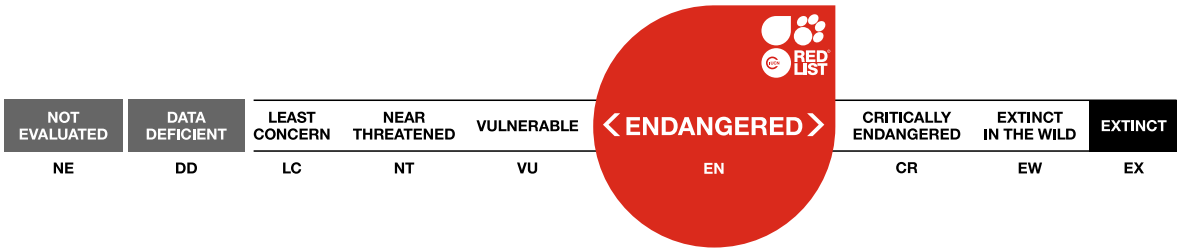
The IUCN Red List of Threatened Species™
ISSN 2307-8235 (online)
IUCN 2020: T63110A3118881
Scope(s): Global
Language: English

Atlantoraja platana, La Plata Skate

Assessment by: Pollom, R. *et al.*



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Short citation: Pollom, R. *et al.* 2020. *Atlantoraja platana*. *The IUCN Red List of Threatened Species* 2020: e.T63110A3118881. https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T63110A3118881.en [see full citation at end]

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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Chondrichthyes	Rajiformes	Arhynchobatidae

Scientific Name: *Atlantoraja platana* (Günther, 1880)

Synonym(s):

- *Raja platana* Günther, 1880

Common Name(s):

- English: La Plata Skate, Raya platana
- Spanish; Castilian: Empalastro, Oscura, Platana, Raya Oscura

Taxonomic Source(s):

Fricke, R., Eschmeyer, W.N. and Van der Laan, R. (eds). 2020. Eschmeyer's Catalog of Fishes: genera, species, references. Updated 14 September 2020. Available at: http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp.

Assessment Information

Red List Category & Criteria: Endangered A2bd ver 3.1

Year Published: 2020

Date Assessed: July 1, 2019

Justification:

The La Plata Skate (*Atlantoraja platana*) is a medium-sized (to 91 cm total length) skate that occurs in the Southwest Atlantic from Espírito Santo, Brazil to Chubut, Argentina. It inhabits clay, mud, and sand substrates on the continental shelf and upper slope from inshore to 320 m depth. This skate is captured in intensive and largely unmanaged demersal trawl fisheries throughout its range. In southern Brazil, this skate is subjected to intense industrial and artisanal fishing pressure and it is suspected that this has led to declines in abundance there. In Argentina, reported landings of skates in general increased from 900 t in 1993 to a peak of 28,000 t in 2007, and then declined to 24,000 t in 2009–2010. It is smaller-bodied than the Critically Endangered congeneric Spotback Skate (*Atlantoraja castelnaui*), and by comparison is suspected to be less sensitive to fishing pressure. Although it is still common in catches, the combination of widespread intensive fishing pressure across its range, inadequate management measures, its high catchability, and declines in reported overall skate catches, it is suspected that the La Plata Skate has undergone a population reduction of 50–79% over the past three generations (40.5 years), and it is assessed as Endangered A2bd.

Previously Published Red List Assessments

2007 – Vulnerable (VU)
https://dx.doi.org/10.2305/IUCN.UK.2007.RLTS.T63110A12608554.en

Geographic Range

Range Description:

The La Plata Skate occurs in the Southwest Atlantic from Espírito Santo, Brazil to Chubut, Argentina (Last *et al.* 2016).

