deertoe

Truncilla truncata

Kingdom: Animalia
Division/Phylum: Mollusca
Class: Bivalvia

Features

The deertoe mussel has a thin to moderately thick, triangular shell that is somewhat “inflated.” The anterior end is rounded and the posterior is bluntly pointed. The ridge on the posterior portion of the shell is sharply angled. The umbo (hump near the hinge) extends well above the hinge. Three to five fine ridges extend from the umbo. The color of the shell on the outside varies – yellow, green, yellowish brown, or dark brown with numerous green rays of different widths and shapes. The inside of the shell is white or occasionally pink. It is iridescent toward the posterior end. Deertoes may reach lengths of up to two inches. The common name arises from the appearance of the mussel in the stream substrate.

Natural History

The deertoe lives in the mud, sand, or gravel bottom of medium to large rivers. It is found in the Mississippi, but the Missouri River population is upstream of the Iowa border. 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. Host fish for this mussel species include sauger and freshwater drum. 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

interior rivers and streams; Mississippi River

Iowa Status

common; native

Iowa Range

eastern one-third of Iowa, outlying population in northwest Iowa

Bibliography

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