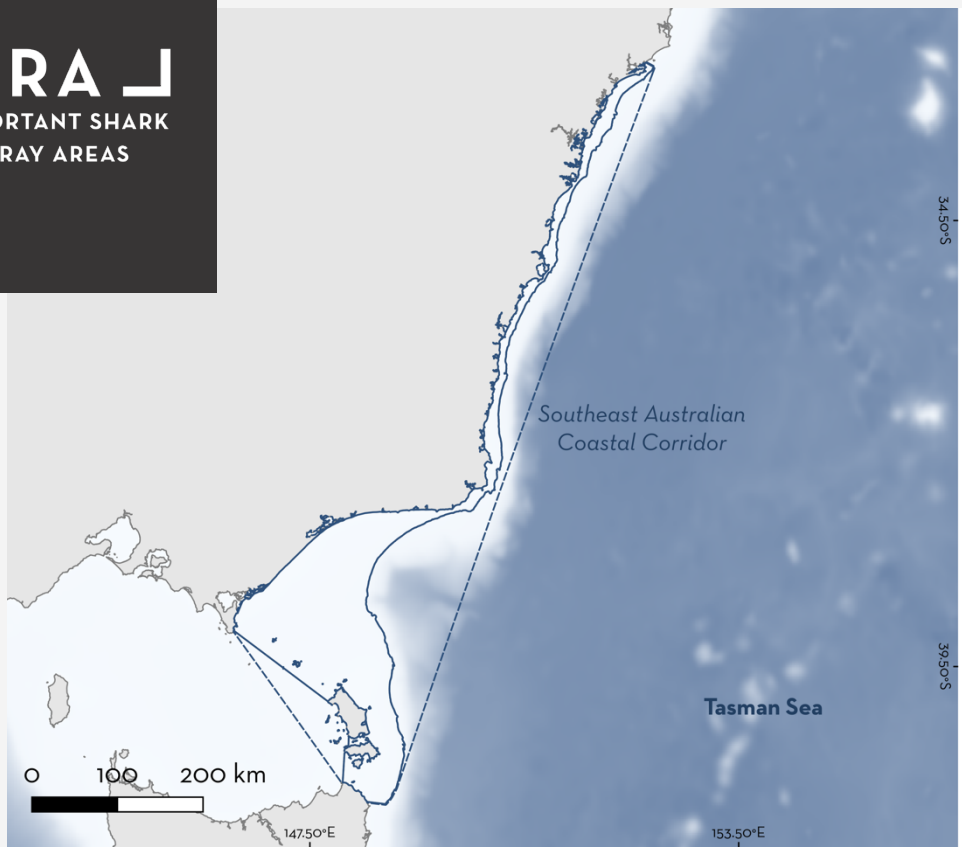
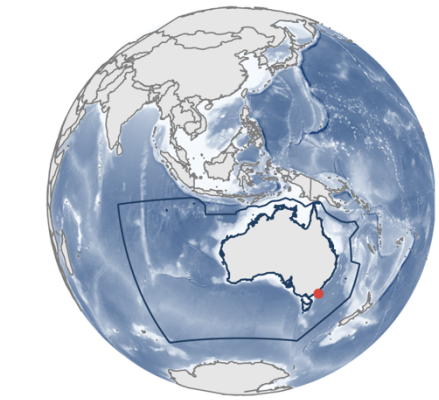
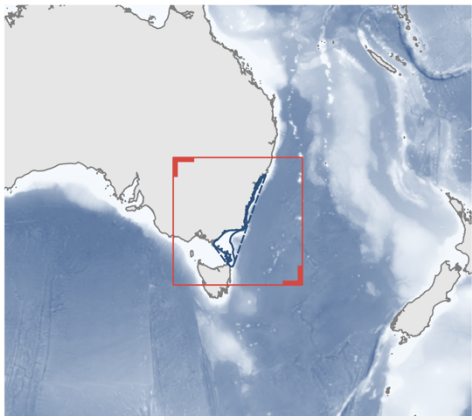
ISRA
IMPORTANT SHARK AND RAY AREAS







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

SOUTHEAST AUSTRALIAN COASTAL CORRIDOR ISRA

Australia and Southeast Indian Ocean Region

AUSTRALIA

0–100 metres

42,773 km²

SUMMARY

Southeast Australian Coastal Corridor is located in Australia in the states of New South Wales, Victoria, Tasmania, and the Jervis Bay Territory. This coastal area comprises continental shelf waters from Newcastle (New South Wales) in the north to Bass Strait and northeast Tasmania in the south. The habitat is characterised by rocky reefs and soft substrates. It is influenced by the East Australian Current that transports warm water southwards through much of the area, and by tide and wind driven surface currents in Bass Strait. Within this area there are: areas important for **movement** (Port Jackson Shark *Heterodontus portusjacksoni*).

CRITERIA

Sub-criterion C4 – Movement

DESCRIPTION OF HABITAT

Southeast Australian Coastal Corridor is located in Australia, in the states of New South Wales, Victoria, and Tasmania, and the Jervis Bay Territory. This movement area stretches from Newcastle in the north via Sydney, Jervis Bay, and Narooma to Bass Strait. It is a coastal area and the shelf is narrow in the north before widening in Bass Strait. It comprises the Gippsland Shelf and the Bassian Ridge (Harris et al. 2003). The habitat is characterised by continental shelf waters, rocky reefs, and sandy substrates (Harris et al. 2003).

