



Description

- Size:** A large mussel often growing to 100mm in length, and occasionally reaching 165mm.
- Colour:** The shells can be vivid green to dark brownish-green near the outer edge, and olive-green near the attachment point. Juveniles are a bright, vivid green, while the adults tend to retain the green colour along the growing edge only, developing an olive or brown colouration nearer to the attachment point. The interior of the shell is shiny and pale bluish green.
- Shell:** The shell has a smooth surface, with visible concentric growth rings, and tapers to a sharp down-turned beak. The beak has interlocking teeth: one inside the right valve and two inside the left.

Habitat

- Depth:** *Perna viridis* can be found occupying habitats from the mid-intertidal zones to subtidal areas.
- Substrate:** Forms dense populations (up to 35,000 individuals per square metre) on a variety of structures including vessels, wharves, aquaculture equipment, buoys and other hard substrates. It is susceptible to overgrowth from other fouling organisms that can make it difficult to detect despite its vivid green appearance.

Tolerance: Primarily found in estuarine habitats with salinities ranging from 18–33 ppt and temperatures from 11–32°C. However, in experimental testing it has survived salinities of 0–80 ppt and temperatures of 7–37.5°C

Impacts

Perna viridis is a prolific fouler of vessel hulls and intakes creating problems with fuel efficiency and causing blockages or damage to internal systems. It will also heavily foul port areas, industrial complexes, navigation buoys and channel markers and will generate complications by clogging pipes, increasing corrosion and reducing efficiency.

Dense populations will out compete many other fouling species, causing changes in community structure and trophic relationships.

Fouling on aquaculture equipment and infrastructure can effect production regimes, alter maintenance routines and harvest times, and may restrict water flow thus affecting product quality.

Perna viridis has been recorded with high levels of accumulated toxins and heavy metals and is linked with shellfish poisoning in humans.

Reproduction

Sexual maturity typically occurs at 15–30mm shell length (2–3 months of age). The life span is typically 2–3 years. *Perna viridis* can vary its reproductive strategy for different environments. In tropical and subtropical waters can spawn sporadically all year round. Spawning is often triggered by a change in environmental conditions such as rising or falling water temperature.





Northern
Territory
Government

Factsheet

Asian Green Mussel - *Perna viridis*

Distribution

Perna viridis naturally occurs throughout tropical Asia. Introduced populations have been found in Florida, the Caribbean Sea and Cairns, Australia.

Distribution Vectors

The most common mechanisms of distribution are on the hulls of ships, in ballast water and in the internal seawater plumbing of vessels. Other vectors include the accidental and/or intentional introduction associated with fisheries and aquaculture activities.

Similar Native Species

Septifer bilocularis

Stavelia subdistorta

You can help!

Keep an eye out for new species in your area.

If you think you have spotted a marine pest, take a photo and a sample of the animal or plant and call Aquatic Biosecurity on **0413 381 094**, or email

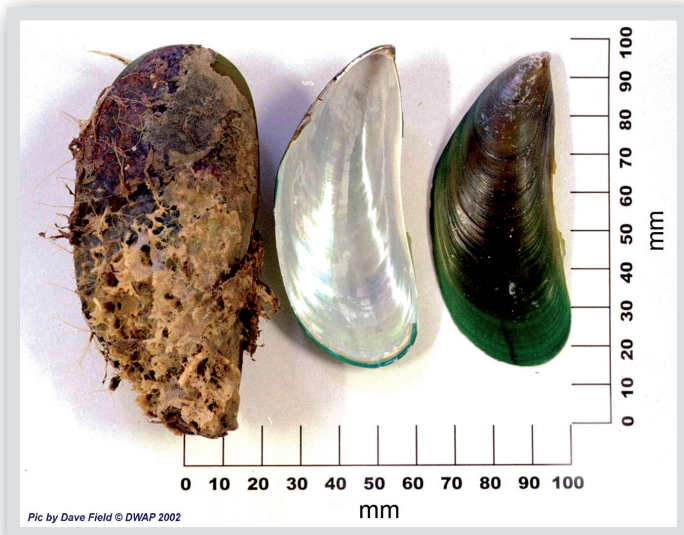
aquaticbiosecurity@nt.gov.au.

For more information visit www.fisheries.nt.gov.au

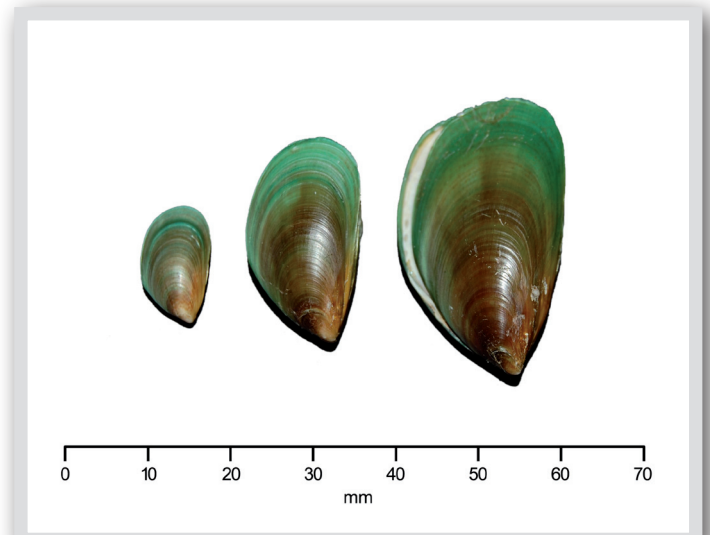
References

NIMPIS (2002). *Perna viridis* species summary. National Introduced Marine Pest Information System. Web publication <http://www.marine.csiro.au/crimp/Reports/Perna_viridis_sheet.pdf> Date of access: 9/8/2004

Stafford, H. & Willan, R.C. (2007) Is it a pest? Introduced and naturalised marine animal species of Torres Strait Northern Australia. Queensland Department of Primary Industries and Fisheries, Cairns.



Mature Asian green mussels



Juvenile Asian green mussels