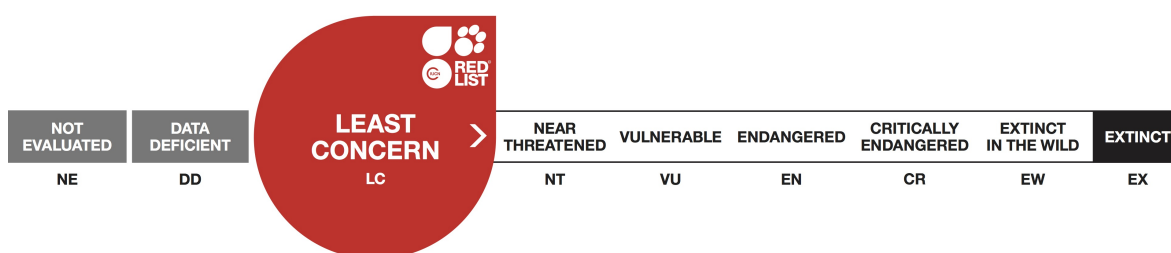




ISSN 2307-8235 (online)
 IUCN 2008: T132814A46630792
 Scope: Global
 Language: English

Aethaloperca rogae, Redmouth Grouper

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



View on www.iucnredlist.org

Citation: Rhodes, K., Choat, J.H., Myers, R., To, A., Ma, K., Nair, R., Samoilys, M., Suharti, S., Law, C., Amorim, P. & Russell, B. 2018. *Aethaloperca rogae*. The IUCN Red List of Threatened Species 2018: e.T132814A46630792. <http://dx.doi.org/10.2305/IUCN.UK.2018-2.RLTS.T132814A46630792.en>

Copyright: © 2018 International Union for Conservation of Nature and Natural Resources

Reproduction of this publication for educational or other non-commercial purposes is authorized without prior written permission from the copyright holder provided the source is fully acknowledged.

Reproduction of this publication for resale, reposting or other commercial purposes is prohibited without prior written permission from the copyright holder. For further details see [Terms of Use](#).

The IUCN Red List of Threatened Species™ is produced and managed by the [IUCN Global Species Programme](#), the [IUCN Species Survival Commission \(SSC\)](#) and [The IUCN Red List Partnership](#). The IUCN Red List Partners are: [Arizona State University](#); [BirdLife International](#); [Botanic Gardens Conservation International](#); [Conservation International](#); [NatureServe](#); [Royal Botanic Gardens, Kew](#); [Sapienza University of Rome](#); [Texas A&M University](#); and [Zoological Society of London](#).

If you see any errors or have any questions or suggestions on what is shown in this document, please provide us with [feedback](#) so that we can correct or extend the information provided.

Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Actinopterygii	Perciformes	Epinephelidae

Taxon Name: *Aethaloperca rogae* (Forsskål, 1775)

Synonym(s):

- *Bodianus lunulatus* Shaw, 1803
- *Cephalopholis rogae* (Forsskål, 1775)
- *Perca lunaria* Forsskål, 1775
- *Perca rogae* Forsskål, 1775

Regional Assessments:

- Persian Gulf

Common Name(s):

- English: Redmouth Grouper, Red-flushed Cod, Red-flushed Rock-cod, Redmouth Groper, Redmouth Rockcod
- French: Matongo, Merou Noir, Vielle Roga
- Spanish: Cherna Roga

Taxonomic Source(s):

Ma, K.Y., Craig, M.T., Choat, J.H. and van Herwerden, L. 2016. The historical biogeography of groupers: Clade diversification patterns and processes. *Molecular phylogenetics and evolution* 100: 21-30.

Taxonomic Notes:

Based on molecular phylogenetic analysis, Craig and Hastings (2007) included the species *Aethaloperca rogae* within the genus *Cephalopholis*.

Assessment Information

Red List Category & Criteria: Least Concern [ver 3.1](#)

Year Published: 2018

Date Assessed: November 17, 2016

Justification:

This widely distributed, Indo-West Pacific species inhabits reefs and is naturally uncommon. It is captured mostly incidentally in fisheries in many areas of its range, but this is not considered a major threat on a global level. 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.T132814A3458443.en>

Geographic Range

Range Description:

This Indo-West Pacific species is distributed from the Red Sea and Persian Gulf to South Africa, east to the Phoenix Islands (Kiribati), and north to southern Honshu, Japan. It is probably found around all tropical islands of the Indian Ocean, but has not yet been recorded from Mauritius. It is recorded from Europa Island (MNHN 1992-0475). Its depth range is one to 60 metres.