The area is influenced by the East Australian Current (EAC) that carries warm water southward along Australia's east coast (Ridgeway & Hill 2009). The EAC is a dynamic western boundary current, with mesoscale eddies influencing current strength and direction. The flow is seasonally stronger in the austral summer, and the separation location, where the EAC turns eastward into the Tasman Sea, also moves seasonally (Ridgeway & Hill 2009). In Bass Strait, wind and tide driven surface currents influence the area (Jones 1980).

This Important Shark and Ray Area is benthic and is delineated from inshore and surface waters (0 m) to 100 m based on the bathymetry of the area.

ISRA CRITERIA

SUB-CRITERION C4 – MOVEMENT

Southeast Australian Coastal Corridor is an important movement area for one shark species.

Port Jackson Sharks regularly migrate through this area, connecting winter breeding sites in the north with summer feeding areas in the south (Bass et al. 2016; L Poirier unpubl. data 2025). A total of 181 individuals were tagged with passive acoustic transmitters and monitored on ~260 receivers within this area between July 2012–July 2024. Many additional receivers in Australia's Integrated Marine Observing System (IMOS) are located along Australia's coast, with particularly high density along the east coasts of New South Wales and Queensland, and these would also detect tagged Port Jackson Sharks. Most individuals were tagged in Jervis Bay (n = 97), followed by Sydney (n = 64) and Port Stephens (n = 20) in New South Wales. The sex ratio was slightly skewed towards males, with 89 males, 72 females, and 20 of unknown sex. A movement network identified the number of times tagged animals moved between areas (i.e., 'moves') and how many unique individuals made each move (L Poirier unpubl. data 2025).

Port Jackson Shark movements supported a corridor from Newcastle in the north, via Sydney, Jervis Bay, and Narooma to Bass Strait (L Poirier unpubl. data 2025). Most moves were detected within Sydney–Botany Bay and Sydney Harbour (n = 630 and 626 moves per direction, respectively), followed by Narooma to Jervis Bay (n = 114) and return (n = 111), and Sydney to Narooma (n = 88) and return (n = 73). Almost a third of tagged individuals moved from Narooma to Jervis Bay (n = 52 individuals) and returned (n = 47), while 34 individuals moved from the Sydney region to Narooma and 27 individuals moved in the opposite direction. Connectivity was strongest between Sydney, Jervis Bay, and Narooma. However, 11 Port Jackson Sharks also connected eastern Victoria with these sites while four individuals moved to Bass Strait in Tasmania. Tracked Port Jackson Sharks exhibited strong seasonality, being detected in the Sydney region and Jervis Bay mostly from July–October, while the peak in Narooma was in April–June and October–December, and between February–May in Victoria (L Poirier unpubl. data 2025). This corroborates that they move from winter/spring breeding areas in the north to summer/autumn feeding sites in the south (Bass et al. 2016).

Connectivity with Victoria and Bass Strait is further supported by additional evidence. First, it is worth noting that the acoustic detections around Cape Baron Island in Bass Strait ceased because the receiver line was decommissioned in 2015 after just three years of operation. The majority of sharks were tagged after this date. It is conceivable that many more migrate to this location and in Bass Strait more broadly. Second, in August 2018 and 2024, aggregations of 1,000+ female Port Jackson Sharks were found in the Hogan-Kent Islands ISRA in Bass Strait resting on the mesophotic reefs in 65 m depth by an autonomously operated vehicle (AUV) and remotely operated vehicles (ROVs) (Barrett et al. 2020; University of Tasmania 2024; NESP 2025). These females may represent those individuals taking a year off migration to build energy reserves. Third, a historical study externally tagged 513 Port Jackson Sharks in the Sydney region between 1962–1974 and 18 were recaptured along the east coast as far south as Tasmania (O'Gower & Nash 1978; O'Gower 1995). Seven of these individuals were captured off the coast of East Gippsland and Wilsons Promontory in Victoria, and two off Flinders Island and Cape Naturaliste in northeast Tasmania. Individuals from the east coast are never detected west of Wilsons Promontory and genetic evidence as well as life-history data suggest the east and southwest populations are distinct (Tovar-Ávila et al. 2007; R Leite et al. pers. comm. 2025). Collectively, the data suggest that Port Jackson Sharks migrate down the east coast of Australia at the end of the winter breeding season and may use the series of islands linking the mainland at Wilsons Promontory with northeast Tasmania. They feed in deeper waters around Bass Strait during the summer and return to breeding aggregation sites in the winter.

Acknowledgments

Culum Brown (School of Natural Sciences, Macquarie University), Lilou Poirier (Macquarie University), Joni Pini-Fitzsimmons (Charles Darwin University), and Christoph A Rohner (IUCN SSC Shark Specialist Group – ISRA Project) contributed and consolidated information included in this factsheet. We thank all participants of the 2025 ISRA Region 08 – Australia and Southeast Indian Ocean workshop for their contributions to this process.

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.

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. 2025. Southeast Australian Coastal Corridor 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												
Heterodontus portusjacksoni	Port Jackson Shark	LC	0–275						X			

SUPPORTING SPECIES

Scientific Name	Common Name	IUCN Red List Category
SHARKS		
Carcharhinus leucas	Bull Shark	VU
Carcharodon carcharias	White Shark	VU

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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