TORRES STRAIT PRAWN FISHERY HANDBOOK

2015

Compiled by

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2015 AFMA Moon Phase Calendar

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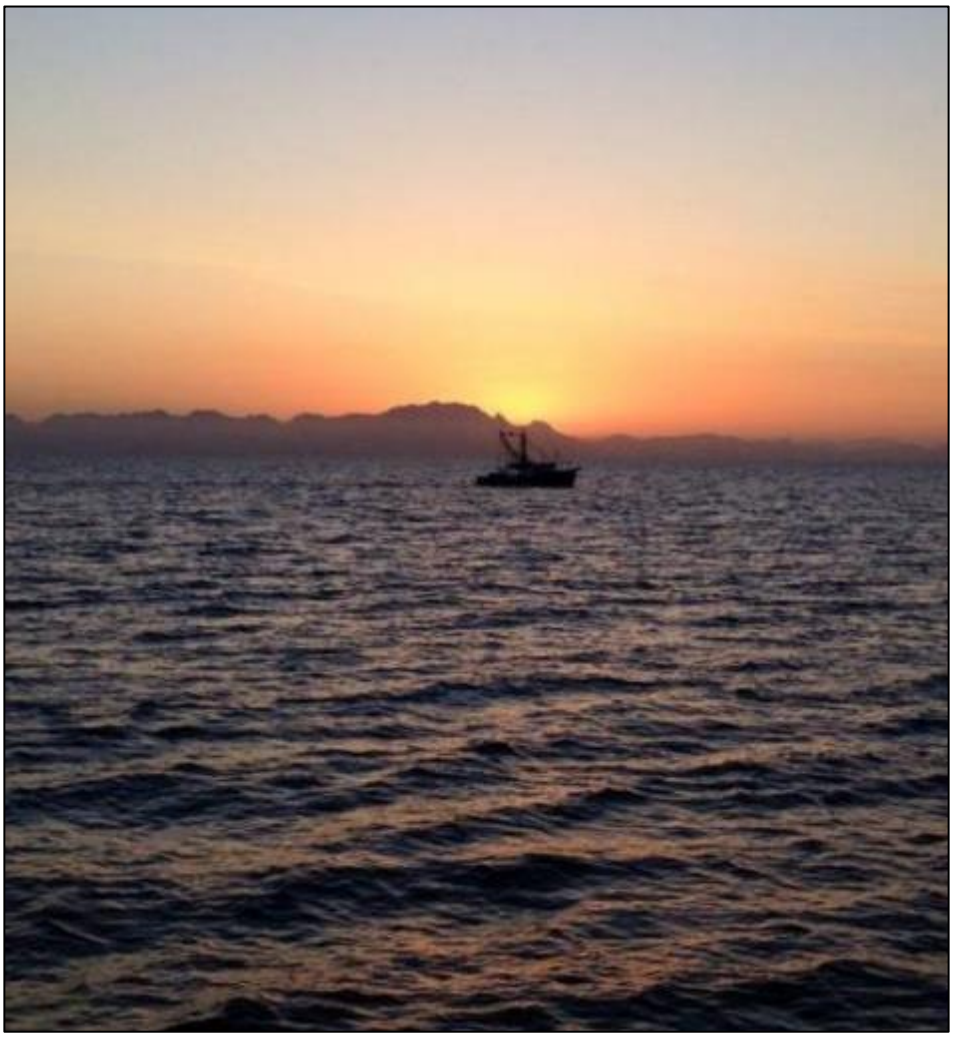
1 Introduction

The 2015 Torres Strait Prawn Fishery (TSPF) handbook provides TSPF licence holders with management and scientific information for the fishery.

The information in this handbook is a guide and does not replace legislation including the *Torres Strait Prawn Fishery Management Plan 2009* and associated Fisheries Management Instruments, or detailed advice specific to individual circumstances. For more information readers should make use of the contacts listed inside the back cover. Legislation current for January 2015 can be found in Section 7 of the handbook, however the ComLaw website (www.comlaw.gov.au) should always be consulted for an accurate complete list of legislation relevant to the fishery.

The information in this handbook in no way limits the powers and decisions of the PZJA in its determinations, or in its considerations of any matters placed before it. Individual applicants wishing to participate in Torres Strait fisheries or vary the conditions under which they participate should be aware that the powers are vested with the PZJA to consider each application on its individual merits.



