



Australian Government

Australian Fisheries Management Authority

Scalefish Manual Longline Bycatch and Discarding Workplan 2025 – 26

**Southern and Eastern Scalefish and
Shark Fishery**

Securing Australia's fishing future
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1 Introduction

In carrying out its functions, the Australian Fisheries Management Authority (AFMA) must pursue objectives in the [Fisheries Management Act 1991](#) including having regard to the impact of fishing activities on non-target species and the long-term sustainability of the marine environment.

The *Manual Longline Bycatch and Discarding Workplan 2025-26* aims to:

- respond to high ecological risks assessed through AFMA's Ecological Risk Assessment (ERA) process;
- avoid interactions with species listed under the [Environment Protection and Biodiversity Conservation Act 1999](#) (EPBC Act);
- reduce discarding of target and non-target species to as close to zero as practically possible; and
- minimise overall bycatch in the fishery over the long-term.

As articulated in the [Commonwealth Bycatch Policy 2018](#) (the Bycatch Policy), the primary objective for bycatch management is to minimise fishing-related impacts on bycatch species in a manner consistent with the principles of ecologically sustainable development (ESD) and with regard to the structure, productivity, function and biological diversity of the ecosystem. In delivering on this objective for Commonwealth fisheries, the Bycatch Policy requires AFMA to:

- draw on best-practice approaches to avoid or minimise all bycatch, and minimise the mortality of bycatch that cannot be avoided;
- manage fishing-related impacts on general bycatch species to ensure that populations such as, discrete biological units, commonly referred to as stocks in the [Commonwealth Harvest Strategy Policy](#), are not depleted below a level where the risk of recruitment impairment is regarded as unacceptably high; and
- where fishing-related impacts have caused a bycatch population to fall below the level described, implement management arrangements to support those populations rebuilding to biomass levels above that level.

Under the [Southern and Eastern Scalefish and Shark Fishery \(SESSF\) Management Plan 2003](#) (the Management Plan), AFMA is required to develop and implement a bycatch action plan (now referred to as a Bycatch and Discarding Workplan) to ensure that:

- information is gathered about the impact of the SESSF on bycatch species;
- all reasonable steps are taken to avoid incidental interactions with Endangered, Threatened, and Protected (ETP) species;
- the ecological impact of fishing operations on habitats are minimised; and
- bycatch is reduced to or kept at a minimum, and below a level that might threaten bycatch species.

Following the [*Guide to AFMA's Ecological Risk Management \(ERM\) 2017*](#), for all commercial and bycatch (including protected) species, the primary ecological sustainability objective that AFMA pursues via ERM is *"to ensure that fishing (by Commonwealth commercial fisheries) does not reduce any species populations to/below a level at which the risk of recruitment failure is unacceptably high. Where such impacts have occurred, recover population to above that level"*.

There are five guiding principles that AFMA uses to identify issues and to minimise and avoid bycatch of protected and general species. These principles are outlined in the [*AFMA Bycatch Strategy 2017-22*](#):

- Principle 1. Management responses are proportionate to the conservation status of bycatch species and Ecological Risk Assessment results.
- Principle 2. Consistency with Government Policy and legislative objectives (including to avoid and minimise) and existing national protected species management strategies such as the Threat Abatement Plan and National Plans of Action.
- Principle 3. Incentives should encourage industry-led solutions to minimise bycatch of protected species utilising an individual accountability approach.
- Principle 4. Accounting for cumulative impact of Commonwealth Fisheries on protected species when making management decisions on mitigation.
- Principle 5. Appropriate and consistent monitoring and reporting arrangements across fisheries.

Discarding of target species will be broadly approached through monitoring discarding rates as a critical input to stock assessment and harvest strategies and developing other incentives and/or strategies to improve product utilisation.

Action items to help reduce bycatch in the GHAT sector of the fishery are outlined in Table 2. The action items have taken into consideration high-risk species flagged through the ERA process, as well as highlighting areas where there is a lack of information to assist in management decisions.

The Workplan should be read in conjunction with the:

- [*Commonwealth Fisheries Bycatch Policy*](#)
- [*Southern and Eastern Scalefish and Shark Fishery Management Plan 2003*](#)
- [*Commonwealth Fisheries Harvest Strategy Policy and Guidelines 2018*](#)
- [*Threat Abatement Plan for the incidental catch or bycatch of seabirds during oceanic longline fishing operations \(2018\)*](#)
- [*Guide to AFMA's Ecological Risk Management 2017*](#)

2 Fishery description

The Commonwealth Scalefish Hook Sector forms part of the Gillnet, Hook and Trap (GHAT) fishery, a sector of the Commonwealth Southern and Eastern Scalefish and Shark Fishery (SESSF). Manual longline fishing is permitted in Commonwealth waters from south of Fraser Island (K'gari), in southern Queensland to the New South Wales/Victorian border from approximately the 4000m depth contour (60-80 nm from the coast) to the extent of the AFZ. The fishery continues westward to the South Australian/Western Australian border and including waters around Tasmania, to the extent of the Australian Fishing Zone (AFZ). State governments manage waters inside the AFZ off the New South Wales and Queensland coast, and inside 3 nm around South Australia, Victoria, and Tasmania.

Manual longline fishing forms one sector of the GHAT fishery to catch finfish that live on or near the sea floor in the Continental shelf water depths between 200 to 800 m. The fishing gear in this sub-fishery is baited by hand rather than by machine, with no limit to the number of hooks that can be baited. Scalefish Hook Boat SFR can be used in conjunction with a SESSF Automatic longline Fishing Permit which allows the use of 15,000 hooks. When set, the longline can be many kilometres in length.

The use of manual longline in the sub-fishery must be done in accordance with the *Threat Abatement Plan for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations (2018)*. The primary target species for this sector are Blue-Eye Trevalla (*Schedophilus labyrinthica*) and Pink Ling (*Genypterus blacodes*) with Ribaldo (*Mora moro*) and Hapuka (*Polyprion oxygeneios*) as the important commercial species. Manual longline vessels must fish outside of closed areas and are currently restricted to fishing waters deeper than 183 m (Appendix A).

Additionally, concession holders of a Scalefish Hook Boat SFR are not permitted to take School Shark and Gummy Shark of more than 100 kg combined weight per trip. This condition does not apply if the boat is also nominated to an Automatic Longline Fishing Permit, Gillnet to Hook Fishing Permit, or Shark Hook Boat SFR concession.

Electronic monitoring has been a requirement in the GHAT since 2015. All vessels fishing full time with longlines are required to have an AFMA approved operational e-monitoring system as per the [E-Monitoring Southern and Eastern Scalefish and Shark Fishery Direction 2021](#). For the purpose of e-monitoring a vessel in the GHAT is considered full time and is required to have an operational e-monitoring system which fishing if it meets the following criteria:

- fishing with manually baited demersal longlines for 100 or more days in the current or previous fishing season;
- fishing using any combination of gillnets, automatically baited longlines, manually baited longlines and droplines for 100 or more days in the current fishing season; and
- or operates in another fishery (Small Pelagic Fishery or the longline sector of the Eastern Tuna and Billfish Fishery) that has a requirement to install and operate an e-monitoring system.

3 Workplan development

Under the 2025-26 Manual Longline Bycatch and Discard Workplan, the action plans in Table 2 will be progressed and is designed to build upon the progress made under the previous Workplan's action items. The strategies identified will assist in the efforts to continually reduce overall bycatch and discards. Species assessed as high risk under the most recent ERA remain a key focus of this Workplan in addition to the broader bycatch and discard challenges across the sector.

Fisheries Management Strategies (FMS) will be developed under AFMA's revised Ecological Risk Management Framework and will contain the updated Bycatch and Discard Workplan. The current Workplan covers a 2-year period and will be revised once the outputs of the new ERA are finalised.

4 Interim workplan activities

The activities to be completed as part of this Workplan are detailed as actions in Table 2. Generally, the Workplan aims to:

- monitor environmental performance on an individual boat basis to promote responsible resource use and stewardship.
- ensure accurate reporting of interactions with seabird species whilst maintaining cost efficiency through the use of e-monitoring.
- develop an increased understanding of non-quota deepwater shark species catch composition.
- improve handling practices for chondrichthyan species

Additional action items may be added during the 2-year period of this Workplan if they are consistent with the objectives and there is capacity to undertake further projects.

5 Ecological Risk Assessment (ERA) results

The ERA process is undertaken to determine the impact of fishing on marine species and habitats. The 2021 ERA for the Effects of Fishing assessment of marine species is based on a series of parameters including life history, biological productivity, and susceptibility to fishing gear. It involves a hierarchy of risk assessment methodologies progressing from a comprehensive, largely qualitative analysis at Level 1, through a Level 2 Productivity Susceptibility Assessment (PSA). For the manual longline sector, there were no high-risk species identified in the 2021 ERA.

The variety of mitigation measures such as bycatch reduction devices (tori lines, brickle curtains, bycatch trigger limits, caps on hooks per vessel and continually monitoring bycatch) are in place and effective. This is indicated by a limited bycatch record over a five-year period with a total of 74 interactions recorded (15 seabirds, 54 chondrichthyans, 4 marine mammals and one marine reptile). Manual longline fishing causes little damage to the seafloor and has only a limited level of bycatch.

6 Existing measures to mitigate risk

6.1 Gear

Demersal manual longlining fishing gear is set horizontally along the ocean floor and held in place using anchors. Fishing permit conditions specify minimum gear requirements in the Manual longline sector to reduce interactions with non-target bycatch and ETP species. The requirements are:

- Scalefish Hook Boat Statutory Fishing Rights can be used in conjunction with a SESSF Automatic Longline Fishing Permit which allows the use of 15,000 hooks – see [Scalefish Auto-Longline Bycatch and Discard Workplan](#).
- Hydraulic hand-reel drop lining means individual droplines which stay attached to the boat, with a maximum soak time of 90 minutes and no more than 25 hooks per individual line.

Tasmanian coastal waters permit

- Fishing permits in Tasmanian coastal waters specify that demersal longline gear have a hook limit of 200 or 1,000. The headrope length permitted is a maximum of 1,800 m, 2,100 m 2,500 m or 4,200 m when targeting Gummy Shark.

South Australian coastal waters permit

- Fishing permits in South Australian coastal waters specify that demersal longline gear have a hook limit of 400. The headrope length permitted is a maximum of 1,800 m when targeting Gummy Shark.

Gillnet to hook fishing permit

- The gillnet to hook fishing permits for demersal longlining only apply to waters relevant to South Australia. The hook limit for coastal waters is 400 hooks and for outside of coastal waters the hook limit is 5,000.

6.2 Removal of biological material

Under the Threat Abatement Plan (TAP) longline operators are to have in place an offal management protocol. Additionally, AFMA has implemented provisions prohibiting the discharge of offal from vessels while setting or hauling fishing gear and requiring biological material to be removed from nets before they are set. Such practices have been identified as potential ways to reduce interactions with ETP species. In accordance with the TAP for the incidental catch or bycatch of seabirds during longline oceanic fishing operations (2018), there is to be no discharge of offal during line setting.

6.3 Trigger limits for shark species

Trigger limits for the Scalefish Hook sector are in place for the take of Gummy Shark and School Shark. In accordance with the SESSF Scalefish Hook Statutory Fishery Right (SFR) conditions, the concession holder must not take more than 100 kg combined weight per trip of School Shark and Gummy Shark. This condition does not apply if the boat is also nominated to an Automatic Longline Fishing Permit, Gillnet to Hook Fishing Permit or Shark Hook Boat SFR concession.

6.4 Upper-slope Dogfish Management Strategy

The Upper-Slope Dogfish Management Strategy (the Strategy) was revised in 2022 and promotes the recovery of two species of dogfish, Harrison's dogfish (*Centrophorus harrissoni*) and Southern dogfish (*C. xeehaani*). The strategy relies primarily on a network of spatial closures (Appendix A) complemented by a range of non-spatial operational measures. The network builds on existing closures by implementing new closures, extending existing closures and revising existing closures. The Strategy also provides some protection to Endeavour dogfish (*C. moluccensis*) and Greeneye spurdog (*Squalus chloroculus*).

