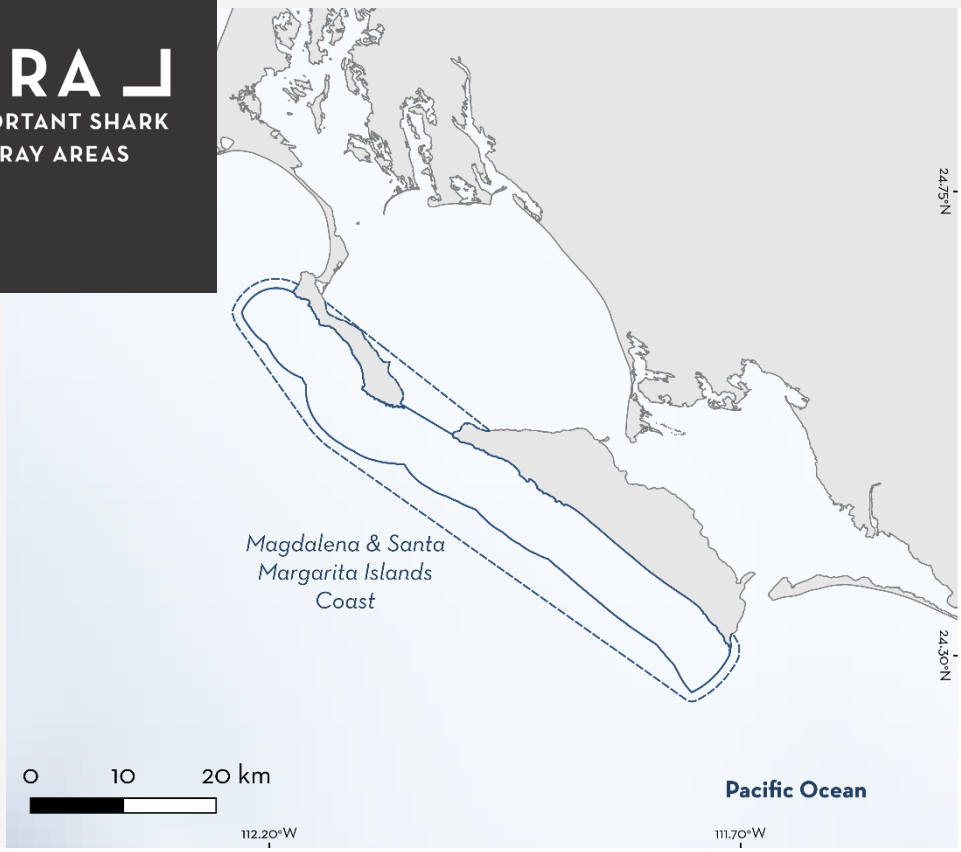
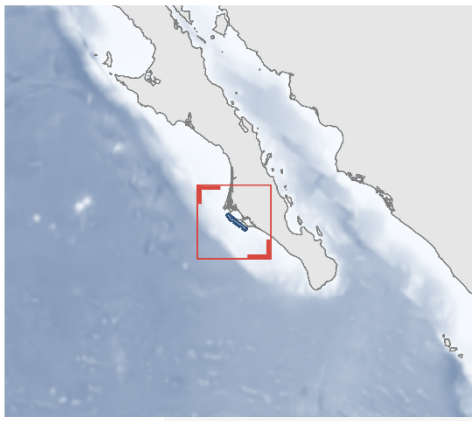
ISRA
IMPORTANT SHARK AND RAY AREAS





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

MAGDALENA & SANTA MARGARITA ISLANDS COAST ISRA

North American Pacific Region

MEXICO

0–90 metres

398.6 km²

SUMMARY

Magdalena & Santa Margarita Islands Coast is located on the Pacific Ocean coast of Baja California Sur, Mexico. The area is bounded by a series of barrier islands and includes the adjacent open coastal zone. It is characterised by a narrow continental shelf and volcanic and rocky substrates. The area is influenced by the California Current and the California Countercurrent, and wind-driven coastal upwelling. Within this area there are: **threatened species** and **undefined aggregations** (Munk's Pygmy Devil Ray *Mobula munkiana*).

CRITERIA

Criterion A – Vulnerability; Sub-criterion C5 – Undefined aggregations

DESCRIPTION OF HABITAT

Magdalena & Santa Margarita Islands Coast is located on the Pacific Ocean coast of Baja California Sur, Mexico. The area is bordered by Isla Magdalena and Isla Santa Margarita to the east and is connected to Magdalena Bay through a central channel, Boca de Entrada (~5.5 km wide), which reaches depths of 38 m. The habitat is characterised by a narrow continental shelf and predominantly volcanic and rocky substrates (Bizarro 2005).

The area is influenced by the California Current and the California Countercurrent, with wind-driven coastal upwelling. The California Current is a surface current (0–300 m deep) transporting cool, low salinity, oxygen-rich water towards the south while the California Countercurrent is a northward flowing nearshore current of warm, high salinity, and low oxygen characteristics. Upwelling systems occur more intensely during the boreal spring and early summer (March–June), although it persists episodically throughout the year (Bakun & Nelson 1977).

This Important Shark and Ray Area is pelagic and is delineated from surface waters (0 m) to 90 m based on the bathymetry of the area.

ISRA CRITERIA

CRITERION A – VULNERABILITY

One Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occur in the area. These is the Vulnerable Munk's Pygmy Devil Ray (Marshall et al. 2022).

SUB-CRITERION C5 – UNDEFINED AGGREGATIONS

Magdalena & Santa Margarita Islands Coast is an important area for undefined aggregations of one ray species.