1.1 Acronyms

ABARES	Australian Bureau of Agriculture and Resource Economics and Sciences
AFMA	Australian Fisheries Management Authority
AMSA	Australian Maritime Safety Authority
BAP	Bycatch Action Plan
BRD	Bycatch Reduction Device
CPUE	Catch per Unit Effort
ERA	Ecological Risk Assessment
FMI	Fisheries Management Instrument (replaces FMN below)
FMN	Fisheries Management Notice (old name for FMI)
FRDC	Fisheries Research and Development Corporation
ECOTF	Queensland East Coast Otter Trawl Fishery
E_{MSY}	Effort at Maximum Sustainable Yield.
EPBC Act	*Environmental Protection and Biodiversity Conservation Act 1999*
NPF	Northern Prawn Fishery
PNG	Papua New Guinea
PZJA	Protected Zone Joint Authority
QB&FP	Queensland Boating and Fisheries Patrol
QDAFF	Queensland Department of Agriculture Fisheries and Forestry
TAE	Total Allowable Effort
The Plan	*Torres Strait Prawn Fishery Management Plan 2009*
TSPMAC	Torres Strait Prawn Management Advisory Committee
TSPF	Torres Strait Prawn Fishery
TSPZ	Torres Strait Protected Zone
TSRA	Torres Strait Regional Authority
TSSAC	Torres Strait Scientific Advisory Committee
VMS	Vessel Monitoring System

2 Management

2.1 Current Management Arrangements

The TSPF is managed under the *Torres Strait Prawn Fishery Management Plan 2009* (the Plan).

Effort units

A total of 9,200 effort units are allocated under the Plan. These were issued to Australian TSPF boat licence holders when the plan was introduced, where one effort unit was issued for each fishing day held by a licence holder immediately before the commencement of the Plan (allocations did not include temporarily allocated fishing days including PNG days). Where a licence holder held multiple licences, these units were pooled together and can be used on any licensed boats that licence holder operates in the fishery.

Annual use entitlement

Each season, effort units are converted into an annual use entitlement for each operator, depending on the total allowable effort (TAE) that is set for each year. The TAE is divided equally between all 9,200 effort units. The TAE has been set at 9,200 days since 2006, and at this level, each effort unit is equivalent to one fishing day. At the time of publishing this handbook, the 2015 TAE had not been determined.

Temporary transfer of effort units

Under the Plan, TSPF boat licence holders can also temporarily transfer unused effort units to another holder of a TSPF boat licence for one season. A licence holder must apply to the PZJA (through Fisheries Queensland) to register a transfer of a specific number of effort units. These units can only be used by the transferee for the season in which they are transferred. Any temporarily transferred units cannot be transferred on by the transferee. The system automatically transfers the temporary units back to the transferor before the commencement of the following season.

If a licence holder wishes to temporarily transfer a given number of fishing days, it is the transferor and transferee's responsibility to determine the equivalent number of effort units. See section 3.5 of the handbook for the process to transfer unused effort units.

At 29 January 2015 there are 59 licences in the fishery. 44 are active and 15 inactive licences with no boat attached.

2.3 Catch sharing with Papua New Guinea (PNG)

Under the *Torres Strait Treaty 1985*, PNG is entitled to 25 per cent of the effort allocation in the TSPF, located within the Australian waters of the Protected Zone. Likewise, Australia is entitled to 25 per cent of any effort allocation in PNG's prawn fishery in the PNG waters of the Protected Zone. To meet this obligation 6,867 units are allocated to Australian licence holders, and 2,333 are set aside for use by PNG under the Plan. Each season, the PZJA determines how many of the 2,333 PNG units

will be available for PNG's use based on catch sharing discussions. Any PNG boat fishes in Australian waters must operate under the same regulations that as Australian boats. The boat and crew are also subject to Australian quarantine, customs and immigration laws and are not permitted to have contact with any Australian inhabitant or set foot on Australian territory. PNG fishers have not accessed the fishery since 2004.

Up until 2009, PNG days were offered to Australian licence holders for use each season, as PNG did not want to use these units. In 2013, the PZJA made a decision not to offer PNG units to Australian licence holders until latent Australian effort has been used. This decision aimed to encourage the use of Australian effort units.

2.4 Management consultative process

The PZJA is responsible for management decisions in the TSPF. At the time of publication the PZJA comprised of the Parliamentary Secretary assisting the Minister responsible for Agriculture, the Queensland Minister responsible for Fisheries and the Chair of the Torres Strait Regional Authority.

