Attachment A

Class Notification under the Commonwealth *Native Title Act 1993*

Scientific research permit proposed for the epaulette shark research

Date of Issue: 15 September 2025

SECTION OF NTA	Subsection 24HA(2) of the *Native Title Act 1993* (Cth)

DEPARTMENT/AGENCY	Australian Fisheries Management Authority (AFMA) on behalf of the Torres Strait Protected Zone Joint Authority (PZJA)

CONTACT NAME	Lisa Cocking
E-MAIL	NTN@afma.gov.au
TELEPHONE NO.	0702 6225 5451
REFERENCE NO.	NT2025-05 – Scientific Permit epaulette shark research 2025

The Protected Zone Joint Authority intends to do the following act:

TYPE OF APPROVAL	Granting of a permit for scientific purposes within the waters of the Torres Strait Protected Zone, subject to PZJA approval.
NUMBER OF APPROVALS	1
UNDER WHAT ACT	Section 12(1) of the *Torres Strait Fisheries Act 1984* (the Act).

The approvals, if granted, will permit the following activity to happen:

NATURE OF ACTIVITY	Subject to PZJA approval, a scientific permit would be granted to authorise an independent researcher to undertake research on epaulette sharks in the areas of waters nearby Horn Island. Sampling will most likely occur around the Adolphus Island group and Johnson Islet. The proposed research will involve measuring and taking biological samples of up to 5 epaulette sharks. Capture of epaulette sharks is by hand, by gently grabbing behind the gill slits. While the sharks are held they will be measured and photographed, and then sampled by taking a small clip from the tail fin (approximately 0.5cm2), and a blood sample of ~ 1ml. The animal is then released alive close to the site of capture. A bucket of newly collected seawater will be kept on the vessel for holding animals in between sampling. Epaulette sharks are hardy and able to withstand low oxygen environments for prolonged periods and show strong recovery after release. The applicants are the scientific authority on this group of sharks and has this information from all 9 species. Data collected in Torres Strait will assist with assessing biodiversity and species management. More information is provided at **Attachment B**.

The above activity will be located within:

LOCATION OF ACTIVITY	The area nearby Horn Island, particularly around the Johnson Islet and the Adolphus Islands. The limits of where the research can occur are as follows:

Attachment A

	Northern-most Latitude: Degrees 10 Minutes 33 Southern-most Latitude: Degrees 10 Minutes 46 Eastern-most Longitude: Degrees 142 Minutes 56 Western-most Longitude: Degrees 142 Minutes 15
MAPS/PLANS	**Attachment C** shows the area of the Torres Strait Fisheries.
NAME OF REGISTERED NATIVE TITLE CLAIMANT GROUP/S OR NAME OF REGISTERED NATIVE TITLE BODY CORPORATE	• Torres Strait Regional Seas Claim • North Eastern Peninsula Sea Claim Group • Gudang Yadhaykenu People Sea Claim • Ankamuthi People Sea Claim • Kaurareg People #3 • Kaurareg People (Ngurupai) • Kaurareg People (Murulag #1) • Kaurareg People (Zuna) • Kaurareg People (Mipa, Tarilag, Yeta, Damaralag) • Northern Cape York Group #1
NAME OF NATIVE TITLE REPRESENTATIVE BODY	• Gur A Baradharaw Kod Torres Strait Sea and Land Council (GBK)

If approved, after consideration of all comments, the management action will be implemented for the following period of time:

DURATION OF APPROVAL	Valid from date of issue to 1 December 2025

You are invited to comment upon the class of proposed future act outlined above by close of business 14 October 2025. If you would like to extend the response period, please contact AFMA by 14 October 2025.

Any comments must be **in writing** to:

By mail addressed to:

Australian Fisheries Management Authority
Att: Lisa Cocking
PO Box 376
Thursday Island
QUEENSLAND 4875

Or by email to: NTN@afma.gov.au

Attachment B

Background Information

What will the research involve?

Capture of epaulette sharks is by hand and returning to the water alive following biological measurements. As they are often found in very shallow water, particularly at night time, researchers will look for them using spotlights on coral reef flats and seagrass areas. It is also possible to locate them while snorkelling and the method will depend on the safety of the area, particularly with respect to crocodile presence. The sharks are captured by hand by gently grabbing behind the gill slits. While the sharks are held they will be measured and photographed, and then sampled by taking a small clip from the tail fin (approximately 0.5cm2) using a pig-ear notcher which facilitates a very quick cutting action.

The animal is then released alive close to the site of capture. A bucket of newly collected seawater will be kept on the vessel for holding animals in between sampling. Epaulette sharks are hardy and able to withstand low oxygen environments for prolonged periods and show strong recovery after release.

