



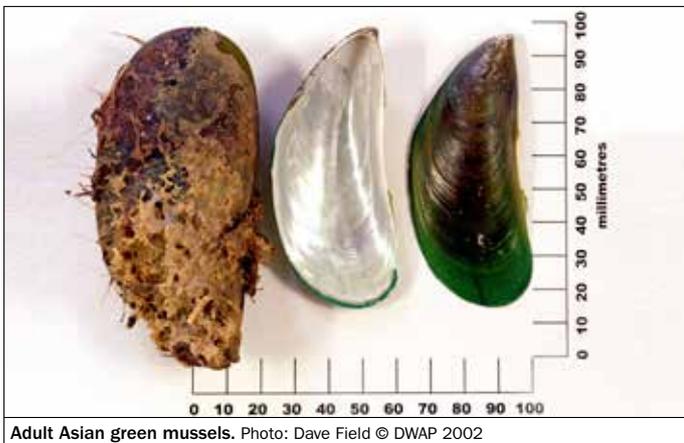
# Marine pest fact sheet

# Asian green mussel

## Have you seen this mussel?

The Asian green mussel (*Perna viridis*) is a non-native mussel that poses a serious threat to Australia's environment and economy. This mussel is not currently established in Australia, but has significant potential to do so and become a major pest. It is listed by the International Union for Conservation of Nature as an invasive species of global significance.

If you see this pest, please immediately call **FISHWATCH** on **1800 815 507**.



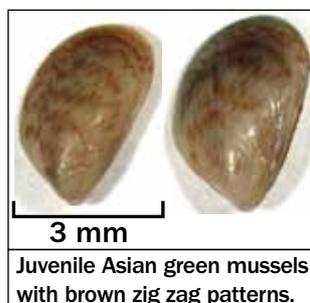
Adult Asian green mussels. Photo: Dave Field © DWAP 2002

## Impacts

- Potential to delay State resource projects and port operations if vessels need to be cleaned or areas are subject to quarantine.
- Potential to outcompete native species – it's fast growing and can be found in massive clusters as well as individually.
- Heavily fouls industrial and other man-made structures.
- Production timing and product quality may be impeded by fouling on aquaculture equipment.
- Potentially causes machinery and vessel breakdown and extra fuel consumption by fouling hulls and clogging sea water pipe systems.

## Key features

- Adults commonly 80-100 mm in length but can reach up to 160 mm.
- Juvenile shells can be vivid green or brown with zigzags.
- Adult shells bright green to greenish brown.
- Shells may be covered by other growth, making it difficult to see the natural colour.
- Longest edge of shell slightly curved in and tapers to a sharp downturned beak.



Juvenile Asian green mussels with brown zig zag patterns.

## Where to find it

- Any artificial surfaces such as vessel hulls and their seawater systems, structures, floating equipment, debris, wharves, buoys, channel markers, industrial in-take pipes and aquaculture equipment.
- Low tide mark to 20 m deep, in lower estuarine and marine waters.
- Usually tropical waters but tolerates an extreme range of salinities and temperatures. Has been recorded surviving in cold water temperatures as low as 7°C.



Asian green mussels fouling a man-made structure. Photo: Bill Frank

## What you can do

Vessel owners and managers, biofouling inspectors, slipway operators, commercial divers and anyone else whose vessel has been in areas where this pest occurs should thoroughly check vessel hulls and niche areas including pipes, sea strainers and sea chests. Ballast water should also be managed appropriately.

