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# Plectropomus pessuliferus, Roving Coralgrouper

Assessment by: Choat, J.H., Amorim, P., Law, C., Ma, K., Myers, R., Nair, R., Pollard, D.A., Rhodes, K., Russell, B., Samoilys, M., Suharti, S. & To, A.



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### **Taxonomy**

Kingdom	Phylum	Class	Order	Family	
Animalia	Chordata	Actinopterygii	Perciformes	Epinephelidae	

**Taxon Name:** *Plectropomus pessuliferus* (Fowler, 1904)

#### Synonym(s):

• Plectropoma pessuliferum Fowler, 1904

#### Common Name(s):

• English: Roving Coralgrouper , Leopard Grouper , Saumonee leopard, Violet Coral Trout

• French: Merou-loche vagabonde

• Spanish: Mero Errante

#### Taxonomic Source(s):

Eschmeyer, W.N., Fricke, R., and Ven der Laan, R. (eds.). 2017. Catalog of Fishes: genera, species, references. Updated 31 July 2017. Available at: http://researcharchive.calacademy.org/research/ichthyology/catelog/fishcatmain.asp.

#### **Taxonomic Notes:**

Plectropomus pessuliferus is often misidentified as P. maculatus (Heemstra and Randall 1993). Heemstra and Randall (1993) recognized two subspecies: Plectropomus pessuliferus marisrubri in the Red Sea, and P. pessuliferus pessuliferus from the remainder of the Indo-Pacific region. Phylogenetic analyses by Ma et al. (2016) identified P. pessuliferus as a relatively small species with a distribution from the central Indian ocean to the Coral Triangle with a single record from deep water Tonga. It is the sister species of P. leopardus and is not directly related to the Red Sea species previously identified as P. pessuliferus marisrubri.

#### **Assessment Information**

Red List Category & Criteria: Least Concern ver 3.1

Year Published: 2018

Date Assessed: November 21, 2016

#### Justification:

This coral reef species is widely distributed and generally uncommon. It is targeted by grouper fisheries in parts of its range, and declines have occurred in the Maldives. Overfishing is not considered to be a major threat on a global level at this time; therefore, it is listed as Least Concern. Improved monitoring of populations under heavy fishing pressure and the reduction of fishing effort is needed in certain areas. Research on its life history is also recommended. The change in status from the previous assessment reflects an improved application of the Red List categories and criteria, as well as a better understanding of available data.

# **Geographic Range**

#### **Range Description:**

This species is distributed in the Indo-Pacific from East Africa to Tonga, including Zanzibar, Chagos, Lacadives, St. Brandon's Shoals, Maldives, Sri Lanka, Nazareth Bank, Sumatra, Fiji (Heemstra and Randall 1993, Randall *et al.* 2003, Ma 2014). Reports of this species from Natura Island require confirmation (R. Myers pers. comm. 2016). Specimens reported from the Red Sea are now considered *Plectropomus marisrubri* (Ma 2014, Ma *et al.* 2016). Its depth range is three to 147 metres.

#### **Country Occurrence:**

**Native:** British Indian Ocean Territory (Chagos Archipelago); Comoros; Fiji; French Southern Territories (Mozambique Channel Is.); India; Indonesia; Kenya; Maldives; Mauritius; Mayotte; Seychelles; Sri Lanka; Tanzania, United Republic of; Thailand; Tonga

#### **FAO Marine Fishing Areas:**

Native: Indian Ocean - western, Indian Ocean - eastern, Pacific - western central, Pacific - eastern central

# **Distribution Map**

Plectropomus pessuliferus

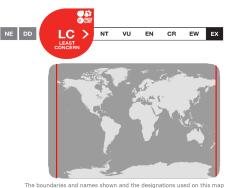


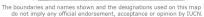


Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community 7,200

#### Range Extant (resident)

#### Compiled by: IUCN Grouper and Wrasse Specialist Group







### **Population**

This species is rare to uncommon throughout most of its range, but has higher abundances in the Maldives. A comprehensive survey conducted in the Chagos reef system recorded only a single observation of this species. A survey of shallow water fish communities along the Baluchistan coast of Pakistan in 2006 did not record this species (Leujak pers. obs.).