Country Occurrence:

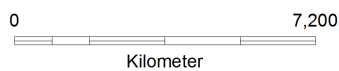
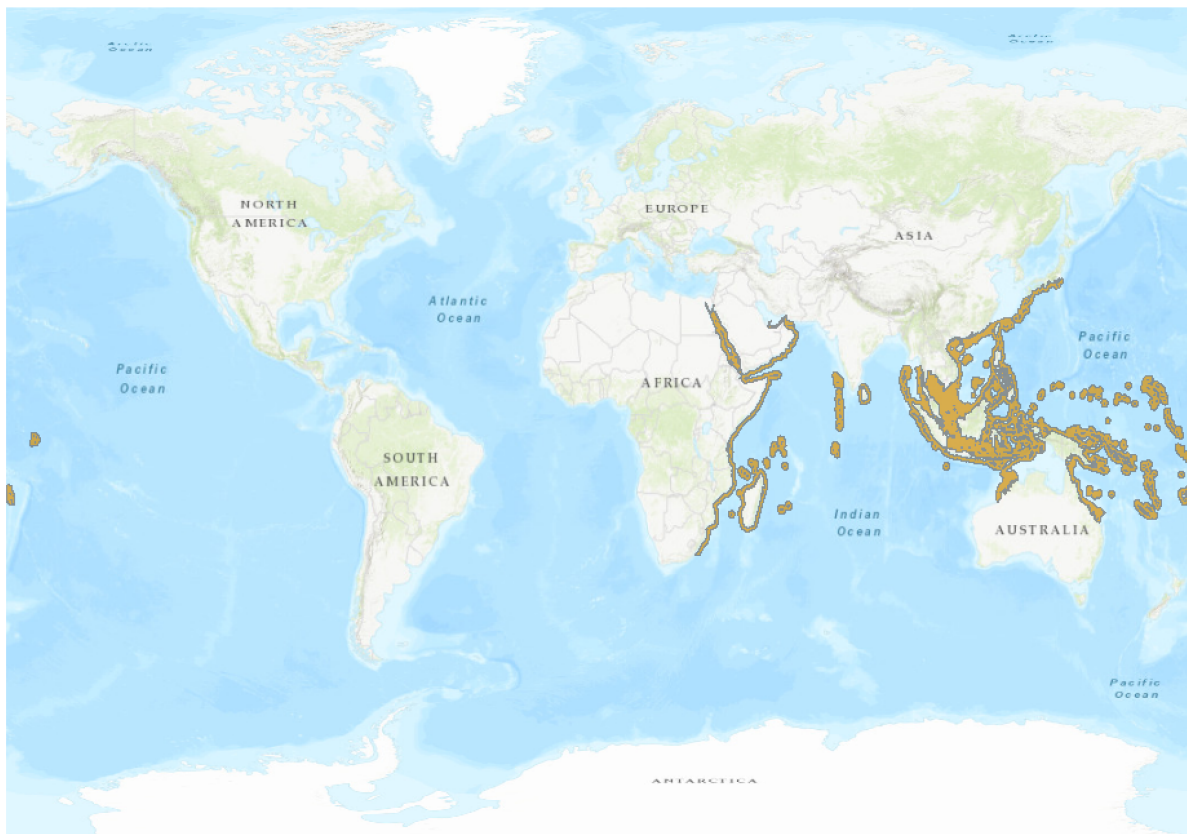
Native: Australia; British Indian Ocean Territory (Chagos Archipelago); Brunei Darussalam; Cambodia; China; Christmas Island; Comoros; Djibouti; Egypt; Eritrea; Fiji; French Southern Territories (Mozambique Channel Is.); Hong Kong; India; Indonesia; Iran, Islamic Republic of; Israel; Japan; Jordan; Kenya; Kiribati (Gilbert Is., Phoenix Is.); Macao; Madagascar; Malaysia; Maldives; Marshall Islands; Mauritius; Mayotte; Micronesia, Federated States of ; Mozambique; Myanmar; Nauru; New Caledonia; Oman; Palau; Papua New Guinea; Philippines; Réunion; Saudi Arabia; Seychelles; Singapore; Solomon Islands; Somalia; South Africa; Sri Lanka; Sudan; Taiwan, Province of China; Tanzania, United Republic of; Thailand; Timor-Leste; Tuvalu; United Arab Emirates; Vanuatu; Viet Nam; Yemen

FAO Marine Fishing Areas:

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

Distribution Map

Aethaloperca rogaa



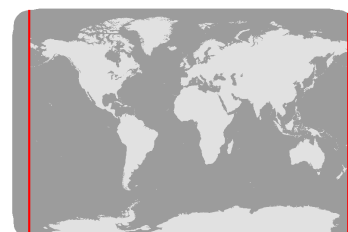
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Range

Extant (resident)

Compiled by:

IUCN Grouper and Wrasse Specialist Group



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.



