

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

## DAMPIER ISRA

### Australia and Southeast Indian Ocean Region

#### SUMMARY

Dampier is located in the Pilbara region of Western Australia, Australia. This area is situated on the continental shelf and supports a high diversity of sponges which are a dominant component of benthic communities. Seasonal circulation is driven by the Leeuwin Current and dynamic shelf processes of the North West Shelf. This area overlaps with Dampier Marine Park. Within this area there are: **range-restricted species** (Banded Catshark *Atelomycterus fasciatus*).

#### CRITERIA

**Criterion B - Range Restricted**

— AUSTRALIA —

— 25-80 metres —

— 2,842.5 km<sup>2</sup> —





## DESCRIPTION OF HABITAT

Dampier is located in the Pilbara region of Western Australia, Australia. This area sits on the continental shelf and supports the highest sponge species richness and the second-highest endemism in the Pilbara region (Fromont et al. 2016). Sponges are a dominant component of the Dampier Marine Park benthic fauna, with more than 150 recorded species making up 20–50% of trawl catches (Keesing 2019). They form extensive, diverse assemblages that constitute a key element of benthic biodiversity in the region.

Benthic communities here are adapted to high turbidity, elevated austral summer temperatures often coupled with hypersaline conditions, and disturbance from tropical cyclones that cause freshwater influx and sediment erosion or deposition (Fromont et al. 2016). The region lies within arid tropical northwestern Australia, where seasonal circulation is driven by the Leeuwin Current and dynamic shelf processes of the Northwest Shelf.

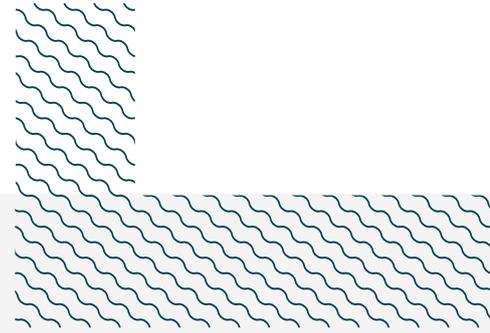
This area overlaps with Dampier Marine Park (Parks Australia 2025).

This Important Shark and Ray Area is benthic and subsurface and is delineated from 25–80 m based on the depth range of Qualifying Species in the area.

## ISRA CRITERIA

### CRITERION B - RANGE RESTRICTED

This area holds the regular presence of the Banded Catshark as a resident range-restricted species. This species has been poorly studied, but individuals have been reported from captures in fishery-independent trawl surveys (Compagno & Stevens 1993; O'Neill et al. 2024). Across studies where the species has been documented, a total of 145 individuals and three egg cases have been recorded: (1) 79 individuals, including three egg-bearing females, recorded between 1973 and 1988 (Compagno & Stevens 1993); (2) four egg-bearing females reported in 1982, 1983, and 2017 (O'Neill et al. 2020); and (3) 62 individuals and three egg cases recorded in 2017 and 2022 (O'Neill et al. 2024). Geolocation data were available for 126 individuals (87% of all records). This area accounts for ~28% (n = 35) of all observations with known locations across the species' range, composed of both sexes and multiple life-stages, including contemporary records of an egg-bearing female and an egg case. It also contained two aggregations, with at least 18 individuals found inside a large sponge. This species is restricted to the Northwest Australian Shelf Large Marine Ecosystem.



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We acknowledge the Traditional Owners of Country throughout Australia and recognise the continuing connection to land, waters, and culture. We pay our respects to Elders past, present, and emerging.

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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>SHARKS</b>												
<i>Atelomycterus fasciatus</i>	Banded Catshark	LC	27-122		X							

## SUPPORTING INFORMATION



There are additional indications that the area may be important for distinctive behaviours for one shark species.

This is the first documented case of a shark or ray using large sponges as internal microhabitat refuges (O'Neil et al. 2024). Benthic biodiversity trawl surveys were conducted between 30–5,000 m depth in October and November 2017, with two records collected inside the Dampier Marine Park (within this area) and one record collected in the Montebello Marine Park (outside this area) (O'Neil et al. 2024). During this survey, three large sponges contained a total of 54 Banded Catsharks. The first sponge (32–33 m) held 30 individuals, the second (36 m) contained four plus two that exited the sponge after collection, and the third (35–36 m) held 18 individuals. Only five individuals were caught outside sponges. The sponges belonged to two Demospongiae families and featured numerous folds and canals that created highly complex habitat (O'Neil et al. 2024). The presence of both sexes and multiple maturity stages indicates that these sponges are used across most of the species' life cycle. Further information is required to understand the regularity of this behaviour.



## REFERENCES

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