

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

HILL INLET ISRA

Australia and Southeast Indian Ocean Region

SUMMARY

Hill Inlet is located in Queensland, Australia. The area is situated on the eastern side of Whitsunday Island, just north of Whitehaven Beach. The habitat is characterised by shallow shifting sandy substrates, heavily influenced by semi-diurnal tidal fluctuations. The waters are fringed by mangroves and rocky headlands. This area overlaps with the Great Barrier Reef Marine Park. Within this area there are: **threatened species** and **undefined aggregations** (Broad Cowtail Stingray *Pastinachus ater*).

CRITERIA

Criterion A - Vulnerability; Sub-criterion C5 - Undefined Aggregations

— AUSTRALIA —

— 0-2 metres —

— 2.20 km² —





DESCRIPTION OF HABITAT

Hill Inlet is located in Queensland, Australia. The area is situated on the eastern side of Whitsunday Island, just north of Whitehaven Beach (Tourism and Events Queensland 2025). The habitat is characterised by shallow shifting sandy substrates, heavily influenced by semi-diurnal tidal fluctuations. The waters are fringed by mangroves, primarily Grey Mangrove *Avicennia marina*, and rocky headlands.

The broader region is influenced by the East Australian Current, the poleward flowing western boundary current of the South Pacific Gyre (Suthers et al. 2011). The East Australian Current flow is strongest in the austral summer, and the formation of eddies along this coastline fluctuate seasonally (Ridgway & Hill 2009).

The area overlaps with the Great Barrier Reef Marine Park – Conservation Park Zone (UNEP-WCMC & IUCN 2025).

This Important Shark and Ray Area is benthic and is delineated from inshore and surface waters (0 m) to 2 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 Vulnerable Broad Cowtail Stingray (Sherman et al. 2021).

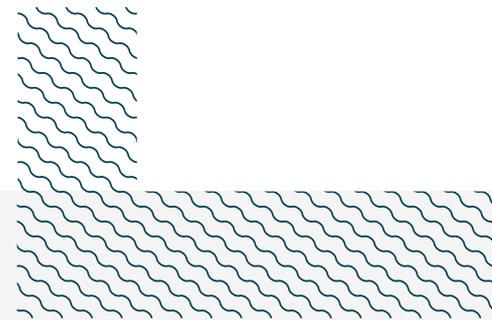
SUB-CRITERION C5 – UNDEFINED AGGREGATIONS

Hill Inlet is an important area for undefined aggregations of one ray species.

Between 1970-2025, there were 38 opportunistic records of Broad Cowtail Stingrays submitted from within the area to the citizen science database iNaturalist (iNaturalist 2025). Most of these records were from 2022 to 2025 (n = 32; 84.2%). Broad Cowtail Stingrays are observed sporadically in the broader region around Whitsunday Island (n = 47 records), however, Hill Inlet appears to be the hotspot for the species in this region with 80.9% of sightings from this area (iNaturalist 2025).

Broad Cowtail Stingrays are thought to feed in the area, with sailing charters planning their visit to Hill Inlet on the rising tide when they observe rays coming into the shallows to presumably feed on the Light-blue Soldier Crab *Mictyris longicarpus* and other infauna (Wings Sailing Charters 2025). Broad Cowtail Stingrays can often be seen foraging in aggregations in the shallow waters of this area and are visible from the Hill Inlet lookout as dark shapes moving slowly through the clear water (Sailing Whitsundays 2025), presumed to be foraging behaviour. Broad Cowtail Stingrays are observed daily in the shallows of Hill Inlet onboard tours around the Whitsunday Islands (Ocean Rafting 2025). It is proposed that the abundant prey in the mangroves of the area, coupled with the warm shallow waters, provide ideal foraging habitat for this species. In addition to the observations of foraging behaviour in this area, high numbers of stingray feeding pits are also observed on the low tide from the Hill Inlet lookout (J Funnell pers. obs. 2025). Given that Broad Cowtail Stingrays are the abundant ray in Hill Inlet, these pits are presumed to be from this species.