Population

This species is widespread, but typically uncommon with variable regional abundance. Population information is limited. Aggregate FAO global landings report species-level entries for only Saudi Arabia and Asia (2004-2013), with identical volumes reported. Catch volumes show an overall increasing, but fluctuating trend. An average of 31.2 tonnes per year were collected from 2004-2013, with peaks at 50 tonnes in 2006 and 42 tonnes in 2013 (FAO Global Grouper Capture Volumes 2013).

In the Saudi Arabian portion of the Red Sea, on average around 10 individuals per 100 m² of this species were observed on offshore reefs between 2012 and 2015 (L. Rocha unpublished data 2016). This species is not recorded in Abu Dhabi fisheries statistics (Grandcourt 2011). In 2004, Ayling (unpublished data) conducted visual surveys at Halul Island, Qatar, and the abundance of this species was 0.1 individuals per 100 m² (J. Choat pers. comm. 2013). It was not recorded on inshore reefs, nor was it recorded from the Saudi coral reefs that are north of Qatar. It is recorded in very low densities (1 individuals per 100 m²) at four sites on the reefs of Dibba (J. Burt pers. comm. 2013).

In surveys conducted within the Ponto do Ouro Marine Park of Mozambique, Pereira and Fernandes (2014) found this species in densities of 0.0 to 0.6 individuals per 154 m² (0.0 to 3.9 individuals per 1,000 m²). Underwater visual surveys conducted in Mozambique in 2010-2011, 2014 and 2015 recorded abundances of this species as 0.10 ±0.19, 0.12 ±0.18 and 0.06 ±0.19 individuals per 250 m², respectively. Biomass for those same years was 73.20 ±154.73, 105.17 ±212.4 and 21.87 ±75.76 g per 250 m² (M. Samoilys unpublished data 2016). In Zanzibar, underwater visual count surveys in 2011 reported densities across sites as 0.31 ± 0.24 individuals per 1000 m² (Gaspere *et al.* 2015). The species was observed at underwater visual count survey sites in Comoros at 0.16 ±0.18 individuals and 54.71 ±80.99 g per 250 m² (M. Samoilys unpublished data 2016). During surveys conducted in 2010 across nine sites in Madagascar, the average abundance of this species was 0.02 ±0.07 individuals and 13.21 ±39.69 g per 250 m² (M. Samoilys unpublished data 2016). Across 14 sites in Tanzania, underwater visual surveys recorded mean abundance of this species as 0.13 ±0.43 individuals per 250 m² and a biomass of 102.43 ±333.82 g per 250 m² (M. Samoilys unpublished data 2016). In Djibouti, surveys across 14 sites recorded a mean abundance of 0.80 ±0.59 individuals and a mean biomass of 643.72 ±673.85 g per 250 m² (M. Samoilys unpublished data 2016). Across 13 sites in Chagos, underwater surveys found a mean abundance of 0.46 ±0.39 individuals and a biomass of 246.88 ±299.76 g per 250 m² (M. Samoilys unpublished data 2016). In India, Sluka and Lazarus (2010) recorded it in offshore and inshore surveys along the southwest coast from Netrani Island to Muttom. Annual catch for all of India ranged from 35 to 215 kg between 2012 to 2015. In the Maldives, Sluka and Reichenbach (1995) reported relatively low numbers of this species. Sattar *et al.* (2011) reported this species comprised approximately 10% of the chilled grouper fishery of the Maldives in surveys conducted in 2002 and 2010. Export volumes between 2003 and 2008 remained relatively steady and then increased three-fold between 2003 and 2010. During this increase in landings, approximately 74% of landed individuals were immature. Surveys conducted during the time periods of 1987-1991 and 2010-2011 of vessels at landing sites showed a reduction in mean individual size of this species.

