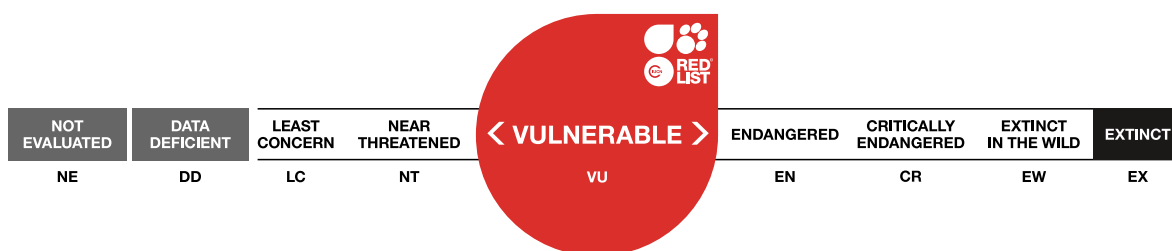


Dipturus leptocaudus, Thintail Skate

Assessment by: Pollom, R., Charvet, P., Chiaramonte, G.E., Cuevas, J.M., Herman, K., Paesch, L., Pompert, J. & Rincon, G.



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Chondrichthyes	Rajiformes	Rajidae

Scientific Name: *Dipturus leptocaudus* (Krefft & Stehmann, 1975)

Synonym(s):

- *Raja leptocauda* Krefft & Stehmann, 1975

Common Name(s):

- English: Thintail Skate
- Portuguese: Emplastro

Taxonomic Source(s):

Fricke, R., Eschmeyer, W.N. and Van der Laan, R. (eds). 2020. Eschmeyer's Catalog of Fishes: genera, species, references. Updated 03 August 2020. Available at: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp>.

Assessment Information

Red List Category & Criteria: Vulnerable A2d [ver 3.1](#)

Year Published: 2020

Date Assessed: July 1, 2019

Justification:

The Thintail Skate (*Dipturus leptocaudus*) is a medium-sized (to 88 cm total length) skate that occurs in the Southwest Atlantic from Santa Catarina, Brazil to Uruguay (and possibly Argentina). It inhabits the continental shelf and upper slope at depths of 10–550 m. It is captured in commercial deep-water trawl, longline, and gillnet fisheries, which operate throughout its known range. Little information is available regarding the amount of catches due to identification issues. *Dipturus* spp. were the most abundant elasmobranchs caught in the monkfish (*Lophius gastrophysus*) deep-water gillnet fishery off southern Brazil, which intensified in the 2000s. These industrial gillnet fisheries often also target skates, and have led to declines in other ecologically similar species such as angel sharks (*Squatina* spp.). *Dipturus* spp. were shown to be highly vulnerable to such fisheries in a productivity-susceptibility analysis. There are also deep-water trawlers operating in the area targeting shrimp and squid, which are intense. Overall, due to the presence of intense and inadequately managed trawl fisheries that operate throughout its range, it is suspected that the Thintail Skate has undergone a population reduction of 30–49% over the past three generations (21 years), and it is assessed as Vulnerable A2d.

Previously Published Red List Assessments

2004 – Data Deficient (DD)

<https://dx.doi.org/10.2305/IUCN.UK.2004.RLTS.T44644A10931422.en>

Geographic Range

Range Description:

The Thintail Skate occurs in the Southwest Atlantic and is known from Santa Catarina, Brazil to Uruguay and possibly Argentina (Gomes and Costa 2003, Menni and Lucifora 2007). It may have a wider distribution than currently known, as identification is problematic. The locality of Rio de Janeiro, cited in Last *et al.* (2016), is erroneous and likely arises from a supposed typographical error in the original description by Krefft and Stehmann (1975) (Gomes and Picado 2001).

