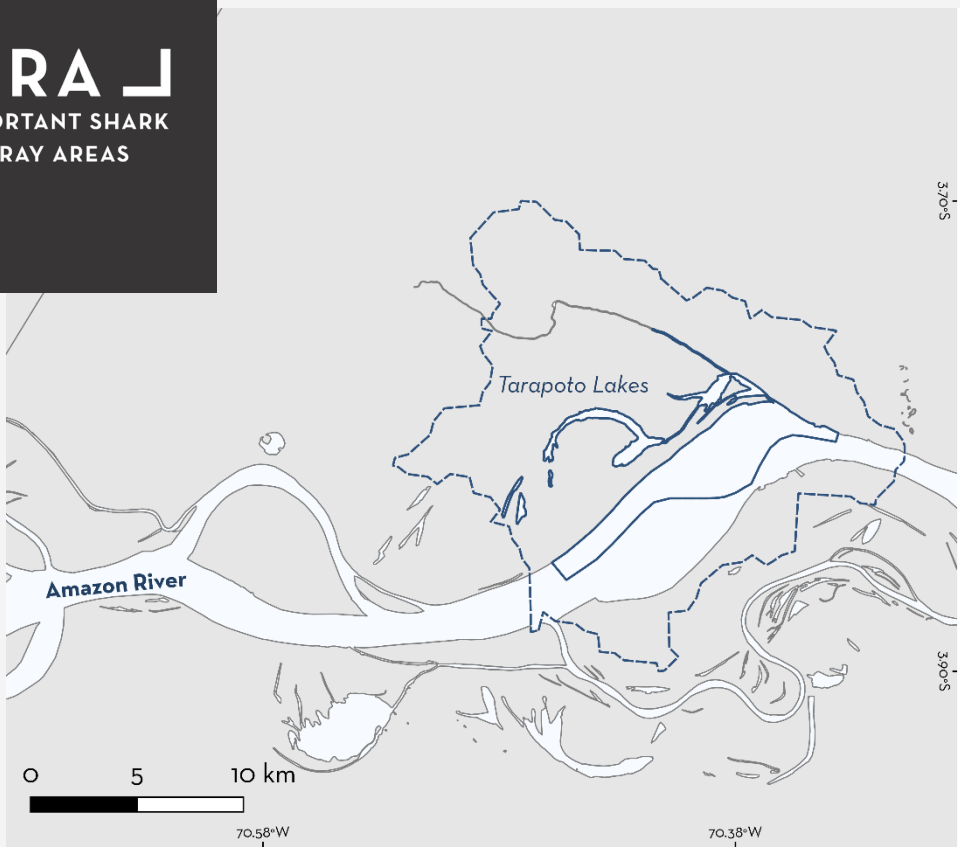
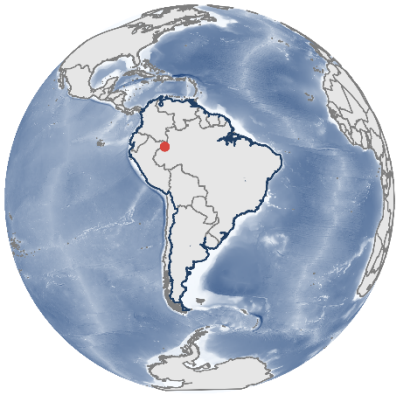
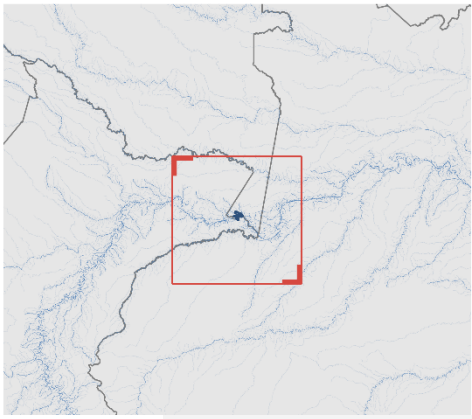
ISRA
IMPORTANT SHARK AND RAY AREAS







Blue lines indicate the area meeting the ISRA Criteria; dashed lines indicate the suggested buffer for use in the development of appropriate place-based conservation measures. Buffers for freshwater areas are determined based on hydroBASINS to capture watershed boundaries.