The types of management arrangements which apply under the Strategy include:

- a network of spatial closures;
- 100 percent monitoring obligations through observers or electronic monitoring;
- a combined trigger limit of 3 of Harrison's and Southern Dogfish of bycatch when undertaking permitted types of line fishing in closure areas;
- zero retention for Harrison's dogfish, Southern dogfish, Endeavour dogfish (*C. moluccensis*);
- handling practices to improve post capture survival for released sharks.

6.5 Area Closures

There are several area closures in the SESSF that offer protection for some bycatch and ETP species by protecting breeding habitats or excluding specific types of fishing gear from areas where bycatch issues are known to occur in the manual longline sector.

Currently there are 15 fishery area closures to prevent the bycatch of Australian Sea Lions (*Neophoca cinerea*) and Upper-slope dogfish, School Shark (*Galeorhinus galeus*) and Gummy Shark (*Mustelus antarcticus*). Current closures to longline fishing are shown in Table 1. SESSF operators are also required to adhere to spatial closures implemented under the South-East Commonwealth Marine Reserve Network (Appendix A) [South-east Network management plan | Australian Marine Parks \(parksaustralia.gov.au\)](https://parksaustralia.gov.au).

Table 1: Spatial closures relevant to longline fishing gear which have been implemented to protect ETP and high-risk species.

Source: [Fisheries Management \(Southern and Eastern Scalefish and Shark Fishery and Small Pelagic Fishery Closures\) Direction 2021](#) and Southern and Eastern Scalefish and Shark Fishery Management Arrangement Booklet 2024-25.

Closure Area	Species Protected
Kent Group National Park	Closed to all fishing methods. The Tasmanian Government has implemented a Marine Protected Area around the Kent Island (Deal Is) in eastern Bass Strait.
Schedule 3: Head of the Great Australian Bight	Closed to all fishing to protect School Shark and Australian Sea Lion populations.

Closure Area	Species Protected
Schedule 6: South Australian Shark Closures - Kangaroo Island	Closed to all fishing to protect School Shark and Australian Sea Lion populations.
Schedule 7: South Australian Shark Closure -Victor Harbor to the Victorian border	Closed to all fishing methods to protect breeding School Shark and Australian Sea Lion populations.
Schedule 8: Freycinet Commonwealth Marine Reserve Closures	Closed to protect Upper-Slope dogfish. If the Harrison's and Southern dogfish triggers are met (ref to 6 (i) in the Direction) closed for all fishing methods for 12 months within this area.
Schedule 9: Murray Commonwealth Marine Reserve Closures Schedule	Closed to protect Upper-Slope dogfish. If the Harrison's and Southern dogfish triggers are met (refer to 6(i) in the Direction), closed for all fishing methods for 12 months within this area.
Schedule 10: Commonwealth Gulper Shark Closure – Southern Dogfish	Closed to hook and trawl methods to protect Upper-slope dogfish.
Schedule 11: Gulper Shark Closure – Endeavour Dogfish	Closed to all fishing methods to protect Upper-slope dogfish.
Schedule 12: Gulper Shark Closure – Harrison's Dogfish	Closed to all fishing methods to protect Upper-slope dogfish.
Schedule 29: Barcoo and Taupo Seamounts' Closures	Closed to all fishing if the Harrison's and Southern dogfish triggers are met, to protect the Upper-slope dogfish
Schedule 30: Queensland and Britannia Seamounts' Closures	Closed to all fishing methods (except hydraulic had reel drop lining) to protect Upper-slope dogfish.
Schedule 31: Derwent Hunter Seamount Closure	Closed to all fishing methods to protect Upper-slope dogfish.
Schedule 32: Port MacDonnell Closure	Closed to all fishing methods to protect Upper-slope dogfish.
Schedule 33: Murray Dogfish Closure	Closed to protect Upper-Slope dogfish. If the Harrison's and southern dogfish triggers are met (refer to 6(u) in the Direction), closed for all fishing methods for 12 months within this area.
Schedule 39: Flinders Research Zone Closure	Closed to all fishing methods to protect Upper-slope dogfish.

SESSF operators are also required to adhere to spatial closures implemented under the South-East Commonwealth Marine Reserve Network. [South-east Network management plan | Australian Marine Parks \(parksaustralia.gov.au\)](#)

Further information regarding the closures can be sourced at www.afma.gov.au.

6.6 Threat Abatement Plans for Seabirds

The Seabird TAP has been developed to address key threatening processes of incidental catch (or bycatch) of seabirds during oceanic longline fishing operations. The Seabird TAP was initially developed in 1998 and has subsequently been updated in 2006, 2014 and 2018 (the latest version) with the aim to achieve zero seabird incidental catch (or bycatch). The Seabird TAP is considered a feasible and efficient approach to mitigating the key threatening process as required by the *EPBC Act*. Under the Seabird TAP the Commonwealth and its agencies are bound to identify research, management, and other actions to mitigate impacts to seabirds during fishing operations. It is expected that improved and emerging mitigation measure will make it feasible to achieve a near-zero bycatch within the life of the Seabird TAP.

Seabird bycatch occurs where a seabird is observed caught during longline fishing. This is the number of seabirds reported caught: (a) by an AFMA scientific observer or other independent observer approved by AFMA on board the fishing vessel, and/or (b) by the fishing operator in the logbook records in compliance with arrangements for the fishery where longline fishing is subject to independent monitoring using an electronic monitoring system approved by AFMA. The Seabird Tap is available on the Department of Climate Change, Energy, the Environment and Water website at <https://www.antarctica.gov.au/about-antarctica/environment/plants-and-animals/threat-abatement-plan-seabirds/>.

Trigger rate and gear requirements

There are requirements for bycatch protocols to be used to reduce interactions with seabirds during oceanic longline operations in the AFZ. The GHAT manual longline operators are required to:

- keep seabird interaction rates below 0.01 interactions (dead and alive) per 1,000 hooks set.
- either set longlines at night or use at least one bird-scaring line constructed to a specified standard approved by AFMA or another proven mitigation measure approved by AFMA for use without such a line.
- use non-frozen baits.
- carry on board one or more assembled tori line. Each tori line must be constructed and used in accordance with the following specifications:
 - i. must be a minimum of 150 metres in length;
 - ii. must be deployed from a position on board the boat and utilise a drogue so that it remains above the water surface for a minimum of 100 metres from the stern of the boat;
 - iii. the streamer pair nearest to the boat is positioned not more than 10 metres (measured horizontally) from the boat;
 - iv. all other streamer pairs are positioned not more than 7 metres apart; and
 - v. in addition to part (i) above, all streamers must be maintained to ensure their lengths are

as close to the water surface as possible.

If a seabird mortality occurs during fishing operations, for the remainder of the trip, longline gear must only be set at night. The six key areas described in the Seabird TAP to meet the objective, which are relevant to AFMA are:

- *Mitigation* - AFMA will ensure effective measures will continue to be applied, both through legislative frameworks and fishing practices, to avoid seabird bycatch and minimise seabird bycatch and bycatch rates, recognising the importance of other factors such as safety, practicality, and the characteristics of the fishery.
- *Education* – AFMA will communicate the results from data analysis throughout the community, stakeholder groups and international forums, and programs will be established that provide information and education to longline operators.
- *International Initiatives* – advocacy in international conservation and fisheries management forums in support of global adoption of seabird bycatch mitigation measures across the range of effected seabird species including trigger and other limits, and effective bycatch and other threat mitigation methods that are complementary with those outlines in this threat abatement plan.
- *Research and Development* – continued support of research into developing and reviewing the efficiency, effectiveness, and uptake of new and improved mitigation measures
- *Innovation* - innovation in 'bird friendly' fishing measures and devices will continue to be encouraged
- *Data collection and analysis* – data will be collected and analysed to assess the performance of the threat abatement plans including mitigation measures and to improve knowledge of seabird- longline interactions and the conservation status of seabirds.

AFMA continues to support fishers to develop mitigation measures that deter birds from the lines at the surface and sink hooks out of reach of birds as quickly as possible. These boat specific measures will be included in the individual vessel seabird management plans. This Workplan includes measures that strengthen incentives for individual fishers to take action to minimise their seabird bycatch to below 0.01 seabirds per 1,000 hooks set. Under the proposed actions Electronic Monitoring Systems have been implemented on longlining boats to independently monitor fishing effort and bycatch. Fishers are individually responsible for minimising their bycatch and choosing additional mitigation measures best suited to their boat and fishing practices.

7 Bycatch Workplan Action Items

Table 2: Action items for the Manual Longline 2025-26 Bycatch and Discard Workplan.

Action Items	Risk/Issue to be addressed (workplan object.)	Timeframe	Cost \$	Responsible Parties	Performance Indicators	Milestones
Develop a broader and more relevant species identification guide	Improve Chondrichthyes species ID	2025-26		AFMA	ID guide	Distribute species ID guides of sharks and rays relevant to the longline sector
Undertake a desktop analysis of electronic monitoring data	Validation of logbook data and catch reporting	2025-26		AFMA	EM/observer paired trial	Discussion paper completed
Review the operational guidelines for seabird bycatch	Seabird Interactions	2025-26		AFMA	Seabird mitigation plan review	Discussion review paper published
Consider spatial management if needed	ETP interactions	2025-26		AFMA	Regulation and management	SFR condition review
Develop a handling guide for skates and sharks	Improve Chondrichthyes species survivability	2025-26		AFMA	Handling guide developed	Guide developed and distributed to industry

8 Summary

AFMA and industry will continue to work co-operatively to reduce bycatch, minimise discarding and improve monitoring within the fishery. AFMA has implemented the Upper Slope Dogfish Management Strategy, which includes a network of spatial closures and more on provisions to reduce the impact of hook fishing on Dogfish and Gulper sharks. The key areas focused on for this Workplan are deepwater sharks, skates and seabirds. To address the issue of misidentification of deepwater sharks reported in logbooks a deepwater shark identification guide was developed and distributed to concession holders. The identification guide will assist operators to positively identify non-target deepwater shark species, which will then facilitate accurate reporting.

Mitigating longline fishing interactions with deepwater skates and sharks, which consume similar baits to targeted species has many challenges. For example, these species preferred habitat overlaps with several SESSF target species such as Pink ling, Blue-eye trevalla and Ribaldo. Therefore, this bycatch Workplan focus aims to increase the species post capture survivability through improved handling practices. AFMA has published a *Bycatch Handling and Treatment Guide 2016/17*, which will be distributed to vessels by fisheries management staff during port visits. A copy of the Guide is also available on the AFMA website ([Reports, publications and guides | Australian Fisheries Management Authority \(afma.gov.au\)](#))

9 Review Process

Bycatch and Discarding Workplans are largely output focused. The action items included here are only some of the measures AFMA undertakes as part of the Ecological Risk Management (ERM) Strategy and it is difficult to measure the specific contribution of an action item to the overall objectives of the ERM Strategy. As part of the ERM Strategy AFMA have specific and measurable objectives with outcomes to be quantitatively assessed as part of the annual review.

This Workplan will be reviewed at:

- 6 months to check that the progress of action items is on track
- 12 months to
 - ensure actions are progressing well
 - ensure that objectives are being met
 - determine if any additional actions can be taken
- 18 months to check that the progress of action items is on track
- 24 months to assess the effectiveness of the Workplan actions in addressing the associated bycatch risks.

At the end of the two-year period the outcomes of this Workplan will be reported to the Department of the Climate Change, Environment, Energy and Water (DCCEEW). Subsequently, a new Workplan will be developed and implemented.