Export trade of groupers started in the Maldives in 1993 and catch increased from 200 tonnes in 1994 to 1,000 tonnes in 1995 (Sattar and Adams 2005). This species was highly valued in the grouper fishery of the Maldives, but catch has been in decline and individuals taken in the fishery are smaller in size than in the past (Sattar and Adams 2005). Fishing pressure continues to increase in the Maldives and many sites show signs of localised overfishing (Sluka 2002). This species is commonly captured in Seychelles fisheries, but catch and effort data are not collected. It is more common at the coral atolls in the southern portion of the archipelago, where it is lightly fished. On the banks of the Mahe Plateau, where most of the population resides, this species is rare to largely absent from catches. It is not known if this is due to fishing pressure or lack of habitat, although it is probably a combination of the two. Declines in general grouper catch per unit effort have been observed in areas near human populations (R. Jan pers. comm.).

**Current Population Trend:** Decreasing

### Habitat and Ecology (see Appendix for additional information)

This species is strongly coral reef-associated and can be found in shallow lagoon and seaward reefs (Heemstra and Randall 1993, R. Myers and M. Samoilys pers. comm.). Its maximum total length is 120 cm (Heemstra and Randall 1993).

Systems: Marine

#### **Use and Trade**

This species is exploited by spear, hand line, gill net and traps. It has been exported by the Maldives grouper fishery for sale in the live reef fish trade in southeast Asian markets where it is considered to be of high value (Sluka 2002, Sattar and Adams 2005).

### Threats (see Appendix for additional information)

Overfishing is a major threat to this species in some areas (the Maldives) where fishing pressure is high, but this is not considered a major threat on a global level at this time. Degradation of coral reef is also a potential threat to this species.

### **Conservation Actions** (see Appendix for additional information)

Conservation actions are only present in a few areas of the broad distribution of this species. The grouper fishery of the Maldives is opportunistic and unregulated (Sattar and Adams 2005).

#### **Credits**

Assessor(s): Choat, J.H., Amorim, P., Law, C., Ma, K., Myers, R., Nair, R., Pollard, D.A., Rhodes,

K., Russell, B., Samoilys, M., Suharti, S. & To, A.

**Reviewer(s):** Linardich, C.

Facilitators(s) and Bullock, R.W.

Compiler(s):

### **Bibliography**

Heemstra, P.C. and Randall, J.E. 1993. FAO species catalogue. Vol. 16. Groupers of the world (Family Serranidae, Subfamily Epinephelinae). An annotated and illustrated catalogue of the grouper, rockcod, hind, coral grouper and lyretail species known to date. FAO, Rome.

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#### **External Resources**

For Images and External Links to Additional Information, please see the Red List website.

#### **Threats**

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Threat	Timing	Scope	Severity	Impact Score
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.1. Intentional use: (subsistence/small scale) [harvest]	Ongoing	Minority (50%)	Unknown	Unknown
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.2. Intentional use: (large scale) [harvest]	Ongoing	Minority (50%)	Unknown	Unknown
	Stresses:	2. Species Stresses -> 2.1. Species mortality		

### **Appendix**

### **Conservation Actions in Place**

(http://www.iucnredlist.org/technical-documents/classification-schemes)

# Conservation Actions in Place

In-Place Land/Water Protection and Management

Occur in at least one PA: Yes

In-Place Species Management

Harvest management plan: Yes

Subject to ex-situ conservation: Yes

#### **Conservation Actions Needed**

(http://www.iucnredlist.org/technical-documents/classification-schemes)

#### **Conservation Actions Needed**

- 1. Land/water protection -> 1.1. Site/area protection
- 3. Species management -> 3.1. Species management -> 3.1.1. Harvest management

#### **Research Needed**

(http://www.iucnredlist.org/technical-documents/classification-schemes)

#### **Research Needed**

- 1. Research -> 1.1. Taxonomy
- 1. Research -> 1.2. Population size, distribution & trends
- 1. Research -> 1.3. Life history & ecology
- 1. Research -> 1.5. Threats
- 3. Monitoring -> 3.1. Population trends

#### **Additional Data Fields**

#### Distribution

Lower depth limit (m): 147

Upper depth limit (m): 3

#### **Population**

Population severely fragmented: No

# The IUCN Red List Partnership



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