In a recent 16-month survey of the Honiara-based Solomon Islands fish market this species comprised 1% of all groupers sampled and ranked 24th among 43 species (Solomon Islands Ministry of Fisheries and Marine Resources unpublished data 2016). In Pohnpei (Micronesia), a 12-month market survey conducted in 2005 reported that this species comprised 2% of all groupers sampled (Rhodes and Tupper

2007, Rhodes *et al.* 2008). When this survey was repeated in 2015, it comprised about 1% of all groupers sampled and ranked 15th among 17 grouper species (Hernandez-Ortiz and K. Rhodes unpublished data 2016). During a 12-month market survey in Chuuk (Micronesia), it was not in the top 50 species captured in the mixed-gear fishery. The species represented 0.028% of the total reef fish sampled in Chuuk, with 16% taken by hook-and-line fishing and 84% by spear. Approximately 25% of landings were considered immature (Cuetos-Bueno and Hernandez-Ortiz unpublished data 2016).

A wet market survey conducted in Hong Kong from November 2004 to January 2006, recorded only 16 individuals of this species (To 2009), but a more recent survey in Hong Kong wet market and restaurants from mid-November 2012 to mid-March 2013, recorded 110 individuals, with 100% estimated to be immature (Lam 2013). Based on 10-15 years of underwater and market observation at a very limited locality in Taiwan, this species is regarded as “rare” (K-T. 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 inhabits coastal reefs and lagoons, often over silty bottoms, or near/in caves and holes in the reef (Heemstra and Randall 1993). It also commonly occurs on reefs without high coral cover. Small juveniles (< 6.0 cm total length) mimic *Centropyge flavicauda*, *C. multispinis*, and *C. flavipectoralis* (Snyder *et al.* 2001). It primarily feeds on small fishes (including *Pempheris* spp.), also on stomatopods (*Pseudosquilla* spp.) and crustaceans (Morgans 1982). This species spawns throughout the year and matures at about 35 cm standard length (Morgans 1982). It is not known to form spawning aggregations (Society for the Conservation of Reef Fish Aggregations database accessed January 2017). In Australia, an experimental line fishing trials examined 52 individuals of this species that measured between 25 to 47 cm total length and reported the ages as ranging from 13 to 18 years (Mapelston *et al.* 2009).

Systems: Marine

Use and Trade

This species is likely a component of line and spear fisheries throughout its range; however, it is not a target species and is considered of low commercial value in some areas. It has been reported in line fisheries in the Solomon Islands, Micronesia (Chuuk and Pohnpei), the Maldives, India and Australia. It can occasionally be found in markets. It is occasionally caught in fisheries along the west coast of India (Bineesh *et al.* 2014). Sattar *et al.* (2011) reported this species as an important member of the fresh-chilled grouper fishery of the Maldives. It is of minor commercial importance in the Persian Gulf (Carpenter *et al.* 1997). Although there are no formal records, it is highly likely that this species is a component of the trap bycatch in Abu Dhabi (J. Choat pers. comm. 2013).

Threats (see Appendix for additional information)

Fishing may cause localized population declines, but global level declines are not known to have occurred.

Conservation Actions (see Appendix for additional information)

This species is protected from harvest in Palau between 1 April to 30 September. In Chuuk (Micronesia) it is protected through bans on sale, capture and export of all grouper species. Sale of this species is banned in Pohnpei between 1 March to 30 April. It occurs in protected areas in parts of its range.

Credits

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

Reviewer(s): Linardich, C.