10 Appendix A - Maps

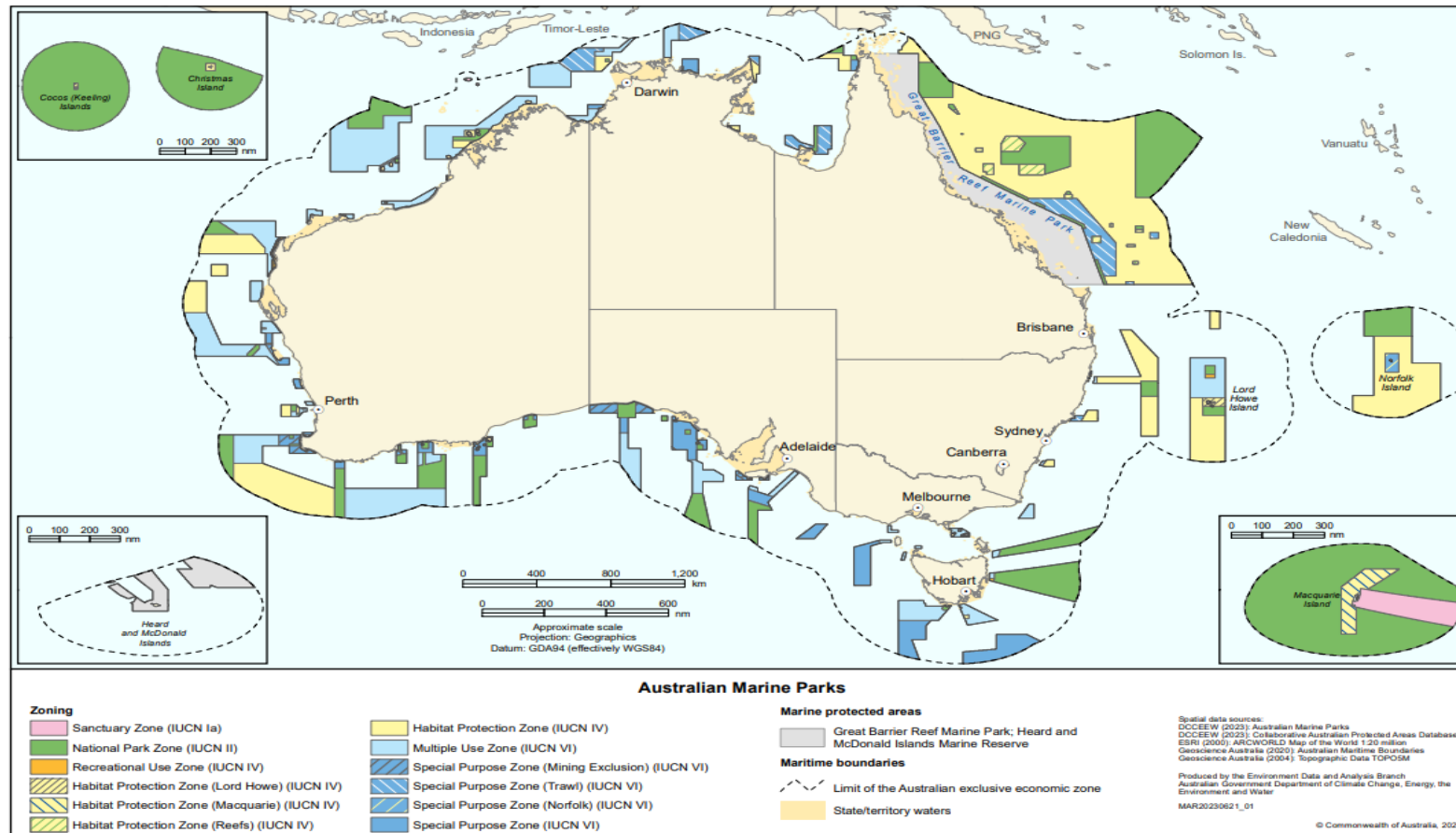


Figure 1: Map of the Australian Marine Park Network.

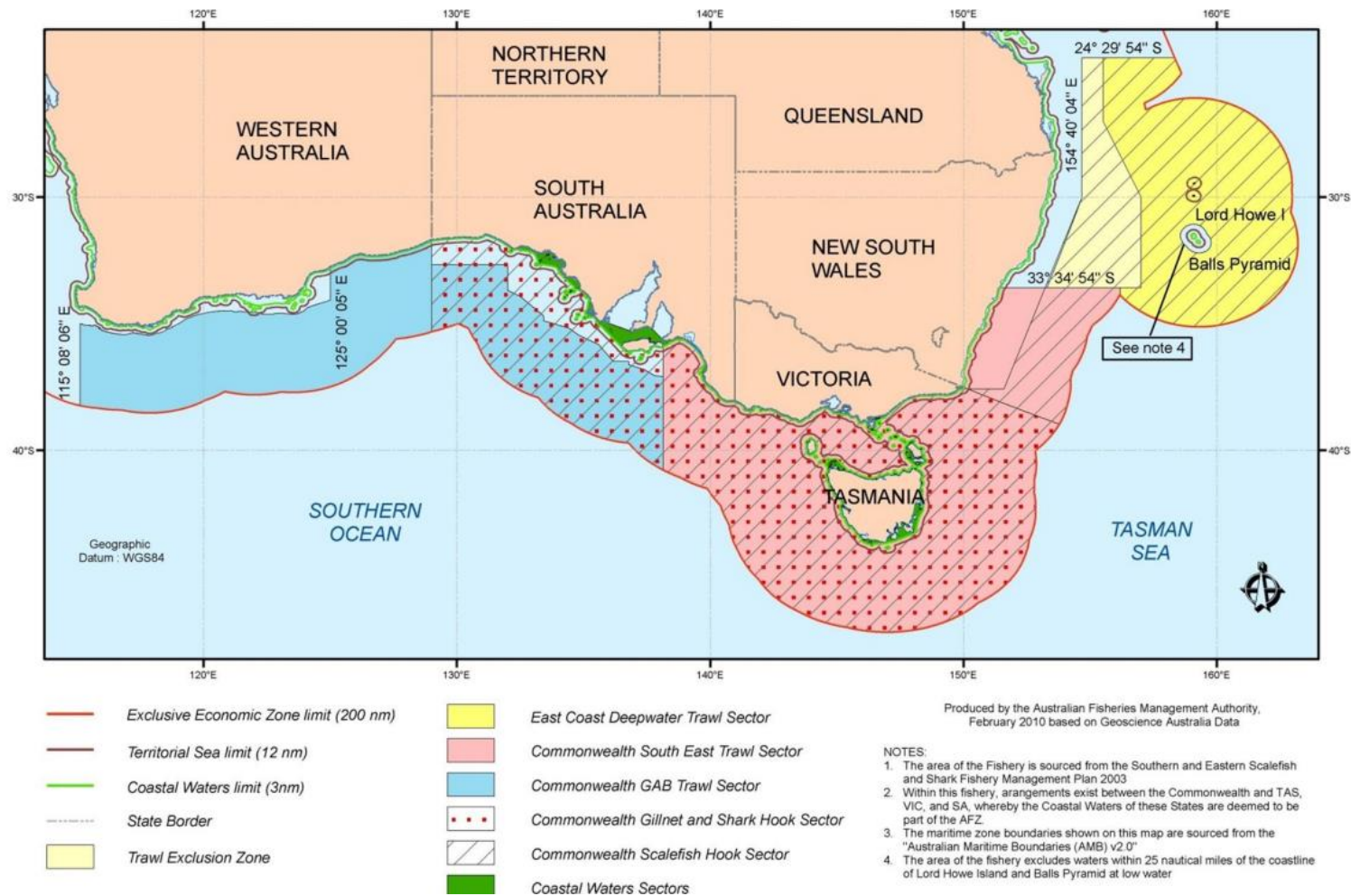


Figure 2: Map of the Southern and Eastern Scalefish and Shark Fishery

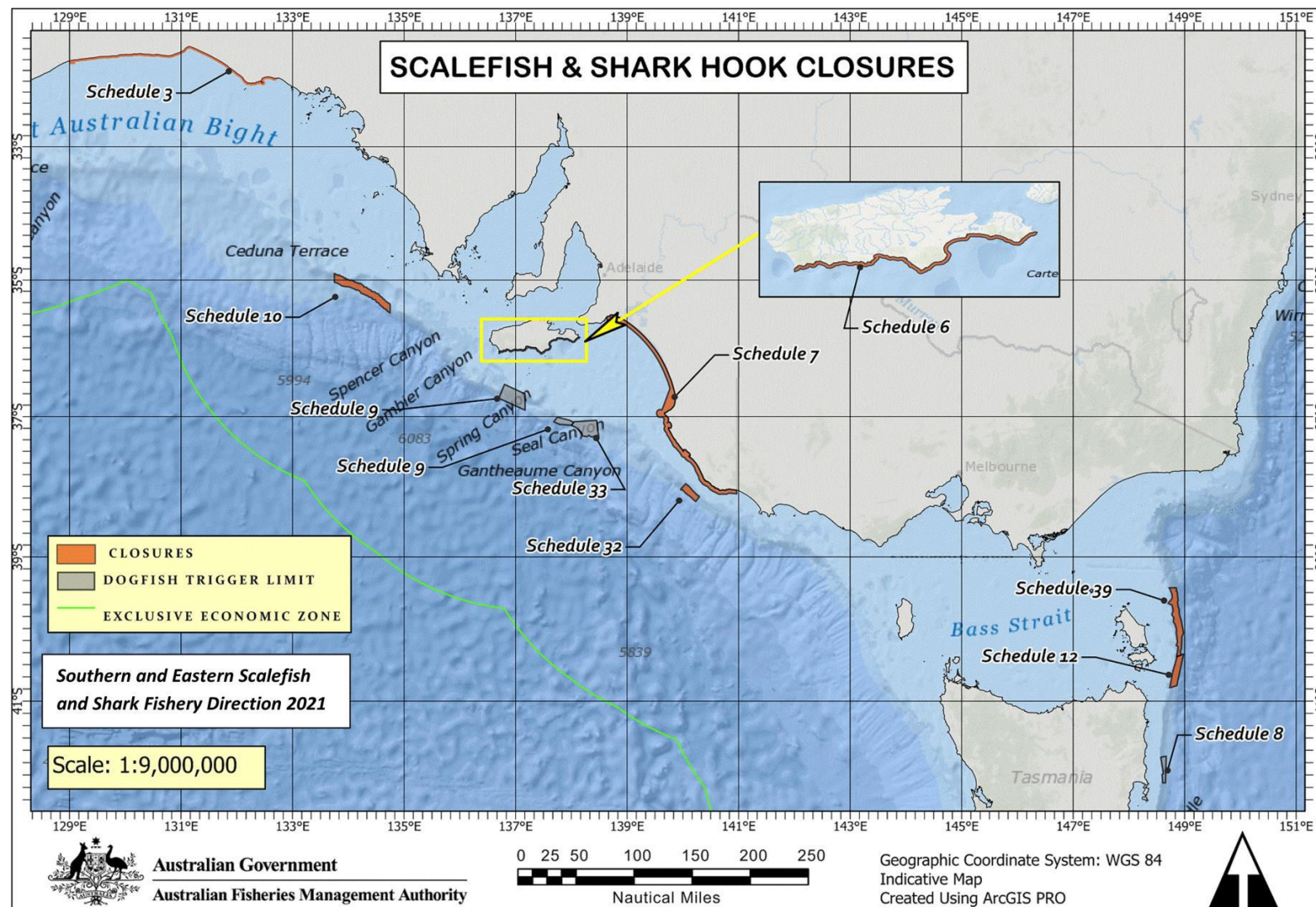


Figure 3: Scalefish and Shark Hook Closures.

