



### Description

- Size:** A small mussel that reaches a maximum length of around 30mm.
- Colour:** Shell colour is olive green to brown, with darker radial lines or zig-zag markings.
- Shell:** Shell is thin with a smooth surface.

### Habitat

- Depth:** In its native range *Musculista senhousia* can be found from the intertidal zone to subtidal habitats up to depths of 20m.
- Substrate:** *Musculista senhousia* will grow on soft or hard substrates and is often found in dense aggregations. It prefers to settle in groups on soft substrates where a well developed byssus is used to construct a cocoon which protects the shell. The mussel burrows vertically down into the sand/mud leaving only its posterior end protruding, allowing its siphon to access the water to enable feeding. When densities are high, individual byssal cocoons fuse to form continuous byssal carpets. It will also foul hard substrates such as wharf pilings and other man-made structures, where it will not form a cocoon.
- Tolerance:** *Musculista senhousia* is a highly adaptive species. It is able to tolerate low salinities and a wide range of temperature variations.

### Impacts

*Musculista senhousia* is considered a pest because of its capacity to dominate benthic communities to the exclusion of native species by settling in aggregations where it is able to reach high densities. In some areas of California, the mussel has been reported to reach densities of 15,000 individuals per square metre. The byssus mats formed by the mussel may smother native biota and can make the underlying seabed anoxic.

### Reproduction

*Musculista senhousia* is a species with high fecundity, rapid growth, a short lifespan and good dispersal ability, making it a successful invader. *Musculista senhousia* grows rapidly and can reach adult size in only nine months. Individual mussels are thought to live no more than two years.

### Distribution

*Musculista senhousia* is native to the north western Pacific. Its range extends from Siberia and the Kuril Islands through Korea, Japan, China and Singapore. The mussel has been introduced to the Pacific coast of the US (1940's), New Zealand (1970's), Australia (1980's) and the Mediterranean (1980's). It is thought that two strains of the species may exist; one tropical and one temperate.

Australia's first record of *Musculista senhousia* was from the Swan River, Western Australia, in the early 1980's. The mussel became established in Victoria in the late 1980's and now occurs in Port Phillip Bay, Western Port Bay and Portland Harbour. In 1995, *Musculista senhousia* was reported from the Tamar River, northern Tasmania. The maximum density of *Musculista senhousia* in Corio Bay increased from three to 473 mussels per 0.1 square metre from 1987 to 1998.





Northern  
Territory  
Government

# Factsheet

## Asian Bag Mussel - *Musculista senhousia*

### Distribution Vectors

Both ballast water and hull fouling are likely vectors for the introduction of *Musculista senhousia* to Australia.

Introductions of *Musculista senhousia* into North America have been attributed to ballast water, vessel fouling and accidental importation with Pacific oysters. The mussel has also been found in the seawater intakes of vessels.

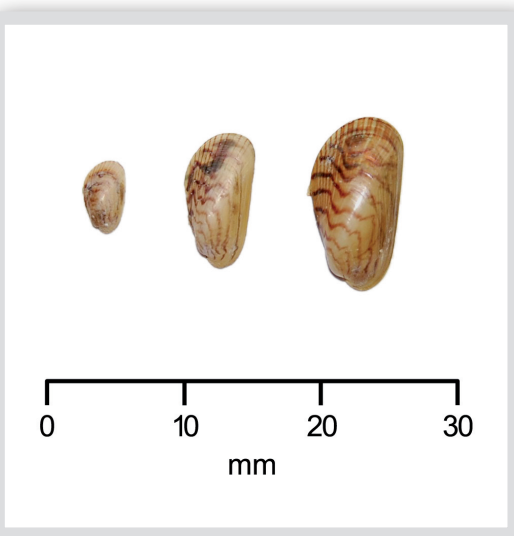
### Similar Native Species

*Modiolus* spp.

*Musculus* spp.

*Brachidontes* spp.

*Arcuatula japonica*



Asian bag mussels

### 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](mailto:aquaticbiosecurity@nt.gov.au)**.

For more information visit **[www.fisheries.nt.gov.au](http://www.fisheries.nt.gov.au)**

### References

CRIMP (2002) *Musculista senhousia* marine pest information sheet. CSIRO Centre for Research on Introduced Marine Pests. Web publication <[http://www.marine.csiro.au/crimp/Reports/Infosht7\\_Musc0700S3.pdf](http://www.marine.csiro.au/crimp/Reports/Infosht7_Musc0700S3.pdf)>, Date of access: 15/9/2004

NIMPIS (2002) *Musculista senhousia* species summary. National Introduced Marine Pest Information System (Eds: Hewitt C.L., Martin R.B., Sliwa C., McEnulty, F.R., Murphy, N.E., Jones T. & Cooper, S.). Web publication <<http://crimp.marine.csiro.au/nimpis>>, Date of access: 9/8/2004

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