

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

## MATASIRI ISLANDS ISRA

### Asia Region

### SUMMARY

Matasiri Islands is located ~75 km off the southern coast of Kalimantan, Indonesia. The area is characterised by shallow, wide sandflats, interspersed with muddy substrates, reef flats, seagrass beds, and rocky areas. It is influenced by freshwater run-off from rivers in Kalimantan, with high nutrient content. Within this area there are: **threatened species** (e.g., Broadnose Wedgefish *Rhynchobatus springeri*) and **reproductive areas** (e.g., Bottlenose Wedgefish *Rhynchobatus australiae*).

### CRITERIA

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

— INDONESIA —

— 0-40 metres —

— 736.08 km<sup>2</sup> —





## DESCRIPTION OF HABITAT

Matasiri Islands is situated ~75 km off the coast of southern Kalimantan, Indonesia. The area includes the islands of Pulau Matasiri and Pulau Kalamb which sit north of the Laur Kecil Island archipelago. Matasiri Islands is characterised by being shallow with wide sandflats interspersed with muddy substrates, reef flats, seagrass beds, and rocky areas.

The area is influenced by upwelling from the Makassar Strait between July and September (BM Simeon pers. obs. 2024). It is also influenced by freshwater run-off from Kalimantan, with high nutrient content (Sadhotomo & Durand 1997; BM Simeon pers. obs. 2024). The area includes the spawning ground of Blue Swimmer Crab *Portunus pelagicus* (BM Simeon pers. obs. 2024).

This Important Shark and Ray Area is benthopelagic and delineated from inshore and surface waters (0 m) to 40 m based on the depth range of Qualifying Species in the area.

## ISRA CRITERIA

### CRITERION A - VULNERABILITY

Three Qualifying Species considered threatened with extinction according to the IUCN Red List of Threatened Species regularly occur in the area. These are the Critically Endangered Bowmouth Guitarfish (Kyne et al. 2019a), Bottlenose Wedgefish (Kyne et al. 2019b), and Broadnose Wedgefish (Kyne 2019).

### SUB-CRITERION C<sub>1</sub> - REPRODUCTIVE AREAS

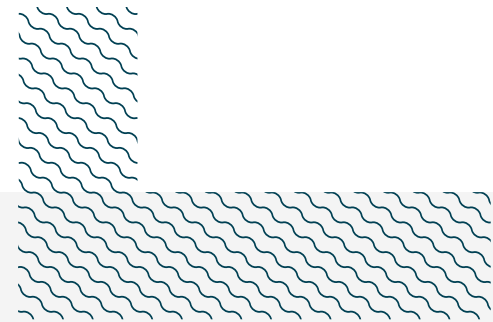
Matasiri Islands is an important reproductive area for three ray species.

Between 2019–2020, Bottlenose Wedgefish were recorded from the incidental catch of trawlers operating in the area (Rekam unpubl. data 2024). Of 1,053 records, 362 were classed as neonates/young-of-the-year (YOY) measuring 43–60 cm total length (TL) (Rekam unpubl. data 2024). Neonates/YOY were recorded in 2019 (n = 109) and 2020 (n = 253) when landings surveys were undertaken. These were determined to be neonates/YOY based on a size-at-birth of 46–50 cm TL (White & Dharmadi 2007). The presence of this species in the area is associated with coastal areas characterised by coral reefs and in relatively shallow areas. Catches are made between July and September, when the area is influenced by upwelling from Makassar Strait (BM Simeon pers. obs. 2024). Neonate Bottlenose Wedgefish feed on the spawning Blue Swimmer Crab population in the area (BM Simeon pers. obs. 2024). There is little information globally on the reproductive biology of the Bottlenose Wedgefish, highlighting the importance of Matasiri Islands for the species.

Between 2019–2020, Broadnose Wedgefish were recorded from the incidental catch of seine fisheries operating in the area (Rekam unpubl. data 2024). Of 1,512 records, 300 were classed as neonates/YOY measuring 43–70 cm total length (TL) (Rekam unpubl. data 2024). The neonate/YOY individuals were recorded in 2019 (n = 140) and 2020 (n = 160). These were determined to be neonates/YOY based on the size-at-birth of the closely related Whitespotted Wedgefish *Rhynchobatus djiddensis* (~60 cm TL; Last et al. 2016) since size-at-birth of Broadnose Wedgefish is unknown. The presence of this species in the area is associated with coastal areas characterised by coral reefs and in relatively shallow areas. Catches are made between July and September, when the area is influenced by upwelling from Makassar Strait (BM Simeon pers. obs. 2024). There is little

information globally on the reproductive biology of the Broadnose Wedgefish, highlighting the importance of Matasiri Islands for the species.

Between 2019–2020, Bowmouth Guitarfish were recorded from the incidental catch of seine fisheries operating in the area (Rekam unpubl. Data 2024). Of 170 records, 10 were classed as neonates/YOY measuring 43–60 cm TL (Rekam unpubl. Data 2024). The neonate/YOY individuals were recorded in 2019. The presence of this species in this area is associated with coastal areas which are often characterised by mangroves and river mouths. Catches are made between July and September, when the area is influenced by upwelling from Makassar Strait (BM Simeon pers. obs. 2024). Very few records of Bowmouth Guitarfish neonates have been reported globally highlighting that this is an important area for this species.



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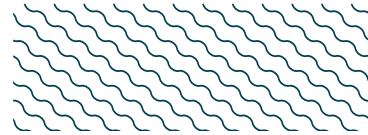
### **Suggested citation**

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## QUALIFYING SPECIES

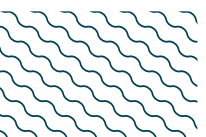
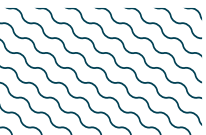
Scientific Name	Common Name	IUCN Red List Category	Global Depth Range (m)	ISRA Criteria/Sub-criteria Met								
				A	B	C1	C2	C3	C4	C5	D1	D2
<b>RAYS</b>												
<i>Rhina ancylostomus</i>	Bowmouth Guitarfish	CR	0-70	X		X						
<i>Rhynchobatus australiae</i>	Bottlenose Wedgefish	CR	0-60	X		X						
<i>Rhynchobatus springeri</i>	Broadnose Wedgefish	CR	16-40	X		X						

## SUPPORTING SPECIES



Scientific Name	Common Name	IUCN Red List Category
<b>SHARKS</b>		
<i>Chiloscyllium indicum</i>	Slender Bambooshark	VU
<i>Chiloscyllium plagiosum</i>	Whitespotted Bambooshark	NT
<i>Chiloscyllium punctatum</i>	Grey Carpetshark	NT
<b>RAYS</b>		
<i>Glaucostegus typus</i>	Giant Guitarfish	CR
<i>Maculabatis gerrardi</i>	Whitespotted Whipray	EN
<i>Neotrygon orientalis</i>	Oriental Bluespotted Maskray	LC
<i>Urogymnus granulatus</i>	Mangrove Whipray	EN

*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.*





## REFERENCES

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