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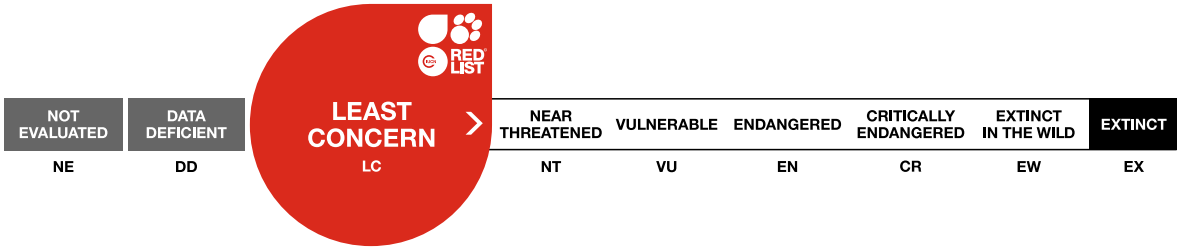
Scope(s): Global
Language: English

Bathyraja magellanica, Magellan Skate

Assessment by: Pollom, R., Dulvy, N.K., Acuña, E., Bustamante, C., Chiaramonte, G.E., Cuevas, J.M., Herman, K., Pompert, J. & Velez-Zuazo, X.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Chondrichthyes	Rajiformes	Arhynchobatidae

Scientific Name: *Bathyraja magellanica* (Philippi, 1902)

Synonym(s):

- *Raja magellanica* Philippi, 1902
- *Rhinoraja magellanica* (Philippi, 1902)

Common Name(s):

- English: Magellan Skate
- Spanish; Castilian: Raya Atigrada

Taxonomic Source(s):

Fricke, R., W.N. Eschmeyer and R. Van der Laan (eds.). 2020. Eschmeyer's catalog of fishes: Genera, species, references. Available at: http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp. (Accessed: March 2020).

Taxonomic Notes:

Compagno (1999, 2005) reallocated this species from *Bathyraja* to the genus *Rhinoraja* but the validity of this move remains unconfirmed. Both are currently in use, until a definitive systematic revision of these genera is conducted.

Assessment Information

Red List Category & Criteria: Least Concern ver 3.1

Year Published: 2020

Date Assessed: February 7, 2019

Justification:

The Magellan Skate (*Bathyraja magellanica*) is a medium-sized (to 105 cm total length) skate that occurs in the Southeast Pacific Ocean from Puerto Montt, Chile to Cape Horn and in the Southwest Atlantic Ocean from San Matías Gulf to Tierra del Fuego, Argentina, off the Falkland Islands (Malvinas), and on the Burdwood Bank. It is demersal on the continental shelf and slope at depths of 30–600 m. It is captured in demersal trawl fisheries, however it has some refuge at depth and the population trend is suspected to be stable. Therefore, the Magellan Skate is assessed as Least Concern.

Previously Published Red List Assessments

2018 – Data Deficient (DD)
https://dx.doi.org/10.2305/IUCN.UK.2007.RLTS.T63143A136601903.en

2007 – Data Deficient (DD)
https://dx.doi.org/10.2305/IUCN.UK.2007.RLTS.T63143A12622783.en

Geographic Range

Range Description:

The Magellan Skate occurs in the Southeast Pacific Ocean from Puerto Montt, Chile to Cape Horn (Bustamante *et al.* 2014) and in the Southwest Atlantic Ocean from San Matías Gulf to Tierra del Fuego, Argentina, off the Falkland Islands (Malvinas), and on the Burdwood Bank (Last *et al.* 2016).

Country Occurrence:

Native, Extant (resident): Argentina; Chile; Falkland Islands (Malvinas)

FAO Marine Fishing Areas:

