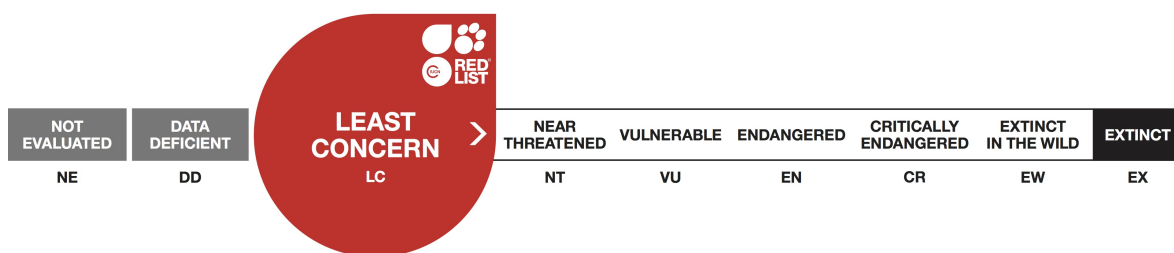




## *Epinephelus socialis*, Surge Grouper

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



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**Citation:** Myers, R., Suharti, S., Pollard, D.A., Choat, J.H., Law, C., Samoilys, M., To, A., Nair, R., Ma, K., Amorim, P., Russell, B. & Rhodes, K. 2018. *Epinephelus socialis*. The IUCN Red List of Threatened Species 2018: e.T132731A100468545. <http://dx.doi.org/10.2305/IUCN.UK.2018-2.RLTS.T132731A100468545.en>

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## Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Actinopterygii	Perciformes	Epinephelidae

**Taxon Name:** *Epinephelus socialis* (Günther, 1873)

### Synonym(s):

- *Epinephelus socialis* (Günther, 1873)
- *Serranus socialis* Gunther, 1873

### Common Name(s):

- English: Surge Grouper
- French: Merou Houleux
- Spanish: Mero Oleado

## Assessment Information

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

**Year Published:** 2018

**Date Assessed:** November 21, 2016

### Justification:

*Epinephelus socialis* is widely distributed and inhabits shallow coral reefs around islands (many of which are remotely located). Little is known on its population, but is thought to be naturally uncommon. It is taken by subsistence fishers in parts of its range, but this is not known to be a major threat on a global level. It is therefore listed as Least Concern, with a recommendation to prioritize research on potential impacts to its population from habitat degradation and/or fishing. 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 – Near Threatened (NT)

<http://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T132731A3435228.en>

## Geographic Range

### Range Description:

This species is widely distributed in coral reef islands from southern Japan to the Pitcairn Islands (Randall and Heemstra 1991), including the following island localities: Ogasawara Islands (Chiji-jima), Marcus Island, Northern Mariana Islands (Pagan), Marshall Islands (Enewetak, Bikini, Rongerik, Rongelap), Kiribati (Phoenix Islands: Canton), Tuvalu, Line Islands (Fanning, Jarvis, Palmyra, Malden), American Samoa (Rose Atoll), Cook Islands (Rarotonga, Tongareva, Palmerston); Society Islands (Tahiti), Tuamotu Islands (Raroia, Rangiroa, Makatea, Mururoa), Gambier Islands, Ilots de Bass (Marotiri), Rapa,

and Pitcairn Islands (Henderson, Ducie). It is not reported from Melanesia (New Caledonia, Vanuatu, Solomon Islands, Fiji, Tonga), the Caroline Islands or the southern portions of the Mariana and Marshall Islands. Its depth range is zero to 10 metres.

**Country Occurrence:**

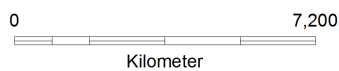
**Native:** American Samoa; Cook Islands; French Polynesia; Japan; Kiribati; Marshall Islands; Northern Mariana Islands; Pitcairn; Samoa; Tokelau; Tuvalu; United States Minor Outlying Islands (Howland-Baker Is., US Line Is.)

