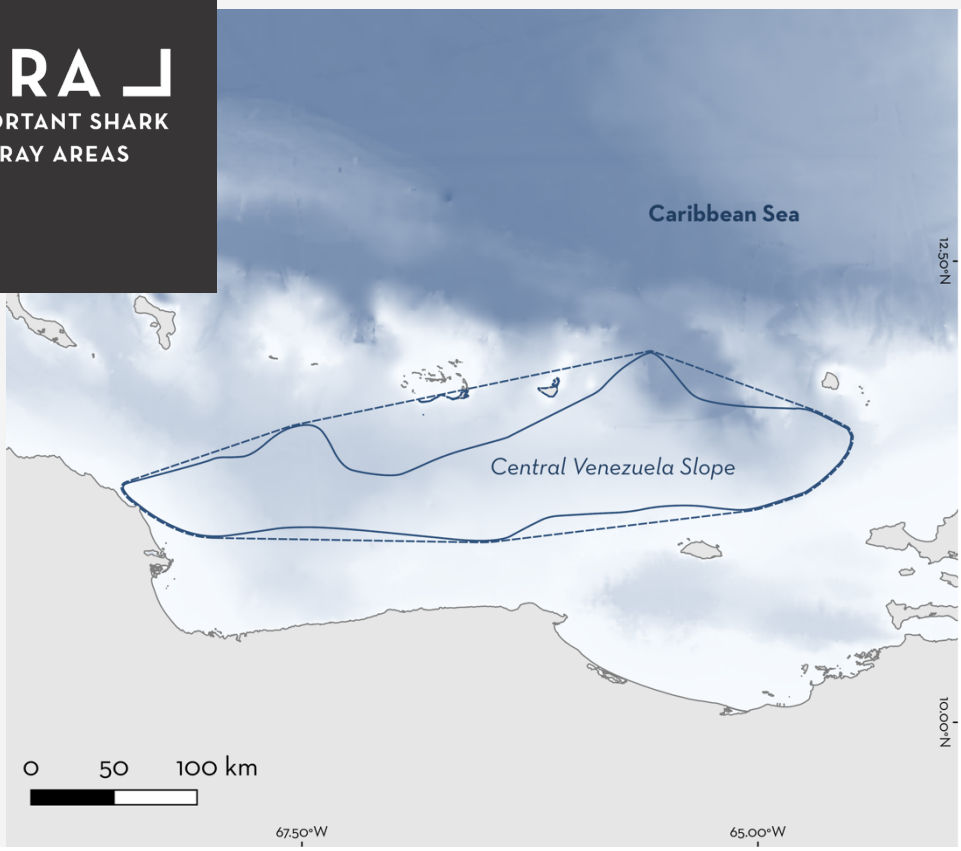
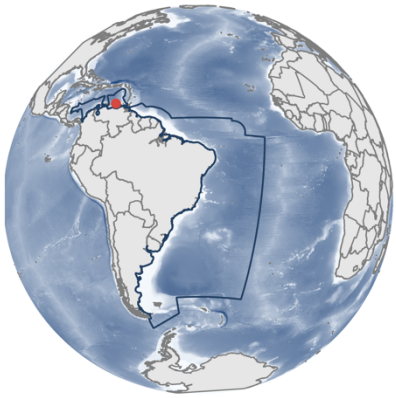
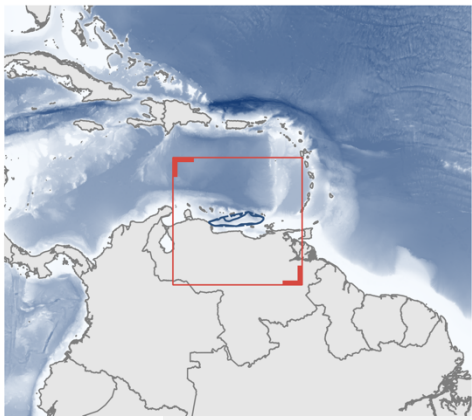
ISRA
IMPORTANT SHARK AND RAY AREAS





*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*

## CENTRAL VENEZUELA SLOPE ISRA

**South American Atlantic Region**

**VENEZUELA**

**0–1,792 metres**

**23,227 km²**

## SUMMARY

Central Venezuela Slope is located off the central coast of Venezuela. This offshore area lies between the continental shelf in the south and a chain of islands in the north. It comprises mostly shelf slope waters, with escarpments and canyons in the northeast. The habitat is characterised by pelagic waters. The area is influenced by the westward Caribbean Current. Within this area there are: **threatened species** (e.g., Night Shark *Carcharhinus signatus*) and **reproductive areas** (e.g., Blue Shark *Prionace glauca*).

