



squawfoot (strange floater)

Strophitus undulatus

Kingdom: Animalia
Division/Phylum: Mollusca
Class: Bivalvia

Features

The squawfoot or strange floater mussel has a shell that is oval, moderately compressed, and thin in younger individuals. The shell is somewhat “inflated” and thicker in adults. The anterior end is rounded and the posterior is bluntly pointed, occasionally squared. The ventral margin is straight to slightly curved. Two to three v-shaped ridges are present on the umbo (hump near the hinge). The shell is smooth and shiny. It is green with rays in juveniles and chestnut, dark brown, or black in older individuals. The inside of the shell is salmon or cream-colored with bluish white along the outer margin of the shell. The squawfoot may reach lengths up to four inches.

Natural History

The squawfoot is found in small to medium-sized streams and occasionally large rivers in mud, sand, or gravel. It is a threatened species in Iowa. Its distribution in Iowa is not well documented. Freshwater mussels have an elaborate reproductive system. During spawning, males release sperm into the water. The sperm are drawn inside the female's shell, where they fertilize eggs in her body. The

fertilized eggs develop into larvae (glochidia) and are stored for a time in the female's gills. When the glochidia mature, the female generally expels them into the water where they must attach as parasites to the gills or fins of fish. Larvae remain on the host fish for a period of weeks or months. Young mussels then detach from their host and drop to the bottom of the body of water. Hosts for this mussel include two widespread, common fish, but glochidial parasitism is apparently unnecessary for this mussel. Mussels are filter-feeders, bringing in water and the organic matter it contains through the incurrent siphon, filtering the particles out, then sending the rest of the water away from the body through the excurrent siphon. Particles filtered include plankton and detritus. Mature mussels spend most of their lives, which range from 10 to 100 years, partially or wholly buried in the bottom substrate.

Habitats

Mississippi River; interior rivers and streams

Iowa Status

threatened; native

Siltation and other unknown water quality impacts from changing land use have greatly impacted mussel populations. The exotic zebra mussel greatly stresses remaining native mussels by covering their shells and competing for food.

Iowa Range

northeastern two-thirds of Iowa

Bibliography

Iowa Department of Natural Resources. 2001. *Biodiversity of Iowa: Aquatic Habitats* CD-ROM.