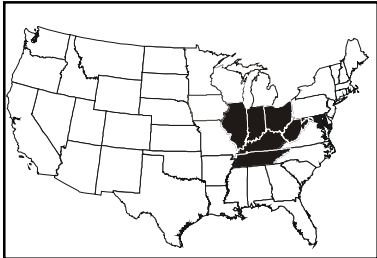




## Threatened and Endangered Species



To its fish host, a fanshell larva looks like a worm. When the fish host attacks, the larva attaches itself to the gills, where it will grow into a juvenile fanshell.



### Fanshell (*Cyprogenia stegaria*)

The Fanshell is a federally *endangered species*. Endangered species are animals and plants that are in danger of becoming extinct. *Threatened species* are plants and animals that are likely to become endangered in the foreseeable future. Identifying, protecting, and restoring endangered and threatened species is the primary objective of the U.S. Fish and Wildlife Service's Endangered Species Program.

#### Habitat

This mussel is found in medium to large rivers. It buries itself in sand or gravel in deep water of moderate current, with only the edge of its shell and its feeding siphons exposed.

#### Behavior

Reproduction requires a stable, undisturbed habitat and a sufficient population of fish hosts to complete the mussel's larval development. When the male discharges sperm into the current, females downstream siphon in the sperm in order to fertilize their eggs, which they store in their gill pouches until the larvae hatch. The females then expel the clustered larvae, which resemble spiral worms attractive to its fish host. When the fish attack, the larvae attach themselves to the fish's gills. They then grow into juveniles with shells of their own. At that point they detach from the host fish and settle into the streambed, ready for a long (possibly up to 50 years) life as an adult mussel.

#### Why It's Endangered

Dams and reservoirs have flooded most of this mussel's habitat, reducing its gravel and sand habitat and probably affecting the distribution of its fish hosts. Commercial harvesting may also be affecting this species, because only 3 of the 12 known populations are reproducing.

Dredging for channel maintenance and sand and gravel mining also destroys fanshell habitat. Erosion caused by strip mining, logging and farming adds silt to many rivers, which can clog the mussel's feeding siphons and even bury it completely. Other threats include pollution from agricultural and industrial runoff. These chemicals and toxic metals become concentrated in the body tissues of such filter-feeding mussels as the fanshell, eventually poisoning it to death.