

Blind Cavefish

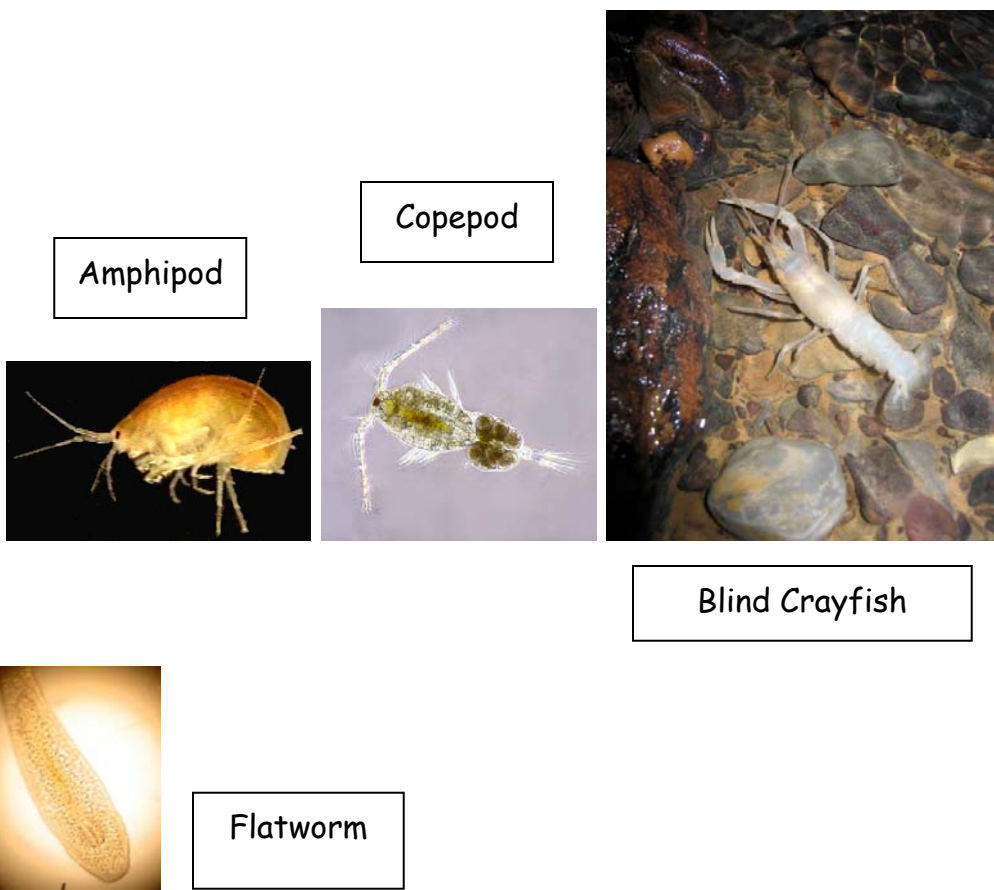


What does the blind cavefish look like?

One species of fish in the Elk River Basin is listed as "threatened" under the Federal Endangered Species Act and as "endangered" by the state of Missouri. The Ozark cavefish is only about two inches long. It lives in the caves of southwest Missouri. The cavefish does not need pigmentation to camouflage it from predators because the caves are dark. The Ozark cavefish is also blind because it does not need functional eyes in its dark environment. It is very sensitive to pollution, and the number of these fish is declining. It is important that we work to protect the water that runs into the caves where they live.

What does the blind cavefish eat?

Although cavefish do not have eyes, they "see" with sensory organs on their head and sides. These small whisker-like projections help the fish feel its way through the water and detect the movements of prey. Blind cavefish eat copepods, white isopods, eyeless flatworms, cave snails, blind crayfish, and eyeless amphipods.



What habitat does the blind cavefish like?

Ozark blind cavefish live in dark caves in southern Missouri. Because caves have constant temperatures and stable oxygen levels, cavefish have low metabolic rates and do not require much food.

What are the mating habits of a blind cavefish?

Very little is known about the life cycle of the Ozark cavefish. Spring floods probably trigger spawning, which occurs from February to April when waters are high. Females probably produce about 20 eggs, which are collected in the female's mouth and then shifted to their gill cavities. Eggs remain in the gill cavities until they hatch four to five months later. Ozark cavefish have a low reproductive rate. It is estimated that only 20% of the mature females spawn each year.

Current Threats to Ozark Cavefish

- **Water pollution** - Urban and agricultural pesticides that enter streams and sinkholes may travel miles underground and pollute the cavefish habitat. Leaky sewage lagoons, septic tanks, chemical spills, drainage fields, street runoff, and toxic metals from old lead and zinc mines may also find their way to caves and threaten cave wildlife. Soil erosion and runoff from livestock and poultry farms may enter a recharge area and affect the water quality within a cave.
- **Human disturbance** - Collection of Ozark cavefish by professional and amateur collectors can reduce or eliminate local populations of cavefish. Repeated human disturbance of gray bats and other bats within a cave may result in high bat mortality and eventual abandonment of the cave. With the bats gone, the cavefish may lose an important source of food and nutrients.
- **Alterations or destruction of cave habitats** - Caves and nearby springs are often part of the same system. Water enters the cave system by ground percolation and sinkholes. Destruction of suitable cave habitats resulting from flooding by reservoirs, excessive water removal, or intentionally sealing the entrance potentially results in populations of cavefish being lost or severely reduced. Changes in water level can dramatically alter a cave's habitat. The flow of nutrients and food into the cave stops when caves are sealed, or otherwise made inaccessible to bats and other animals.