## CRITERIA

**Criterion A – Vulnerability; Sub-criterion C1 – Reproductive Areas**

## DESCRIPTION OF HABITAT

Central Venezuela Slope is located off the central coast of Venezuela. The area lies mostly off the continental shelf on the slope that extends north to a chain of islands on the Lesser Antilles Ridge which include Los Roques Archipelago and Orchila Island, among others. It comprises escarpments and canyons in the northeast of the area. The habitat is characterised by pelagic waters. The area is influenced by the westward flow of the Caribbean Current (Chérubin & Richardson 2007).

This Important Shark and Ray Area is pelagic and is delineated from surface waters (0 m) to 1,792 m based on the global depth range of the Qualifying Species.

# ISRA CRITERIA

## CRITERION A – VULNERABILITY

Two Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occur in the area. These are the Endangered Night Shark (Carlson et al. 2021) and the Vulnerable Blue Shark (as per national Red List of Venezuela; Tavares 2015).

## SUB-CRITERION C1 – REPRODUCTIVE AREAS

Central Venezuela Slope is an important reproductive area for two shark species.

Pregnant Night Sharks and Blue Sharks are regularly captured in this area (Tavares 2005; Arocha et al. 2023). A historical study collected data from the industrial longline fishery targeting swordfish and tuna during 1994–2003 (Tavares 2005).

Night Sharks (n = 524) were the second-most captured shark species (24% of total catch). Of the 172 females, over three-quarters (n = 133; 77%) were pregnant (Tavares 2005). Embryos were mainly in the initial and intermediate developmental stages and, combined with the high proportion of males, this indicates that the area is important for gestation as well as potentially for mating (Tavares 2005). Pregnant females were also captured outside the area, but their hotspot was within this area (Tavares 2005). Detailed contemporary demographic data are lacking, but the billfish fishery off Venezuela's central coast surveyed in 2012–2013 reported that Night Sharks are still captured in large numbers (Marcano et al. 2015).

Blue Sharks (n = 904, 46% females) were the most captured shark species (35% of total catch) and 99 (24% of females) were pregnant (Tavares 2005). They had between 10–60 embryos, with most in intermediate (59%) and advanced (30%) developmental states. Pregnant Blue Sharks were mainly captured in this area compared to further afield in the Atlantic Ocean (Tavares 2005). Contemporary data from the industrial longline fishery (2012–2022) indicate that Blue Sharks are still captured in this area (Arocha et al. 2023). Although detailed demographic data are lacking, the size distribution for Blue Sharks appears to be similar to that reported previously (Tavares 2005; Arocha et al. 2023), suggesting that their population structure has experienced few changes over the past 25 years. For example, there is still about an even sex ratio and a high proportion of mature individuals among the females (~65%) in the contemporary catches (Arocha et al. 2023), suggesting that many pregnant individuals are still captured.

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**Suggested citation**

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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 |
| **SHARKS** | | | | | | | | | | | | |
| *Carcharhinus signatus* | Night Shark | EN | 0–600 | X | | X | | | | | | |
| *Prionace glauca* | Blue Shark | VU* | 0–1,792 | X | | X | | | | | | |

*Considered VU nationally but NT globally.

## SUPPORTING SPECIES

| Scientific Name | Common Name | IUCN Red List Category |
|---|---|---|
| **SHARKS** | | |
| *Alopias superciliosus* | Bigeye Thresher | VU |
| *Alopias vulpinus* | Common Thresher | VU |
| *Carcharhinus falciformis* | Silky Shark | VU |
| *Carcharhinus limbatus* | Blacktip Shark | VU |
| *Isurus oxyrinchus* | Shortfin Mako | EN |
| *Mustelus norrisi* | Narrowfin Smoothhound | NT |
| *Rhizoprionodon lalandii* | Brazilian Sharpnose Shark | VU |
| *Sphyrna mokarran* | Great Hammerhead | CR |

*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.*

## SUPPORTING INFORMATION

There are additional indications that this area may be important for Silky Shark reproduction (Arocha et al. 2017).

Small Silky Sharks are regularly captured but the lack of spatially explicit size data meant that it is unclear whether this area was more important that other areas for Silky Shark neonates and YOY. Data from pelagic longline observer programs for the period of 1994–2015 showed a bimodal distribution in the measured sizes of 568 Silky Sharks. Individuals ranged from 25–280 cm fork length (Arocha et al. 2017), which equates to ~29–335 cm TL (Branstetter 1987). Most Silky Sharks were between 59–83 cm TL (Arocha et al. 2017) and were classified as neonates or YOY. The size-at-birth for the species is 56–87 cm TL (Ebert et al. 2021). Specifically, the artisanal longline fishery captured mostly small individuals, while the industrial fishery, that sets the longlines deeper, captured larger individuals (Arocha et al. 2017). Further information is required to understand the importance of this area for this species.

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