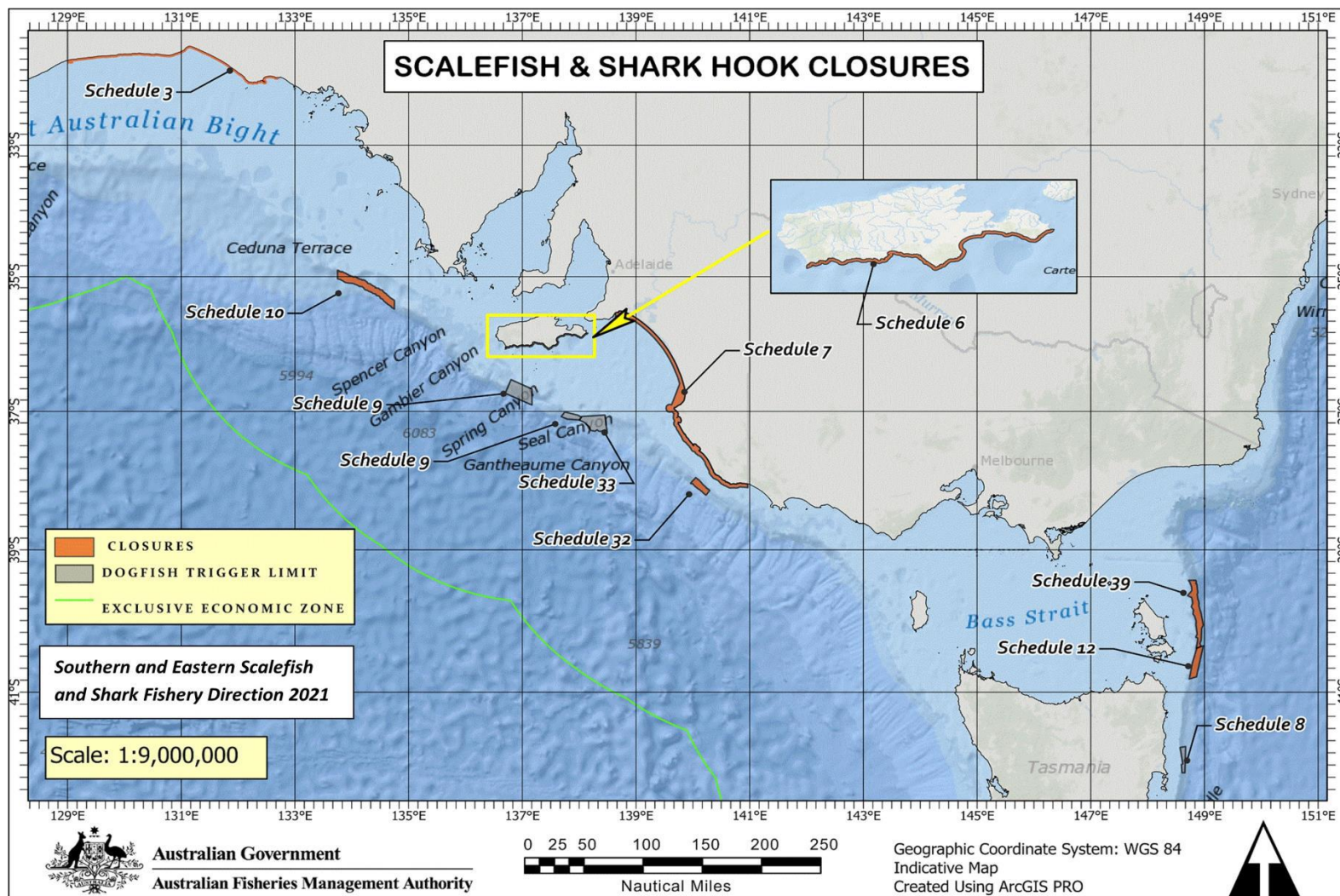


Figure 4: Map of Scalefish and Shark Hook Closures.

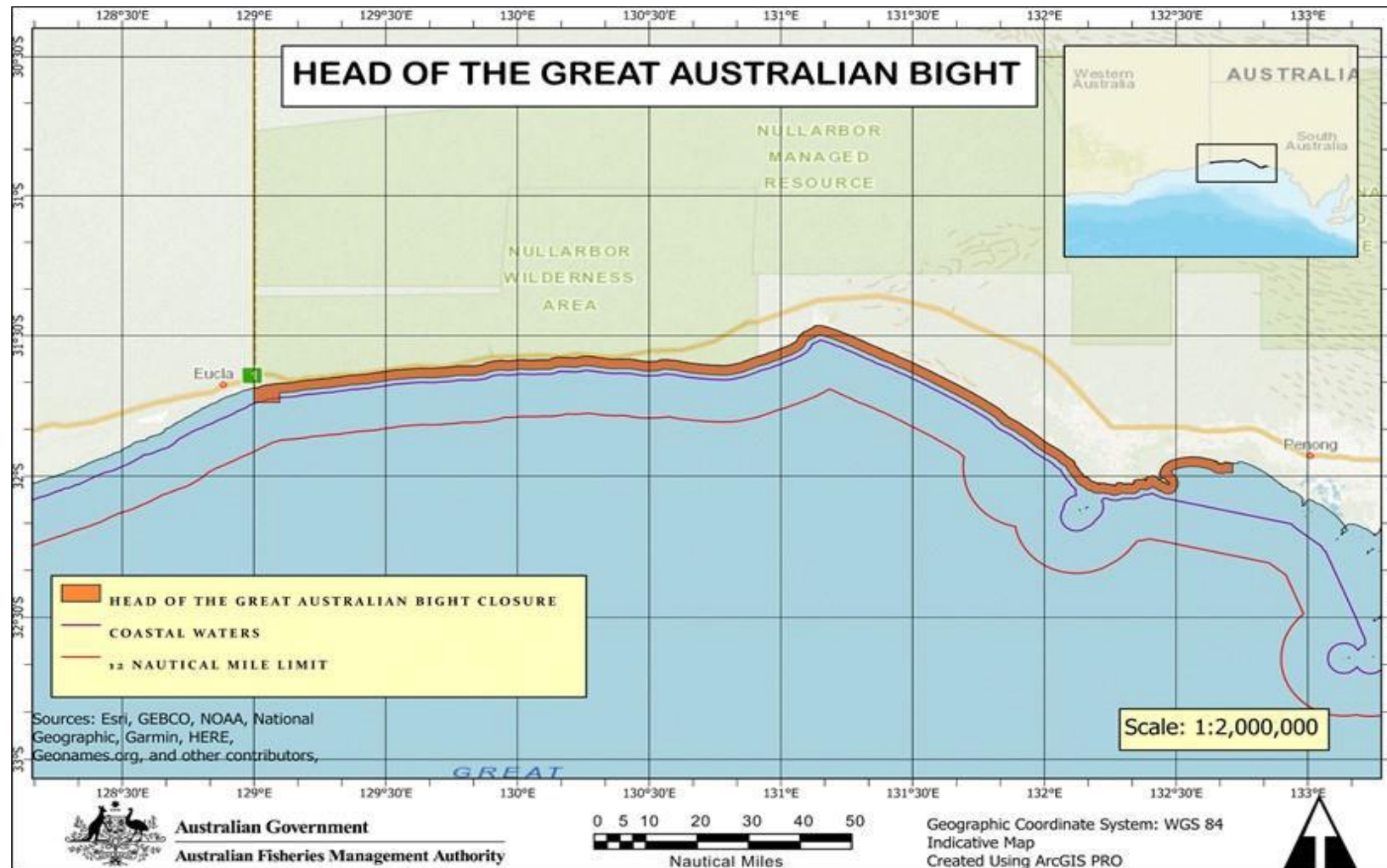


Figure 5: Map of the Auto-longline Closures in the Head of the Great Australian Bight.

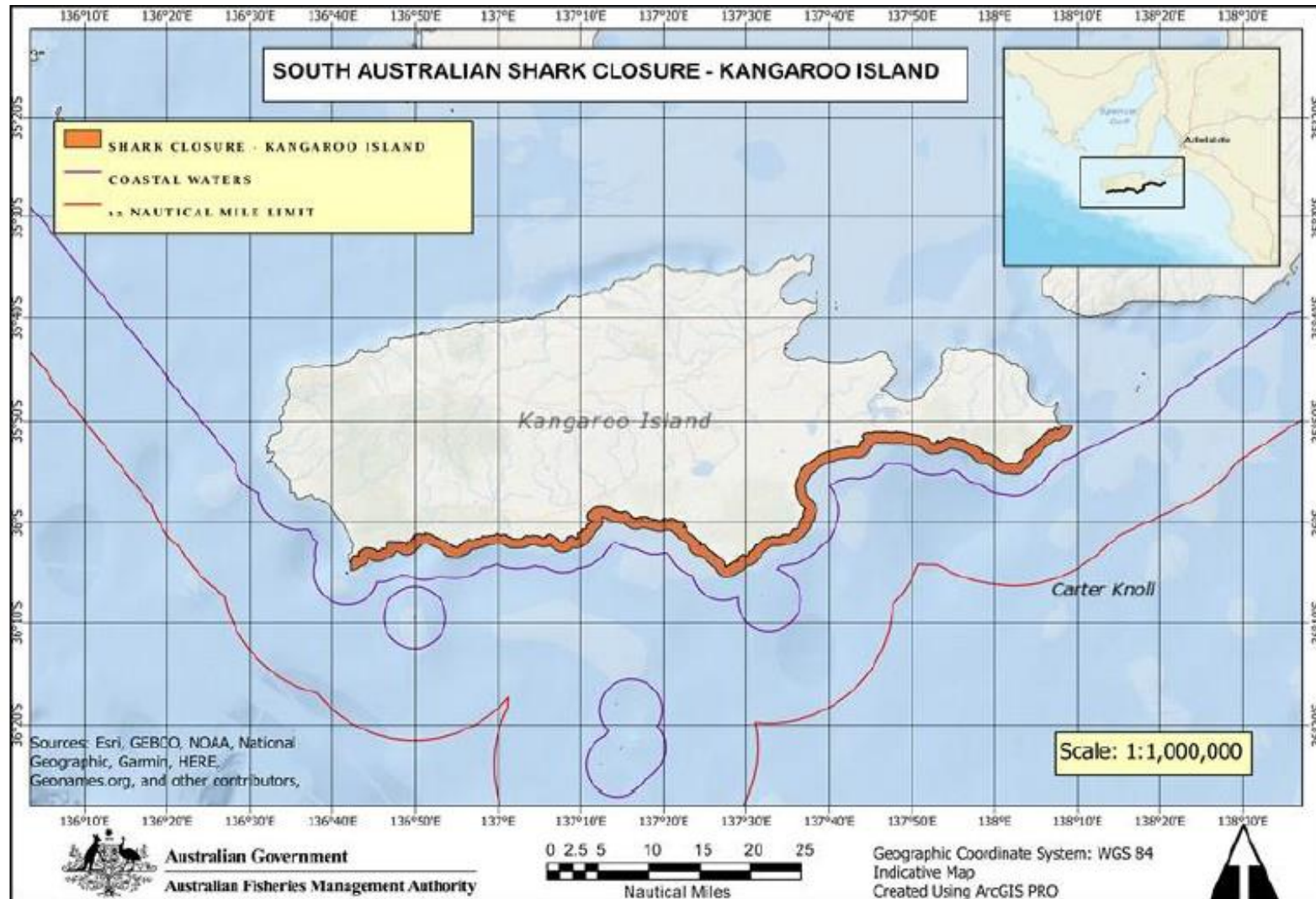


Figure 6: Map of the South Australian Shark Closure – Kangaroo Island.