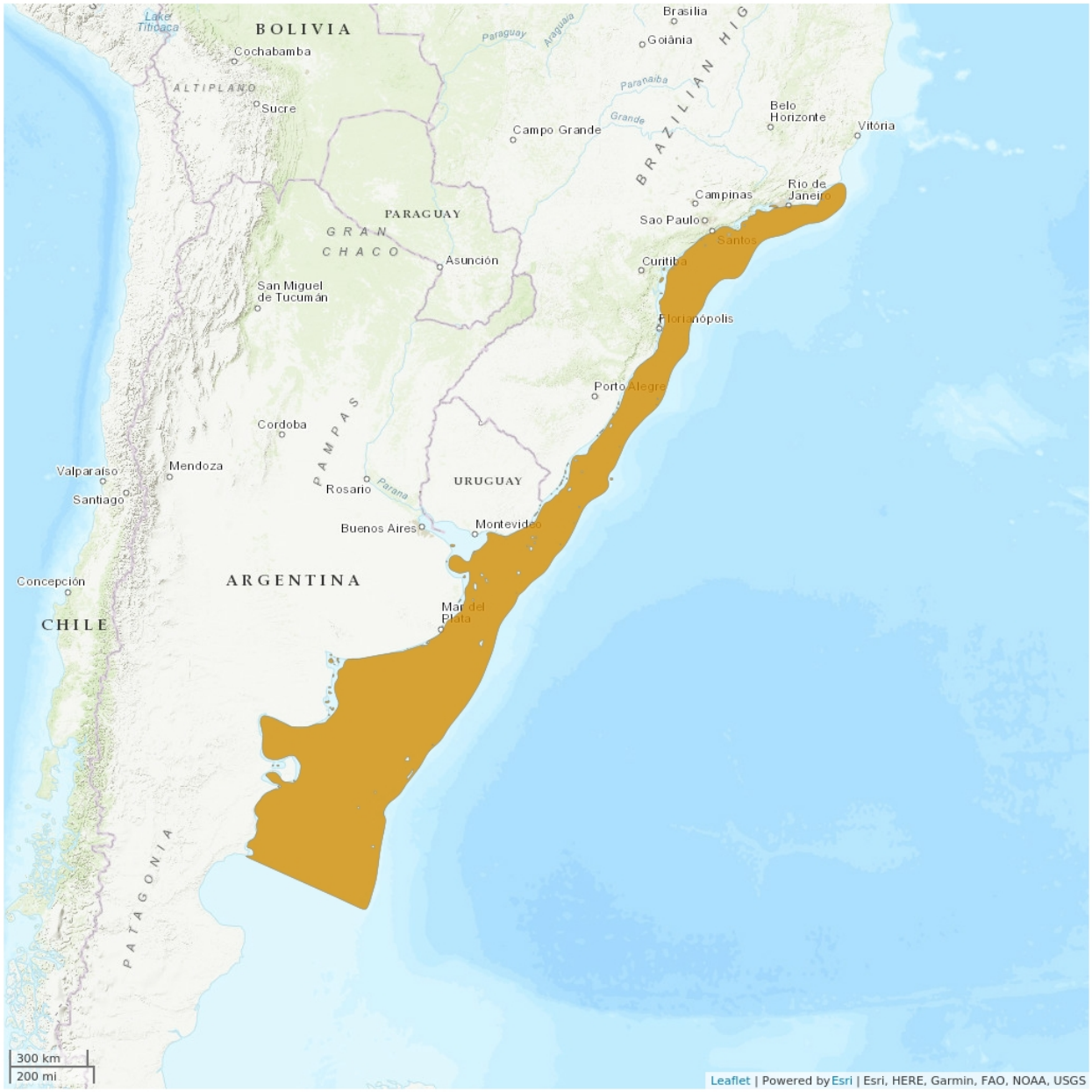
Country Occurrence:

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

FAO Marine Fishing Areas:

Native: Atlantic - southwest

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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https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T63110A3118881.en

Population

In southern Brazil, this skate is subjected to intense industrial and artisanal fishing pressure and it is suspected that this has led to declines in abundance. This species is caught rarely in Uruguay, and the coastal fleet there mostly captures its congeners and other skate species (CTMFM 2018). In Argentina, reported landings of skates in general increased from 900 t in 1993 to a peak of 28,000 t in 2007, and then declined to 24,000 t in 2009–2010 (Ministerio de Agricultura Ganadería y Pesca 2010, cited in Estalles *et al.* 2011). This species occured in 97% of these trawl landings between 2007 and 2009, comprising over 34% of relative abundance and over 41% of relative weight (Estalles *et al.* 2011). Trawl landings data for rays >90 cm total length in size from all of the Southwest Atlantic show a sharp increase in the 1990s and 2000s, from less than 1,000 t to a peak of nearly 4,000 t in 2007. Landings then declined to 1,000–1,500 t between 2008 and 2013 despite increased effort (Port *et al.* 2016, FAO 2019), equivalent to a population reduction of >99% if scaled over three generations (40.5 years). These reported landings data are not species-specific, but they do suggest a substantial increase in fishing pressure over the past several decades, and the more recent declines in landings may represent a reduction in population size. Although it is still common in catches, due to heavy fishing pressure across its range, inadequate management measures, its high catchability, and declines in reported overall skate landings, it is suspected that this species has undergone a population reduction of 50–79% over the past three generations (40.5 years).

