Epinephelus corallicola, Coral Grouper

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

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Taxonomy

<table>
<thead>
<tr>
<th>Kingdom</th>
<th>Phylum</th>
<th>Class</th>
<th>Order</th>
<th>Family</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animalia</td>
<td>Chordata</td>
<td>Actinopterygii</td>
<td>Perciformes</td>
<td>Epinephelidae</td>
</tr>
</tbody>
</table>

**Taxon Name:** *Epinephelus corallicola* (Valenciennes, 1828)

**Synonym(s):**
- *Serranus altiveloioides* Bleeker, 1849
- *Serranus corallicola* Valenciennes, 1828

**Common Name(s):**
- English: Coral Grouper, Coral Rockcod, Coral Rock-cod, Duskyfin Grouper
- French: Merou Coral
- Spanish: Mero De Coral

**Assessment Information**

**Red List Category & Criteria:** Least Concern [ver 3.1](http://dx.doi.org/10.2305/IUCN.UK.2018-2. RLTS.T132763A100464517.en)

**Year Published:** 2018

**Date Assessed:** November 18, 2016

**Justification:**
*Epinephelus corallicola* is a fairly widespread, reef species that is naturally uncommon throughout its range. There are no directed fisheries, but it is occasionally caught and marketed. There is no evidence of population declines and no known major threats; therefore, it is listed as Least Concern. 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.T132763A3444891.en

**Geographic Range**

**Range Description:**
This western Pacific species is distributed in Thailand, Hong Kong, and Taiwan to Australia (Western Australia, Northern Territory, Queensland and New South Wales), and east to the Solomon and Mariana Islands, including Indonesia, Singapore, Philippines, Christmas Island, Micronesia, Papua New Guinea and Palau. It possibly also occurs in Timor. It occurs occasionally in northern New Caledonia (G. Allen in press). Records from the Andaman and Nicobar islands (Rajan *et al.* 2013) require verification. Adults are often misidentified as *Epinephelus macrospilos* or *E. howlandi*. Its depth range is one to 30 metres.

**Country Occurrence:**
Native: Australia; Brunei Darussalam; Cambodia; China; Christmas Island; Disputed Territory (Paracel Is.,
Spratly Is.; Hong Kong; Indonesia; Japan; Macao; Malaysia; Micronesia, Federated States of; Myanmar; New Caledonia; Northern Mariana Islands; Palau; Papua New Guinea; Philippines; Singapore; Solomon Islands; Taiwan, Province of China; Thailand; Timor-Leste; Vanuatu; Viet Nam

**FAO Marine Fishing Areas:**

**Native:** Indian Ocean - eastern, Pacific - western central, Pacific - northwest, Pacific - southwest
Distribution Map

*Epinephelus corallicola*

Compiled by:
IUCN Grouper and Wrasse Specialist Group

http://dx.doi.org/10.2305/IUCN.UK.2018-2.RLTS.T132763A100464517.en
Population

Micronesia: A survey of groupers in fish markets in 2005 identified 14 individuals of *Epinephelus corallicola*, and represented less than 1% of the catch in the Pohnpei fishery (Rhodes and Tupper 2007). During a follow-up survey in 2015-2016, 19 individuals were captured, which represented less than 1% of the total catch. The total lengths of the fish sampled in 2005 were similar to those in 2015 (D. Hernandez-Ortiz and K. Rhodes unpublished data 2016). During a survey of inshore fish and export markets in Chuuk, no individuals of this species were observed (J. Cuetos-Bueno and D. Hernandez-Ortiz unpublished data 2016).

Melanesia: During a survey in 2015-2016 at Honiara market in the Solomon Islands, 227 individuals of *E. corallicola* were observed and comprised 4% of the catch. It was the ninth most commonly marketed grouper among 43 species sampled (Solomon Islands Ministry of Fisheries and Marine Resources unpublished data 2016).

Malaysia: This species has a low abundance within marine protected areas in Sabah (A. Cabanban pers. comm. 2007).

