



NOAA
FISHERIES

Pacific Islands Region

corals

Pavona *diffluens*

:: Biological Information

MORPHOLOGY

Colonies of *Pavona diffluens* are sub-massive and tan-colored.



Photos copyright: J.E.N. Veron

REPRODUCTION

The reproductive characteristics of *Pavona diffluens* have not been determined, however, 6 other *Pavona* species are known to be gonochoristic (individual colonies have either male or female gametes, not both) broadcast spawners.

:: Spatial Information

GEOGRAPHIC RANGE

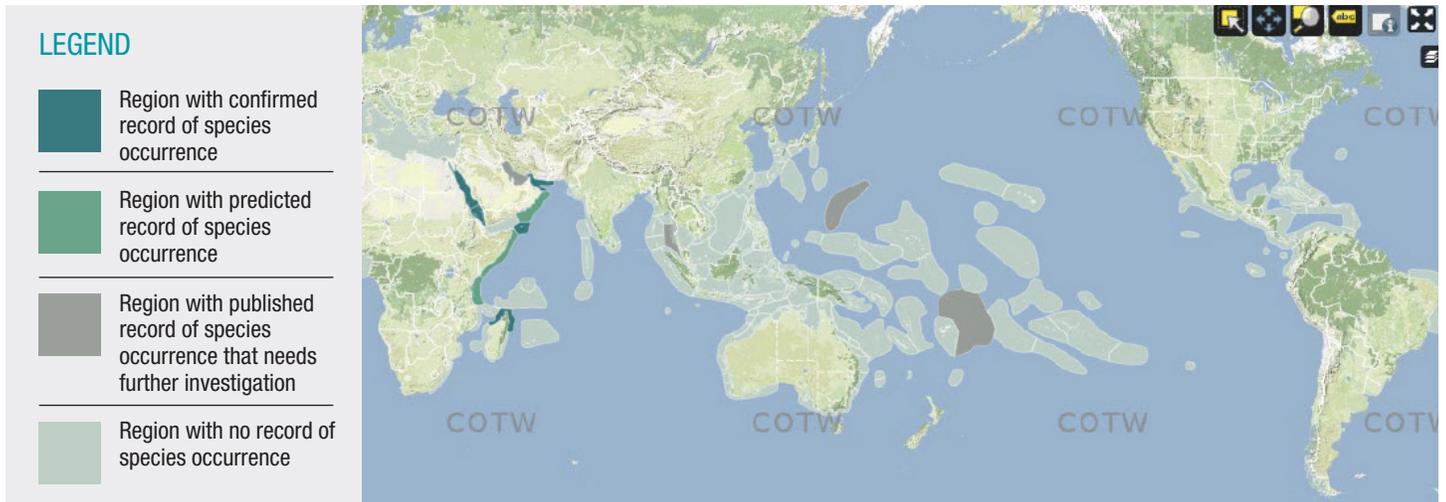
Based on confirmed observations and strong predictions of occurrence in areas that have not yet been surveyed sufficiently, *Pavona diffluens* is likely distributed along part of the east African coast, the Red Sea, and the northwestern Indian Ocean.

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

Pavona diffluens is not yet confirmed in any U.S. Pacific jurisdictions.

HABITAT TYPES AND DEPTH

Pavona diffluens occurs in at least upper reef slopes, mid-slopes, lower reef crests, reef flats, and lagoons in depths of 5 to at least 20 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 *Pavona diffluens* occupied 0.47 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. *Pavona diffluens* had a mean abundance rating of 1.43. 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 *Pavona diffluens* is likely at least millions of colonies.

:: Why is this Species Threatened?

Pavona diffluens is likely 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. The species' distribution is limited to parts of the western Indian Ocean and Red Sea where projections of local threats and general effects of climate change are both frequent and severe over the foreseeable future. The Red Sea in particular is projected to experience frequent warming events sooner than most other parts of the Indo-Pacific region. 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 *Pavona diffluens*.

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.