The Torres Strait Prawn Management Advisory Committee (TSPMAC) is the main consultative forum for the fishery. It includes members from industry, Traditional Inhabitants and State and Commonwealth Government representatives. TSPMAC meetings provide a forum where fishery issues are discussed, problems identified and possible solutions developed. It is the role of the TSPMAC to provide management advice and recommendations to the PZJA. There is typically one or two face to face meetings of the TSPMAC held each year.

To have your views put forward for management consideration you should contact one of the industry representatives on the TSPMAC. Traditional Inhabitant members can be contacted via the TSRA. Relevant contact numbers are listed in the back cover of this booklet.

2.6 PZJA meeting outcomes

The following PZJA decisions relevant to the TSPF were made during 2014:

The PZJA AGREED to set the Total Allowable Effort (TAE) in the Torres Strait Prawn Fishery (TSPF) at 9,200 days for the 2014 fishing season.

The PZJA NOTED that the proposed TAE is consistent with the TSPF management plan, harvest strategy and PZJA sustainability reference points.

The PZJA AGREED to:

14.1 the (TSPF) Vessel Monitoring System Guidelines; and

14.2 publish the Guidelines on the PZJA website in accordance with 5.6(1) of the Torres Strait Prawn Fishery Management Plan 2009.

3 What do I need to fish in the TSPF?

The following minimum requirements are in place to fish in the TSPF.

- A Torres Strait Master Fisherman's licence.
- A Fishing Boat Licence endorsing them to take prawns in the area of the fishery.
- Unused UFCs (fishing days).

The complete requirements for TSPF operators are outlined in the following documents.

- The Commonwealth *Torres Strait Fisheries Act 1984*.
- *Torres Strait Prawn Fishery Management Plan 2009*.
- *Torres Strait Fishery Regulations 1985*.
- Fishery Management Instruments (formally Fisheries Management Notices; see index page 32).
- *Fisheries Levy (Torres Strait Prawn Fishery) Regulations 1998*.
- The *Torres Strait Treaty 1985*.

It is the responsibility of operators to familiarise themselves with these documents and understand the requirements when fishing within the TSPF (a full list of legislation including links is available from the PZJA website.

3.1 Licences

There is a limit of 61 licences in the TSPF and no new licences will be issued for the fishery. Two licences expired during the 2014 season (due to unpaid levies) so there are currently only 59 licences in the fishery. Licences can be sold (permanent transfer) or temporarily transferred to other people (see Section 3.4).

3.2 Renewal of licences

Subject to the payment of levies, a TSPF licence comes into effect on the date of issue and expires on 25 February each subsequent year, as per section 3.2(2) of the Plan.

3.3 Surrender of licences

PZJA licence holders may surrender their licences by written notice to the PZJA, GPO Box 46, Brisbane, Queensland, 4001.

3.4 Transfers of licences and Units of Fishing Capacity (UFCs)

Permanent transfer of licences and UFCs

A TSPF boat licence holder (the transferor) may permanently transfer (sell) their licence to another person (the transferee) as set out in section 25 of the Act and Part 3, Section 3.3 of the Plan. The transferee must be an Australian citizen. If the licence is the transferor's last licence, all of their units of fishing capacity must be transferred before or at the same time as the licence transfer. The transferor and transferee must apply to the PZJA using the appropriate form and pay the transfer fee.

The PZJA must not transfer a licence if:

(a) A proceeding for an offence under the Act or Regulations has been brought against the transferor or the transferee and has not been decided; or

(b) Levy due and payable by the transferor or the transferee has not been paid.

Temporary transfer of licences

Licence holders can apply to the PZJA to have their TSPF licence temporarily transferred to a third party for one fishing season. The system for temporarily transferring TSPF licences is similar to that used for the temporary transfer of effort units. Licence holders can transfer their TSPF licence before and throughout a given TSPF season up until 25 February the following year. As TSPF licences expire on the 25 February each year, temporary transfers of TSPF licences cannot be granted for multiple seasons. Further to this, the temporary transfer of a TSPF licence cannot be processed unless all levies associated with the licence have been paid in full. Licence holders interested in the temporary transfer of their TSPF licence should contact the PZJA licensing delegate.