**FAO Marine Fishing Areas:**

**Native:** Pacific - western central, Pacific - northwest, Pacific - eastern central, Pacific - southwest

# Distribution Map

*Epinephelus socialis*



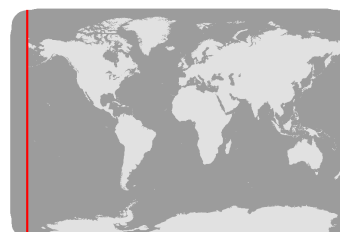
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

## 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

Population data are limited for this species, with no specific information on its population density other than anecdotal observations strongly suggesting that it is more abundant at coral atolls than at high islands (Randall and Heemstra 1991) and that its population density is naturally low. During many weeks of extensive sampling in the Marshall Islands in the late 1940s, Schultz (in Schultz *et al.* 1953) listed 18 specimens collected and stated that “it never occurred in abundance” and “usually only one or two were collected during several hours work”. During six weeks of intensive fishing in shallow to deep lagoon environments at Enewetak Atoll, one of the assessors (RM) observed only a single individual in a reef rock tidal pool, and during five days of shallow reef surveys at Pagan, Northern Mariana Islands, only one was observed and collected, notably from a surge channel in the only developed carbonate platform on the young volcanic island. It is also noteworthy that the species remains unknown from the remainder of the Mariana Islands as well as from the southerly portion of the Marshall Islands, both regions where major population centers are located.

**Current Population Trend:** Unknown

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

This species specifically inhabits the shallow part of coral reef flats exposed to wave action. It is not considered to be dependent on live coral cover. Most records are from less than three metres depth, but can occur to 10 metres. Its maximum total length is 52 cm, but typically occurs to less than 35 cm. It feeds on fish and benthic invertebrates (crustaceans, octopus). Information on its reproductive biology is very limited.

**Systems:** Marine

## Use and Trade

This species is taken by fishers for subsistence, but is probably not fit for human consumption in parts of its range due to risk for ingesting ciguatera toxins.

## Threats (see Appendix for additional information)

Subsistence fishing may be a localized threat on islands with high human densities, but this is not known to be a major threat on a global level. In some highly populated islands (e.g., Tahiti, Tarawa), runoff pollution and coastal development may cause degradation of the shallow reefs that this species inhabits.

## Conservation Actions

There are no species-specific conservation measures. Research is needed on its population, life history and potential impact from fishing pressure.

## Credits

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

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

**Facilitators(s) and  
Compiler(s):** Bullock, R.W.

## 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.

IUCN. 2018. The IUCN Red List of Threatened Species. Version 2018-2. Available at: [www.iucnredlist.org](http://www.iucnredlist.org). (Accessed: 15 November 2018).

Randall, J.E. and Heemstra, P.C. 1991. Revision of the Indo-Pacific groupers: (Perciformes: Serranidae: Epinephelinae): with descriptions of five new species. *Indo-Pacific Fishes* 20: 1-332.

Schultz, L.P., Herald, E.S., Lachner, E.A., Welander, A.D. and Woods, L.P. 1953. Fishes of the Marshall and Marianas Islands. Vol. I. Families from Asymmetriontidae through Siganidae. *Bulletin of the United States Museum* No. 202(1): 1-685.

## Citation

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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
1. Residential & commercial development -> 1.1. Housing & urban areas	Ongoing	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
1. Residential & commercial development -> 1.3. Tourism & recreation areas	Ongoing	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
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		
9. Pollution -> 9.1. Domestic & urban waste water -> 9.1.1. Sewage	Ongoing	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		

9. Pollution -> 9.3. Agricultural & forestry effluents -> 9.3.2. Soil erosion, sedimentation	Ongoing	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		



## Appendix

### Research Needed

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

<b>Research Needed</b>
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.3. Life history & ecology
1. Research -> 1.5. Threats

### Additional Data Fields

<b>Distribution</b>
Lower depth limit (m): 10
Upper depth limit (m): 0
<b>Population</b>
Population severely fragmented: Unknown

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