



NOAA
FISHERIES

Pacific Islands Region

corals

Acropora lokani

:: Biological Information

MORPHOLOGY

Colonies of *Acropora lokani* have robust horizontal main branches that usually diverge. Short upright branchlets diverge from main branches. Colonies are cream, brown, or blue (which may photograph pink or purple) in color.



Photos copyright: Paul Muir

REPRODUCTION

The reproductive characteristics of *Acropora lokani* 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

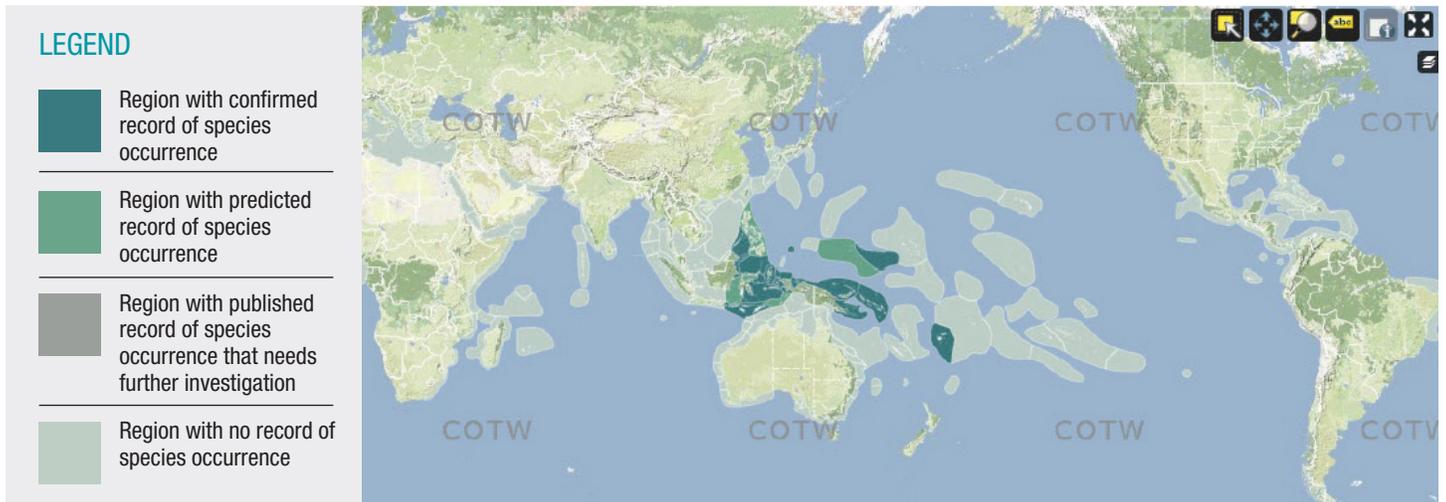
Based on confirmed observations and strong predictions of occurrence in areas that have not yet been surveyed sufficiently, *Acropora lokani* is likely distributed mostly in the Coral Triangle area (the Philippines to Timor Leste and east to the Solomon Islands). There are also confirmed records of this species in eastern Micronesia and Fiji.

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 lokani has not yet been reported from any U.S. jurisdictions in the Indo-Pacific.

HABITAT TYPES AND DEPTH

Acropora lokani is found in reef slope and back-reef habitats, including at least upper reef-slopes, mid-slopes, and lagoon patch reefs, and its depth range is 8 to 25 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 lokani* occupied 2.75 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 lokani* had a mean abundance rating of 1.44. Based on this semi-quantitative system, the species' abundance was characterized as "uncommon."

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 in Richards *et al.* (2008), *Acropora lokani* had the 11th lowest population of the 15 rare *Acropora* species they studied. They provide a population of 18,960,000 colonies, and an effective population size of 2,086,000 colonies.

:: Why is this Species Threatened?

Acropora lokani 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. Its current known geographic range is limited mostly 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 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 *Acropora lokani*.

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.