Temporary transfer UFCs

The holder of a TSPF boat licence (the transferor) that has unused units for a fishing season may temporarily transfer the unused units to the holder of another TSPF boat licence (the transferee) for a season. A temporary transfer of Australian units:

(a) Must be of whole unused units only.

(b) Does not take effect until it is registered.

(c) Entitles the transferee to use the temporarily transferred units during the fishing season for which the temporary transfer is registered.

(d) Remains in force for that season, after which the PZJA will automatically transfer the units back to the transferor before the commencement of the following season.

The transferor and transferee must apply to the PZJA using the approved form for the temporary transfer to be registered, and pay the transfer fee. The PZJA must not register the temporary transfer if:

(a) A proceeding for an offence under the Act or Regulations has been brought against the transferor or transferee and has not been decided; or

(b) Levy due and payable by the transferor or transferee has not been paid.

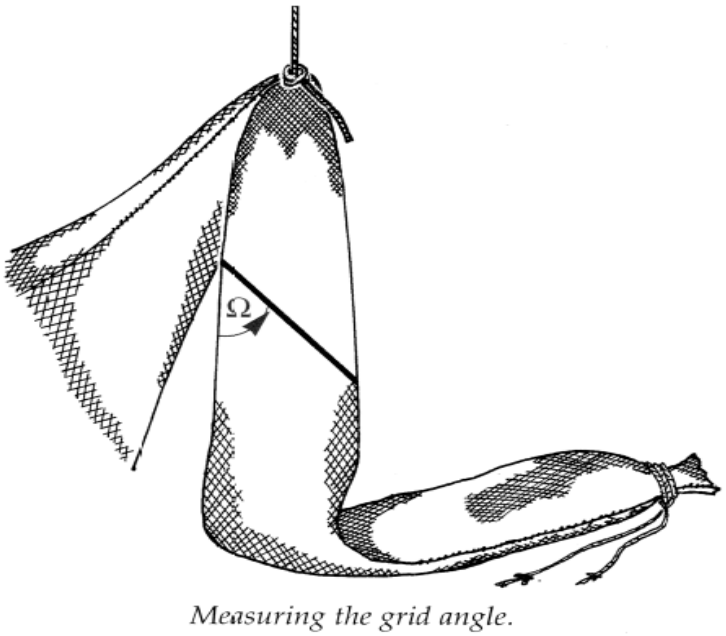
A person who holds Australian units as the result of a temporary transfer is not entitled to transfer or temporarily transfer those units.

3.5 Forfeiture of endorsements upon transfer

The policy of forfeiting endorsements on transfer of commercial licences was abolished by the PZJA in July 1999.

3.6 Mandatory use of Turtle Excluder Devices

As outlined in Fisheries Management Notice (FMN) No. 81, all Torres Prawn boats are required to have a Turtle Excluder Device (TED) fitted in their nets (Figure 1-7). "*Turtle Excluder Device*" means a device fitted to a net, and modification made to a net, that allows turtles to escape immediately after being taken in the net. The specific parameters of the TEDs are detailed in FMN No. 81 on the PZJA website.



Measuring the grid angle.

Figure 1. Correct position for measuring angle size on turtle excluder devices (angle must be 30 - 55˚.

Single Flap TED Specifications

- Must be on the outside of the trawl
- Must be a panel not less than 338cm x 132 cm, with the 338cm edge attached to the forward edge of the opening
- Trailing edge of each panel must not extend more than 61 cm behind the posterior edge of the grid

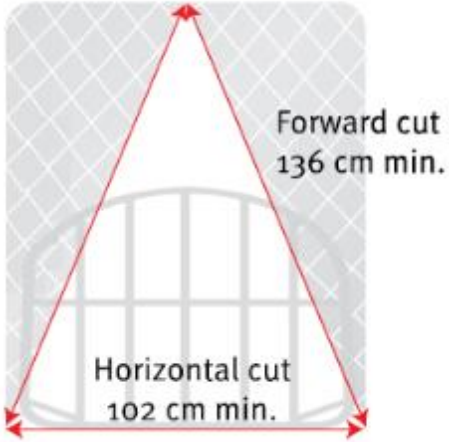


Figure 4. Measurements for triangular escape opening with single flaps.

