



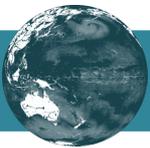
Scaly tunicate

Microcosmus squamiger Michaelsen, 1927

KEY FEATURES



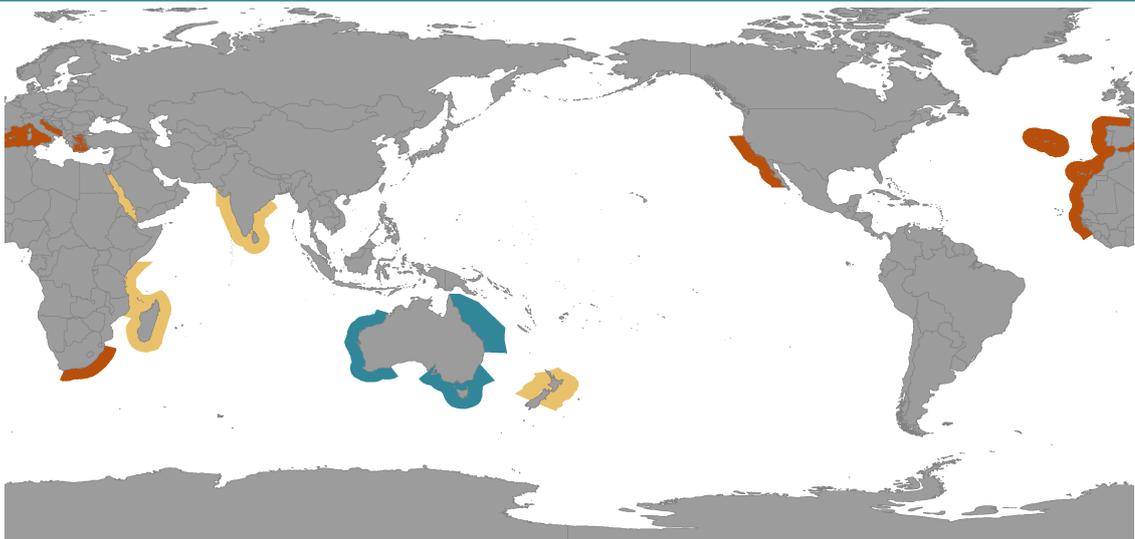
- Globular ascidian, elongate to oval, up to 4 cm long, apertures (openings) on two, short, wart-like siphons
- Outer tunic leathery, tough, often hard, occasionally brittle
- Colour brown to reddish orange, with maroon-striped siphons, usually covered or partially covered by epibionts
- Inner tunic softer with purple tones
- Simultaneous hermaphrodite and broadcast spawner, both eggs and sperms are released into the water column where fertilization and embryonic development occur
- Reproductive potential is very high and embryos hatch as tadpole larvae, which do not feed and must settle in a matter of hours before exhausting their reserves
- Ballast water transfer is an unlikely pathway of introduction



PATHWAY

✓ biofouling

- Native
- Cryptogenic
- Non-indigenous





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IMPACTS



Environmental impacts

Greatly outnumbers native ascidians in the Eastern Pacific. Forms single-species or dense crusts and can outcompete native species in shallow water communities. Can reach densities of 2300 individuals per m² and is considered as an indicator of perturbed areas subject to sedimentation, pollution, and water stagnation



Human health impacts

None known



Social & cultural impacts

None known



Economic impacts

Oyster culture racks, ropes, and Pacific oyster shells in Baja California, and Mexico were severely fouled by this species causing economic damage to the oysters and increasing maintenance costs

ADDITIONAL DETAILS

- Internally, the most prominent feature is the branchial sac, which has more than eight folds
- Gut lies on the left side, forming a narrow loop which reaches up to two-thirds of the body length
- Gill slits simple, tentacles branched, left gonad crosses over the descending limb of the gut loop

DISTRIBUTION

Native range Native in Australia but cryptogenic in New Zealand, Madagascar, India, and the Gulf of Suez

Non-indigenous range Western Mediterranean and Eastern Atlantic, Southern Europe, and the West Coast of USA

CREDITS AND REFERENCES (click reference for more information)

Images Top: Charles L. Griffiths ([CC BY-NC-SA 4.0](#)), bottom: Stephen Thorpe ([CC BY 4.0](#))

References [Mastrototaro and Dappiano \(2008\)](#), [Rius et al. \(2009\)](#), [Rius et al \(2008\)](#)