Country Occurrence:

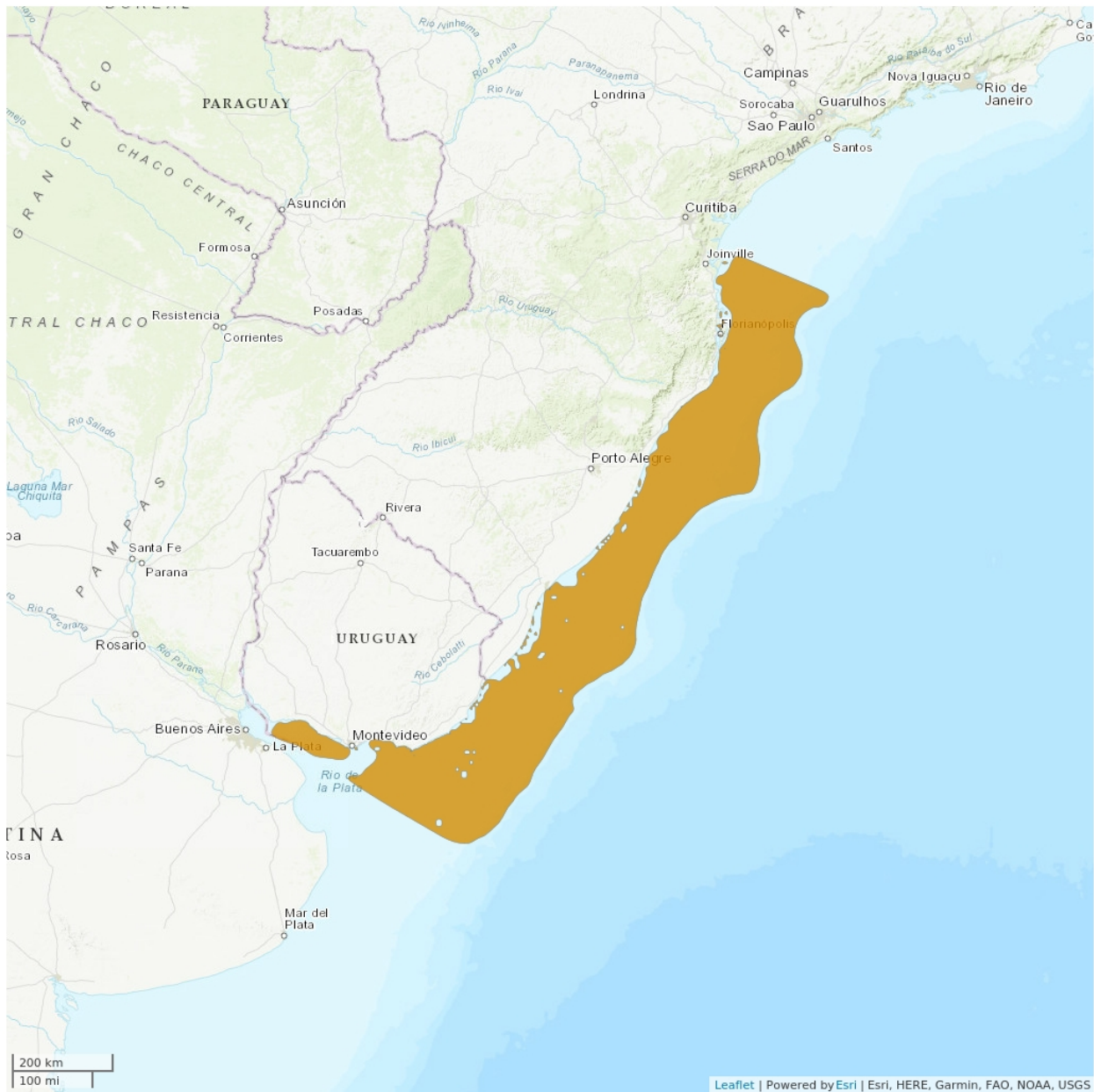
Native, Extant (resident): Brazil; Uruguay

Native, Possibly Extant (resident): Argentina

FAO Marine Fishing Areas:

Native: Atlantic - southwest

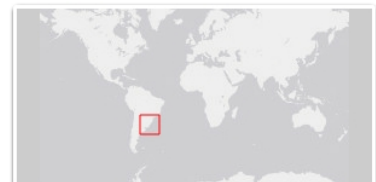
Distribution Map



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.