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

Bibliography

- Bineesh, K.K., Akhilesh, K.V., Abdussamad, E.M. and Prakasan, D. 2014. Seamount associated fishery of south-west coast of India - a preliminary assessment. *Indian Journal of Fisheries* 61(3): 29-34.
- Carpenter, K.E., Krupp, F., Jones, D.A. and Zajonz, U. 1997. *FAO species identification field guide for fishery purposes. Living marine resources of Kuwait, eastern Saudi Arabia, Bahrain, Qatar, and the United Arab Emirates*. FAO, Rome.
- Craig, M.T. and Hastings, P.A. 2007. A molecular phylogeny of the groupers of the subfamily Epinephelinae (Serranidae) with a revised classification of the *Epinephelini*. *Ichthyological Research* 54(1): 1-17.
- Gaspere, L., Bryceson, I. and Mgaya, Y.D. 2015. Temporal and spatial trends in size, biomass and abundance of groupers (Epinephelinae) in Mafia Island Marine Park: fishers' perception and underwater visual census surveys. *Fisheries Management and Ecology* 22: 337-348.
- Grandcourt, E., Al-Cibahy, A., Al-Harhi, S.S., and Bugla, I. 2011. The abundance, status and bio-economic production potential of coral reef fisheries resources in Abu Dhabi. Environment Agency, Biodiversity Management Sector, Abu Dhabi.
- 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 Fisheries Synopsis. No. 125. FAO, Rome.
- IUCN. 2018. The IUCN Red List of Threatened Species. Version 2018-2. Available at: www.iucnredlist.org. (Accessed: 15 November 2018).
- Lam, S.S.T. 2013. Status of Live Reef Fish Trade in the Hong Kong Retail Sector. University of Hong Kong.
- Mapleston, A., Currey, L.M., Williams, A.J., Pears, R., Simpfendorfer, C.A., Penny, A.L., Tobin, A., Welch, D. 2009. Comparative Biology of Key Inter-reefal serranid species on the Great Barrier Reef. *Project Milestone Report to the Marine and Tropical Sciences Research Facility*.
- Morgans, J.F.C. 1982. Serranid fishes of Kenya and Tanzania. *Ichthyological Bulletin of the J.L.B. Smith Institute of Ichthyology* 46(1): 44.
- Pereira, M.A.M. and Fernandes, R.S. 2014. Monitoring of reef communities in the Ponta do Ouro Partial Marine Reserve: 2014. Centro Terra Viva, Maputo.
- Rhodes, K.L. and Tupper, M.H. 2007. A preliminary market-based survey of the Pohnpei, Micronesia, grouper (Serranidae: Epinephelinae) fishery reveals unsustainable fishing practices. *Coral Reefs*: 335-344.
- Rhodes, K.L., Tupper, M.H. and Wichilmel, C.B. 2008. Characterization and management of the commercial sector of the Pohnpei coral reef fishery, Micronesia. *Coral Reefs* 27: 443–454.
- Sattar, S.A., Najeeb, A., Islam, F., Afzal, M.S. and Wood, E. 2012. Management of the grouper fishery of the Maldives. Proceedings of the 12th International Coral Reef Symposium. Cairns, Australia.
- Sluka, R.D. and Lazarus, S. 2010. Grouper (Pisces: Serranidae) relative abundance and diversity on the west coast of India. *Marine Biodiversity Records* 3: 1-3.
- Sluka, R.D. and Reichenbach, N. 1995. Grouper density and diversity at two sites in the Republic of Maldives. Faculty Publications and Presentations, Paper 27. National Museum of Natural History, Smithsonian Institute, Washington D.C.

Snyder, D.B., Randall, J.E. and Michael, S.W. 2001. Aggressive mimicry by the juvenile of the Redmouth Grouper, *Aethaloperca rogoa* (Serranidae). *Cybium* 25(3): 227-232.

To, A. 2009. The Biology, Fisheries of Groupers (Family: Serranidae) in Hong Kong and Adjacent waters, and Implications for Management. Division of Biological Sciences, University of Hong Kong.

Citation

Rhodes, K., Choat, J.H., Myers, R., To, A., Ma, K., Nair, R., Samoily, M., Suharti, S., Law, C., Amorim, P. & Russell, B. 2018. *Aethaloperca rogoa*. The IUCN Red List of Threatened Species 2018: e.T132814A46630792. <http://dx.doi.org/10.2305/IUCN.UK.2018-2.RLTS.T132814A46630792.en>

Disclaimer

To make use of this information, please check the [Terms of Use](#).

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 -> 5.4.3. Unintentional effects: (subsistence/small scale) [harvest]	Ongoing	Unknown	Unknown	Unknown
	Stresses:	2. Species Stresses -> 2.1. Species mortality		

Conservation Actions in Place

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

Conservation Actions in Place
In-Place Research, Monitoring and Planning
Action Recovery plan: No
Systematic monitoring scheme: No
In-Place Land/Water Protection and Management
Conservation sites identified: Yes, over part of range
Occur in at least one PA: Yes
Area based regional management plan: Unknown
In-Place Species Management
Harvest management plan: No
Successfully reintroduced or introduced benignly: No
Subject to ex-situ conservation: Unknown
In-Place Education
Subject to recent education and awareness programmes: Unknown
Included in international legislation: Unknown
Subject to any international management/trade controls: Unknown

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

Additional Data Fields

Distribution
Lower depth limit (m): 60
Upper depth limit (m): 1
Population
Population severely fragmented: No

The IUCN Red List Partnership



The IUCN Red List of Threatened Species™ is produced and managed by the [IUCN Global Species Programme](#), the [IUCN Species Survival Commission \(SSC\)](#) and [The IUCN Red List Partnership](#).

The IUCN Red List Partners are: [Arizona State University](#); [BirdLife International](#); [Botanic Gardens Conservation International](#); [Conservation International](#); [NatureServe](#); [Royal Botanic Gardens, Kew](#); [Sapienza University of Rome](#); [Texas A&M University](#); and [Zoological Society of London](#).