Most of the tour operators from the Whitsunday Islands region mention stingrays at Hill Inlet as one of the highlights of their tours (e.g., Ocean Rafting). All available images online confirm Broad Cowtail Stingrays as the species observed, with aggregations of two to 20+ individuals observed in a single image, supporting the regular and predictable nature of their aggregations in the area. Further information is needed to confirm the nature and function of these aggregations.



Acknowledgments

Jessica Funnell (Ocean Rafting) 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 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. Hill Inlet ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

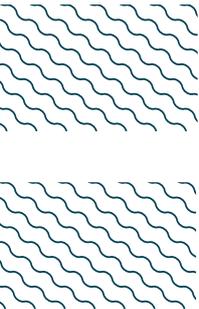
QUALIFYING SPECIES

| 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 | |
| RAYS | | | | | | | | | | | | | |
| <i>Pastinachus ater</i> | Broad Cowtail Stingray | VU | 0-60 | X | | | | | | | X | | |

SUPPORTING SPECIES

| Scientific Name | Common Name | IUCN Red List Category |
|----------------------------|------------------------|------------------------|
| SHARKS | | |
| <i>Negaprion acutidens</i> | Sharptooth Lemon Shark | 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.





REFERENCES

iNaturalist. 2025. iNaturalist. Available at: <https://www.inaturalist.org/> Accessed November 2025.

Ocean Rafting. 2025. Cowtail Ray. Available at: <https://oceanrafting.com.au/23-08-20-cowtail-ray/> Accessed November 2025.

Ridgway K, Hill K. 2009. The East Australian Current. In: Poloczanska, ES, Hobday AJ, Richardson AJ. eds. *A marine climate change impacts and adaptation report card for Australia 2009*. Hobart: NCCARF Publication, CSIRO, 1–16.

Sailing Whitsundays. 2025. Stingrays at Whitsundays Hill Inlet. Available at: https://sailing-whitsundays.com/article/stingrays-at-whitsundays-hill-inlet?gclid=EAlalQobChMI97bb4KTrkAMV26tmAhoIMjP5EAAAYASAAEgLhq_D_BwE&utm_source=googleads&utm_medium=cpc&utm_campaign=22828799236&utm_adgroup=&utm_term=&utm_content=&gad_source=5&gad_campaignid=22824824576 Accessed November 2025.

Sherman CS, Bin Ali A, Bineesh KK, Derrick D, Dharmadi, Fahmi, Fernando D, Grant MI, Haque AB, Maung A, et al. 2021. *Pastinachus ater*. *The IUCN Red List of Threatened Species 2021*: e.T70682232A124550583. <https://dx.doi.org/10.2305/IUCN.UK.2021-1.RLTS.T70682232A124550583.en>

Suthers IM, Young JW, Baird ME, Roughan M, Everett JD, Brassington GB, Byrne M, Condie SA, Hartog JR, Hassler CS, et al. 2011. The strengthening East Australian Current, its eddies and biological effects—an introduction and overview. *Deep Sea Research Part II: Topical Studies in Oceanography* 58: 538–546. <https://doi.org/10.1016/j.dsr2.2010.09.029>

Tourism and Events Queensland. 2025. Hill Inlet. Available at: <https://www.queensland.com/nz/en/things-to-do/attractions/p-56b25fa02880253d74c47a7e-hill-inlet> Accessed November 2025.

UNEP-WCMC & IUCN. 2025. Protected Planet: The World Database on Protected Areas (WDPA) and World Database on Other Effective Area-based Conservation Measures (WD-OECM) [Online], November 2025, Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net Accessed November 2025.

Wings Sailing Charters. 2025. Meet the Hill Inlet, Whitsunday Islands residents. Available at: <https://www.wings.com.au/meet-the-hill-inlet-whitsunday-islands-residents/> Accessed November 2025.