Population

In southern Brazil, fisheries are intense and are suspected to have led to declines in abundance there. In Uruguay, trawl landings are typically dominated by other skate species, but landings data are lumped into generic categories and management is not adequate; declines in abundance may have occurred there as a result. 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). Overall, due to the presence of intense and inadequately managed trawl fisheries that operate throughout its range and its lack of refuge at depth, it is suspected that the Thintail Skate has undergone a population reduction of 30–49% over the past three generations (21 years).

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

The Thintail Skate is benthic on the continental shelf and upper slope at depths of 10–550 m (Weigmann 2016). It reaches a maximum size of 88 cm total length (TL). Reproduction is oviparous and young hatch at 17 cm TL (Last *et al.* 2016). Generation length is suspected to be ~7 years, similar to that of the related Whitespotted Skate (*Dentiraja cerva*), which has an age-at-maturity of 5 years and a maximum age of 9 years (M.A. Treloar unpubl. data 2007). Little else is known of its biology.

Systems: Marine

Use and Trade

This skate is likely to be utilized as bycatch where caught, and is sometimes targeted. Other skates are consumed and sold locally, and in some cases are exported to Asia (Dent and Clarke 2015).

Threats (see Appendix for additional information)

This skate is captured in commercial and artisanal deep-water trawl, longline, and gillnet fisheries, which operate throughout its known range (Rincon *et al.* 2017). Little information is available regarding the amount of catches due to the difficulty in identifying this species: it is confused with other *Dipturus* spp. and also the Rio Skate (*Rioraja agassizii*) and Bignose Fanskate (*Sympterygia acuta*) (Last *et al.* 2016, Rincon *et al.* 2017). 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). Artisanal fisheries there are also intense, and 58% of stocks targeted by artisanal fishers were over-exploited by 2010, half of those being collapsed (Vasconcellos *et al.* 2011). *Dipturus* spp. were the most abundant elasmobranchs caught in the monkfish (*Lophius gastrophysus*) deep-water gillnet fishery off southern Brazil, which intensified in the 2000s (Perez and Wahrlich 2005). These industrial gillnet fisheries often target skates, and have led to declines in other ecologically similar species such as angel sharks (*Squatina* spp.) (Mafra Pio *et al.* 2016). *Dipturus* spp. were shown to be highly vulnerable to such fisheries in a productivity-susceptibility analysis (Visintin and Perez 2013). There are also deep-water trawlers operating in the area targeting shrimp and squid. Development of these fisheries was intense; the entire area fished for deep-water shrimp species was estimated to be swept nearly twice over a three-year period (2003–2006) (Dallagnolo *et al.* 2009). 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, Lorenzo *et al.* 2015). Trawl and gillnet fisheries also operate in Argentina and are intense in some areas. If this species does occur there, there is not likely much, if any, refuge from fishing. This skate is poorly known, and it may have a depth range deeper than is currently known and thus refuge at depth. Overall, as currently known, its range is subjected to intense and unmanaged fishing pressure, and it has no refuge at depth.

Conservation Actions (see Appendix for additional information)

There are no species-specific protections or conservation measures in place for the Thintail Skate. Further research is needed on taxonomy, distribution, life history and population size and trends.

Credits

Assessor(s): Pollom, R., Charvet, P., Chiaramonte, G.E., Cuevas, J.M., Herman, K., Paesch, L., Pompert, J. & Rincon, G.

Reviewer(s): Dulvy, N.K. & Kyne, P.M.

Facilitator(s) and Compiler(s): Kyne, P.M., Pollom, R., Charvet, P. & Dulvy, N.K.

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

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Citation

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External Resources

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Appendix

Habitats

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

Habitat	Season	Suitability	Major Importance?
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	Yes	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 -> 5.4.1. Intentional use: (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 -> 5.4.2. 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 -> 5.4.3. 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 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 -> 1.1. Taxonomy
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.3. Life history & ecology
1. Research -> 1.4. Harvest, use & livelihoods
3. Monitoring -> 3.1. Population trends
3. Monitoring -> 3.2. Harvest level trends
3. Monitoring -> 3.3. Trade trends

Additional Data Fields

Distribution
Lower depth limit (m): 550
Upper depth limit (m): 10
Habitats and Ecology
Generation Length (years): 7

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