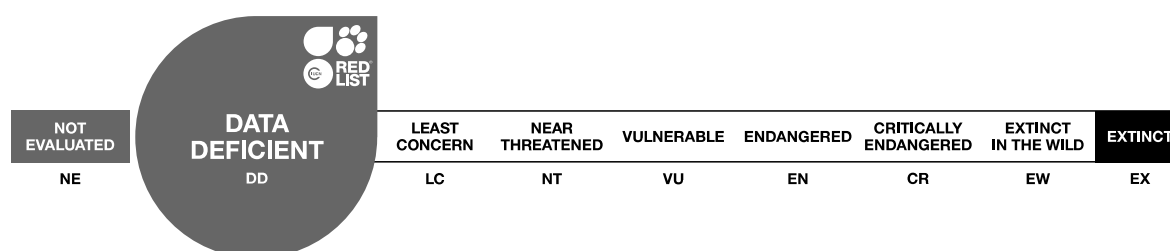


Acanthistius patachonicus, Patagonian Grouper

Assessment by: Irigoyen, A., Riestra, C., Buratti, C., Díaz de Astarloa, J., Hüne, M., Landaeta, M. & Vieira, J.P.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Actinopterygii	Perciformes	Serranidae

Scientific Name: *Acanthistius patachonicus* (Jenyns, 1840)

Synonym(s):

- *Plectropoma patachonica* Jenyns, 1840

Common Name(s):

- English: Patagonian Grouper
- Spanish; Castilian: Mero

Taxonomic Source(s):

Fricke, R., Eschmeyer, W.N. and Van der Laan, R. (eds). 2020. Eschmeyer's Catalog of Fishes: genera, species, references. Updated 02 March 2020. Available at: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>.

Taxonomic Notes:

Acanthistius patachonicus and *A. brasilianus* have been confused in the past, but are confirmed as separate species. *Acanthistius brasilianus* does not occur in Argentine waters (Irigoyen *et al.* 2008, 2010).

Assessment Information

Red List Category & Criteria: Data Deficient [ver 3.1](#)

Year Published: 2020

Date Assessed: December 6, 2019

Justification:

This rocky reef species has a relatively small range from southern Brazil to central Argentina. It is long-lived and the estimated generation length is 28.5 years. Large commercial fisheries targeted spawning aggregations of this species in the 1980s and 1990s until abundance steeply declined to the point where the market was no longer viable and at least four large areas where spawning aggregations were heavily depleted. Currently, it continues to be targeted by artisanal and industrial fisheries. The implementation of effective fishing area closures, both permanent and seasonal, in the El Rincón area is considered to provide a high level of protection for half of the global population of this species. According to fisher interviews, some level of population decline occurred within the past 40 years, or over a little more than one generation length ago. The lack of fisheries data, including a stock assessment, and the low level of understanding of the status of historical and current spawning aggregations prevents the estimation of percent population decline at this time. A secondary threat may be the reduction of habitat quality due to the invasive alga *Undaria pinnatifida* on shallow reefs, which has spread through much of its range. It is listed as Data Deficient with a strong recommendation to improve fishery monitoring and to conduct studies on spawning aggregations.

Geographic Range

Range Description:

This species occurs in the southwestern Atlantic from 23°S off southern Brazil to 48°S slightly south of the San Jorge Gulf in Argentina. In Brazil, the species is rare and its occurrence is associated with the Malvinas Current (Figueiredo and Menezes 1980, Carvalho-Filho 1999, Irigoyen *et al.* 2008). The depth range is 0-130 metres. This species is confused with *Acanthistius brasilianus* in the literature.

