



# SMART

## Angler's Notebook

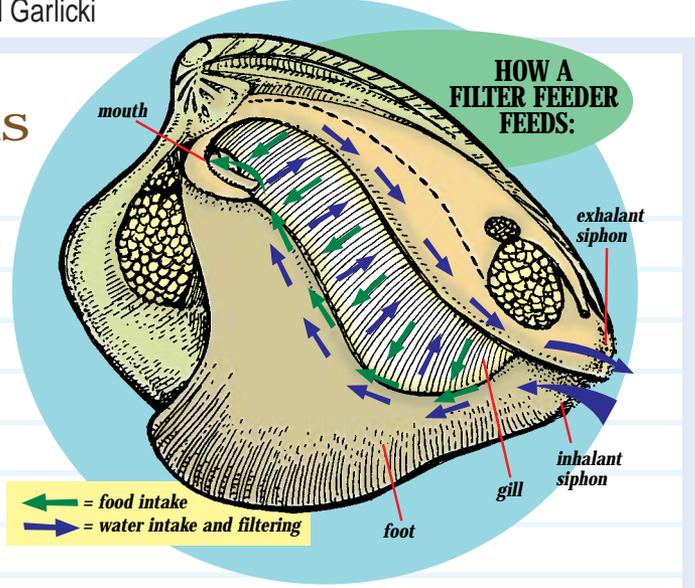
by Laurel Garlicki

### Clams and Mussels

Snails, clams, and mussels are members of the second-largest group of animals, the mollusks. Mollusks vary in appearance from tiny snails to giant squids 20 feet or longer. Worldwide there are about 100,000 mollusk species. In Pennsylvania, we have members from two smaller groups of the mollusks, the gastropods (snails) and bivalves.

Clams and mussels come from the subgroup known as bivalves. This word means "two shells." Clams and mussels are found on the bottom, or just below the bottom, in slow-moving rivers and streams in relatively shallow areas.

Bivalves are filter-feeders. They draw water into their soft body through a siphon. Inside the body, plankton is filtered out for food. The gills absorb oxygen. Water and wastes are then expelled through another siphon. Clams and mussels also create their shells from calcium carbonate. Lines, or rings, on the outside of the shell are growth rings, similar to the annual rings in trees.



The reproduction cycle among bivalves is unusual. The fertilized eggs develop inside the parent's shell. The parent releases the young through the exhalant siphon. The young are fully formed or in the early stages of development. The young, larval stage is the size of a period on this page.

They scatter and sink to the bottom. They wait there for a host. Unsuspecting fish brush against the bottom. The larvae usually attach to the fish's fins, body, or gills. The tissues of the fish grow over the tiny larvae and create a cyst. Then the young mussels or clams break out of the cyst and fall to the bottom to live the rest of their adult lives.

Mussels and clams in Pennsylvania have seen better days. Dams reduce water flow. Silt settles out of the water and smothers bottom-dwelling creatures. River dredging uproots mussels and clams. River dredging destroys their habitat. The loss of certain host fish has also affected mussel populations. Pollutants in the water have also contributed to their demise. Currently, two mussels in Pennsylvania are on the state and federal endangered species list. The PA Fish and Boat Commission is involved in studying about 20 more mussels because of the severe decline in their numbers. □

Parent releases young.

Adults fall to bottom to live.

Young, larval stage = glochidia.

Young mussels break from cysts.

Glochidia attach to fish.

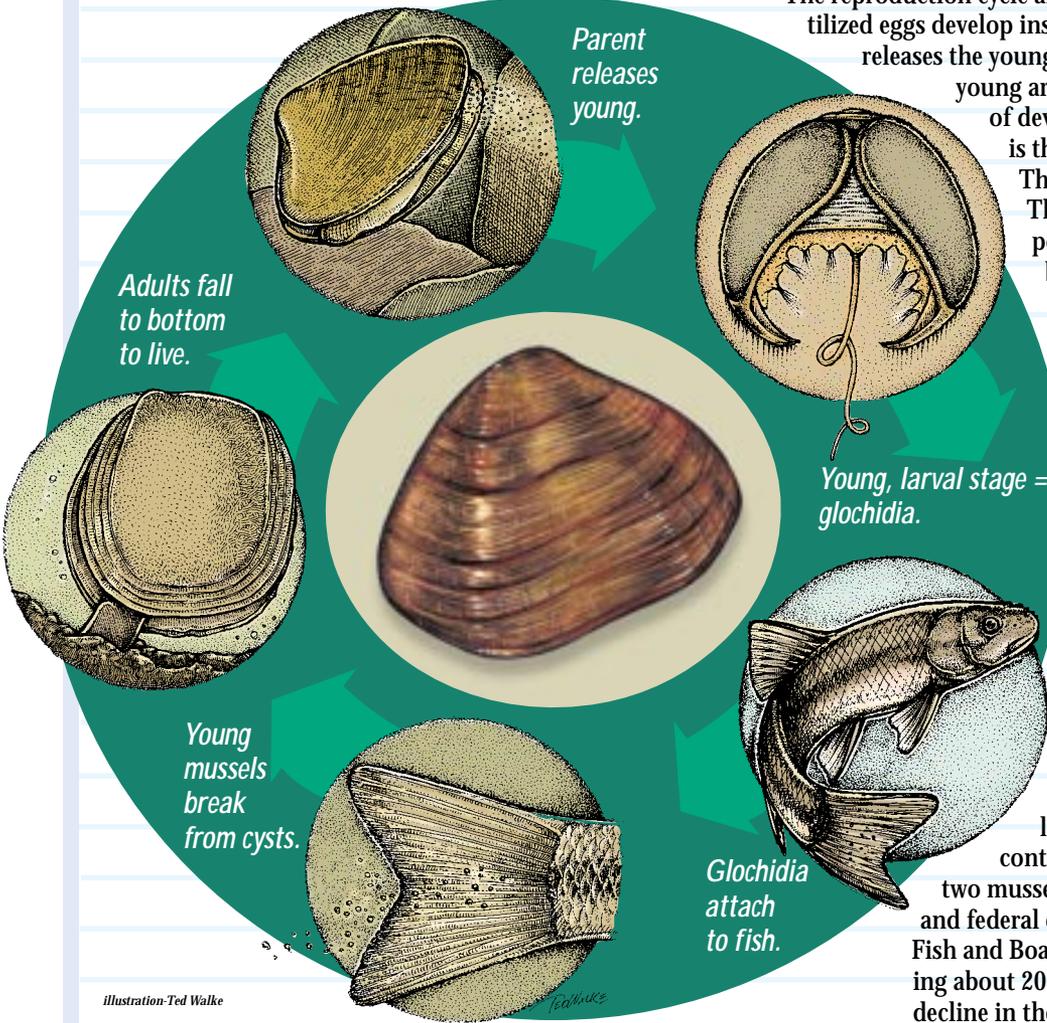


illustration-Ted Walke