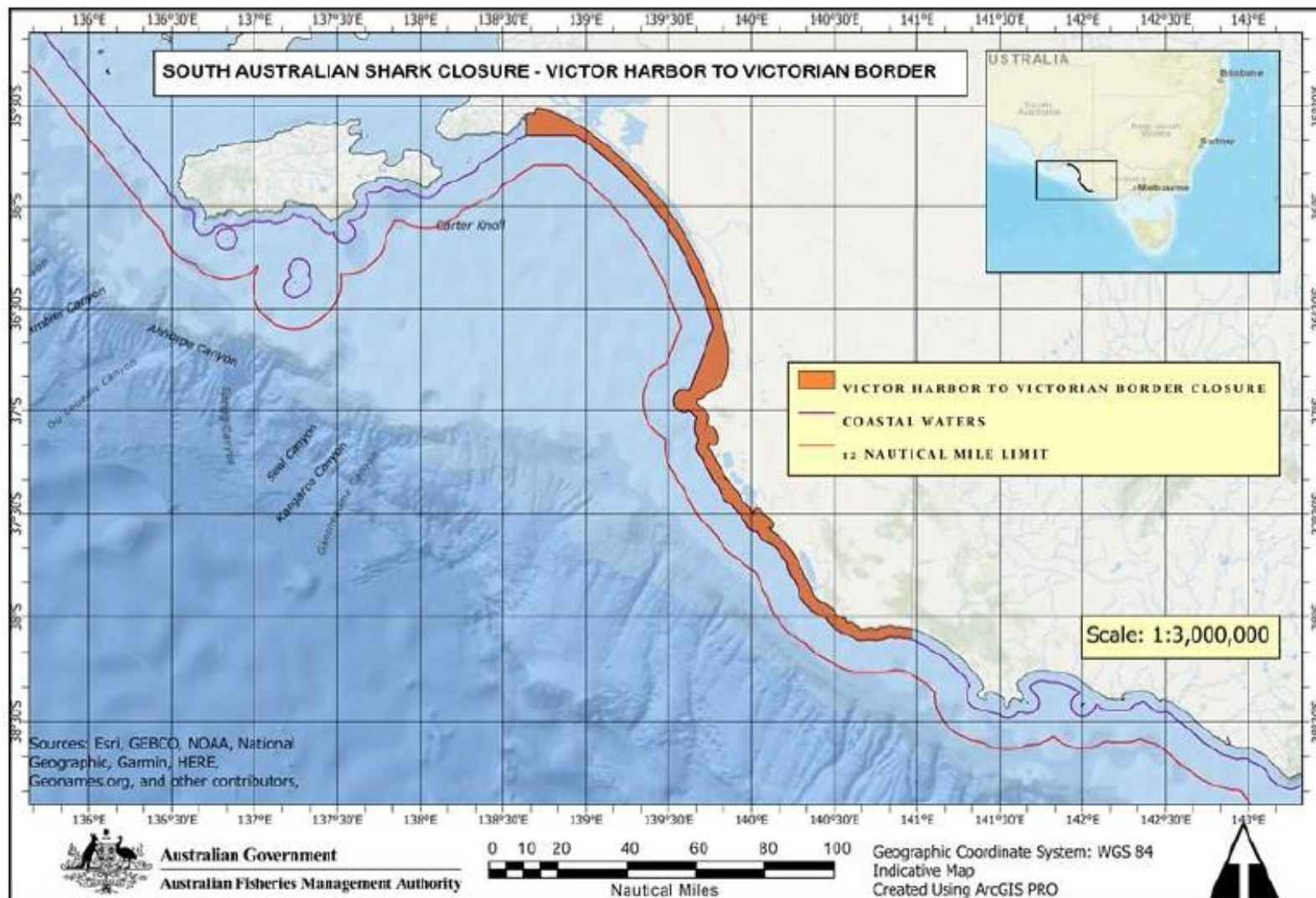


Figure 7: Map of the South Australian Shark Closure – Victor Harbor to the Victorian Border.

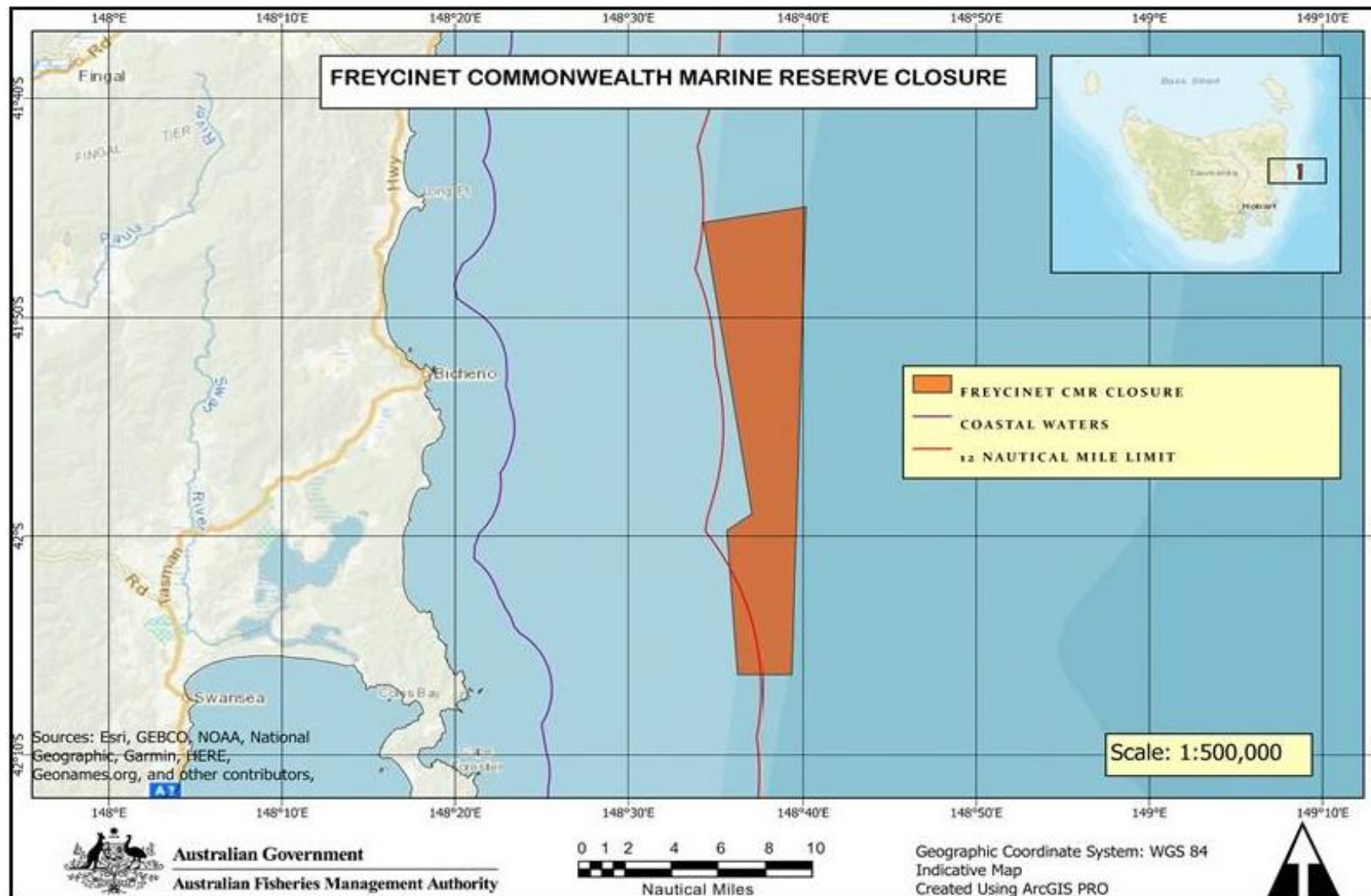


Figure 8: Map of the Freycinet Commonwealth Marine Reserve Closures.

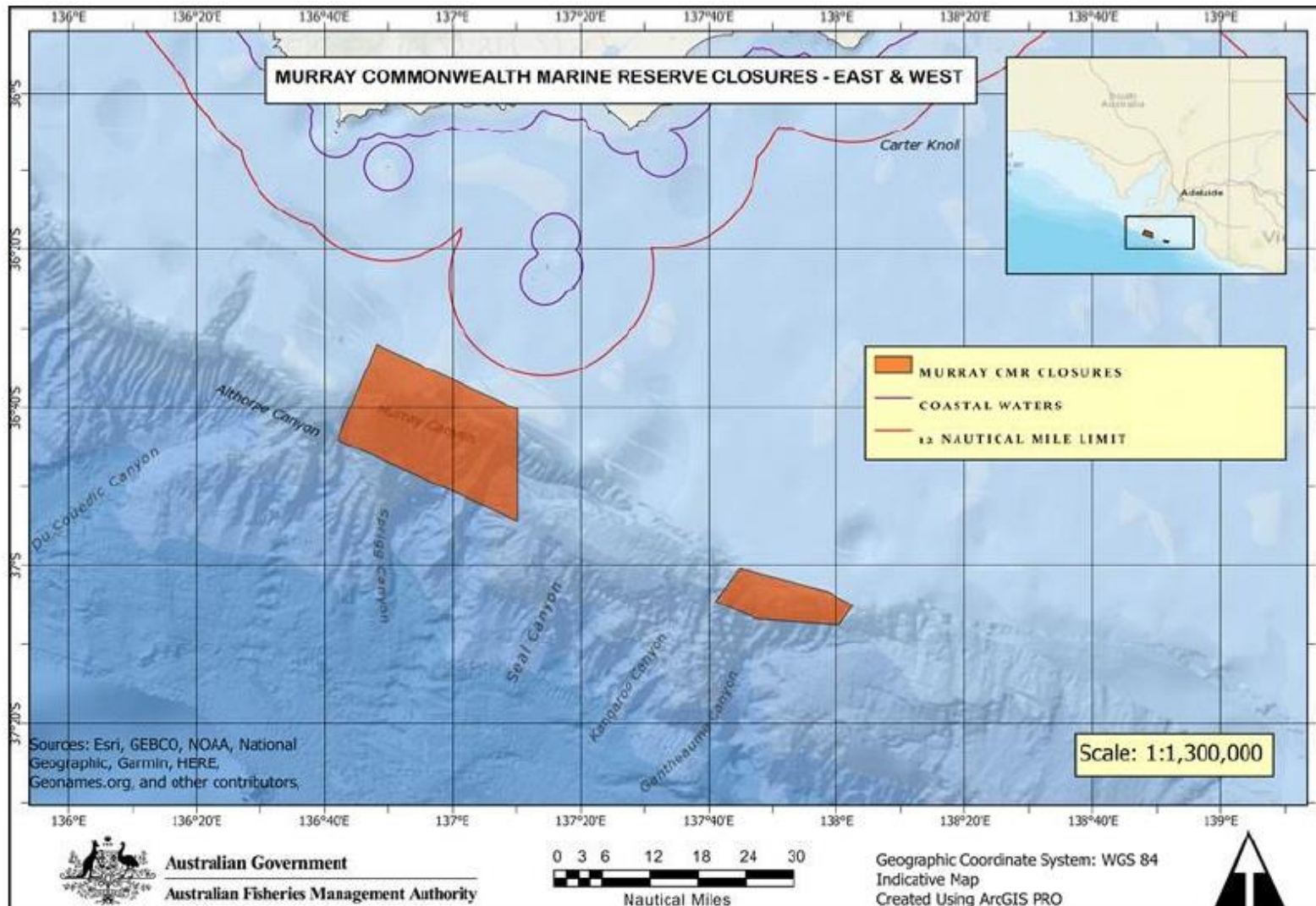


Figure 9: Map of the Murray Commonwealth Marine Reserves Closures Schedule.

