

Ficopomatus enigmaticus



Taxon	Family / Order / Class / Phylum
<i>Ficopomatus enigmaticus</i> (Fauvel, 1923)	Serpulidae / Canalipalpata / Polychaeta / Annelida

COMMON NAMES (English only)

Tube worm

SYNONYMS

Mercierella enigmatica Fauvel, 1923

SHORT DESCRIPTION

This is a small worm that forms concretions with their calcareous interlacing tubes. They are seston feeders in brackish to hypersaline sheltered environments, usually estuaries and lagoons.

BIOLOGY/ECOLOGY

Dispersal mechanisms

As larvae or attached to floating substrata.

Reproduction

The population is made up of dioecious individuals and some hermaphrodites. As it requires 18°C to reproduce, warm areas will have prolonged periods of reproduction. Spawning mainly takes place from July to September.

Larvae are brooded before release to a planktonic stage for some months. In northern Europe there is normally only one generation produced and populations can fluctuate between years.

Known predators

Crabs and fishes.

Resistant stages (seeds, spores etc.)

Can survive in limey tube cases for some hours out of water but have no resistant stages.

HABITAT

Native (EUNIS code)

A1: Littoral rock and other hard substrata, A3: Sublittoral rock and other hard substrata. Normally low velocity sheltered environments with varying salinity.

Habitat occupied in invaded range

A1: Littoral rock and other hard substrata, A3: Sublittoral rock and other hard substrata. Lagoons, estuaries and docks from mean water neap tides to ~10m depth, normally abundant near to the surface when permanently covered.

Habitat requirements

Tolerates 1.6 - 55psu in temperate to sub-tropical low current, turbid water with high nutrients.

DISTRIBUTION

Native Range

Unknown. Once thought of as Indonesia/ India; however specimens there are recognised as *F. ushakovi*. May be from eastern South America but considered to be an introduction there.

Known Introduced Range

It occurs in America, South Africa, Australasia, East Asia, Europe, Mediterranean, Black and Caspian Seas.



Ficopomatus enigmaticus fouling a boat hull in Kilrush Lagoon, Ireland

Photo: Dan Minchin




Trend

The species is already widely distributed in Europe, but may extend further northwards with warming seas.

MAP (European distribution)



Legend

	Known in country		Known in CGRS square		Known in sea
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INTRODUCTION PATHWAY

Vessels. Probably introduced as hull fouling or as larvae in ballast water. May be subsequently spread with leisure craft hulls.

IMPACT

Ecosystem Impact

Can form extensive reefs of up to 7m in diameter, but usually 3–20cm in temperate areas and ~1.5m under mixohaline and hyperhaline conditions in warm climates. Individual worms can grow at 1.5 to 2cm per month and collectively produce up to 13kg of limey tubes in three months. Established reefs may provide refuge for invertebrates including snails and crabs that may have an impact on native species communities.

Health and Social Impact

Unknown.

Economic Impact

Their dense tube colonies attach to abstraction pipes, reducing water flow and causing blockages. They also foul surfaces in aquaculture ponds, ports and docks, which requiring cleaning maintenance. It fouls the hulls of leisure craft and floating structures in lagoons and docks. Areas with thermal effluents may develop large colonies.

MANAGEMENT

Prevention

Controls on the movement of aquaculture equipment and of hull-fouled craft may reduce the rate of spread.

Mechanical

This species is difficult to manage. By removing tubes large numbers of embryos can be released that may subsequently colonize. In dry-docks, and areas where boats are serviced, fouling biota should be removed and destroyed. Flushing of water in docks during peak larval abundance may reduce settlements.

Chemical

Antifouling paints reduce fouling on ship and boat hulls.

Biological

Unknown.

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Author: Dan Minchin

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