NOAA FISHERIES
Pacific Islands Region

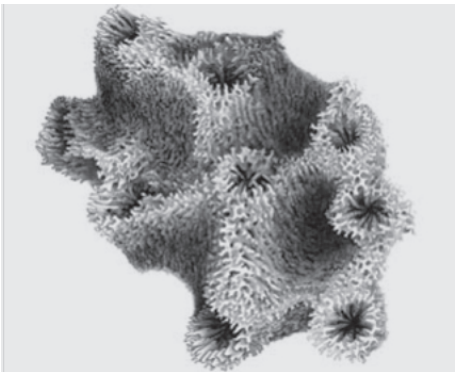
corals

Montipora australiensis

:: Biological Information

MORPHOLOGY

Colonies of *Montipora australiensis* are pale brown, forming thick plates and irregular columns.



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REPRODUCTION

The reproductive characteristics of *Montipora australiensis* have not been determined, however, 35 other species of *Montipora* are all hermaphroditic (having both male and female gametes) broadcast spawners. Broadcast spawners release both male and female gametes into the water column and fertilization takes place externally.

:: Spatial Information

GEOGRAPHIC RANGE

Based on confirmed observations and strong predictions of occurrence in areas that have not yet been surveyed sufficiently, *Montipora australiensis* is likely distributed in the western Indian Ocean and western Pacific from Malaysia to Vanuatu and southern Japan to northern Australia.

For more information contact:

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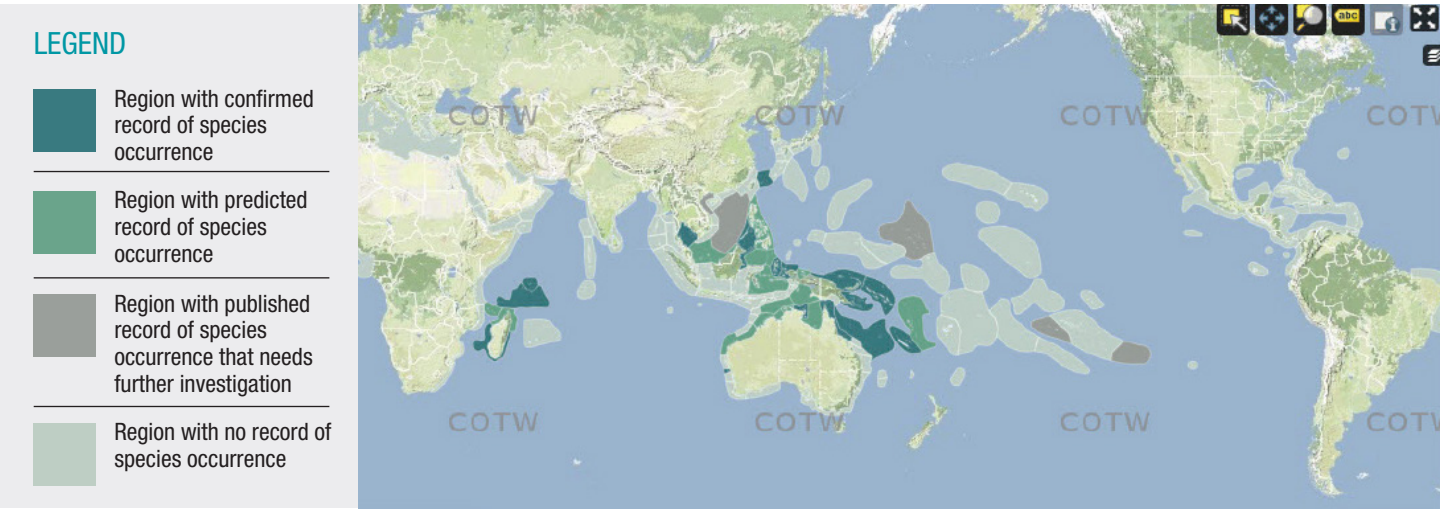

Veron JEN, Stafford-Smith MG, Turak E and DeVantier LM (in prep.) Corals of the World www.coralsoftheworld.com

OCCURRENCE IN U.S. JURISDICTIONS

Montipora australiensis is not yet reported from any U.S. Pacific jurisdictions.

HABITAT TYPES AND DEPTH

Montipora australiensis occurs predominantly on upper reef slopes, lower reef crests, and reef flats, and it likely also occurs on mid-slopes and possibly other habitats at depths of 2 to 30 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 *Montipora australiensis* occupied 0.4 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. *Montipora australiensis* had a mean abundance rating of 1.5. Based on this semi-quantitative system, the species' abundance was characterized as "rare."

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. These estimates were calculated based on results from Richards *et al.* (2008) and Veron (2014). The absolute abundance of *Montipora australiensis* is likely at least millions of colonies.

:: Why is this Species Threatened?

Montipora australiensis 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. A significant proportion of its current known geographic range is within the Coral Triangle area. This area is projected to have the most rapid and severe impacts from climate change and localized human impacts for coral reefs over the 21st century. Multiple ocean warming events have already occurred within the western equatorial Pacific (which includes the Coral Triangle area) that suggest future ocean warming events may be more severe than average in this part of the world. A range constrained mostly to this particular geographic area that is likely to experience severe and increasing threats, combined with local occurrence categorized as rare, indicates that a high proportion of the population of this species is likely to be exposed to those threats over 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 *Montipora australiensis*.

Literature Cited

Richards, Z. T., M. J. H. van Oppen, C. C. Wallace, B. L. Willis, and D. J. Miller. 2008. Some Rare Indo-Pacific Coral Species Are Probable Hybrids. PLoS ONE 3(9):e3240.

Veron, J. E. N. 2014. Results of an update of the Corals of the World Information Base for the Listing Determination of 66 Coral Species under the Endangered Species Act. Report to the Western Pacific Regional Fishery Management Council, Honolulu.