

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

## SUMBAWA SLOPE ISRA

### Asia Region

### SUMMARY

Sumbawa Slope is located off southern Sumbawa Island, Indonesia. The area includes the break between the shelf and the slope and is characterised by the presence of submarine canyons. The area overlaps with the Lunyuk Tatar Sepang marine protected area. Within the area there are: **threatened species** (Indonesian Shortsnout Spurdog *Squalus hemipinnis*); and **range-restricted species** (e.g., Indonesian Speckled Catshark *Halaelurus maculosus*).

### CRITERIA

**Criterion A - Vulnerability; Criterion B - Range Restricted**

## INDONESIA

**50-200 metres**

**176.2 km<sup>2</sup>**





## DESCRIPTION OF HABITAT

Sumbawa Slope is located off southern Sumbawa Island in the West Nusa Tenggara Province of southern Indonesia. The area includes the break between the shelf and the slope and is characterised by the presence of submarine canyons along the wide portion of the slope (~5 km).

The area is influenced by monsoon winds. The northwest monsoon (December to February) brings low-speed winds and high rainfall while the southeast monsoon (June to August) brings high-speed winds and lower precipitation (Wirasatriya et al. 2021). These winds induce coastal upwellings across the area that cause phytoplankton and zooplankton blooms, especially during the southeast monsoon (Simanjuntak & Lin 2022). In addition, in the southern part of the area, upwellings are produced by the El Nino-Southern Oscillation (Simanjuntak & Lin 2022).

The area overlaps with the Lunyuk Tatar Sepang marine protected area.

This Important Shark and Ray Area is benthopelagic and subsurface and is delineated from 50 m to 200 m based on the bathymetry and the depth range of the Qualifying Species in the area.

## ISRA CRITERIA

### CRITERION A - VULNERABILITY

One Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occurs in the area. This is the Vulnerable Indonesian Shortsnout Spurdog (Dulvy et al. 2020).

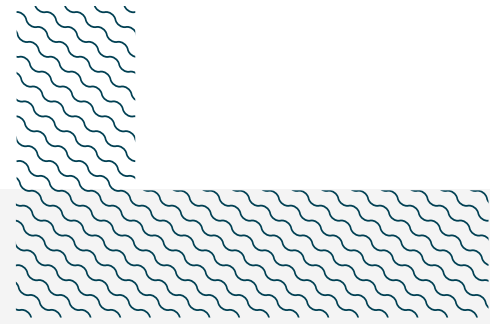
### CRITERION B - RANGE RESTRICTED

This area holds the regular presence of Indonesian Speckled Catshark and Indonesian Shortsnout Spurdog as resident range-restricted species.

Between 2014–2022, 47 Indonesian Speckled Catsharks were recorded year-round in landing surveys from demersal longline fisheries operating in the area (BM Simeon unpubl. data 2023). In Indonesia, this species has been sporadically recorded in small areas on the southern side of Java, Bali, and Sumbawa but has not been confirmed to occur regularly in any other location, confirming the importance of Sumbawa Slope for the species.

Between 2016–2018, 231 Indonesian Shortsnout Spurdogs were recorded during landing surveys of demersal longline fisheries operating in the area (BM Simeon unpubl. data 2023). A larger number of individuals were recorded between November and February. This area is one of only two locations where the regular presence of this species has been recorded outside of southern Java (BM Simeon unpubl. data 2023).

The Indonesian Shortsnout Spurdog is endemic to the Indonesian Sea Large Marine Ecosystem (LME) and its distribution is restricted to eastern Indonesia, known only from the southern side of Java, Bali, Lombok, and Sumbawa. The Indonesian Speckled Catshark occurs in the Indonesian Sea LME and the Sulu-Celebes Sea LME.