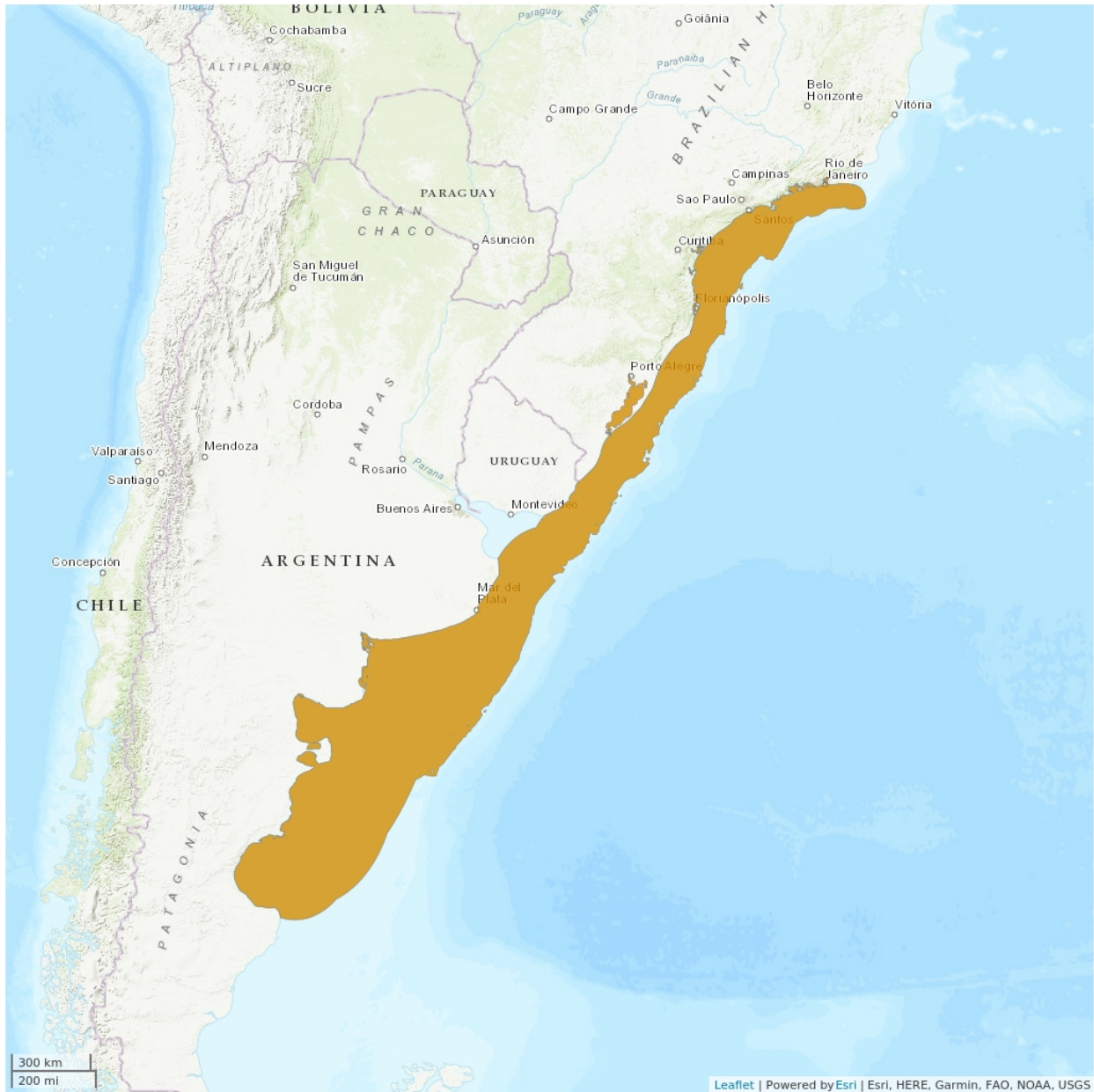
Country Occurrence:

Native, Extant (resident): Argentina; Brazil; Uruguay

FAO Marine Fishing Areas:

Native: Atlantic - southwest

Distribution Map

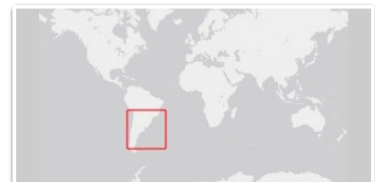
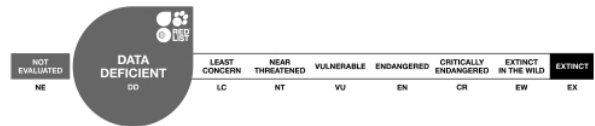


Legend

■ EXTANT (RESIDENT)

Compiled by:

IUCN Marine Biodiversity Unit/GMSA 2020



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 can be locally abundant in Argentina, including the San Matías Gulf to Comodoro Rivadavia and the northern coast around 38°S. Its maximum abundance is between 40° to 45°S. It is very rare in southern Brazil (Figueiredo and Menezes 1980, Carvalho-Filho 1999, Irigoyen *et al.* 2008). According to interviews of captains, spawning aggregations were directly targeted by very large commercial fishing vessels in the 1980s and 1990s and the fish were exported to Nigeria. Due to overexploitation, four large areas where spawning aggregations occur were heavily depleted and the market then ceased to exist. The total number of spawning aggregations that existed prior to targeted fishing is not known. In addition, the remaining existence or status of spawning aggregations is poorly understood due to the lack of scientific investigation. No stock assessments have been conducted. Catch of this species in the Mar del Plata trap fishery was stable from about 1996 to 2011. In the present day, artisanal and industrial fishing fleets continue to target this species. From 1986 to 2020, an average of 300 t of this species were taken per spawning season by an artisanal wicker trap fishery in Claromecó. According to interviews of industrial fishers (mostly trawlers), catch per unit effort declined over the past 40 years, or since the 1980s. According to long term data collected during recreational angling competitions, catch per unit effort of this species has declined over time (Venerus and Cedrola 2017). The steepest population decline likely occurred in the 1980s, but the collection of fishery data did not begin until 1996, and the lack of population data does not allow for an estimation of percent decline at this time. Due to effective fishing area closures in El Rincón, about 50% of its global population is considered well-protected. Overall, fishing effort in the coastal, commercial fisheries has declined since the implementation of fishing regulations in 2009 and 2010. According to fishery independent surveys conducted in the El Rincón area from 1994 to 2012, density of this species declined over time, but some increases were recorded from 2008 to 2012 (Ruarte *et al.* 2017).

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

This demersal species inhabits nearshore rocky reefs. It forms seasonal spawning aggregations near reef. The maximum total length is 65 cm (Irigoyen *et al.* 2008). It primarily consumes polychaetes, crabs and fishes (Galván *et al.* 2009). Longevity is at least 48-50 years and length and age at first maturity is about length of first maturity is 29 cm and 8 years (Dell'Arciprete *et al.* 1987, Cornejo *et al.* 2013, C. Riestra pers. comm. 2020). An estimate of natural mortality is not yet available. When applying an age at first reproduction of 8 years and longevity of 49 years, its estimated generation length is 28.5 years based on the following equation recommended by the IUCN Red List methods: $\text{Age at first reproduction} + (\text{Age at last reproduction} - \text{age at first reproduction})/2$.

Systems: Marine

Use and Trade

This species is targeted by artisanal, industrial and recreational fishers. It is taken by trawling, trap and long line and recreationally by hook and line and spear fishing (Irigoyen *et al.* 2008). It is also taken as bycatch in red shrimp (*Pleoticus muelleri*) trawl fisheries and fisheries targeting the Argentine hake (*Merluccius hubbsi*) (MAGyP 2020). It is taken as part of the multi-species and multi-fleet coastal fisheries of Argentina (Ruarte *et al.* 2017).

Threats (see Appendix for additional information)

Overfishing is a major threat to this species. The invasive, non-native alga *Undaria pinnatifida* has been found to reduce the quality of rocky reef habitat and reduced abundance of this species has been observed in areas with high densities of this algae (Irigoyen *et al.* 2011).

Conservation Actions (see Appendix for additional information)

In El Rincón, one area is closed to fishing in spring and summer (Resolution Consejo Federal Pesquero N° 27/2009 and N° 2/2010). There is a second, permanently closed area to bottom trawling in the southern part in place since 1997, and over the years, the closed area has increased in size (Consejo Federal Pesquero Resolution N° 6/1997 y la Disposición Provincial S.P. N° 136/1997; Res. SAGPyA N° 484/2004 -; Res. SAGPyA N° 972/2004, Res. SAGPyA 90/2005; Res. CFP N° 26/2009; Res. CFP N°9/2014; Res. CFP N° 10/2017; Res.CFP N° 7/2018). This is considered to cover 50% of its global population. In Buenos Aires Province, recreational fishing regulations includes a daily bag limit for capture of this species (Venerus and Cedrola 2017).

Research needs include mapping and determining the status of spawning aggregations. At least one study is underway to investigate aggregations in El Rincón. It is also recommended to improve collection of fishery statistics, including the artisanal fishery catches in Buenos Aires and recreational fishing catches, and to conduct a stock assessment. INIDEP researchers currently have studies underway on the fishery and life history of this species.

Credits

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Authority/Authorities: IUCN SSC Grouper and Wrasse Specialist Group

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Citation

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External Resources

For [Supplementary Material](#), and 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

Use and Trade

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

End Use	Local	National	International
Food - human	No	Yes	No

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	Majority (50-90%)	Causing/could cause fluctuations	Medium impact: 6
	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	Majority (50-90%)	Slow, significant declines	Medium impact: 6
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.4. Unintentional effects: (large scale) [harvest]	Ongoing	Majority (50-90%)	Causing/could cause fluctuations	Medium impact: 6
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.1. Unspecified species	Ongoing	Unknown	Unknown	Unknown
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		

Conservation Actions in Place

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

Conservation Action in Place
In-place land/water protection
Occurs in at least one protected area: Yes

Conservation Actions Needed

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

Conservation Action Needed
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 -> 1.2. 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): 130
Upper depth limit (m): 0
Habitats and Ecology
Generation Length (years): 28.5

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