Native: Atlantic - southwest

Native: Pacific - southeast

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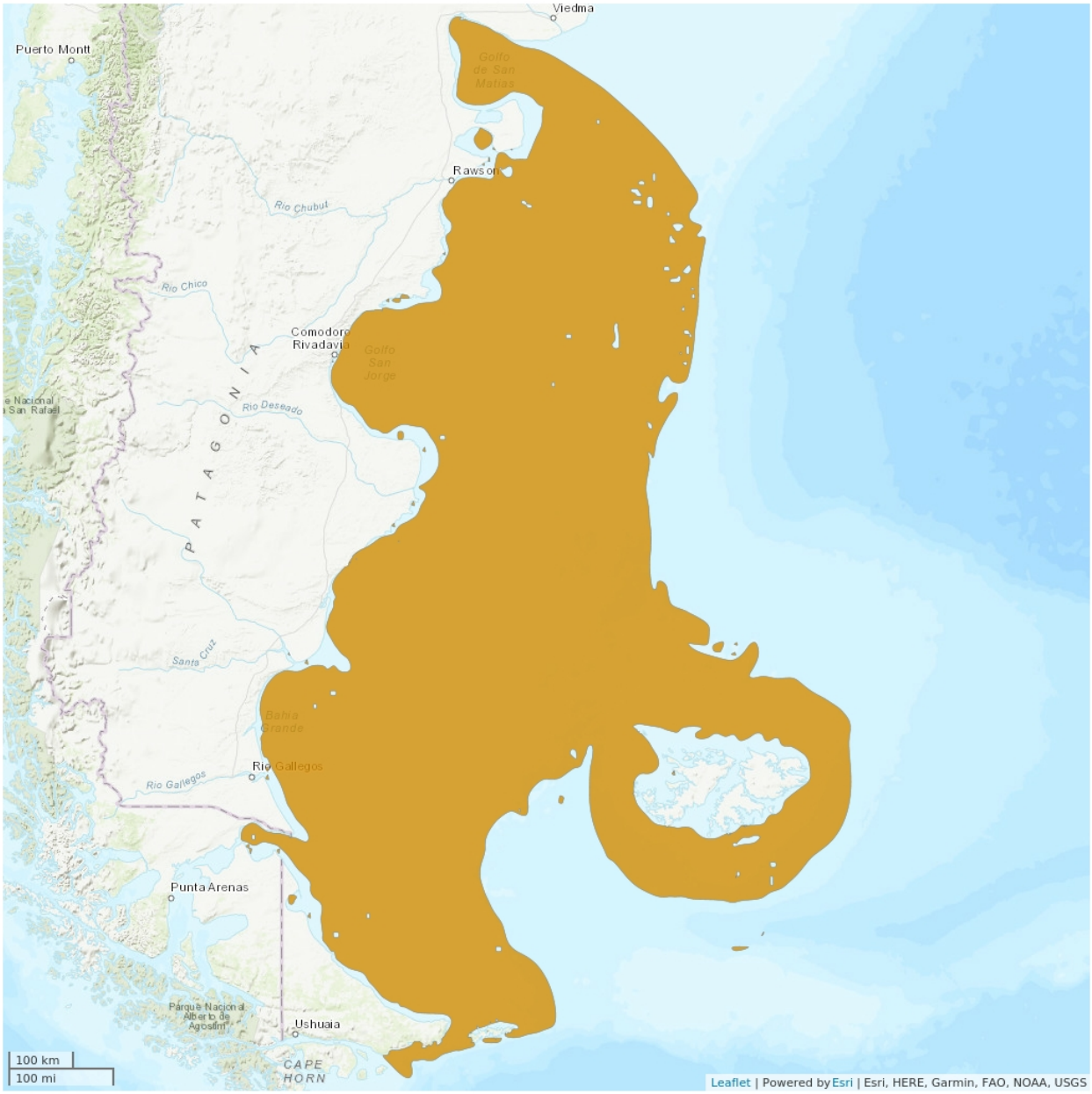
Distribution Map



Legend

EXTANT (RESIDENT)

Compiled by:

IUCN SSC Shark Specialist Group 2018

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

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Population

There are no population size estimates for this skate. Although it is subjected to inadequately managed fishing pressure across much of its range, it has some refuge at depth. Fisheries are not likely to have caused a substantial population reduction, and the population is suspected to be stable.

Current Population Trend: Stable

Habitat and Ecology (see Appendix for additional information)

The Magellan Skate is demersal on the continental shelf and slope at depths of from 30 to 600 m (Last *et al.* 2016, Weigmann 2016). It reaches a maximum size of 105 cm total length (TL) (Weigmann 2016); females mature at 64 cm TL and males at 65 cm TL (Scenna and Díaz de Astarloa 2014). As in other skates, reproduction is oviparous (Last *et al.* 2016).

Systems: Marine

Use and Trade

In the Southwest Atlantic, skates larger than ~30 cm disc width are typically utilized or exported for human consumption (Laptikhovsky 2004). In the Southeast Pacific, this species is not known to be utilized and is discarded dead in Chile. Korean buyers there prefer long-nosed dark-bellied skates (*Dipturus* spp.) rather than the white-bellied (*Bathyraja* spp.) skates.

Threats (see Appendix for additional information)

This skate is captured in demersal trawl and longline fisheries.

In the Southeast Pacific, it is captured rarely in the targeted Yellownose Skate (*Dipturus chilensis*) fishery, which operates at depths of 30–300 m. There is also a deepwater crustacean fishery operating between 280 and 474 m (E. Acuña unpubl. data 2019). Trawl and longline fisheries targeting Chilean Hake (*Merluccius australis*) operate there at depths of 50–300 m (Mateo *et al.* 2019) and likely capture this skate.

In the Southwest Atlantic in Argentina, this skate is captured in the Argentine Hake (*Merluccius hubbsi*) trawl fishery (Crespi-Abril *et al.* 2013). Most of these fisheries operate only to depths of ~200 m; the deepest is the Falkland Islands (Malvinas) target skate fishery, which does not typically fish deeper than 400 m (Winter *et al.* 2015). Overall, this skate is subjected to fishing pressure that is inadequately managed across much of its range, but it has some refuge at depth.

