

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

SALEH BAY ISRA

Asia Region

SUMMARY

Saleh Bay is located in northeast Sumbawa Island, Indonesia. It is a semi-enclosed embayment connected to the Flores Sea and is characterised by the presence of small islands and habitats including coral reefs, seagrass, and mangroves. Saleh Bay is a high-productivity area due to inputs from several rivers year-round and seasonal upwellings. Within this area there are: **threatened species** and **feeding areas** (Whale Shark *Rhincodon typus*).

CRITERIA

Criterion A - Vulnerability; Sub-criterion C2 - Feeding Areas

INDONESIA

0-300 metres

820.1 km²



DESCRIPTION OF HABITAT

Saleh Bay is part of the West Nusa Tenggara Province, located in northeast Sumbawa Island in Indonesia. It is a semi-enclosed embayment directly connected to the Flores Sea with limited water exchange (Farid et al. 2021). The area is characterised by several small islands and various habitats including coral reefs, seagrass, and mangroves (Herdiana et al. 2024).

Saleh Bay is a high-productivity area due to large inputs from rivers year-round and seasonal upwellings produced by monsoon winds (Yulianto et al. 2016). 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 (Herdiana et al. 2024). Sea surface temperatures in the area range ~25–33°C (Sianipar 2022).

This Important Shark and Ray Area is benthopelagic and is delineated from inshore and surface waters (0 m) to 300 m based on the bathymetry of the area.

ISRA CRITERIA

CRITERION A – VULNERABILITY

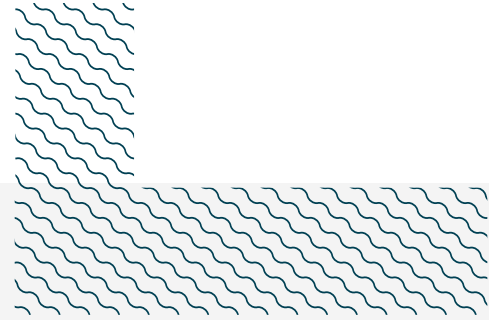
One Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occurs in the area. This is the Endangered Whale Shark (Pierce & Norman 2016).

SUB-CRITERION C₂ – FEEDING AREAS

Saleh Bay is an important feeding area for one shark species.

Between 2017–2022, Whale Sharks have been observed regularly in the area. Individuals are observed year-round with the largest number of observations recorded in March and April (Farid et al. 2021; Konservasi Indonesia unpubl. data 2023). The average size of sighted individuals was 512 ± 112 (mean \pm SD) cm total length (TL; Konservasi Indonesia, unpubl. data 2023). Of 108 individuals identified, 99% were juveniles or sub-adults. Photo-identification revealed that 76% of individuals had been resighted across multiple years, with an average of 1.67 years between observations and a maximum of 5.12 years.

Whale Sharks commonly aggregate year-round around lift nets (*bagan*) targeting small pelagic fishes (atherinids and clupeids) and sergestid shrimps. *Bagan* fisheries use light to attract target species and Whale Sharks have been observed regularly sucking baitfish from the outside of the net. After that, Whale Sharks move to deeper areas within the bay to feed on mesopelagic prey (Farid et al. 2021; Sianipar 2022). Whale Sharks have been observed feeding on krill and small-pelagic fish in the mornings around the sites within the bay where higher biomass of these species have been reported (Yulianto et al. 2016; Farid et al. 2021) and engage in vertical migration to mesopelagic waters within the bay to presumably feed on sergestid shrimps during the afternoon (Sianipar 2022). Based on accelerometer data, vertical foraging behaviour (according to pitch angle and vertical velocity) was described for two sharks in the area (A Sianipar et al. unpub. data 2023). From 56 days of accelerometer data, vertical foraging was identified in 39% of the total tracking time. Further, local ecological knowledge indicates that Whale Sharks have been observed feeding on krill and small pelagic fishes in the area long before the *bagan* fishery started (since 1992), confirming the natural origin of feeding activities (Djunaidi et al. 2019).



Acknowledgments

Mochamad Iqbal Herwata Putra (Konservasi Indonesia), Ismail Syakurachman (Konservasi Indonesia), Abraham B Sianipar (Independent Researcher), Abdi W Hasan (Konservasi Indonesia), Edy Setyawan (Independent Researcher), Mark V Erdmann (Conservation International), and Emiliano García Rodríguez (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. Saleh Bay ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

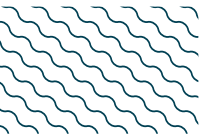
QUALIFYING SPECIES

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>Rhincodon typus</i>	Whale Shark	EN	0-1,928	X			X						

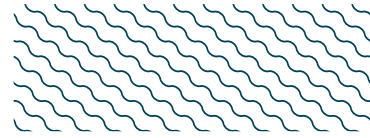
SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
<i>Alopias pelagicus</i>	Pelagic Thresher	EN
<i>Carcharhinus amblyrhynchos</i>	Gray Reef Shark	EN
<i>Carcharhinus limbatus</i>	Blacktip Shark	VU
<i>Carcharhinus melanopterus</i>	Blacktip Reef Shark	VU
<i>Sphyrna lewini</i>	Scalloped Hammerhead	CR
<i>Triaenodon obesus</i>	Whitetip Reef Shark	VU
RAYS		
<i>Mobula alfredi</i>	Reef Manta Ray	VU
<i>Mobula birostris</i>	Oceanic Manta Ray	EN
<i>Mobula mobular</i>	Spinetail Devil Ray	EN
<i>Mobula thurstoni</i>	Bentfin Devil Ray	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.



SUPPORTING INFORMATION



There are additional indications that Saleh Bay may be an important area for undefined aggregations of two ray species.

Aggregations of Oceanic Manta Ray and Spinetail Devil Ray have been reported seasonally in groups of up to 20 individuals, particularly during upwelling season (June to August) when sergestid shrimps are abundant (Konservasi Indonesia unpubl. data 2023). Local fishers reported that these species sometimes get trapped in the net when lift-net fisheries operate in the region (Konservasi Indonesia unpubl. data 2023). More information is needed to confirm the regularity of these aggregation and its importance of the area for these rays.



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