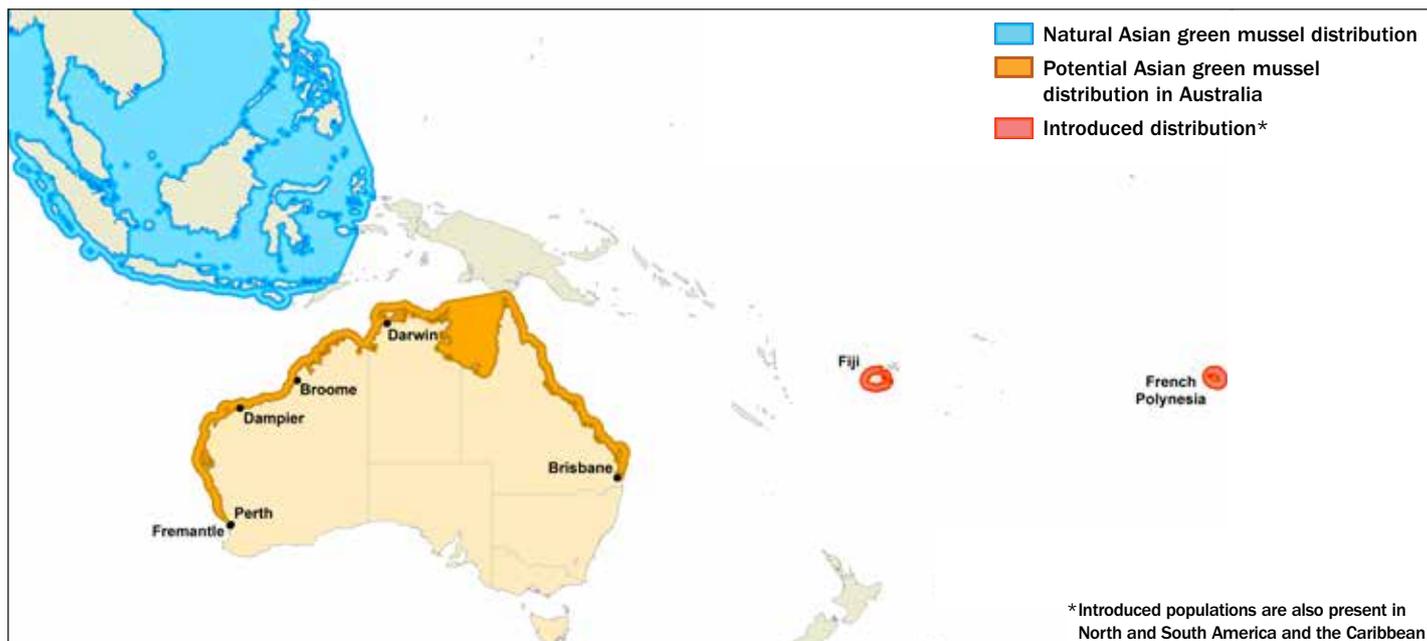
Visit [www.fish.wa.gov.au](http://www.fish.wa.gov.au) for more advice on vessel hygiene.



Asian green mussels on a vessel's zinc anode demonstrating how difficult they can be to detect. Photo: John A. Lewis

## How could it get here?

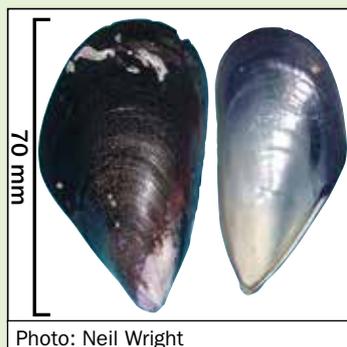
Asian green mussels are transported on vessel hulls, in ballast water and in niches such as internal seawater systems. This pest has been detected on vessels in Western Australia several times but has so far been successfully managed and prevented from establishing in the wild.



### NATIVE: Do not confuse the Asian green mussel with these native species

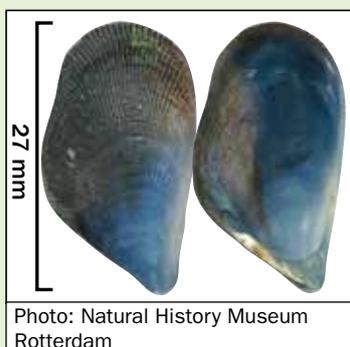
#### Blue mussel (*Mytilus edulis*)

- Smaller adult size, commonly 25–75 mm in length.
- Dark blue external shell and internal rim.
- Found on rocks, wharves, hard substrates and sometimes in dense beds on sandy flat substrates.
- Inhabits estuarine and marine environments.
- Widespread in the southern and northern hemisphere.



#### Shelf mussel (*Septifer bilocularis*)

- Smaller adult size of up to 40 mm.
- Exterior shell has numerous ridges.
- Found only on rocky reefs in coastal waters.
- Never attaches to ships' hulls.
- Widespread in the tropical Indo-Pacific Ocean.



### If you think you have found or seen an Asian green mussel:

- 1. Photograph it** – from different angles, e.g. top, bottom, etc. Include a scale or ruler if possible next to the specimen and photos of the location where you found it.
- 2. Record it** – size, colour, depth and how and where it was found, using GPS readings if available. Otherwise describe the area in which it was found in as much detail as possible.
- 3. Collect it** – collect a sample in a plastic bag and refrigerate it or keep it on ice but *do not freeze* it.
- 4. Report it** – contact **FISHWATCH** on **1800 815 507**, or through the free **WA PestWatch** app, which can be downloaded from the App Store and Google play store. (NOTE: If you collect samples please report it to FishWatch immediately).

#### WA PestWatch

Help us by using WA PestWatch to report suspected aquatic pests – visit WA PestWatch on our website or search for the free WA PestWatch app.



**WA PestWatch**



## Further information

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*Fish for the future*