The measurements and photographs will be compared with those from the other 9 species that we have previously sampled (in particular we have samples from the GBR and Port Moresby which are the closest sites). The small tissue sample will be used for genetic analysis. DNA is extracted in the laboratory and genetic markers from the DNA generated and compared with data that we have for the other species so that we can assess whether the Torres Strait animals fall under one or other currently recognised species, are hybrids between multiple species or potentially are an unrecognised species. This information is important for assessing biodiversity and species management.

Why is this research being conducted?

The research objectives are to investigate potential cryptic species and hybridisation in epaulette/walking sharks. Epaulettes (genus Hemiscyllium) are a unique group of small sharks found only in northern Australia and around the island of New Guinea. Over the last 10 years, the project teams work has increased the number of recognised species from 5 to 9. Each species can be distinguished by their body patterns and the do not overlap in geography.

Epaulette sharks are restricted to the water of northern Australia and around the island of New Guinea. There are currently nine recognised species. The common epaulette shark is found within the Great Barrier Reef (GBR) and the Papuan epaulette shark in the waters off Port Moresby.

It is unknown which species occurs in the Torres Strait in between these two regions. Photographs from this region show closer affinity to the Papuan epaulette shark but genetic data from one individual caught in the far northern GBR indicates similarity to both species. It is possible that this is a hybrid zone but also that sufficient time and separation from either species has occurred that a unique species is found in this region. We wish to investigate this further by catching, photographing and taking small tissue and blood samples from animals prior to returning them to the wild.

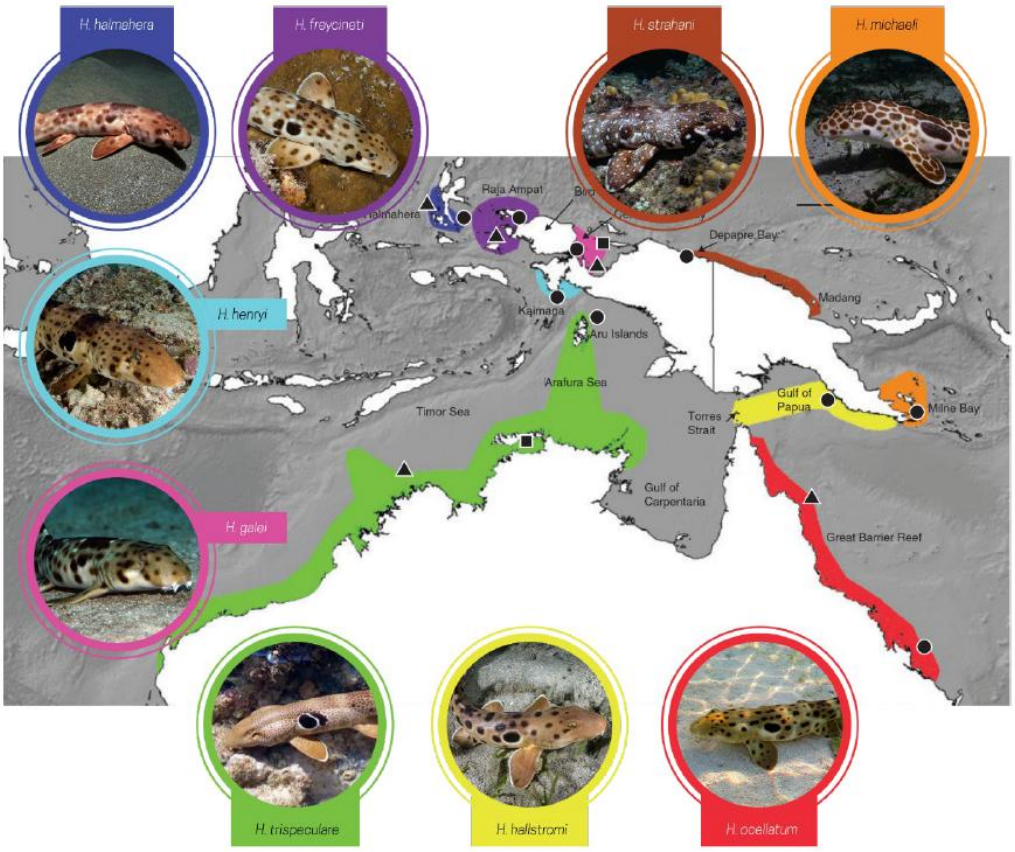
The results from this work will be published in scientific manuscript and all findings can be shared with the local authorities and traditional owner groups.

Up to 5 individual sharks will be sampled from the proposed research area with particular focus around Johnson Islet and the Adolphus Islands.

