

Rough-stemmed sargassum

Sargassum polycystum C.Agardh, 1824

KEY FEATURES



- Golden brown to mustard brown seaweed, thalli up to 40 cm in height, whole plant up to 2 m in length
- Holdfast discoid or conical shaped, rough stems with “y” shaped protuberances
- Leaves linear-lanceolate with irregular finely toothed margins, percurrent (base to apex) midrib, vesicles spherical or ovoid (smooth or terminating in a sharp point).
- Plants dioecious; male, and female plants are separate
- Common on mid-intertidal to shallow subtidal rocks and pools with coral-fragment bottoms
- Optimal growth achieved at 25°C
- Under preferred conditions can grow up to 1.3 mm per day

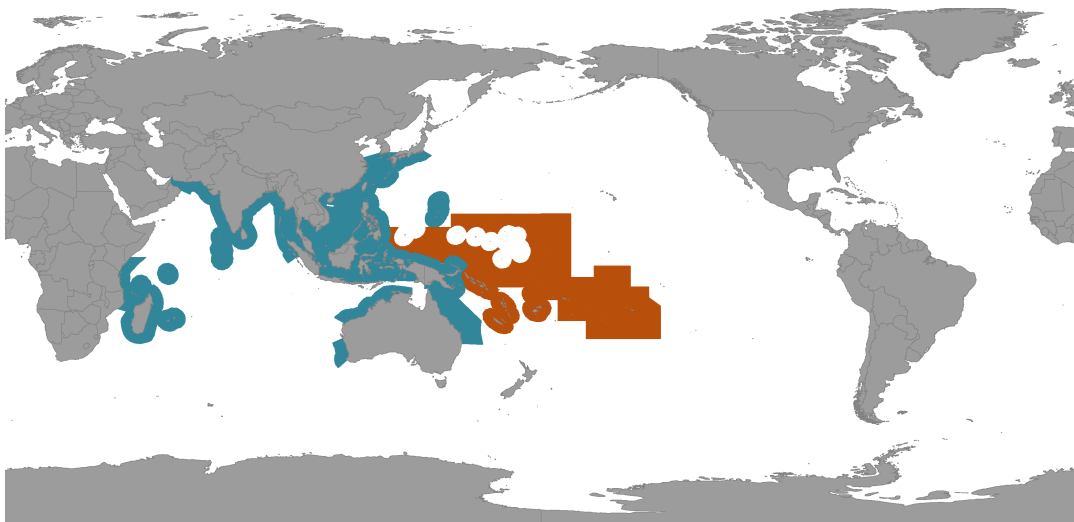
PATHWAY

✓ ballast water

✓ biofouling

✓ aquaculture transfer

Native
Cryptogenic
Non-indigenous





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IMPACTS



Environmental impacts

Significant habitat forming species in the shallow sub-tidal. Blooms can occur in areas with high nutrient concentrations, especially nitrates



Human health impacts

Species of *Sargassum* have been reported to cause allergic contact dermatitis and potential irritants have also been reported from children swimming in infested algal lagoons



Social & cultural impacts

Seasonal die offs of this high biomass species can cause decomposition and putrid smell of drift algae in coastal areas. High biomass restricts the use of local fishing techniques



Economic impacts

Considered a pest and fouling species which can interfere with recreational and commercial use of waterways, forming large floating masses. Known to wrap around boat propellers. Decomposition from die-off can cause mass mortality of coral, affecting tourism and commercial fishing operations

ADDITIONAL DETAILS

- Could be confused with other *Sargassum* species
- Can be used as fertiliser, human food, agricultural feed, and medicine
- Extracts have been reported to show potential as an insulin sensitiser in the management of type 2 diabetes

DISTRIBUTION

PRESENT IN TUVALU

Native range

Canary Islands, Kenya to Madagascar, including Seychelles and Mauritius. India to Indonesia. China, Australia, Guam, Palau, Northern Mariana Islands, Federated States of Micronesia, Solomon Islands

Non-indigenous range

Fiji, New Caledonia, Tonga, Samoa, Tuvalu, Vanuatu

CREDITS AND REFERENCES (click reference for more information)

Images

Top : [Yip Zhi Ting](#) and bottom: from: [Raj et al. 2019](#) (CC BY-NC 4.0)

References

[Chan et al. \(2013\)](#), [Yip et al. \(2020\)](#), [Chiang et al. \(1992\)](#), [Mattio et al. \(2009\)](#), [N'Yeurt and Lese \(2015\)](#), [Noiraksar et al. \(2017\)](#)