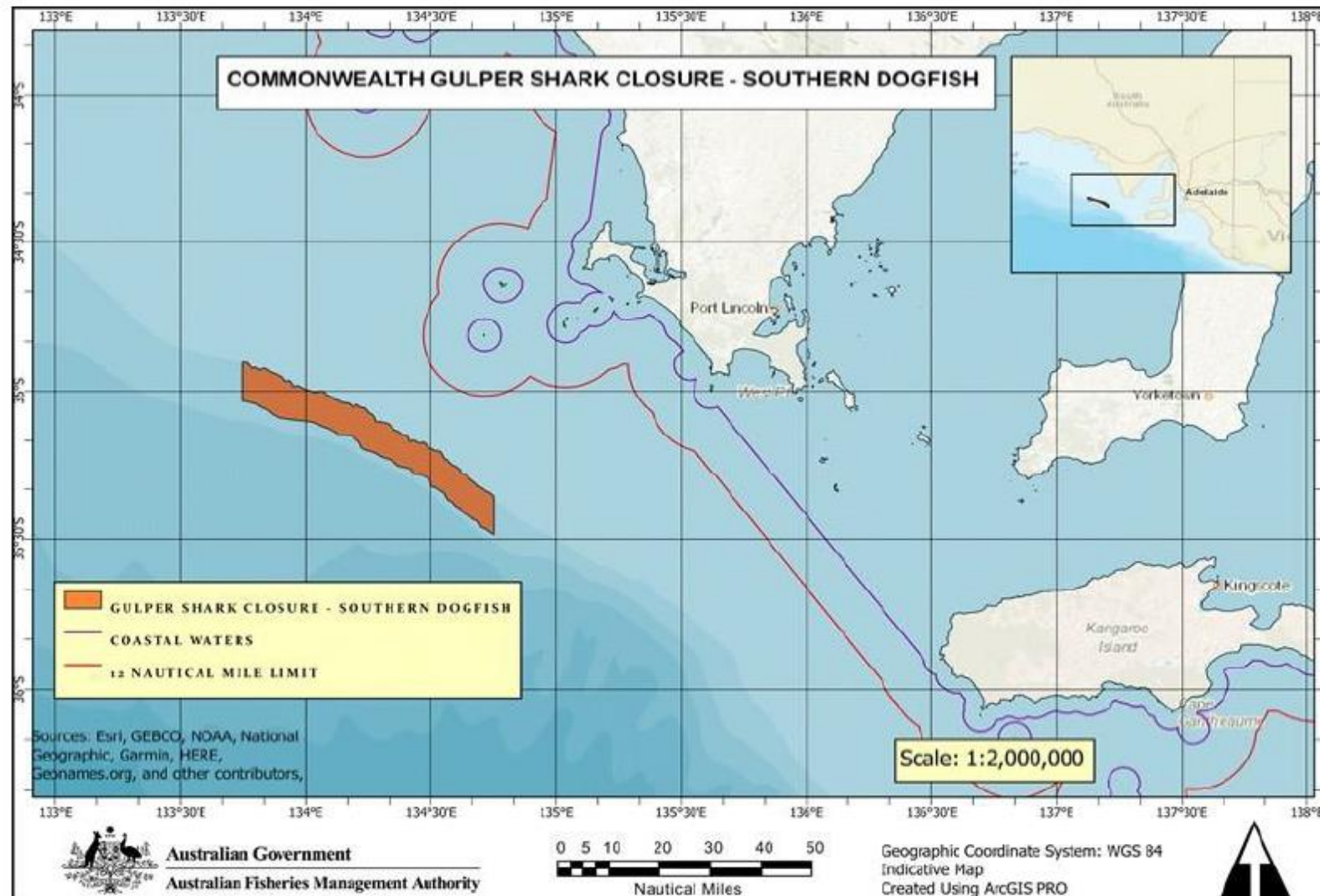


Figure 10: Map of the Commonwealth Gulper Shark Closure – Southern Dogfish.

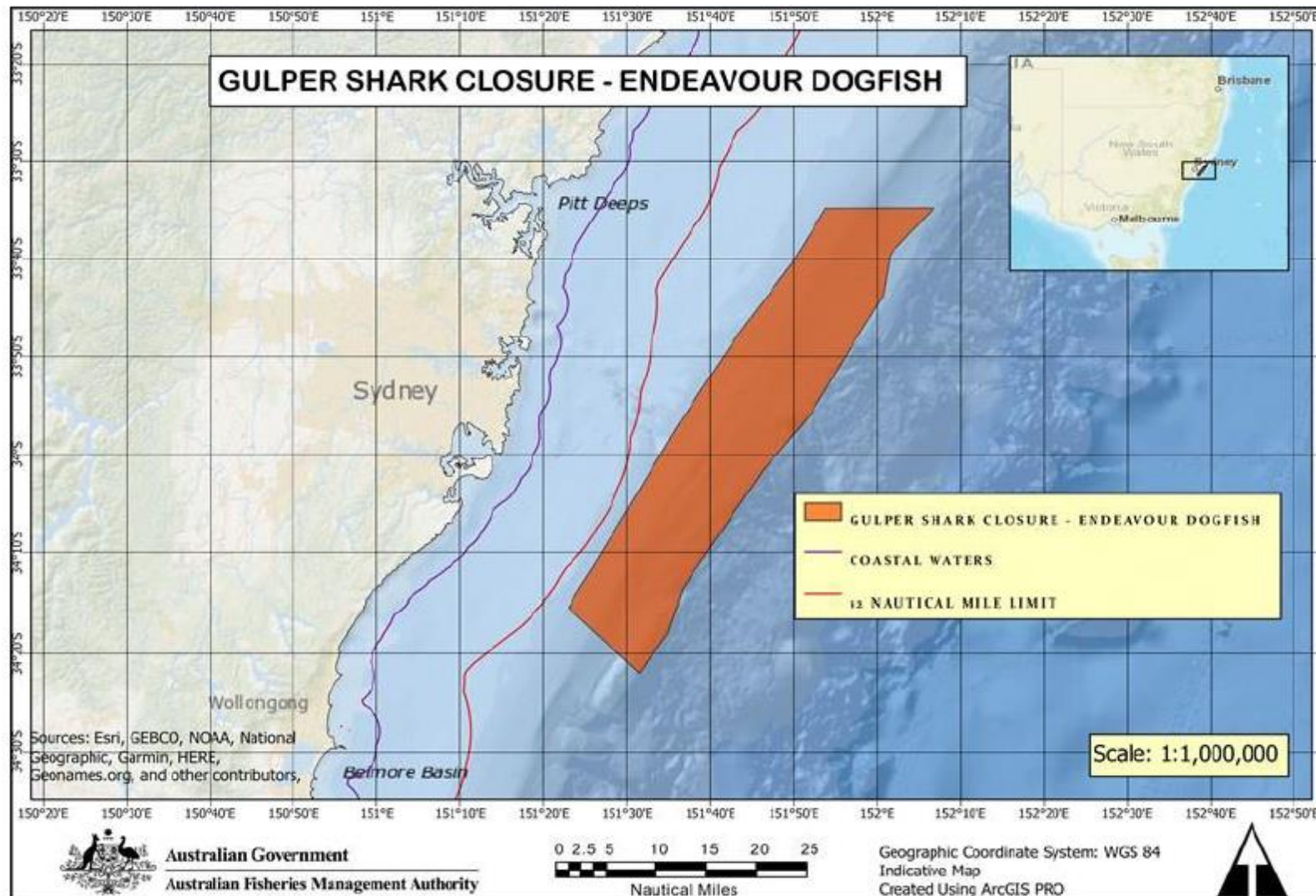


Figure 11: Map of the Gulper Shark Closure – Endeavour Dogfish.

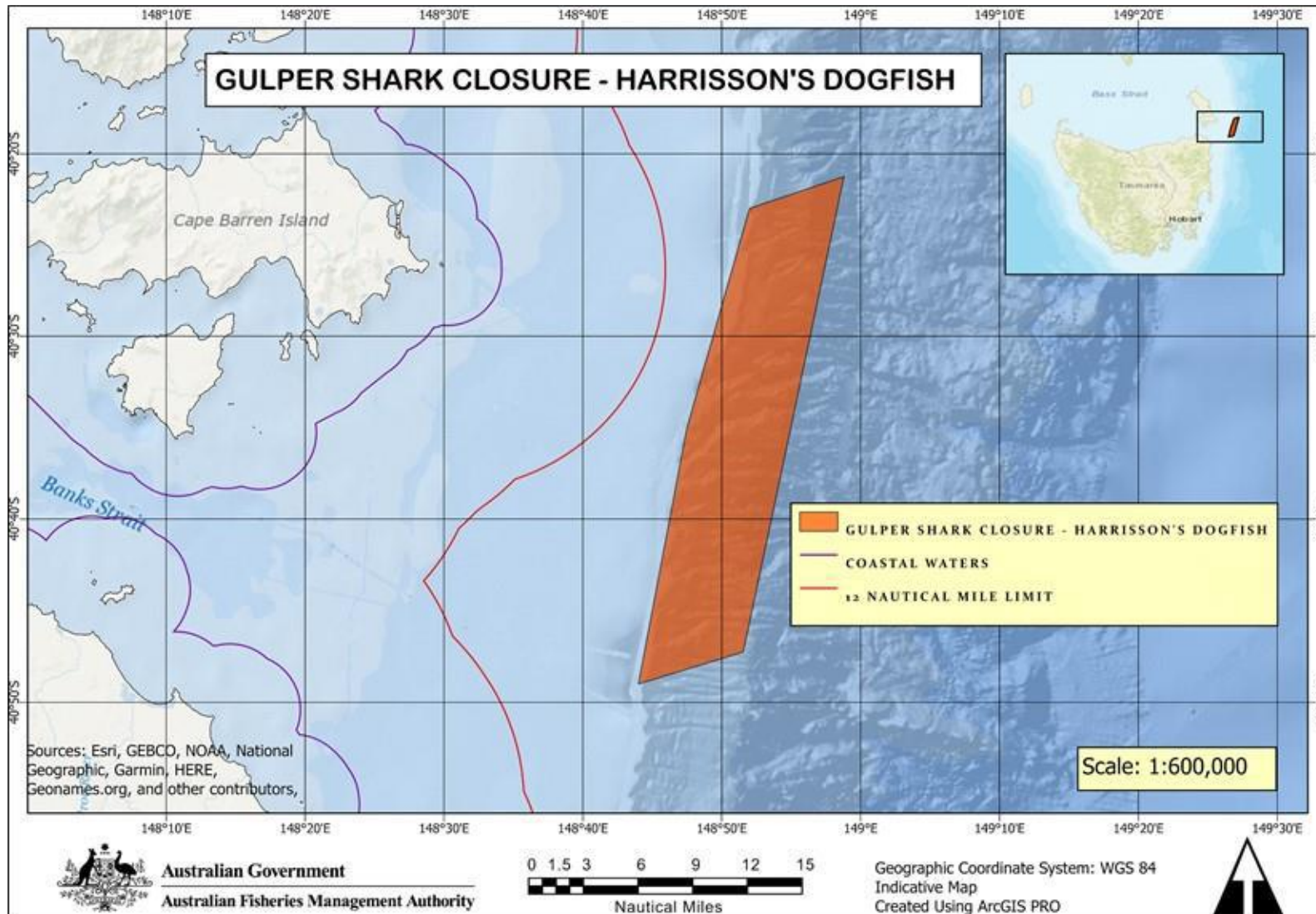


Figure 12: Map of the Gulper Shark Closure – Harrison's Dogfish.