Current Population Trend: Decreasing

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

The La Plata Skate is demersal on clay, mud, and sand substrates on the continental shelf and upper slope from inshore to 320 m depth (Last *et al.* 2016, Weigmann 2016). It reaches a maximum size of 91 cm total length (TL); females mature at 69–72 cm TL and males at 62–63 cm TL (Oddone and Amorim 2008, Last *et al.* 2016). As in other skates, reproduction is oviparous. This skate has an annual reproductive cycle, with an egg-laying season from January to September, that peaks in January (Peres and Vooren 1993). Generation length is estimated as 13.5 years, close to that of the related and similarly-sized Whitedotted Skate (*Bathyraja albomaculata*), which has an age-at-maturity of 10 years and a maximum age of 17 years (Henderson *et al.* 2005).

Systems: Marine

Use and Trade

This species is retained as a utilized bycatch and is sold locally or traded internationally to Asian markets for its meat (Casarini 2006, Dent and Clarke 2015).

Threats **(see Appendix for additional information)**

The La Plata Skate is captured in demersal trawl fisheries which are intensive throughout its range (Casarini 2006, Estalles *et al.* 2011, Port *et al.* 2016). In southern Brazil, the trawl fishery began in the 1960s and entered a period of rapid expansion in the 1990s and 2000s, resulting in over 650 vessels fishing at depths of 20–1,000 m (Port *et al.* 2016). In Uruguay, the industrial trawl fleet was developed in the late 1970s, and many stocks were over-exploited by the 1990s (Defeo *et al.* 2011). In Argentina, commercial fishing began in the late 1800s, became industrialized after World War II (Mateo 2006), and

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increased rapidly in the 1980s (Watson *et al.* 2006). By 1992 there were over 300 coastal trawlers. This number increased to over 400 in 2015, and the number of fishing trips undertaken by that fleet nearly doubled from over 7,600 to nearly 14,000 over that time frame. The overall number of fishing vessels in operation in Argentina has grown from under 300 in 1990 to nearly 1,000 in 2015 (Dirección Nacional de Planificación Pesquera, 2016). This skate is among the two most abundant batoids taken as bycatch there (Estalles *et al.* 2011). These fisheries are intense, they lack adequate management measures, and this skate does not have any refuge at depth. It is smaller and is likely to be more productive than the Critically Endangered congeneric Spotback Skate (*Atlantoraja castelnaui*), and therefore is likely to be less sensitive to fishing pressure than that species.

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

There are no species-specific protections or conservation measures in place for this skate. To conserve the population and permit recovery, a suite of measures will be required which will need to include species protection, spatial management, bycatch mitigation, and harvest management, all of which will be dependent on effective enforcement. Further research is needed on life history and population size and trends, and species-specific monitoring should be undertaken.

Credits

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

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https://dx.doi.org/10.2305/IUCN.UK.2020-3.RLTS.T63110A3118881.en

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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 -> 9.4. 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	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	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%)	Slow, significant declines	Medium impact: 6
	Stresses:	2. Species Stresses -> 2.1. Species mortality		

Conservation Actions in Place

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

Conservation Action in Place
In-place research and monitoring
Action Recovery Plan: No
Systematic monitoring scheme: No
In-place land/water protection

Conservation Action in Place
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

Conservation Actions Needed

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

Conservation Action Needed
1. Land/water protection -> 1.1. Site/area protection
3. Species management -> 3.1. Species management -> 3.1.1. Harvest management
3. Species management -> 3.1. Species management -> 3.1.2. Trade management
3. Species management -> 3.2. Species recovery
5. Law & policy -> 5.1. Legislation -> 5.1.2. National level
5. Law & policy -> 5.4. Compliance and enforcement -> 5.4.2. National level

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
2. Conservation Planning -> 2.1. Species Action/Recovery Plan
3. Monitoring -> 3.1. Population trends

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Research Needed
3. Monitoring -> 3.2. Harvest level trends
3. Monitoring -> 3.3. Trade trends

Additional Data Fields

Distribution
Lower depth limit (m): 320
Upper depth limit (m): 0
Habitats and Ecology
Generation Length (years): 13.5

The IUCN Red List Partnership

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