NIMPIS
NATIONAL INTRODUCED MARINE PEST INFORMATION SYSTEM

Asian date mussel

Musculista senhousia

(Benson in Cantor, 1842)

Phylum:	Mollusca
Class:	Bivalvia
Subclass:	Pteriomorphia
Order:	Mytiloida
Superfamily:	Mytiloidea
Family:	Mytilidae

Description

Musculista senhousia is a small mussel with a maximum length of around 30mm. It has a smooth, thin shell which is an olive green to brown in colour, with dark radial lines or zigzag markings. A well developed byssus is used to construct a cocoon which protects the shell. This cocoon is made up of byssal threads and sediment. M. senhousia burrows vertically down into the sand/mud leaving only its posterior end protruding, allowing its siphons access to the water to enable feeding.

Reproduction & Growth

M. senhousia is a species with high fecundity, rapid growth, a short life span and good dispersal ability, making it a successful invader. In the northern hemisphere it reproduces in the summer, larvae being most abundant through autumn and early winter. It has separate sexes, with males and females spawning at the same time. The larvae of this species are planktonic, and have been recorded in the plankton for up to 55 days. It can reach an adult size in only 9 months, and its life span is typically no longer than two years.

Habitat

M. senhousia has been found from intertidal to subtidal habitats (to a depth of 20m) and on soft or hard substrata. It prefers to settle in groups on soft substrata, but is capable of fouling wharf pilings and man made structures. When settled on hard substrata the mussel will not form a protective cocoon. It is a highly adaptive species, and is able to tolerate low salinities.

Feeding

Suspension Feeder

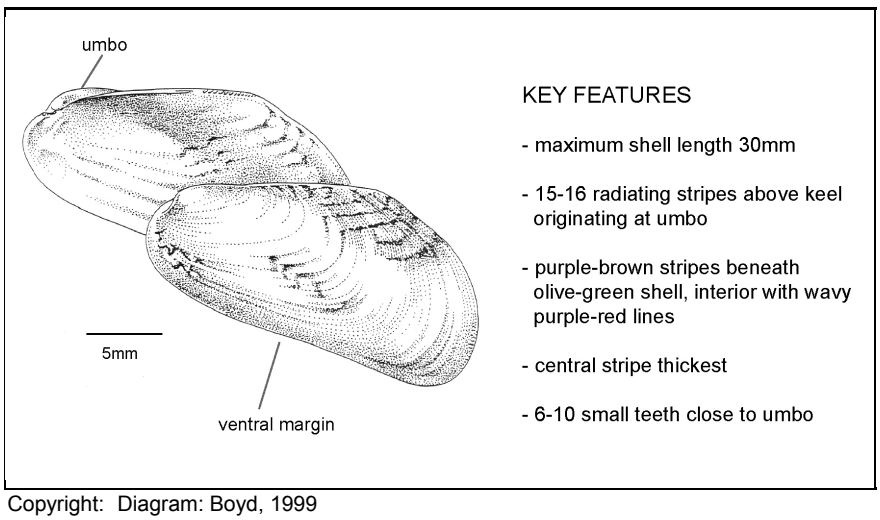
This mussel, like most mussels, is a suspension feeder. It consumes organic matter and many planktonic organisms from the water surrounding it.

Predators

Diving ducks and oystercatchers have been recorded feeding on M. senhousia, and it is also consumed by many species of carnivorous gastropods. In San Diego Bay, field experiments have indicated native gastropods may prevent M. senhousia from establishing dense beds.

Impacts

M. senhousia can dominate benthic communities and potentially exclude native species. It settles in aggregations and is therefore able to reach high densities. The byssal mats formed by the mussel may restrict the growth of some species of seagrass. The byssal mat may also cause an increase infaunal density and species richness as it provides additional habitat for many species.

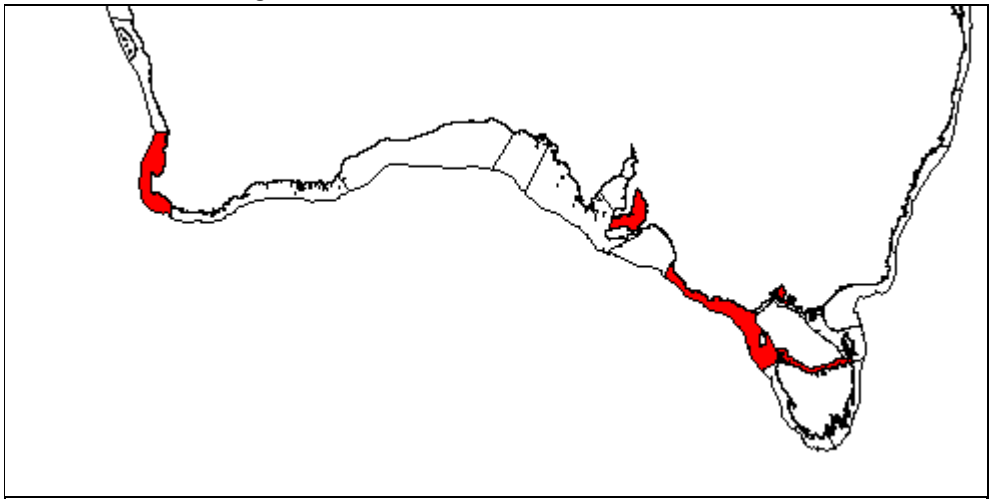


Similar species

Musculista glaberrima
Modiolus spp.
Arcuatula spp.
Amygdalum spp.
Musculus spp.

CRIMP No: 6146

Australian IMCRA BioRegion Infection Status



Control Options

For control information see the web site: http://crimp.marine.csiro.au/nimpis

Likely Vectors - Class/Vector

Canals

Canals: natural range expansion t

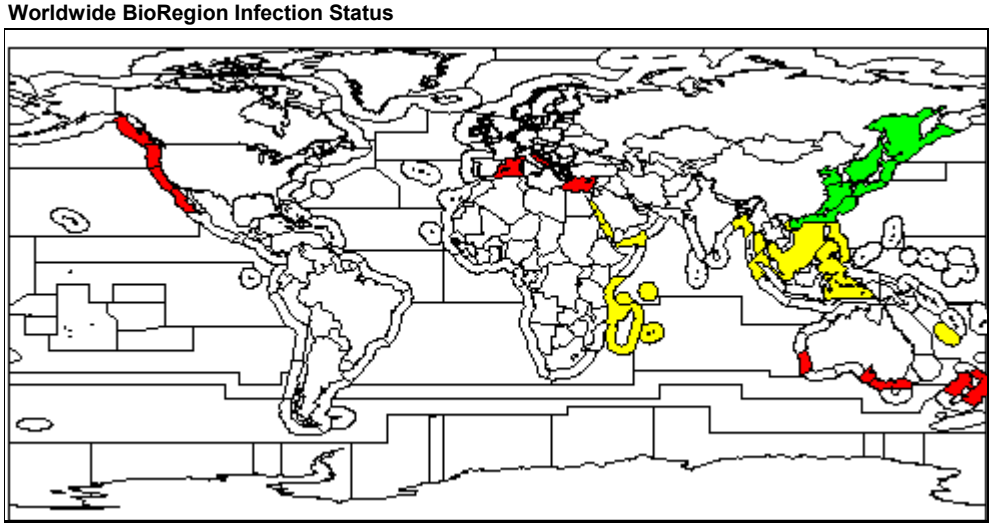
Fisheries

Fisheries: accidental with delibera

Shipping

Ships: accidental with ballast wat

Worldwide BioRegion Infection Status



Introduced

Native

Cryptogenic

Key References

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