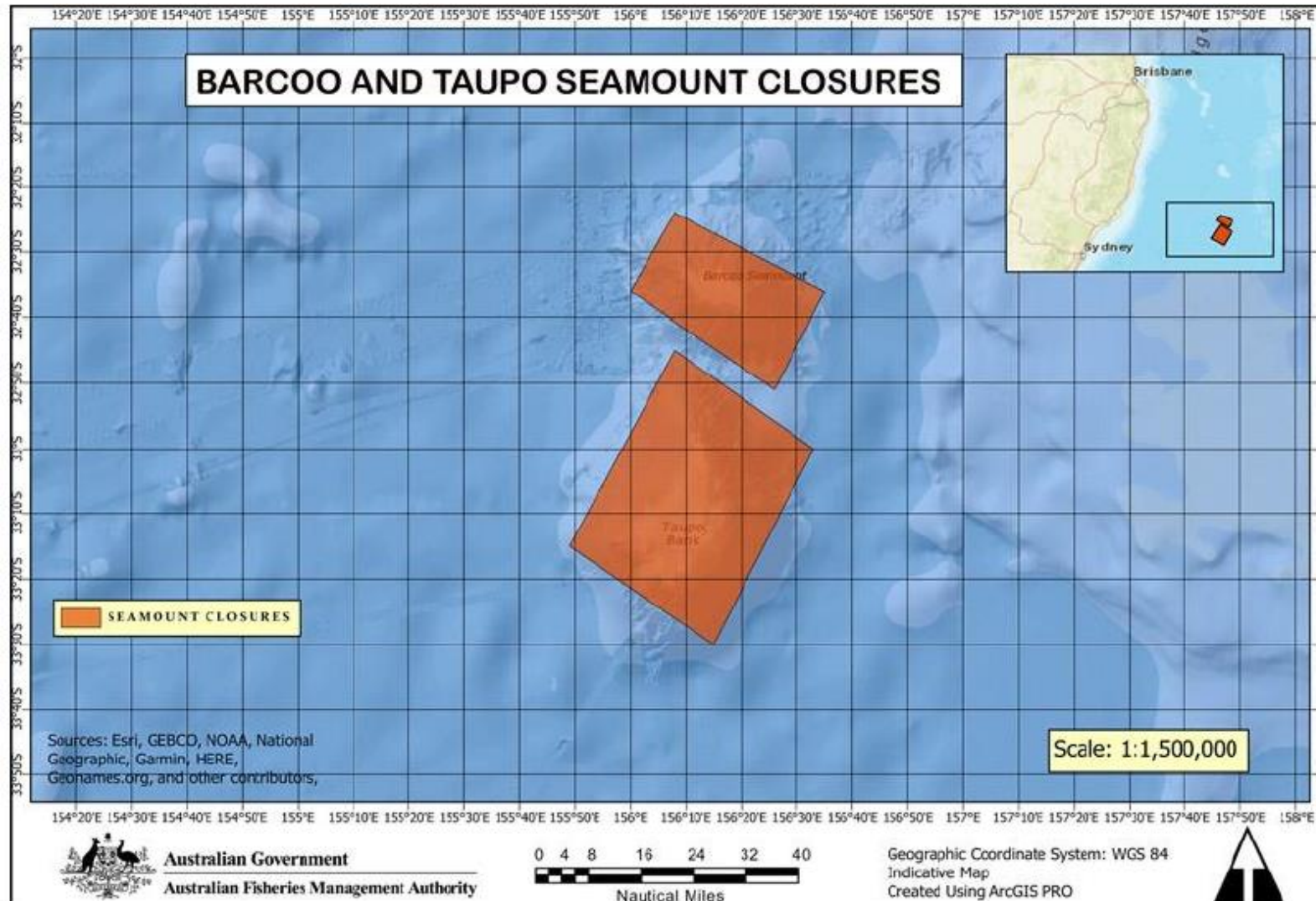


Figure 13: Map of the Barcoo and Taupo Seamount Closures.

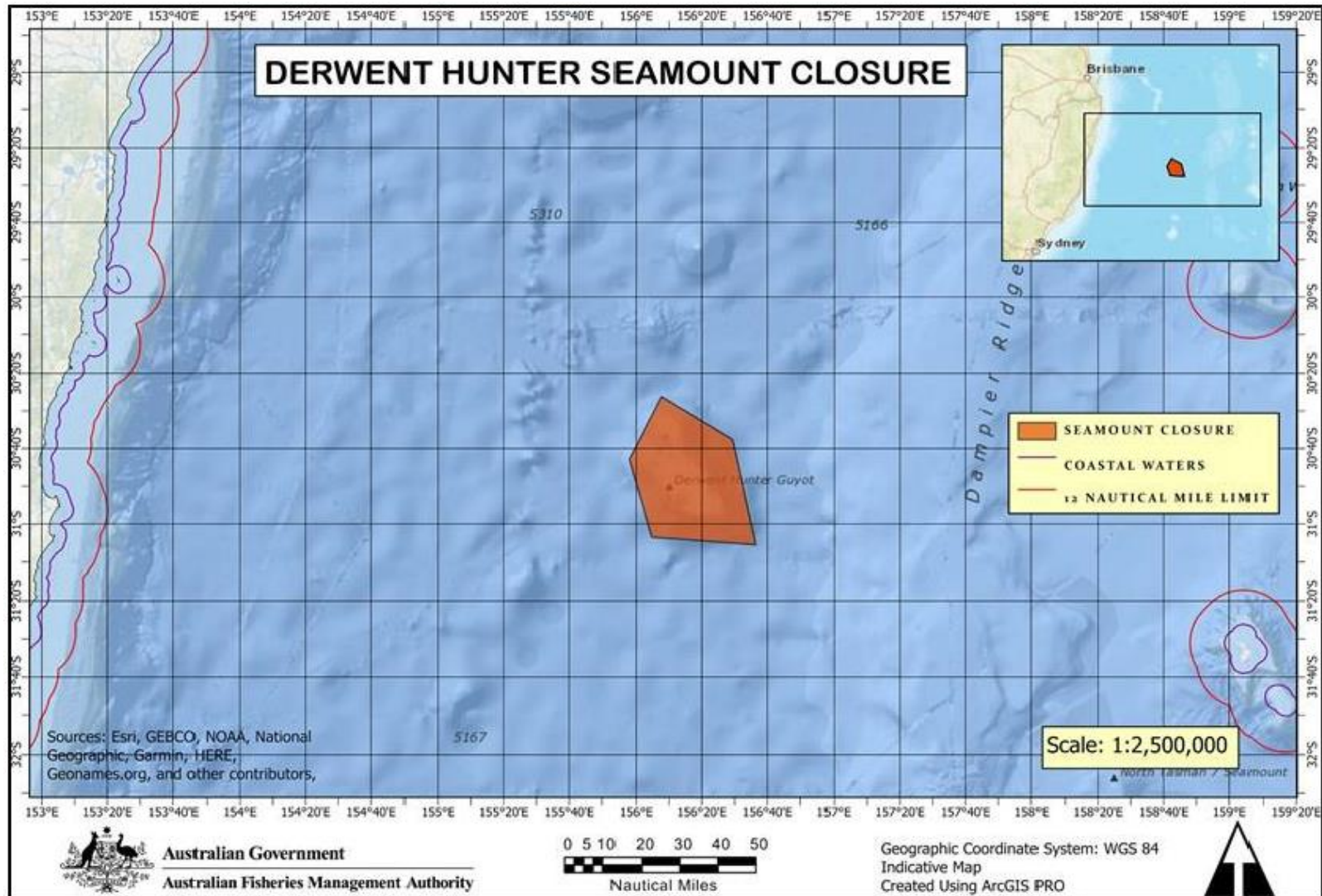


Figure 14: Map of the Derwent Hunter Seamount Closure.

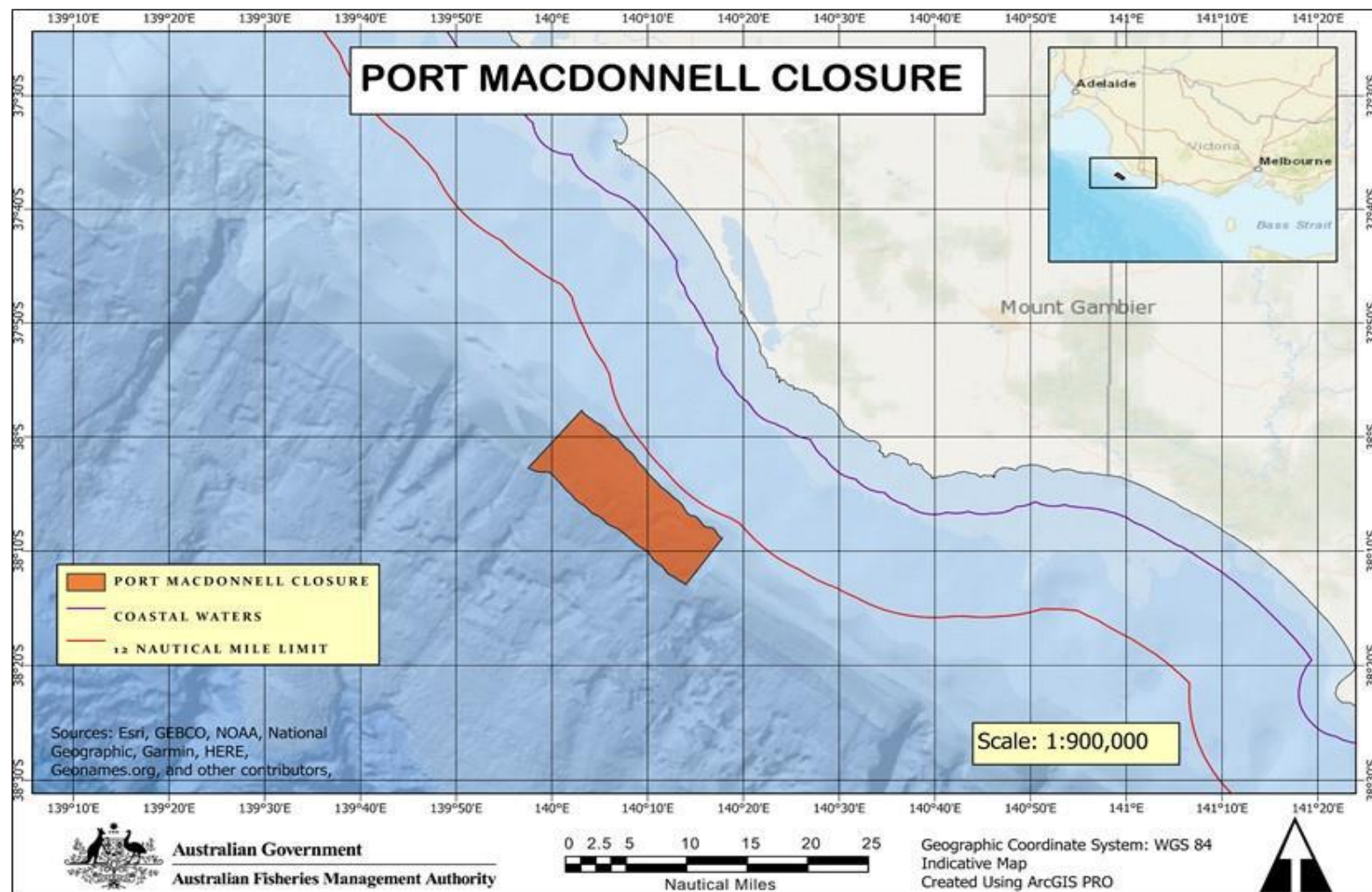


Figure 15: Map of the Port MacDonnell Closure.

