

This Month

Atlantic Ribbed Mussel

Scientific name:
Geukensia demissa



Field Markings: Yellow-brown to brownish-black on top of the shell, with glossy underside. The body is lemon yellow.

Size: Up to 4 inches long

Habitat: Lodged among stems and roots of cordgrass in estuaries and salt marshes

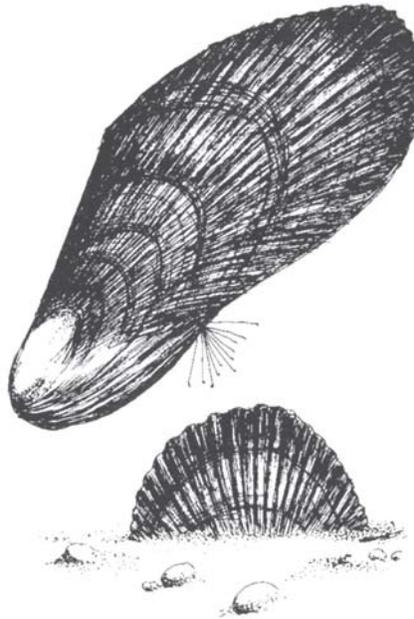
Seasonal Appearance: Year-round

DISTINGUISHING FEATURES AND BEHAVIORS

Ribbed mussels are similar to blue mussels in shape and size, but differ in appearance, color and habitat. The shell of the ribbed mussel is a long, rounded triangle with corrugated ribs along its length. Unlike the blue mussel that attaches to a piling or dock, ribbed mussels are usually found partially buried in the sediment.

When buried, two slitlike siphons with frilled edges extend from the body to the muddy surface. Gills lined with cilia aid the siphons in removing oxygen from the water and trapping plankton and organic matter. Particles of organic nutrients are processed into inorganic matter by the mussel and are then recycled back into the mud. This concentrated inorganic material helps to enrich the surrounding mud and contributes to salt marsh growth.

Ribbed mussels do not burrow completely into the muddy or sandy bottom, but remain partially exposed. They anchor themselves with byssal threads, which are mucus strands



attaching the mussel to the substrate. Burrowers such as soft-shelled clams must retract their siphons and close the shell tightly when the tide recedes to avoid desiccation, or drying out. Ribbed mussels, however, burrow in such a way that water is retained in the mantle when the tide recedes, an adaptation of great importance to life in the intertidal zone. They are able to withstand periods of drought and extreme fluctuations in temperature and salinity.

Ribbed mussels play a critical role in the health of a salt marsh by exhibiting a cooperative relationship with marsh plants and animals. Mussels establish habitat among the root structures of cordgrass and, in turn, provide essential nutrients that enhance the plant's growth. Mussel beds also provide support and stability for the root structures of cordgrass, allowing the plants to withstand harsh storm or ice conditions.

RELATIONSHIP TO PEOPLE

Unlike their relative the blue mussel, ribbed mussels are rich in organic bacteria and are not commonly eaten by people.

HOW TO GET YOUR OWN COPY

RISAA members can purchase their own copy of *The Uncommon Guide To Common Life on Narragansett Bay* for \$15 from the RISAA Merchandise Committee. Stop by the committee table at any monthly RISAA meeting.



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