NIMPIS
NATIONAL INTRODUCED MARINE PEST INFORMATION SYSTEM

European fan worm
Sabella spallanzanii
(Gmelin, 1791)

Phylum:	Annelida
Class:	Polychaeta
Order:	Canalipalpata
Suborder:	Sabellida
Family:	Sabellidae
SubFamily:	Sabellinae

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Description

Sabella spallanzanii is a large tube dwelling worm with a crown of feeding tentacles formed in two layers. One layer of tentacles is distinctly spiralled. The feeding tentacles can vary in colour from a uniform dull white to brightly banded with stripes of orange, purple and white. Adult worms range in size from 90-400 mm, with the feeding crown accounting for roughly 45-60 mm of this length. Worms found in deeper water are generally larger. The tube of the worm is semi-hardened mucus, which is secreted by the worm as it grows. It is often covered by many small organisms and becomes wrinkled towards the base.

Reproduction & Growth

S. spallanzanii has separate female and male forms, which spawn at the same time. Gametes are broadcast into the water column, and it is thought that fertilisation is external. Females can shed more than 50,000 eggs if they are more than 300mm in length. In Australia, spawning occurs during the winter months, coinciding with falling water temperatures. Sexual maturity of Australian worms is obtained at 50mm. In Italy, it is not until the worms are 150mm long that they are sexually mature. The growth rate of S. spallanzanii is approximately 15mm per month during summer in Port Phillip Bay, Australia.

Habitat

S. spallanzanii is generally found in shallow subtidal areas between 1-30m depth, preferring harbours and embayments sheltered from direct wave action. It colonises both hard and soft substrata, often anchored to hard surfaces within the soft sediments. In Australia, the worm is usually found in harbours where it readily colonises man-made hard surfaces such as wharf piles and facings, channel markers, marina piles and pontoons, and submerged wrecks. It can also be found in extensive beds at densities greater than 100 individuals per square metre.

Feeding Suspension Feeder

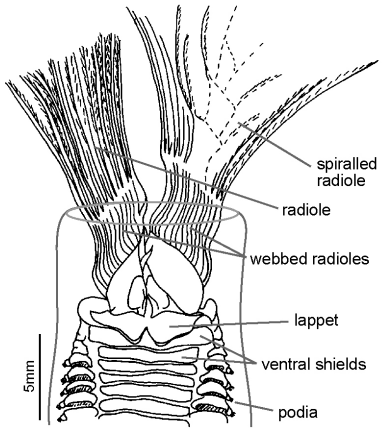
S. spallanzanii feeds on suspended matter such as phytoplankton and zooplankton. The feeding of S. spallanzanii is most efficient at around 22°C. Under experimental conditions, S. spallanzanii can survive with no food for 30 days.

Predators

In Italy, S. spallanzanii is used as bait to catch large Sparidae fish (such as seabream). In Australia, there are no known predators of S. spallanzanii in the wild, however it is used to feed leatherjackets in aquaria.

Impacts

There has been little work done on the possible impacts of S. spallanzanii on marine systems. There is some evidence to suggest that dense beds of S. spallanzanii may intercept settling organic material and thus interfere with nutrient cycles. Experiments have shown that recruitment of some species to settlement panels is reduced under S. spallanzanii canopies, however no species were excluded all together in areas with S. spallanzanii. Tubes of S. spallanzanii support a rich epifauna that would not otherwise occur in Corio Bay (Victoria) and Cockburn Sound (WA). At high densities, it may impact other filter feeding organisms.



KEY FEATURES

- large worm, tube length can exceed 300 mm
- crown colour varies from distinct orange, white and red-brown bands to pale fawn throughout with distinct bands
- crown with two lobes, only one of which is spiralled
- radioles webbed for first 5 mm
- crown can be completely withdrawn into tube if worm is disturbed

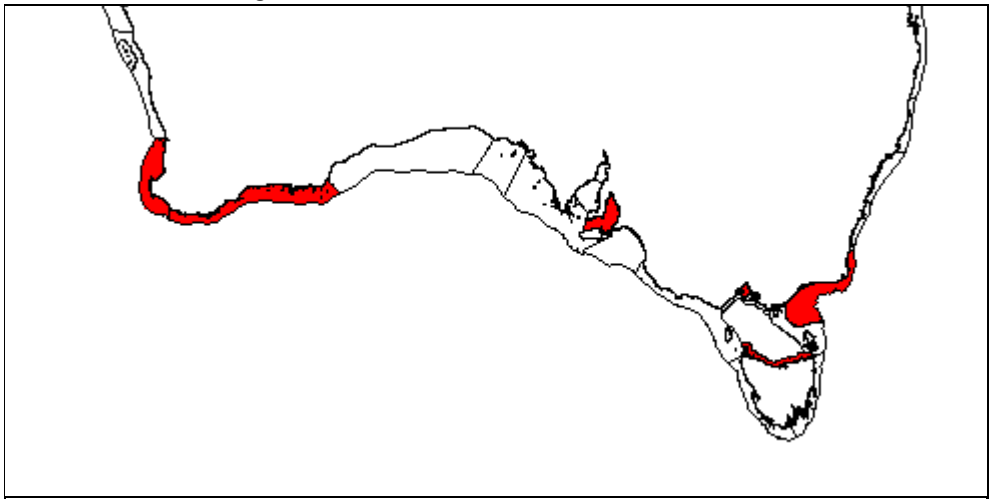
Copyright: Diagram - Clapin & Evans, 1995

Similar species

Sabella pavonina: Savigny, 1818
Sabellastarte spp.

CRIMP No: 6129

Australian IMCRA BioRegion Infection Status



Control Options

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

Likely Vectors - Class/Vector

Fisheries

Fisheries: accidental as bait

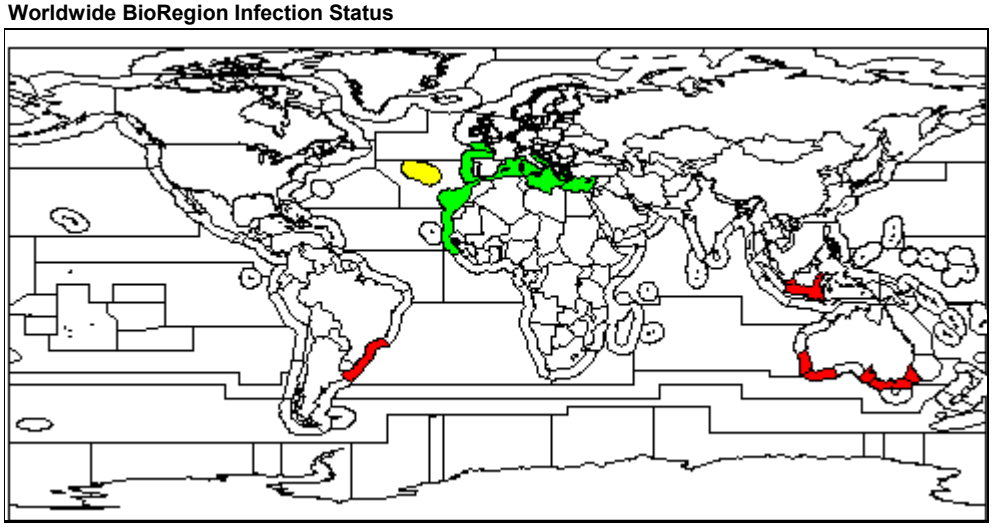
Natural Dispersal

Natural Disperal

Shipping

Ships: accidental as attached or fr

Worldwide BioRegion Infection Status



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