NOAA FISHERIES
Pacific Islands Region

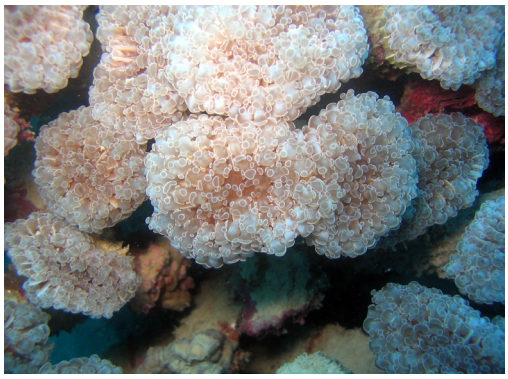
corals

Euphyllia paradivisa

:: Biological Information

MORPHOLOGY

Colonies of *Euphyllia paradivisa* are made up of branching, separate corallites. Polyps have branching tentacles. Color is pale greenish-grey or pink (in rare instances) with lighter tentacle tips.



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

REPRODUCTION

Euphyllia paradivisa's reproductive mode is not known. Other *Euphyllia* species display a variety of reproductive modes so it is unclear which is most probable of this species.

:: Spatial Information

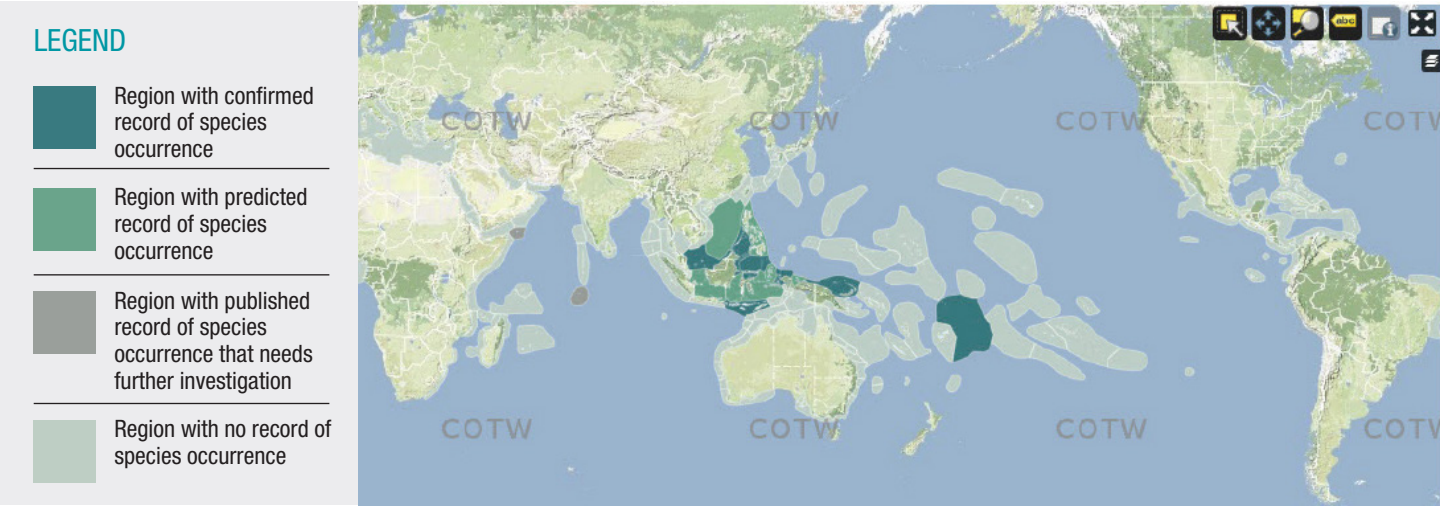
GEOGRAPHIC RANGE

Based on confirmed observations and strong predictions of occurrence in areas that have not yet been surveyed sufficiently, *Euphyllia paradivisa* is likely distributed mostly in the Coral Triangle area (the Philippines to Timor Leste and east to the Solomon Islands). It is also confirmed to occur in American Samoa.

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

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

American Samoa: There is only one report of this species in American Samoa, of one colony reported by Fenner. Photographs clearly show the branching of the skeleton and the divided tentacles. The species is reported in American Samoa by Brainard *et al*. (2011) and Veron (2014) based on the Fenner report.

HABITAT TYPES AND DEPTH

Euphyllia paradivisa is found in environments protected from wave action on at least upper reef slopes, mid-slope terraces, and lagoons. It occupies a depth range of 2 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 *Euphyllia paradivisa* occupied 0.2 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. *Euphyllia paradivisa* 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 *Euphyllia paradivisa* is likely at least tens of millions of colonies.

:: Why is this Species Threatened?

Euphyllia paradivisa 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 to 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 *Euphyllia paradivisa*.

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.

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.