In the Falkland Islands (Malvinas), it is captured in low numbers in the multi-species targeted skate fishery that is not managed at the species level (Winter *et al.* 2015). It is also caught there as bycatch in the trawl fishery targeting Patagonian Longfin Squid (*Doryteuthis gahi*). Although larger skates are often retained in this fishery, discarding of smaller individuals is common; in one study three of five discarded individuals survived, indicating a relatively high post-release survival (Laptikhovsky 2004).

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Conservation Actions (see Appendix for additional information)

There are no species-specific protections or conservation measures in place for the Magellan Skate. In Chile, the target skate fishery is regulated through reference points and an annual total allowable catch (TAC) for the target Yellownose Skate (70 t in 2018), with no further species-specific measures in place (Mateo *et al.* 2019). The Chilean Hake fishery there is certified by the Marine Stewardship Council, however there are again no species-specific bycatch measures in place. Regulations and management tools need to be species-specific due to differing life histories and abundance patterns between the targeted species and other species caught as bycatch such as this.

In Argentina, there are theoretically TACs, minimum sizes and overall annual quotas for skates, however, little attention is paid to these and there is no regular monitoring by authorities (G. Chiaramonte unpubl. data 2019). Species-specific assessments of target and bycatch are a priority.
The Falkland Islands (Malvinas) multispecies skate fishery is managed by limiting fishing effort. The effort that each vessel is likely to exert is calculated (based on size, duration of licence and past fishing history) and, since 1994, only a limited number of licences are granted to ensure that the total allowable effort (determined from assessments of stock status) is not exceeded. Stock status assessments are not, however, species-specific and a sustainable total allowable effort for the entire stock may not translate to sustainable levels of effort for individual species (Agnew *et al.* 2000). Following declines in skate CPUE in the early 1990s, in 1996, the southern area (below 52°S) was closed to rajid fishing and the fishery is now restricted to the area north of the islands. This closure is extended to 50°30'S (between 56°30W and 58°W) during the second season of each year to exclude the skate fishing fleet from Patagonian Longfin Squid (*Doryteuthis gahi*) fishing grounds (Agnew *et al.* 2000). All licensed vessels there are required to provide daily catch and effort details, including discards of commercial and non-commercial species to the Falkland Island Fisheries Department. There is, however, no requirement to report species-specific information. Scientific observers are deployed onboard vessels in order to quantify the catch composition by species and to obtain detailed biological data on individual species (Winter *et al.* 2015).

Further research is needed on life history, population size and trends, and threats. All fisheries should be monitored for bycatch at the species level.

Credits

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Authority/Authorities: IUCN SSC Shark Specialist Group (sharks and rays)

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Citation

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Disclaimer

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
9. Marine Neritic -> 9.3. Marine Neritic - Subtidal Loose Rock/pebble/gravel	Resident	Suitable	Yes
9. Marine Neritic -> 9.4. Marine Neritic - Subtidal Sandy	Resident	Suitable	Yes
9. Marine Neritic -> 9.5. Marine Neritic - Subtidal Sandy-Mud	Resident	Suitable	Yes
9. Marine Neritic -> 9.6. Marine Neritic - Subtidal Muddy	Resident	Suitable	Yes
11. Marine Deep Benthic -> 11.1. Marine Deep Benthic - Continental Slope/Bathyl Zone (200-4,000m)	-	-	-

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 -> 5.4.2. Intentional use: (large scale) [harvest]	Ongoing	Minority (50%)	No decline	Low impact: 4
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.4. Fishing & harvesting aquatic resources -> 5.4.3. Unintentional effects: (subsistence/small scale) [harvest]	Ongoing	Minority (50%)	No decline	Low impact: 4
	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	Minority (50%)	No decline	Low impact: 4
	Stresses:	2. Species Stresses -> 2.1. Species mortality		

Conservation Actions in Place

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

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Conservation Action in Place
In-place research and monitoring
Action Recovery Plan: No
Systematic monitoring scheme: No
In-place land/water protection
Conservation sites identified: No
Area based regional management plan: No
Occurs in at least one protected area: Unknown
Invasive species control or prevention: Not Applicable
In-place species management
Harvest management plan: No
Successfully reintroduced or introduced benignly: No
Subject to ex-situ conservation: No
In-place education
Subject to recent education and awareness programmes: No
Included in international legislation: No
Subject to any international management / trade controls: No

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
1. Research -> 1.4. Harvest, use & livelihoods
1. Research -> 1.5. Threats
3. Monitoring -> 3.1. Population trends
3. Monitoring -> 3.2. Harvest level trends

Additional Data Fields

Distribution
Lower depth limit (m): 600
Upper depth limit (m): 30

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.