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## **Suggested citation**

**IUCN SSC Shark Specialist Group. 2024.** Sumbawa Slope ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

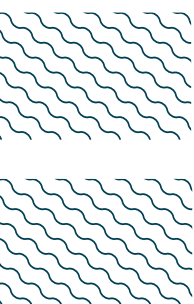
## QUALIFYING SPECIES

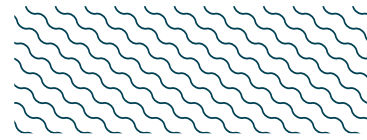
Scientific Name	Common Name	IUCN Red List Category	Global Depth Range (m)	ISRA Criteria/Sub-criteria Met								
				A	B	C1	C2	C3	C4	C5	D1	D2
<b>SHARKS</b>												
<i>Halaelurus maculosus</i>	Indonesian Speckled Catshark	NT	50-80		X							
<i>Squalus hemipinnis</i>	Indonesian Shortsnout Spurdog	VU	40-500	X	X							

## SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
<b>SHARKS</b>		
<i>Centrophorus atromarginatus</i>	Dwarf Gulper Shark	CR
<i>Centrophorus granulosus</i>	Gulper Shark	EN
<i>Centrophorus isodon</i>	Blackfin Gulper Shark	EN
<i>Centrophorus longipinnis</i>	Longfin Gulper Shark	EN
<i>Centrophorus moluccensis</i>	Smallfin Gulper Shark	VU
<i>Centrophorus squamosus</i>	Leafscale Gulper Shark	EN
<i>Cephaloscyllium pictum</i>	Painted Swellshark	DD
<i>Cirrhigaleus barbifer</i>	Mandarin Shark	LC
<i>Dalatias licha</i>	Kitefin Shark	VU
<i>Deania calcea</i>	Birdbeak Dogfish	NT
<i>Heptranchias perlo</i>	Sharpnose Sevengill Shark	NT
<i>Hexanchus griseus</i>	Bluntnose Sixgill Shark	NT
<i>Hexanchus nakamurai</i>	Bigeyed Sixgill Shark	NT
<i>Odontaspis ferox</i>	Smalltooth Sand Tiger	EN
<i>Pseudotriakis microdon</i>	False Catshark	LC
<i>Squalus altipinnis</i>	Western Highfin Spurdog	DD
<i>Squalus edmundsi</i>	Edmund's Spurdog	NT
<i>Squalus montalbani</i>	Philippine Spurdog	VU
<i>Squalus nasutus</i>	Western Longnose Spurdog	NT
<i>Zameus squamulosus</i>	Velvet Dogfish	LC

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





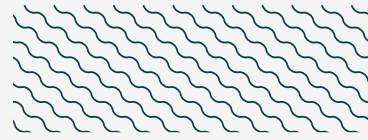
## SUPPORTING INFORMATION

There are additional indications that Sumbawa Slope may be important for a range-restricted shark, may be an important reproductive area for two shark species, and an important area for undefined aggregations for two shark species.

Seven Painted Swellshark individuals were recorded in 2019 and 2022 in opportunistic landing surveys from demersal longline fisheries operating in the area. Records for this Data Deficient species are very rare (Lindfield & Jaiteh 2019; Rifki et al. 2022) but more information is needed to confirm the importance of this area in relation to other in the region.

Pregnant Western Longnose Spurdog and Indonesian Shortsnout Spurdog have been observed in catches from longlines operating in the area (BM Simeon unpubl. data 2023). More information is needed to confirm their regular occurrence and the reproductive importance of the area.

Between 2014-2023, aggregations of Leafscale Gulper Shark and Edmund's Spurdog were recorded in the area from landing monitoring of longliners operating there (BM Simeon unpubl. data 2024). Landings of these species were composed on average of 18-30 individuals reportedly captured in a single longline (51-134 hooks). These species were caught between August and February with a peak in December and January (BM Simeon unpubl. data 2023). For Leafscale Gulper Shark a maximum of 31-59 individuals were caught in a single fishing trip (2-3 longline sets) while for Edmund's Spurdog, a maximum of 10-23 individuals were caught in a single fishing trip (2-3 longline sets). More information is needed to confirm the nature of these aggregations and importance of the area in relation to other areas in the region.



## REFERENCES

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