected species.

How do I fish for them?

Northern cavefish are a protected species.

How is Indiana managing northern cavefish?

Northern cavefish are labeled as endangered by the state of Indiana and globally. In Indiana there are only around 44 sites with northern cavefish and 21 sites in Kentucky. Northern cavefish are very vulnerable to groundwater contamination; cave streams are like the streams on the surface but they are underground and less accessible for monitoring or cleanup, which makes it easier to contaminate and kill off an entire population of cavefish from only one accidental spill. These underground streams are vulnerable to contamination from fecal matter (septic waste, outhouses, feedlots, and grazing pastures), chemicals (pesticides, herbicides, and fertilizers), and hazardous materials (accidental spills, deliberate dumping, and even road salting). They are also vulnerable to habitat alteration from sedimentation (agriculture, development, dumping dirt and waste into sinkholes) and from humans who visit caves for recreation (vandalism, littering, disruption of habitat). Humans can also accidentally introduce non-native, invasive species into caves which disrupt the natural balance of the native species.

Indiana has worked to protect the northern cavefish and other delicate cave species by restricting access to these caves and regulating the recreational activities permitted in each cave.