Munk's Pygmy Devil Rays aggregate in groups of several hundred individuals in this area, with multiple recorded events between 2020–2025. Between December 2020–2025, safari tours searching for marine megafauna in the area were conducted on approximately 20 days per month during the months of November–December (F Nieto pers. obs. 2026). The seasonality of these tours reflects traditional ecological knowledge about the presence and movement of marine megafauna species in the area, including Munk's Pygmy Devil Rays.

Every year, Munk's Pygmy Devil Rays aggregations ranging between 300–1,000 individuals were observed in the area during November and early December during at least 40% of trips (8 days per month). All aggregations were observed close to the coastline, no further than 6 km away from the coast. Additionally, 108 individuals were tagged in the Gulf of California between 2015–2022 and monitored with a passive acoustic receiver array within the Gulf of California and the Pacific Coast, with just one receiver within this area during 2021–2023. Among the tagged individuals, five (5%) were detected in the area during September and October 2022; however, tourism activities do not occur during these months due to the hurricane season. Munk's Pygmy Devil Ray presence in the area coincided with their absence in the Gulf of California, and based on seasonality of sightings and acoustic telemetry data, it is likely that these aggregations are linked to the annual migration of Munk's Pygmy Devil Rays along the Baja Peninsula coast, coinciding with their entry into the Gulf of California in late winter (December–January) and their departure (June–August) (MD Palacios

unpubl. data 2026). While Munk's Pygmy Devil Ray exhibit a schooling behaviour across their life cycle (Palacios et al. 2024), they are normally observed in pulses along the Pacific coast of Baja California Sur, however, in this area the species is present for several months (F Nieto pers. obs. 2026; MD Palacios unpubl. data 2026). The seasonal occurrence of the species in the area may be related to feeding purposes as the productivity in the area is higher compared to the Gulf of California (Lezama-Ochoa et al. 2025).

Further information is needed to understand the nature and function of these aggregations.

Acknowledgments

Fernanda Nieto (Latitude Encounters), Katheryn Ayres (Latitude Encounters; Beneath the Waves), and Marta D Palacios (Mobula Conservation; IUCN SSC Shark Specialist Group – ISRA Project) contributed and consolidated information included in this factsheet. We thank all participants of the 2026 ISRA Region 11 – North American Pacific region workshop for their contributions to this process.

This factsheet has undergone review by the ISRA Independent Review Panel prior to its publication.

This project was funded by the Shark Conservation Fund, a philanthropic collaborative pooling expertise and resources to meet the threats facing the world's sharks and rays. The Shark Conservation Fund is a project of Rockefeller Philanthropy Advisors.

Suggested citation

IUCN SSC Shark Specialist Group. 2026. Magdalena & Santa Margarita Islands Coast ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

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												
Mobula munkiana	Munk's Pygmy Devil Ray	VU	0–126	X						X		

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Carcharhinus limbatus	Blacktip Shark	VU
Carcharhinus obscurus	Dusky Shark	EN
Galeorhinus galeus	Tope	CR
Isurus oxyrinchus	Shortfin Mako	EN
Mustelus henlei	Brown Smoothhound	LC
Mustelus lunulatus	Sicklefin Smoothhound	NT
Rhizoprionodon longurio	Pacific Sharpnose Shark	VU
Sphyrna zygaena	Smooth Hammerhead	VU
Squatina californica	Pacific Angelshark	VU
Triakis semifasciata	Leopard Shark	LC
RAYS		
Gymnura marmorata	California Butterfly Ray	NT
Myliobatis californica	Bat Ray	LC
Myliobatis longirostris	Longnose Eagle Ray	VU
Platyrhinoidis triseriata	Thornback Ray	LC
Pseudobatos glaucostigmus	Grey-spotted Guitarfish	VU
Pseudobatos productus	Shovelnose Guitarfish	NT
Urobatis concentricus	Bullseye Round Ray	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.

REFERENCES

Bakun A, Nelson CS. 1977. Climatology of upwelling related processes off Baja California. *California Cooperative Oceanic Fisheries Investigations Reports* 19: 107–127.

Bizzarro JJ. 2005. Fishery biology and feeding ecology of rays in Bahía Almejas, Mexico. Unpublished MSc Thesis, Moss Landing Marine Laboratories, California State University, Moss Landing.

Lezama-Ochoa N, Farchadi N, Murua H, Cronin MR, Zilliacus KM, Palacios MD, Palance DG, Trejo-Ramírez A, Pozo Buil M, Lavaniegos BE, et al. 2025. Modeling predator (*Mobula mobular*) and prey (*Nyctiphanes simplex*) distribution in response to ENSO dynamics. *Marine Ecology Progress Series* 763: 65–80. https://doi.org/10.3354/meps14862

Marshall A, Barreto R, Carlson J, Fernando D, Fordham S, Francis MP, Herman K, Jabado RW, Liu KM, Rigby CL, et al. 2022. *Mobula munkiana* (amended version of 2019 assessment). *The IUCN Red List of Threatened Species* 2022: e.T60198A214407880. https://dx.doi.org/10.2305/IUCN.UK.2022-1.RLTS.T60198A214407880.en

Palacios MD, Trejo-Ramírez A, Velázquez-Hernández S, Huesca-Mayorga SAK, Stewart JD, Cronin MR, Lezama-Ochoa N, Zilliacus KM, González-Armas R, Galván-Magaña F, et al. 2024. Reproductive behavior, seasonality, and distribution of three devil ray species (*Mobula mobular*, *M. thurstoni*, and *M. munkiana*) in the Southern Gulf of California, Mexico. *Marine Biology* 171: 12. https://doi.org/10.1007/s00227-023-04314-0