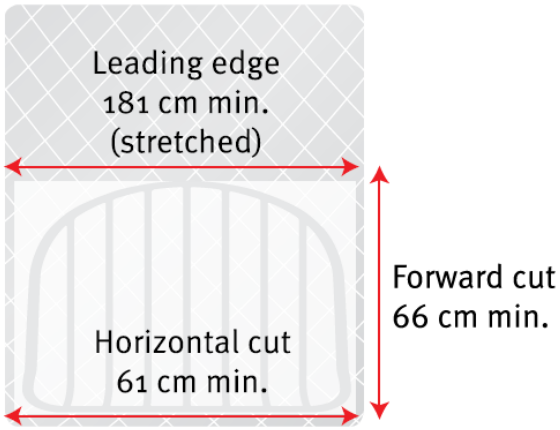


Figure 3. Measurements for rectangular escape opening with single flaps

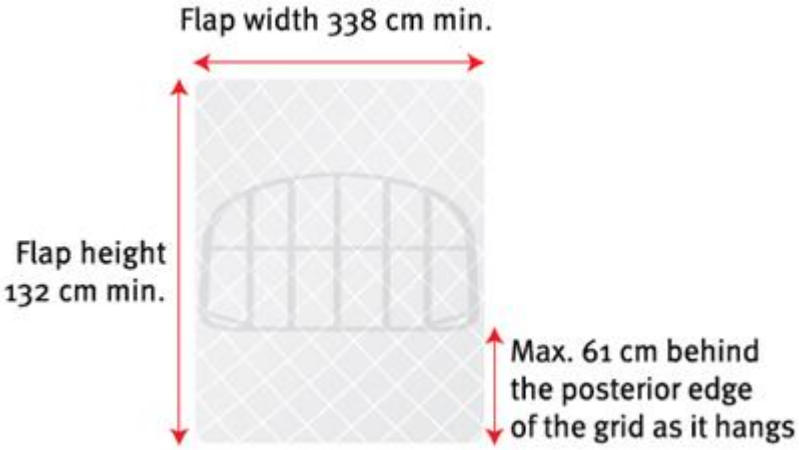


Figure 2. Measurements for single flap configuration

Double Flap TED Specifications

- Must be on the outside of the trawl
- Must have two equal size rectangular panels, each a minimum of 147cm wide
- Panels may overlap no more than 38cm
- Panels may be sewn together only along the leading edge of the cut
- Panels may be sewn down the entire length of the outside edge of each panel
- Trailing edge of each panel must not extend more than 61 cm behind the posterior edge of the grid

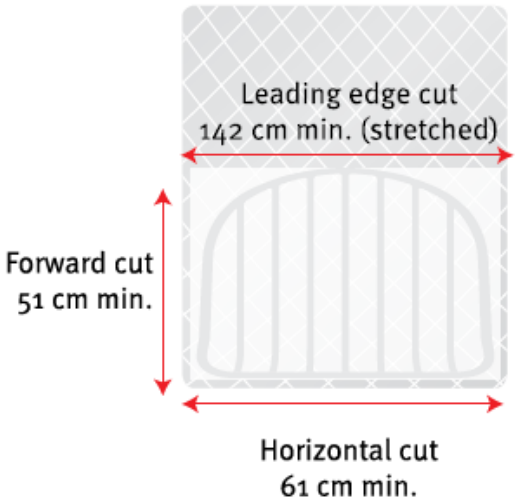


Figure 5. Measurements for double flap configuration.

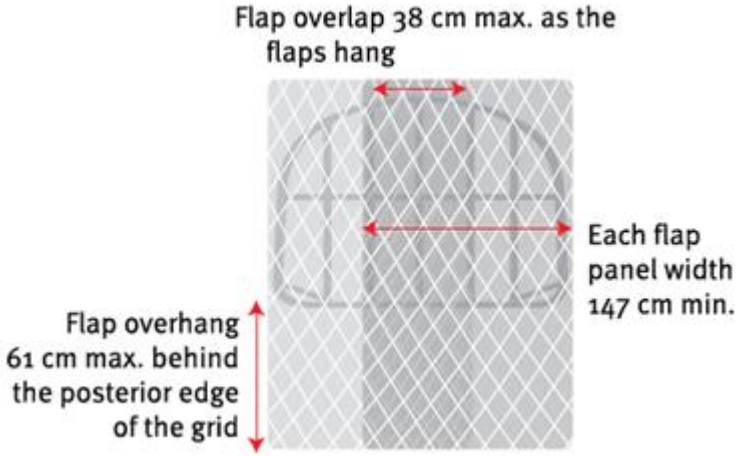


Figure 7. Measurements for rectangular escape opening with double flaps.

