



NOAA
FISHERIES

Pacific Islands Region

corals

Acropora speciosa

:: Biological Information

MORPHOLOGY

Colonies of *Acropora speciosa* form thick cushions or bottlebrush branches. Colonies are cream or light brown in color with delicately colored branch tips.



Photos copyright: Douglas Fenner

REPRODUCTION

The reproductive characteristics of *Acropora speciosa* have not been determined, but other similar species of *Acropora* are hermaphroditic (having both male and female gametes) spawners with lecithotrophic (yolk-sac) larvae.

:: Spatial Information

GEOGRAPHIC RANGE

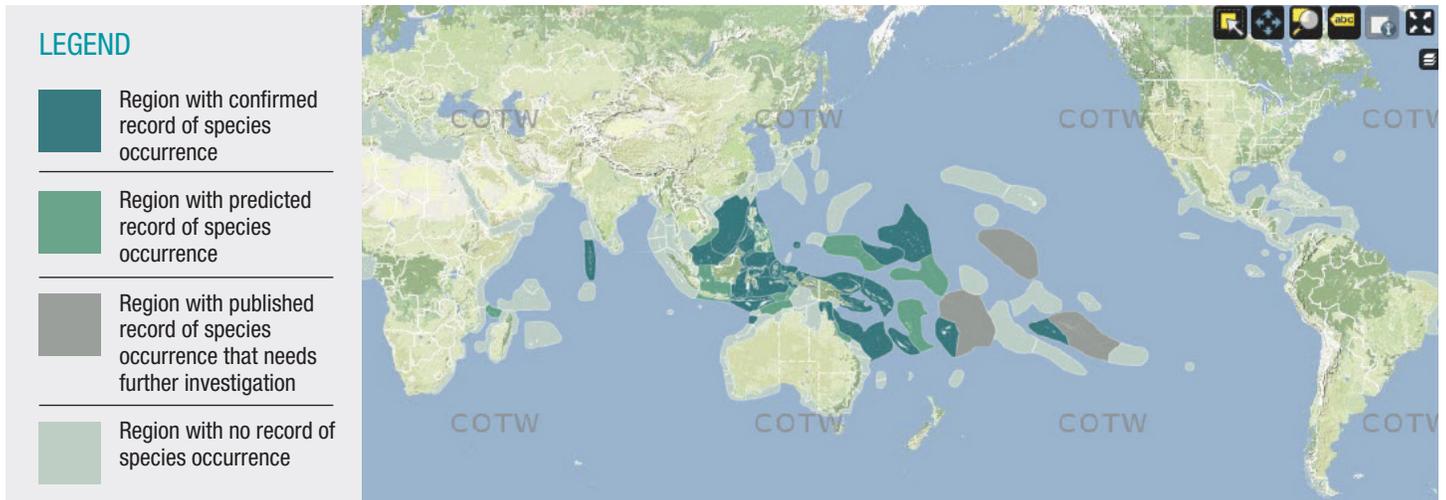
Based on confirmed observations and strong predictions of occurrence in areas that have not yet been surveyed sufficiently, *Acropora speciosa* is likely distributed from Indonesia to the Marshall Islands in the western and central Pacific. It also occurs in the Maldives in the Indian Ocean and at least one site in French Polynesia.

For more information contact:

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Veron JEN, Stafford-Smith MG, Turak E and DeVantier LM (in prep.) Corals of the World www.coralsoftheworld.com

OCCURRENCE IN U.S. JURISDICTIONS

Acropora speciosa has not yet been reported from Guam and the Commonwealth of the Northern Mariana Islands (CNMI). Based on the information below we consider *Acropora speciosa* to occur in the Pacific Remote Island Areas (PRIA) and American Samoa.

PRIA: Kenyon et al. (2010) reports *Acropora speciosa* from Kingman Reef in the PRIA and Brainard et al. (2011) report it from Kingman based on that record. Wallace (1999) and Williams et al. (2008) do not report it from any of the PRIA. Veron (2014) does not provide information on the presence or absence of coral species in the PRIA.

American Samoa: Brainard et al. (2011) report that Fenner has found it on Tutuila in American Samoa but not on other islands in the archipelago. Veron (2014) reports it from “Samoa” which implies it is in American Samoa, since he says in notes that all species found in the Tuvalu-Samoa-Tonga ecoregion are found in American Samoa. Fenner (2013) also reports it from American Samoa, based on photographs and samples. Wallace (1999) and Wallace et al. (2012) do not report it from American Samoa. The Final Coral Supplemental Information Report indicates that *Acropora speciosa* has been confirmed from Tutuila by J. Maragos.

HABITAT TYPES AND DEPTH

Acropora speciosa occurs on lower reef slopes and walls, especially those characterized by clear water and high *Acropora* diversity, in a depth range of 12 to 40 meters.

:: Demographic Information

RELATIVE LOCALIZED ABUNDANCE

Relative localized abundance refers to how commonly a species is observed on surveys in a localized area. Veron (2014) reports that *Acropora speciosa* occupied 8.3 percent of 2,984 dive sites sampled in 30 ecoregions of the Indo-Pacific. It was given an abundance rating on a scale of 1 (low) to 5 (high) at each site where it occurred, based on how common it was at that site. *Acropora speciosa* had a mean abundance rating of 1.60. Based on this semi-quantitative system, the species’ abundance was characterized as “common.”

ABSOLUTE OVERALL ABUNDANCE

Absolute overall abundance refers to a rough qualitative minimum estimate of the total number of colonies of a species that currently exist throughout its range. Based on information from Richards *et al.* (2008), *Acropora speciosa* had the 9th lowest population of the 15 rare *Acropora* species they studied. They provide a population estimate of 10,942,000 colonies, and an effective population size of 1,204,000 colonies.

:: Why is this Species Threatened?

Acropora speciosa is susceptible to the three major threats identified for corals including ocean warming, disease, and ocean acidification, as well as many of the other threats to corals. Despite its apparently broad geographic range, the best available information indicates that *Acropora speciosa* has an effective population size of 1,204,000 colonies. Because of the widespread nature of the global threats to corals, a threat event has the potential to impact many colonies at once so a species with a relatively small effective population size may have a high proportion of genetically unique individuals affected by threats at any given time within the foreseeable future. This, in combination with its other biological, demographic, and spatial characteristics, contributes to a risk of extinction within the foreseeable future for *Acropora speciosa*.

Literature Cited

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