



# Red seaweed

*Eucheuma denticulatum* (NL. Burman) Collins & Hervey, 1917

## KEY FEATURES



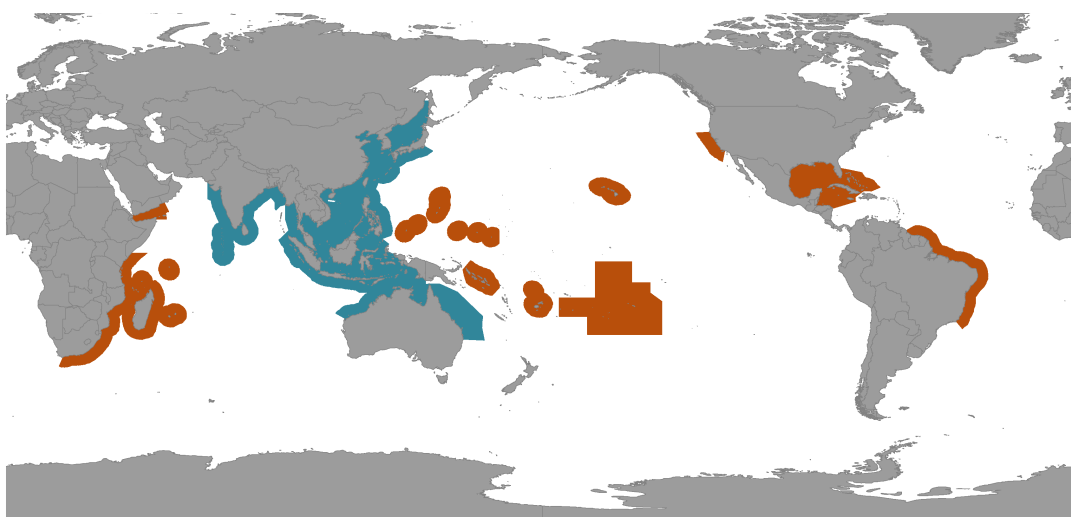
- Bushy, branched seaweed forming a tangled mass of branches ranging from 35 to 74 cm long
- Branches are brittle to cartilaginous in texture, ranging from 7 to 9 cm in length, with whorled/spinous branchlets
- Forms bushy, branched growths in shallow reef areas
- Ranges in colour from bright green to pale green with pinkish tinges
- Wild and cultivated as a primary source of commercially used hydrocolloid carrageenan; cultivation is generally carried out by cloning
- Prefers coral to rocky substrates in areas constantly exposed to moderate to strong water currents
- Wide tolerance to temperature conditions and a rapid growth rate in warmer waters ranging from 25 to 30°C
- Very high growth rate

## PATHWAY

✓ ballast water

✓ biofouling

✓ aquaculture transfer





# Red seaweed

REPUBLIC OF THE  
MARSHALL ISLANDS

*Eucheuma denticulatum* (NL. Burman) Collins & Hervey, 1917

## IMPACTS



Environmental  
impacts

Where it has escaped from marine farms, it has become invasive, with detrimental effects on coral communities through smothering and shading, causing extensive coral death



Human health  
impacts

None known



Social & cultural  
impacts

None known



Economic  
impacts

Generally introduced for cultivation (like *Kappaphycus alvarezii*) as it is a producer of carrageenan used for commercial purposes in milk products, toothpaste, and jellies. In areas where it has escaped cultivation, displacement of native algae may indirectly change the abundance of fish and invertebrates of commercial interest

## ADDITIONAL DETAILS

- In India and Hawai'i, funding has been provided to remove escapees from coral reefs
- Cultivation of seaweeds has also led to selection of certain traits which allow successful farming of crops, selection has resulted in farmed species being more tolerant of environmental conditions and fluctuations when compared to native or wild populations of the same species. This tolerance and resilience can make a farmed species display more invasive traits

## DISTRIBUTION

Present in the Republic of the Marshall Islands

### Native range

India, Indonesia, Japan, Malaysia, Maldives, Philippines, Vietnam, Australia

### Non-indigenous range

Cuba, Florida, California, Hawai'i, Djibouti, Madagascar, Kenya, Tanzania, Brazil, Venezuela, Christmas Island, Federated States of Micronesia, Fiji, French Polynesia, Guam, Solomon Islands, Tonga

## CREDITS AND REFERENCES (click reference for more information)

### Images

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### References

[Eggersten and Halling \(2021\)](#), [Kimathi et al. \(2018\)](#), [DLNR Hawaii.gov](#)