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Plectropomus punctatus, Marbled Coralgrouper

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THE IUCN RED LIST OF THREATENED SPECIES™

Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Actinopterygii	Perciformes	Epinephelidae

Taxon Name: Plectropomus punctatus (Quoy & Gaimard, 1824)

Synonym(s):

- Plectropoma maculatum Playfair & Gunther, 1867
- Plectropoma maculatum [cited in Boulenger, 1895] var. E
- Plectropoma punctatum Quoy & Gaimard, 1824
- Plectropomus marmaratus Talbot, 1959
- Plectropomus punctatus (Quoy & Gaimard, 1824) ssp. punctatus

Common Name(s):

- English: Marbled Coralgrouper, Marbled Leopardgrouper
- French: Merou Pointille, Vieille Babonne
- Spanish: Mero Pecoso

Taxonomic Notes:

This species has been previously confused with *Plectropomus maculatus* (Quoy and Gaimard), which occurs only in the Western Pacific (Randall and Hoese 1986).

Assessment Information

Red List Category & Criteria:	Least Concern ver 3.1		
Year Published:	2018		
Date Assessed:	November 21, 2016		

Justification:

This widely distributed, reef-associated species is naturally uncommon in much of its range. It is a minor component of subsistence fisheries in parts of its range, but declines have not been detected. It is listed as Least Concern with a recommendation to improve monitoring of fished populations, especially in areas where pressure is expected to increase in the future, and to protect spawning aggregations. 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.

Previously Published Red List Assessments

2008 – Data Deficient (DD) http://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T132801A3455375.en

Geographic Range

Range Description:

This species is distributed in the western Indian Ocean from Kenya to South Africa, as well as southern

Oman, Socotra (Yemen), Somalia and the following island localities: the Comoros Islands, Madagascar, the Seychelles (including Aldabra), Mauritius (including St. Brandon), Nazareth Bank and the Chagos Archipelago (Randall and Hoese 1986). It has been reported from the Laccadive Islands (Karkarey *et al.* 2011). Records from Sri Lanka need to be confirmed. It is not known to occur in the Red Sea, Persian Gulf and the Asian coast from Arabia to (but not including) India (Heemstra and Randall 1993). Its depth range is two to 50 metres, but typically occurs shallower than 30 metres.

Country Occurrence:

Native: British Indian Ocean Territory (Chagos Archipelago); Comoros; French Southern Territories (Mozambique Channel Is.); India (Laccadive Is.); Kenya; Madagascar; Mauritius; Mayotte; Mozambique; Oman; Seychelles; Somalia; South Africa; Tanzania, United Republic of; Yemen

FAO Marine Fishing Areas:

Native: Indian Ocean - western

Distribution Map

Plectropomus punctatus



Range

Extant (resident)

Compiled by: IUCN Grouper and Wrasse Specialist Group





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Population

This species is relatively uncommon in most of its range. Underwater surveys conducted in the western Indian Ocean in 2009 to 2015 recorded densities of 0.11 fish per 1,000 m² in 2009) and 0.0 in 2011 in Tanzania, 0.10 fish per 1,000 m² in 2010/2011 in northern Mozambique and 1.24 fish per 1,000 m² in northeast Madagascar in 2010 (Samoilys and Randriamanantsoa 2011, M. Samoilys unpublished data). Underwater surveys in Comoros in 2010 did not record any individuals of this species (Fricke *et al.* 2009) and surveys in Chagos in 2014 also did not record this species (Winterbottom and Sheppard 1999). Underwater surveys conducted in a marine protected area on the east coast of South Africa recorded a maximum of 1.33 individuals counted per hour (Floros 2010). A baseline study at coral reefs of French lles Eparses in the Mozambique Channel, which has been protected from fishing for the last 20 years, recorded very high fish abundance and biomass on the deep terrace on the edge of the reef slope that was mainly driven by a few species, including *Plectropomus punctatus* (Chabanet *et al.* 2016). Estimates for Iles Glorieuses was 3.7 fish per hectare (M. Samoilys unpublished data 2014)

It may be in decline in some areas due to fishing pressure, but it is not known if spawning aggregations are heavily targeted (Robinson 2004). In southern Kenya in 2007, it comprised less than 1% of the artisanal fisheries catch (Agembe *et al.* 2010). It is a minor component of the subsistence fishery on Aldabra atoll (Pistorius and Taylor 2009) and was a negligible component of the semi-industrial reef fish catches in southern Mozambique from 2002 to 2012 (Mutombene unpublished data). It is relatively frequently captured at Mafia Island in Tanzania (Gaspare *et al.* 2015). According to Morgans (1982), *P. punctatus* was common in markets of Zanzibar in the 1950s. It probably is (or was) of commercial importance in the Seychelles and Mauritius. Illegal fishing is occurring in the northern Mozambique Channel (Chabanet *et al.* 2016).

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

This rocky and coral reef species typically inhabits depths shallower than 30 metres and occurs solitary or in small groups. It often occurs well above the bottom (Lieske and Myers 1994). Its maximum length is 96 cm. It feeds exclusively on fishes (Morgans 1986). Spawning aggregations have been documented from December to February in the atolls and islands of the Seychelles (Cosmoledo, Farquhar and Praslin) (Robinson *et al.* 2008). Aggregations at Cosmoledo Atoll were comprised of about 50 individuals and formed on the edge of the outer reef slope, but other sites in the Seychelles have recorded from between 10 to 100 individuals (Robinson *et al.* 2007, Robinson *et al.* 2013). Fishermen from Mafia Island in Tanzania have not observed the existence of spawning aggregations on their traditional fishing grounds (Gaspare *et al.* 2015).

Systems: Marine

Use and Trade

This species is a minor component in small-scale fisheries (Pistorius and Taylor 2009, Mutombene unpublished data). It is caught with hook and line, trolling, spear and on benthic long-lines (Heemstra and Randall 1993). In Tanzania, it is captured by handline, shark net and other nets and basket trap (Gaspare *et al.* 2015). Previous to 1998, it was an important species exported from Farquhar Atoll in the Seychelles for sale in the live reef fish food trade (Aumeeruddy and Robinson 2006).

Threats (see Appendix for additional information)

There are no known major threats on a global level; however, increasing fishing pressure could cause localised declines in the future.

Conservation Actions (see Appendix for additional information)

This species occurs in some marine protected areas within its range, and some are well-enforced such as the marine parks of Kenya (M. Samoilys pers. comm. 2016). The Seychelles Fishing Authority implemented a four-year research and management programme for reef fish spawning aggregations (2002–2005), leading to the recommendation to establish and manage closed areas at four multispecies spawning aggregation sites (Robinson *et al.* 2007). However, the level of effective enforcement is not known. The live reef food fish fishery at Farquhar Atoll in the Seychelles was closed after 1999 (Aumeeruddy and Robinson 2006).

Credits

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External Resources

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

Appendix

Habitats

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

Habitat	Season	Suitability	Major Importance?
9. Marine Neritic -> 9.2. Marine Neritic - Subtidal Rock and Rocky Reefs	Resident	Suitable	Yes

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	Unknown	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	Unknown	Unknown	Unknown
	Stresses:	2. Species Stress	es -> 2.1. Species mor	tality

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

Research Needed

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

Research Needed	
1. Research -> 1.2. Population size, distribution & trends	
1. Research -> 1.3. Life history & ecology	
3. Monitoring -> 3.1. Population trends	
3. Monitoring -> 3.2. Harvest level trends	

Additional Data Fields

Distribution

Lower depth limit (m): 50

Upper depth limit (m): 2

Population

Population severely fragmented: No

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