TARAPOTO LAKES ISRA

South American Inland Waters Region

COLOMBIA

0–14 metres

33.13 km²

SUMMARY

Tarapoto Lakes is located in the Amazonas department in southern Colombia. The area comprises a floodplain connected to the Amazon River and the Loretoyacú River and includes a system of six lakes (El Correo, Tarapoto Largo I, Tarapoto Largo II, Tarapoto Redondo, Chepetén, and Cocha Larga) interconnected via natural channels. The area is characterised by two main habitats: *várzea* forests flooded by whitewaters, and *igapó* forests flooded by blackwaters from the Loretoyacú River. It overlaps with the Complejo de Humedales Lagos de Tarapoto Ramsar site. Within this area there are: **threatened species** (e.g., Discus Ray *Paratrygon aiereba*); **range-restricted species** (e.g., Gomes's Round Ray *Heliotrygon gomesi*); and the area sustains a **high diversity of rays** (5 species).

CRITERIA

Criterion A – Vulnerability; Criterion B – Range Restricted;
Sub-criterion D2 – Diversity

DESCRIPTION OF HABITAT

Tarapoto Lakes is located in the Amazonas department of southern Colombia. It is situated next to Puerto Nariño city. The area comprises a floodplain with both lotic (standing waters such as lakes, ponds, swamps, or marshes) and lentic (fluvial or fluviatile) ecosystems, including the Loretoyacu and Amazonas rivers (Palma et al. 2014). It includes a system of six lakes (El Correo, Tarapoto Largo I, Tarapoto Largo II, Tarapoto Redondo, Chepetén, and Cocha Larga) interconnected via natural channels. These channels allow the mix with waters from the Amazon River and its tributaries (Amacayacú, Boyahuasú, and Loretoyacú; Páez-Vásquez et al 2018). Two main habitats are present in the area, *várzea* forests flooded by whitewaters from the Amazon River and *igapó* forests flooded by blackwaters from the Loretoyacú River (Moreno-Arocha 2014). The area is influenced by flooding that results in water level variations of up to 14 m (Moreno-Arocha 2014). As such, these habitats receive a high nutrient input during this season which increases productivity (Trujillo & Duque 2014). Flooding begins between November–January due to the precipitation in the high parts of the Amazon River. High waters are common between February–April when the surrounding forest is flooded and the lakes connect to the rivers. Between August–October, the water level decreases (Moreno-Arocha 2014). Water temperatures range between 26–30°C (Moreno-Arocha 2014).

The area overlaps with the Complejo de Humedales Lagos de Tarapoto Ramsar site (Ramsar 2025).

This Important Shark and Ray Area is benthic and is delineated from surface waters (0 m) to 14 m based on the bathymetry of the area.

ISRA CRITERIA

CRITERION A – VULNERABILITY

Three Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occur in the area. These are the Critically Endangered Discus Ray (Góes de Araújo et al. submitted); and the Vulnerable Gomes's Round Ray (Charvet et al. submitted) and Antenna Ray (Charvet et al. 2023).

CRITERION B – RANGE RESTRICTED

This area holds the regular presence of the Gomes's Round Ray, Antenna Ray, Dwarf Antenna Ray, and Whitespotted Freshwater Stingray as resident range-restricted species. These species are not common and have patchy distributions throughout their ranges (e.g., Charvet et al. 2023; Charvet et al. 2024). Between December 2013 and December 2014, individuals were recorded in monthly surveys from incidental catches in artisanal gillnet and handline fisheries operating in three locations across the whole portion (~100 km) of the Amazon River basin in Colombia (Acosta-Santos 2020). Additionally, between October and November 2018, individuals were collected during research surveys with artisanal longlines and gillnets in the area (Lasso et al. 2019).

