



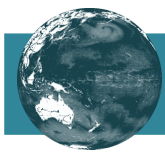
Orange keyhole sponge

Mycale grandis Gray, 1867

KEY FEATURES



- Bright orange-red sponge that forms thick encrusting to cushion-shaped masses over 1 m diameter, up to 0.5 m thick
- Surface of sponge covered in keyhole-shaped oscules through which exhalent current exits the sponge
- Surface uneven, fibrous, firm, compressible to the touch
- Interior cavernous, often packed with small brittle stars
- Typically associated with shallow-water fouling communities such as pier pilings and floating docks in major harbours, or on associated disturbed habitats such as in dredged channels and artificial lagoons
- Found over-growing native coral communities in Kāne'ohe Bay, Hawai'i

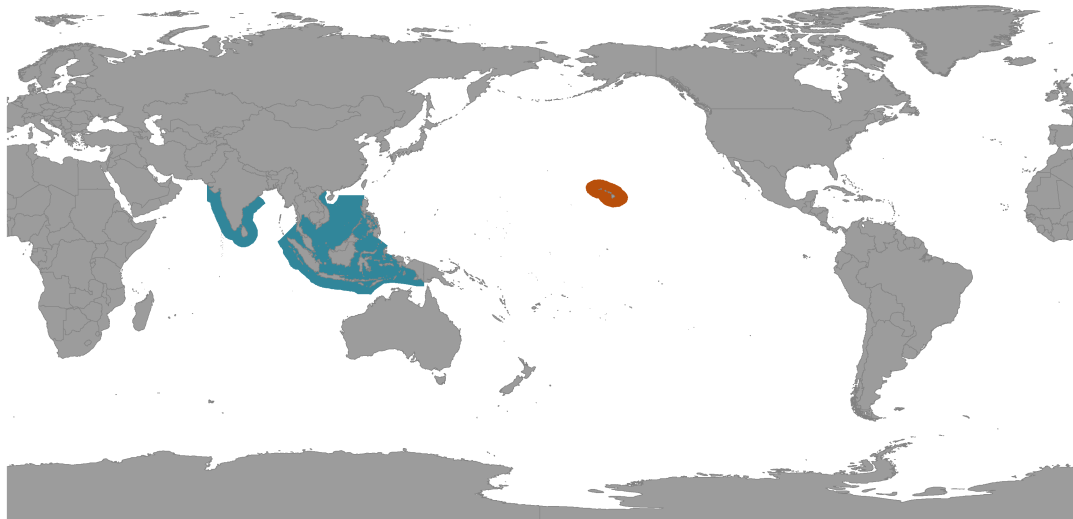


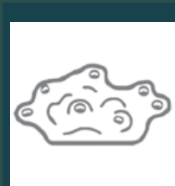
PATHWAY

✓ ballast water

✓ biofouling

- Native
- Cryptogenic
- Non-indigenous





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IMPACTS



Environmental impacts

Competes for space with native sponge and coral species and threatens lagoon-patch reef communities around Hawai'i where it overgrows two of the dominant reef-forming corals



Human health impacts

None known



Social & cultural impacts

None known



Economic impacts

None known

ADDITIONAL DETAILS

- Long-term exposure experiments to increased carbon dioxide and sea surface temperatures showed no effects on survival or growth rates of *M. grandis*

DISTRIBUTION

Native range Type locality in the Western Indian Ocean, Indo-West Pacific distribution

Non-indigenous range Hawai'i

CREDITS AND REFERENCES (click reference for more information)

Images Joy Leilei Shih from [Shih et al \(2020\)](#)

References [CABI \(accessed 2021\)](#), [Coles and Bolick \(2007\)](#), [Vicente et al. \(2016\)](#)