The below map shows the currently recognised distributions for each of the 9 species of epaulette/walking sharks. Based on few photographic reports shared with our research group directly and from iNaturalist, the species thought to occur in the Torres Strait is Hemiscyllium hallstromi, the Papuan Walking Shark. However, we do not know whether this is true and if the

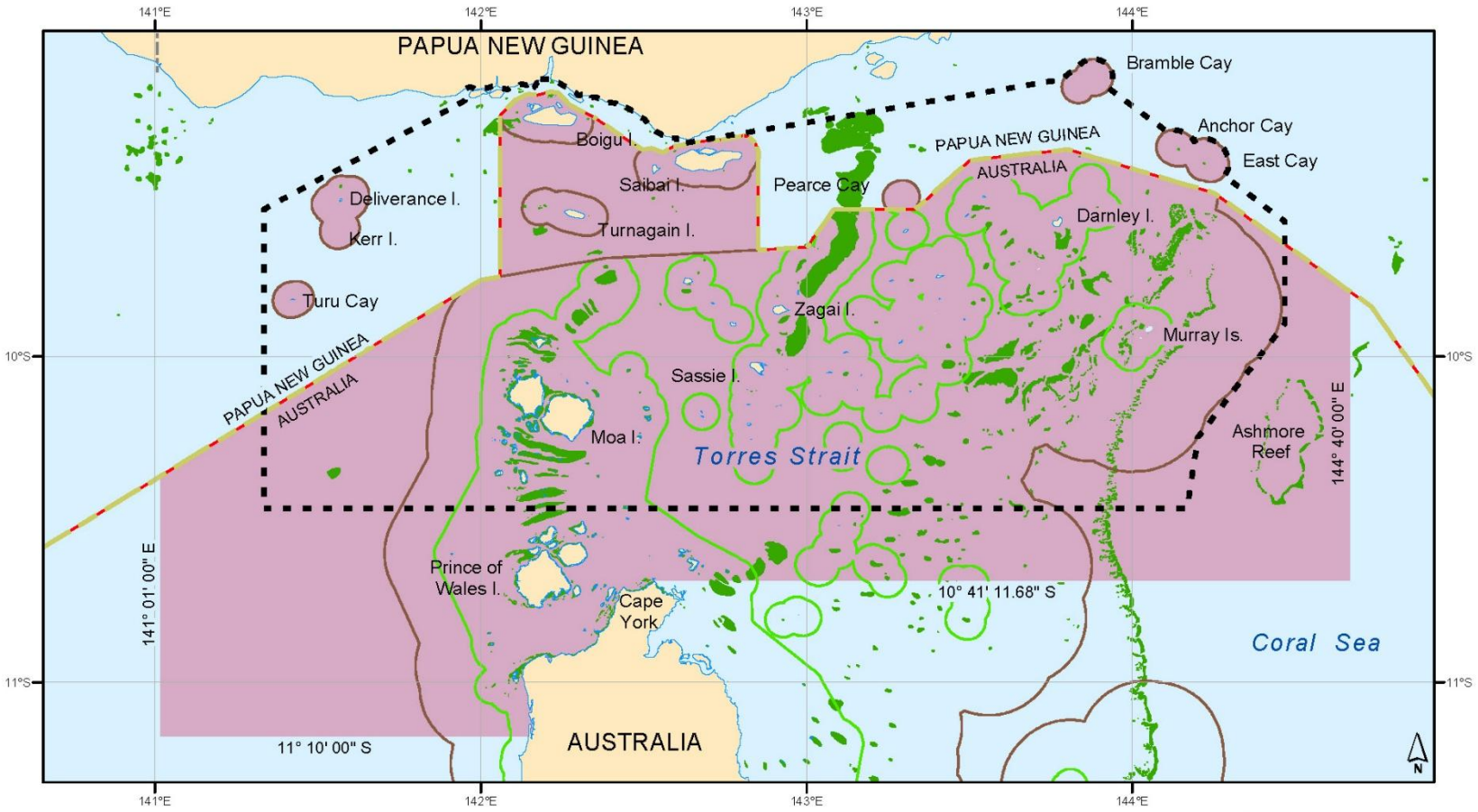
Attachment B

Torres Strait is an important hybrid zone for walking sharks, or potentially has its own unidentified cryptic species.



Attachment C

Area of the Torres Strait Fisheries



Coastal Waters limit (3nm)

Exclusive Economic Zone limit (200nm)

Fisheries Jurisdiction line

Protected Zone Boundary

Territorial Sea limit (12nm)

Low tide elevations and reefs

Torres Strait Fisheries

Australian Government
Australian Fisheries Management Authority

Produced by Geoscience Australia
for the Australian Fisheries Management Authority, August 2006

Geographic
Datum: WGS84

NOTES:

1. The area of the Fishery is sourced from the Torres Strait Fisheries Regulations 1985
2. Within this fishery, arrangements exist between the Commonwealth and QLD, whereby the Coastal Waters of that State are deemed part of the AFZ
3. The Fisheries Jurisdiction Line and Protected Zone shown on this map are established under the Treaty between Australia and the Independent State of Papua New Guinea. This Treaty entered into force on 15 February 1985
4. The maritime zone boundaries shown on this map are sourced from the "Australian Maritime Boundaries (AMB) v2.0"

GeoCat #: 64089