

Green Mussel

Perna viridis

Order: Mytiloidea

Family: Mytilidae

Description: The Green Mussel is a bivalve that can grow to 6 inches. Shell length is approximately twice the height. Young mussels are a brilliant green while adults are darker green to brown.

Special Features:

- **Size** – Florida's native mussels are as large as green mussels, but none of them act as fouling organisms like the green mussel.
- **Density** – It is not uncommon to find as many as 1,000 adult green mussels per square foot.
- **Distinguishing Characteristics** – The green mussel can be distinguished from other mussels because it has both a green lip on the inside of the shell and an indented curve on the bottom edge of the shell.

Similar Species: Green lipped mussel and brown edible mussel

Range and Habitat: The green mussel is native to the tropical marine and estuarine waters of the Indo-Pacific region of Asia, from the Persian Gulf to the South China Sea. They live in waters where the salinity ranges from 27-33 PSU, and their optimal temperature range is 26-32°C (78.8°F to 89.6°F). The first known occurrence of the green mussel in the United States was in Tampa Bay, Florida, in the summer of 1999, where they were discovered clogging the inside of cooling water intake tunnels at a local power plant.

Wild Diet: Phytoplankton, zooplankton and detritus filtered from the water

Reproduction: Sexes in this species are separate and fertilization is external. Spawning generally occurs twice a year between early spring and late autumn. Fertilized eggs remain in the water column for two weeks before settling as juveniles. Larvae attach to hard surfaces, such as rocks, pilings and boat hulls using strong threads. Sexual maturity occurs after 2-3 months. Life span typically ranges from 2-3 years.

Predators: Crustaceans, fish, sea stars and molluscs like octopus

Notes:

- **Introduction** – Possible methods of introduction include ballast water dumping from ocean-going vessels carrying planktonic larvae, ship hull fouling, aquaculture farms and intentional release.
- **Negative Impacts** – Competition with the oyster fishery, displacement of native mussels, and carriers of diseases and parasites harmful to native species.
- **Control** – To date, there has been no successful eradication of marine invertebrates in the United States. To eliminate the source of many introductions, antifouling paints and ballast water management are being researched.
- **Food For Thought** – Commercial harvesting may be the best way to control green mussel populations. Researchers caution against eating green mussels collected in the wild because little is known about their safety from a human health standpoint, and many Florida waters are closed to shellfish harvesting because of bacterial contamination. Research will determine if green mussels in Florida waters accumulate toxins or harbor parasites.