Of the four Gomes's Round Ray recorded between 2013–2014 in the Colombian Amazon, all were collected in Tarapoto Lakes (Acosta-Santos 2020). In 2018, an additional four individuals were recorded in the area, confirming their regular presence (Lasso et al. 2019). Tarapoto Lakes is the only known location in Colombia where the species has been recorded (Lasso et al. 2019). This species is endemic to the Amazon basin, and in Colombia, only occurs in the Amazon River (DoNascimento et al. 2017; Bogotá-Gregory et al. 2022).

Of the five Antenna Ray recorded between 2013–2014 in the Colombian Amazon, four were collected in Tarapoto Lakes (Acosta-Santos 2020). In 2018, an additional ten individuals were recorded in the area, confirming their regular presence (Lasso et al. 2019). This species is endemic to the Amazon Basin and in Colombia it only occurs in the Amazon River and the Putumayo River, ~120 km north from the area (DoNascimento et al. 2017; Bogotá-Gregory et al. 2022).

The only Dwarf Antenna Ray recorded between 2013–2014 in the Colombian Amazon was collected in Tarapoto Lakes (Acosta-Santos 2020). In 2018, an additional two individuals were recorded in the area, confirming their regular presence (Lasso et al. 2019). Tarapoto Lakes is the only location in the Colombian Amazon where Dwarf Antenna Ray has been recorded regularly. This species is endemic to the Amazon Basin and in Colombia, only occurs in the Amazon River and in the Putumayo River (DoNascimento et al. 2017; Bogotá-Gregory et al. 2022).

Of the ten Whitespotted Freshwater Stingray recorded between 2013–2014 in the Colombian Amazon, five were collected in Tarapoto Lakes which was the location with the largest number of individuals recorded (Acosta-Santos 2020). In 2018, an additional three individuals were recorded in the area, confirming their regular presence (Lasso et al. 2019). Tarapoto Lakes is the only location in the Colombian Amazon where Whitespotted Freshwater Stingray has been regularly recorded. This species is endemic to the Amazon Basin and in Colombia, only occurs in the Amazon River (DoNascimento et al. 2017; Bogotá-Gregory et al. 2022).

SUB-CRITERION D2 – DIVERSITY

Tarapoto Lakes sustains a high diversity of Qualifying Species (five species). This exceeds the regional diversity threshold (three species) for the South American Inland Waters region. The regular presence of Qualifying Species has been documented through monitoring of artisanal fisheries and research surveys of individuals between 2013–2014 and 2018 (Lasso et al. 2019; Acosta-Santos 2020).

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QUALIFYING SPECIES

Scientific Name	Common Name	IUCN Red List Category	Global Depth Range (m)	ISRA Criteria/Sub-criteria Met								
				A	B	C1	C2	C3	C4	C5	D1	D2
RAYS												
Heliotrygon gomesi	Gomes's Round Ray	VU	0–14	X	X							X
Paratrygon aiereba	Discus Ray	CR	0–14	X								
Plesiotrygon iwamae	Antenna Ray	VU	0–14	X	X							
Plesiotrygon nana	Dwarf Antenna Ray	NT	0–14		X							
Potamotrygon scobina	Whitespotted Freshwater Stingray	NT	0–14		X							

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Potamotrygon constellata	Rough Freshwater Stingray	DD
Potamotrygon motoro	Ocellate Freshwater Stingray	LC
Potamotrygon orbignyi	Reticulate Freshwater Stingray	LC

IUCN Red List of Threatened Species Categories are available by searching species names at www.iucnredlist.org Abbreviations refer to: CR, Critically Endangered; EN, Endangered; VU, Vulnerable; NT, Near Threatened; LC, Least Concern; DD, Data Deficient.

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