Australia: During an experimental line fishing survey that included samples from charter and recreational fisheries, 13 individuals of *E. corallicola* were sampled, which comprised 0.1% of the total sampled (Mapleston *et al.* 2009). Hong Kong: During a wet market survey in Hong Kong conducted from November 2004 to January 2006, only three wild caught individuals of *E. corallicola* were observed (To 2009). During a more recent survey of Hong Kong wet markets and restaurants in mid-November 2012 to mid-March 2013, 570 individuals were recorded, but this comprised both wild caught and farmed individuals. Of these individuals, 39% were suspected to be immature based on the estimated maturity size (Lam 2013).

Taiwan: Based on 10-15 years of underwater observation and market survey in a small locality in Taiwan, this species was regarded as “occasional” (KT Shao of Biodiversity Research Center Academia Sinica pers. comm. and Taiwan Fish Database 2016).

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

This species commonly occurs in shallow silty reef habitat, but also found on clear outer reef slopes, and sometimes in estuarine areas. There have been no observations of spawning aggregations and no detailed life history information is limited for this species (K. Rhodes pers. comm. 2016).

Systems: Marine

Use and Trade

This species is targeted by subsistence and artisanal spear and line fisheries throughout its range and may be caught incidentally by gill net. It is part of the live reef food fish trade and may be taken as juveniles for grow-out. Its market value is considered to be low-to-medium.

Threats (see Appendix for additional information)
Fishing is a potential threat to *Epinephelus corallicola* by small-scale commercial fishers; it also appears rarely in the Live Reef Food Fish Trade.

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

There are no species-specific conservation measures. It occurs in marine protected areas within its range. There are size (38 cm) and bag limits (five individuals for all combined coral groupers and groupers) when fishing for epinephelids in the Great Barrier Reef (northern Queensland, Australia). The species may be protected incidentally by marine protected areas and other laws specific to grouper, such as the sales, catch and export bans in Palau (1 April – 30 September) and Chuuk (Micronesia) (1 January – 31 May) and a sales ban in Pohnpei (Micronesia) (1 March – 30 April).

**Credits**

**Assessor(s):** Rhodes, K., Amorim, P., Choat, J.H., Law, C., Ma, K., Myers, R., Nair, R., Russell, B., Samoilys, M., Suharti, S. & To, A.

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

**Facilitators(s) and Compiler(s):** Carpenter, K.E.
Bibliography


Lam, S.S.T. 2006. Status of Live Reef Fish Trade in the Hong Kong Retail Sector. University of Hong Kong.


Citation


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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)

<table>
<thead>
<tr>
<th>Habitat</th>
<th>Season</th>
<th>Suitability</th>
<th>Major Importance?</th>
</tr>
</thead>
</table>

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

<table>
<thead>
<tr>
<th>Threat</th>
<th>Timing</th>
<th>Scope</th>
<th>Severity</th>
<th>Impact Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Climate change &amp; severe weather -&gt; 11.1. Habitat shifting &amp; alteration</td>
<td>Ongoing</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5. Biological resource use -&gt; 5.4. Fishing &amp; harvesting aquatic resources -&gt; 5.4.1. Intentional use: (subsistence/small scale) [harvest]</td>
<td>Ongoing</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5. Biological resource use -&gt; 5.4. Fishing &amp; harvesting aquatic resources -&gt; 5.4.2. Intentional use: (large scale) [harvest]</td>
<td>Ongoing</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tbody>
</table>

Conservation Actions in Place
(http://www.iucnredlist.org/technical-documents/classification-schemes)

<table>
<thead>
<tr>
<th>Conservation Actions in Place</th>
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</thead>
<tbody>
<tr>
<td>In-Place Land/Water Protection and Management</td>
</tr>
<tr>
<td>Occur in at least one PA: Yes</td>
</tr>
<tr>
<td>In-Place Species Management</td>
</tr>
<tr>
<td>Harvest management plan: Yes</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Research Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Research -&gt; 1.2. Population size, distribution &amp; trends</td>
</tr>
<tr>
<td>1. Research -&gt; 1.3. Life history &amp; ecology</td>
</tr>
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## Additional Data Fields

<table>
<thead>
<tr>
<th>Distribution</th>
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<tbody>
<tr>
<td>Lower depth limit (m):</td>
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<tr>
<td>Upper depth limit (m):</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Population</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Population severely fragmented:</td>
<td>No</td>
</tr>
</tbody>
</table>
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