

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

SESAYAP ISRA

Asia Region

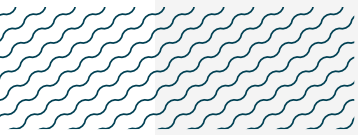
SUMMARY

Sesayap is located in North Kalimantan, Indonesia. Sesayap River is a relatively fast flowing river, and combined with a large local tidal variation, it forms a large estuarine delta environment. The position of the estuary is dynamic across seasons (wet and dry) and tidal cycles (spring and neap). Water in the estuary is highly turbid and the substrate is silty. The banks of the river are mainly lined with mangroves. Within this area there are: **threatened species** and **reproductive areas** (Ganges Shark *Glyphis gangeticus*).

CRITERIA

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

—	—
INDONESIA	—
—	—
0-20 metres	—
—	—
670.15 km²	—
—	—





DESCRIPTION OF HABITAT

Sesayap is located in North Kalimantan, Indonesia. The area is a river that drains from the Iran Mountain Range at the border of North Kalimantan (Indonesia) and Sarawak (Malaysia) east toward the Sulu-Celebes Sea. Sesayap is centrally positioned along North Kalimantan's coastline, adjoining the Kayan and Bahau River estuaries to the south, and the Sebuku and Sembakung River estuaries to the north. The Sesayap River lacks a floodplain, as the Iran Mountain Range extends close to the coast. As a result, the Sesayap is a relatively fast flowing river, and combined with a large local tidal variation, it forms a large estuarine delta environment. The position of the estuary is dynamic across seasons (wet and dry) and tidal cycles (spring and neap). In the wetter months (October–April) the estuary is closer to the coast at the mouth of the river. In drier months (June–August) the estuary can occur as far upriver as Malinau or Tanjung Lapang (Kreb & Rukman 2010). Water in the estuary is highly turbid and the substrate is silty. The banks are lined with riparian vegetation dominated by mangroves.

This Important Shark and Ray Area is benthopelagic and is delineated from surface waters (0 m) to 20 m based on the bathymetry of the area.

ISRA CRITERIA

CRITERION A – VULNERABILITY

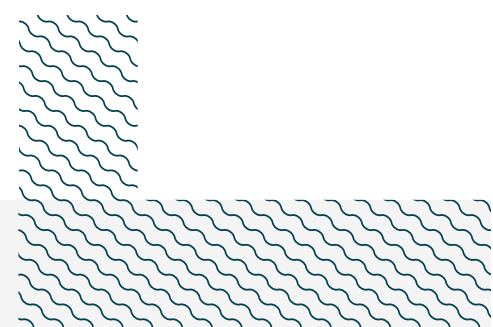
One Qualifying Species within the area is considered threatened with extinction according to the IUCN Red List of Threatened Species. The Ganges Shark is assessed as Critically Endangered (Rigby et al. 2021).

SUB-CRITERION C₁ – REPRODUCTIVE AREAS

Sesayap is an important reproductive area for one shark species.

During surveys in July–August 2023, 17 Ganges Sharks were discovered in Sesayap through observations from small-scale fishers (Grant et al. unpubl. data 2023). Lengths of individuals ranged from ~58–108 cm total length (TL) and included neonate and young-of-the-year (YOY) individuals. The known size-at-birth for the Ganges Shark is ~58–61 cm TL (Ebert et al. 2021). In these same surveys, a further ~50 fin sets from small individuals, likely including neonates and young-of-the-year, were observed in villages within the area. Fishers reported the presence of small Ganges Sharks during their lifetimes, through local ecological knowledge (LEK) interviews that included a reference photograph of the species. Research on congeneric species in Australia shows that YOY river sharks display daily and seasonal movements to remain within a relatively narrow salinity range (Pillans et al 2009; Dwyer et al. 2020).

There is no indication that YOY move into fresh- or marine water for prolonged periods (Grant et al. 2023), and thus it can be reasonably assumed that Sesayap is a pupping area and core habitat for neonates and YOY Ganges Sharks. Contemporary records of this Critically Endangered species are extremely rare (Jabado et al. 2018), so although there is no information available on mature individuals, the relative abundance of small Ganges Sharks in the area is significant for a species that otherwise appears to be extinct from much of its former range (Jabado et al. 2018). Indeed, this area potentially represents the only known viable breeding population of Ganges Shark across its global range (Li et al. 2015).



Acknowledgments

Michael I Grant (James Cook University, Hasanuddin University), Fahmi (National Research and Innovation Agency, BRIN), Rohani Ambo Rappe (Hasanuddin University), Arini Enar Lestari (Hasanuddin University), Ratih Tribuwana Dhewi (Balai Pengelolaan Sumberdaya Pesisir dan Laut Pontianak, BPSPL), Hetty Priyanti Efendi (Balai Pengelolaan Sumberdaya Pesisir dan Laut Pontianak, BPSPL), Muhammad Firdaus (Universitas Borneo Tarakan), M Gandri Haryono (Universitas Borneo Tarakan), Syamsidar Gaffar (Universitas Borneo Tarakan), Andrew Chin (James Cook University, Hasanuddin University), and Asia O Armstrong (IUCN SSC Shark Specialist Group - ISRA Project) contributed and consolidated information included in this factsheet. We thank all participants of the 2024 ISRA Region 9 - Asia 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. 2024. Sesayap ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

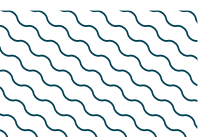
QUALIFYING SPECIES

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	
SHARKS													
<i>Glyphis gangeticus</i>	Ganges Shark	CR	0-50	X		X							

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Lamiopsis tephrodes</i>	Borneo Broadfin Shark	EN
RAYS		
<i>Himantura uarnak</i>	Coach Whipray	EN
<i>Himantura undulata</i>	Honeycomb Whipray	EN
<i>Urogymnus polylepis</i>	Giant Freshwater Whipray	EN

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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