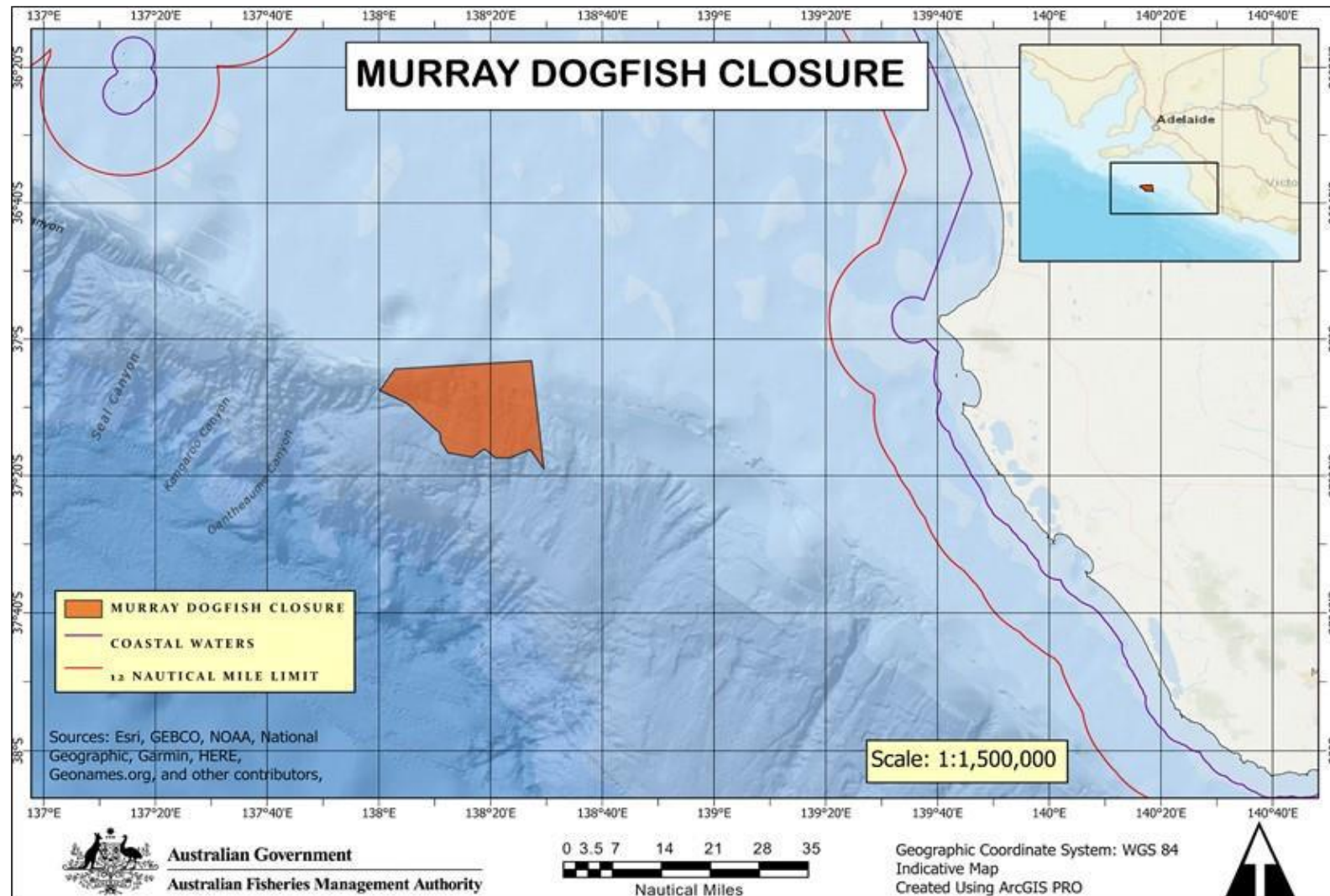


Figure 16: Map of the Murray Dogfish Closure.

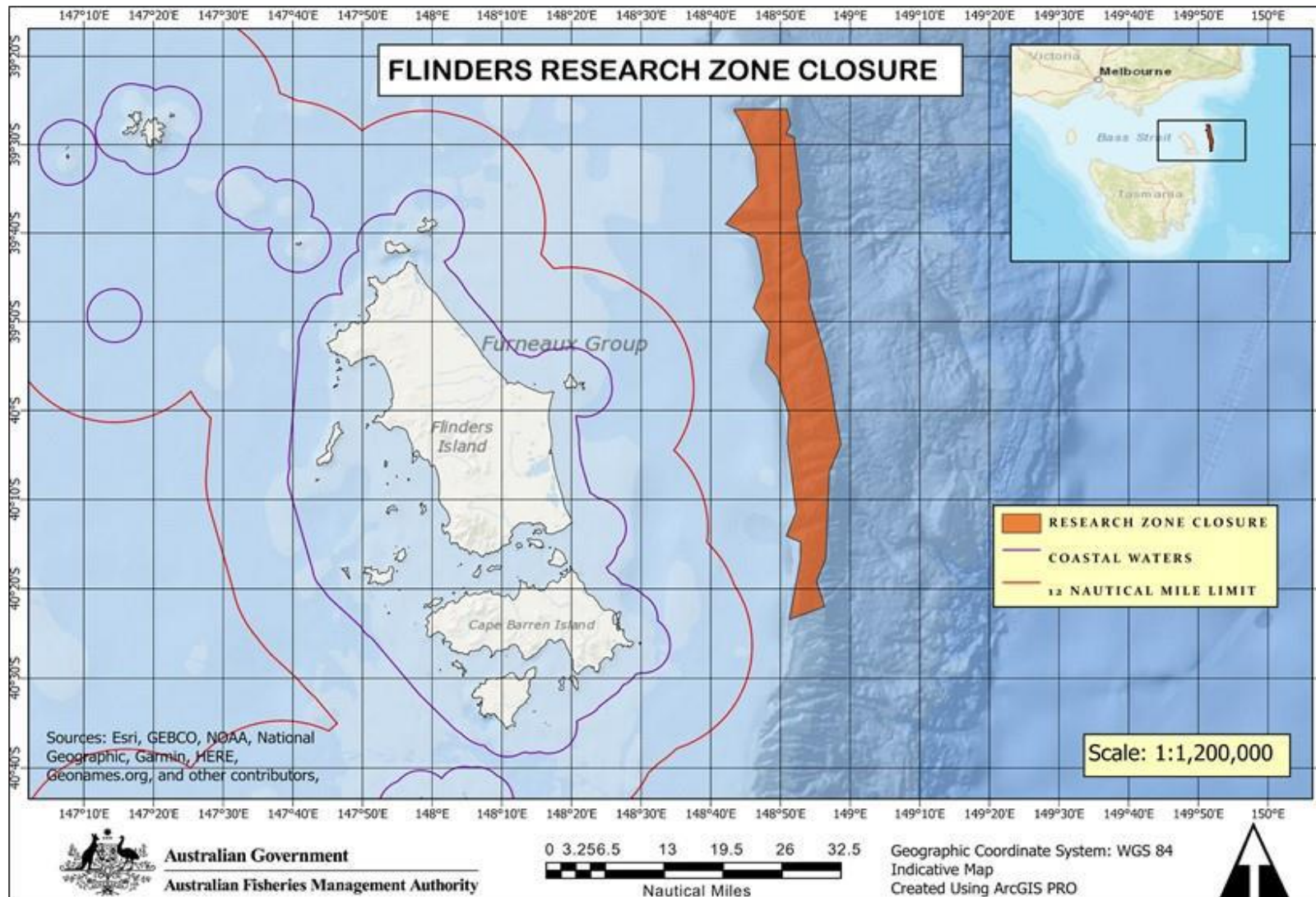


Figure 17: Map of the Flinders Research Zone Closure.

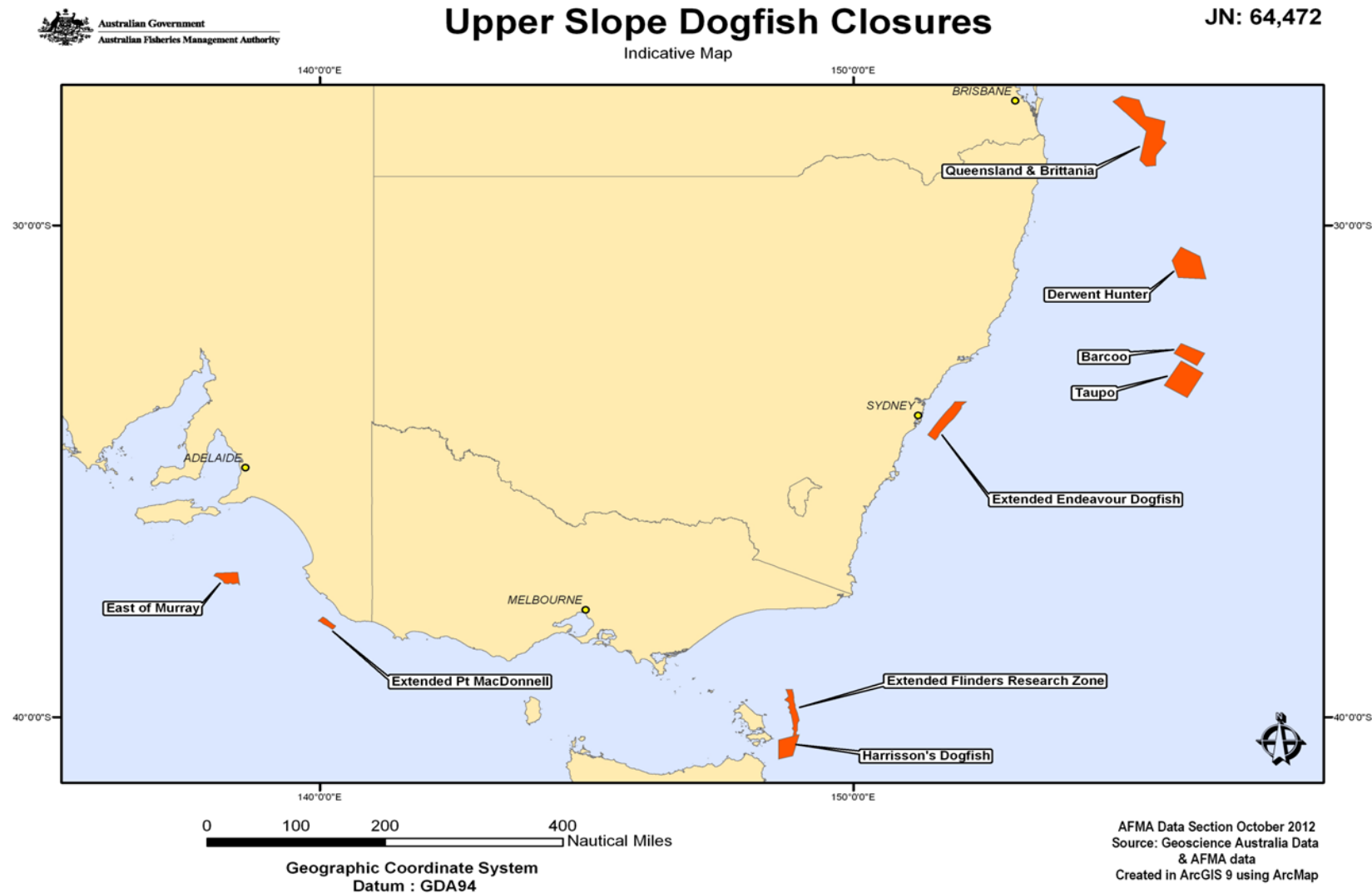


Figure 18: Map of closures under the Upper-Slope Dogfish Management.

11 References

AFMA Bycatch Strategy Mitigation protected species interactions and general bycatch 2017-22, Fishery Management Paper Numbworkplaner 15, Australian Fisheries Management Authority (AFMA), Commonwealth of Australia, Canberra ACT.

Code of Practice for Automatic Longline Operators Encountering Gulper Sharks 2006. South East Trawl Fishing Association (SETFIA). http://www.afma.gov.au/wp-content/uploads/2010/07/code_of_practice.pdf

Australian Government, Federal Register of Legislation, *Fisheries Management (Southern and Eastern Scalefish and Shark Fishery and Small Pelagic Fishery Closures) Direction 2021* <https://www.legislation.gov.au/Details/F2022C00254>

Southern and Eastern Scalefish and Shark Fishery Management Arrangement Booklet 2024-25. Australian Fisheries Management Authority (AFMA), Commonwealth of Australia, Canberra ACT.

Southern and Eastern Scalefish and Shark Fishery, Management Arrangements Booklet 2024 - 25, Australian Fisheries Management Authority (AFMA), Commonwealth of Australia, Canberra ACT. <https://www.afma.gov.au/commercial-fishers/management-arrangements/management-booklets>.

Sporcic, M., Bulman, C.M., Fuller, M. (2021). Ecological Risk Assessment for the Effects of Fishing. Report for Southern and Eastern Scalefish and Shark Fishery (Gillnet Hook and Trap Sector): Manual Longline Sub-Fishery 2015- 2019. Report for the Australian Fisheries Management Authority. 148 p.

Threat Abatement Plan for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations (2018). Australian Antarctic Division, Department of The Environment and Energy, Australian Government, Canberra ACT.

Upper-slope Dogfish Management Strategy 2022, Australian Fisheries Management Authority (AFMA), Commonwealth of Australia, Canberra ACT. https://www.afma.gov.au/sites/default/files/2023-02/upper-slope_dogfish_management_strategy_august_2022.pdf