



NOAA
FISHERIES

Pacific Islands Region

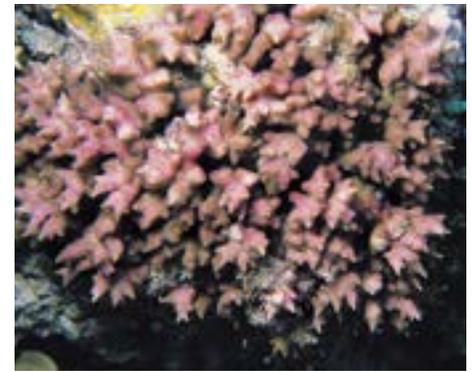
corals

Seriatopora aculeata

:: Biological Information

MORPHOLOGY

Colonies of *Seriatopora aculeata* have pencil-thick, short, tapered branches, usually in fused clumps. Colonies are pink or cream in color.



Photos copyright: Douglas Fenner (left), J.E.N. Veron (right)

REPRODUCTION

The reproductive characteristics of *Seriatopora aculeata* have not been determined, but other species of *Seriatopora* are hermaphroditic (having both male and female gametes) brooders (expelling sperm but egg fertilization is internal).

:: Spatial Information

GEOGRAPHIC RANGE

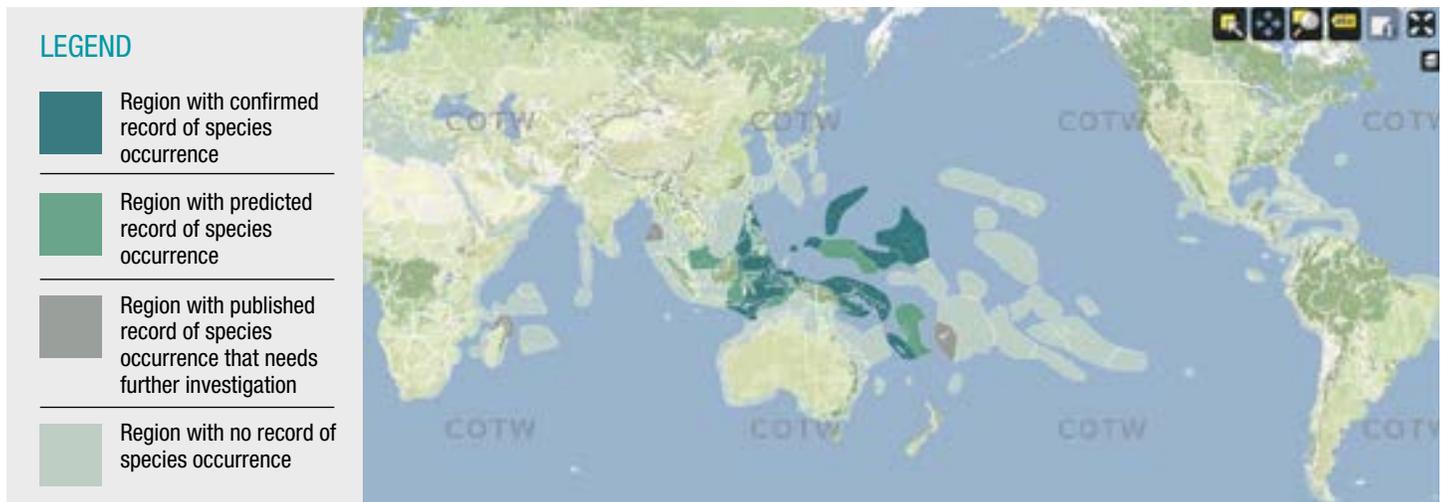
Based on confirmed observations and strong predictions of occurrence in areas that have not yet been surveyed sufficiently, *Seriatopora aculeata* is likely distributed mostly within the Coral Triangle area (the Philippines to Timor Leste and east to the Solomon Islands), as well as adjacent areas in the western Pacific from the Mariana Islands down to New Caledonia.

For more information contact:

NMFS Pacific Islands Regional Office
1845 Wasp Blvd., Bldg. 176
Honolulu, HI 96818

Tel: 808-725-5000

Website: www.fpir.noaa.gov



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

OCCURRENCE IN U.S. JURISDICTIONS

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

Guam: Randall and Myers (1983) and Burdick (2014) report this species from Guam, while Randall (1995; 2003) reports it from the Marianas archipelago but does not distinguish Guam from CNMI. Veron (2014) reports it from the “Marianas” but does not distinguish Guam from CNMI. Brainard *et al.* (2011) do not report it from Guam.

CNMI: Randall (1995; 2003) reports it from the Marianas archipelago but does not distinguish Guam from CNMI. Veron (2014) reports it from the “Marianas” but does not distinguish Guam from CNMI. Brainard *et al.* (2011) write that the IUCN Red List reported it from the “Northern Marianas Islands” but the source was not reported. Houk (P. Houk, pers. comm., 2014) reports that *S. aculeata* is common around Saipan.

HABITAT TYPES AND DEPTH

Seriatopora aculeata occurs in a broad range of habitats on the reef slope and back-reef, including but not limited to upper reef slopes, mid-slope terraces, lower reef slopes, reef flats, and lagoons in a depth range of 3 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 *Seriatopora aculeata* occupied 10.3 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. *Seriatopora aculeata* had a mean abundance rating of 1.7. 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. These estimates were calculated based on results from Richards *et al.* (2008) and Veron (2014). The absolute abundance of *Seriatopora aculeata* is likely at least millions of colonies.

:: Why is this Species Threatened?

Seriatopora aculeata 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 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 *Seriatopora aculeata*.

Literature Cited

- Brainard, R. E., C. Birkeland, C. M. Eakin, P. McElhany, M. W. Miller, M. Patterson, and G. A. Piniak. 2011. Status review report of 82 candidate species petitioned under the U.S. Endangered Species Act. NOAA Technical Memorandum NMFS-PIFSC-27. 530 pp.
- Burdick, D. 2014. Guam ReefLife. www.guamreeflife.com.
- Houk, P. 2014. Personal communication with Doug Fenner, October 11, 2014 email.
- Randall, R. H. 1995. Biogeography of reef-building corals in the Mariana and Palau Islands in relation to back-arc rifting and the formation of the Eastern Philippine Sea. *Natural History Research* 3(2):193-210.
- Randall, R. H. 2003. An annotated checklist of hydrozoan and scleractinian corals collected from Guam and other Mariana Islands. *Micronesica* 35(36):121-137.
- Randall, R. H. and R. F. Myers. 1983. Guide to the Coastal Resources of Guam. Vol. 2. The Corals. University of Guam, Mangilao, Guam:129.
- 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.