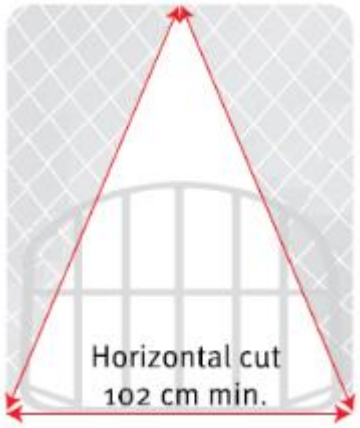


Figure 6. Measurements for double flap configuration**.**

3.12 Mandatory use of Bycatch Reduction Devices (BRDs)

As outlined in FMN No. 82 all Torres Prawn boats are required to use an approved Bycatch Reduction Device (BRDs; in their nets. "*Bycatch Reduction Device*" means a device that allows fish and other animals to escape immediately after being taken in the net and is constructed in accordance with Schedule 1 in FMN No. 82 which can be found on the PZJA website.

Please contact AFMA or Fisheries Queensland (see contacts inside back cover) with respect to the trialling of BRDs in the TSPF or any other enquiries about the operation of BRDs, noting a permit is required to trial a BRD that does not meet the requirements in FMN No. 82. Information on BRDS allowed in the TSPF is in figures 8-13.

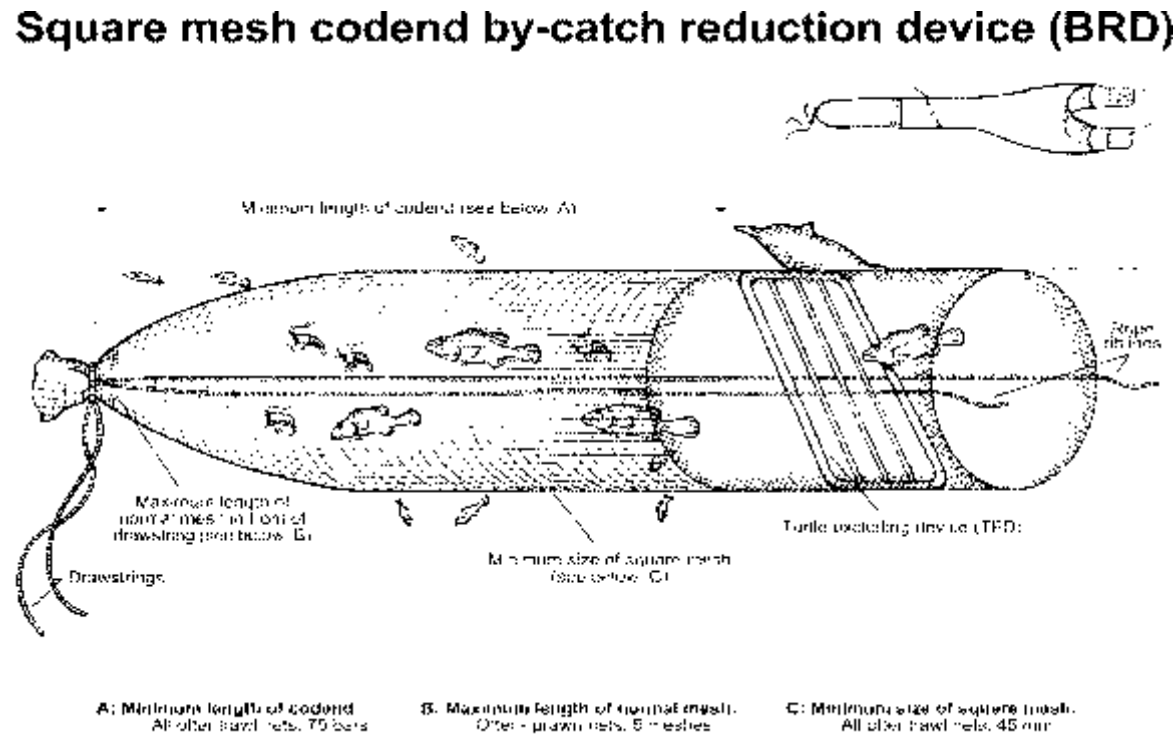


Figure 8. Diagram of a square mesh codend bycatch reduction device BRD.

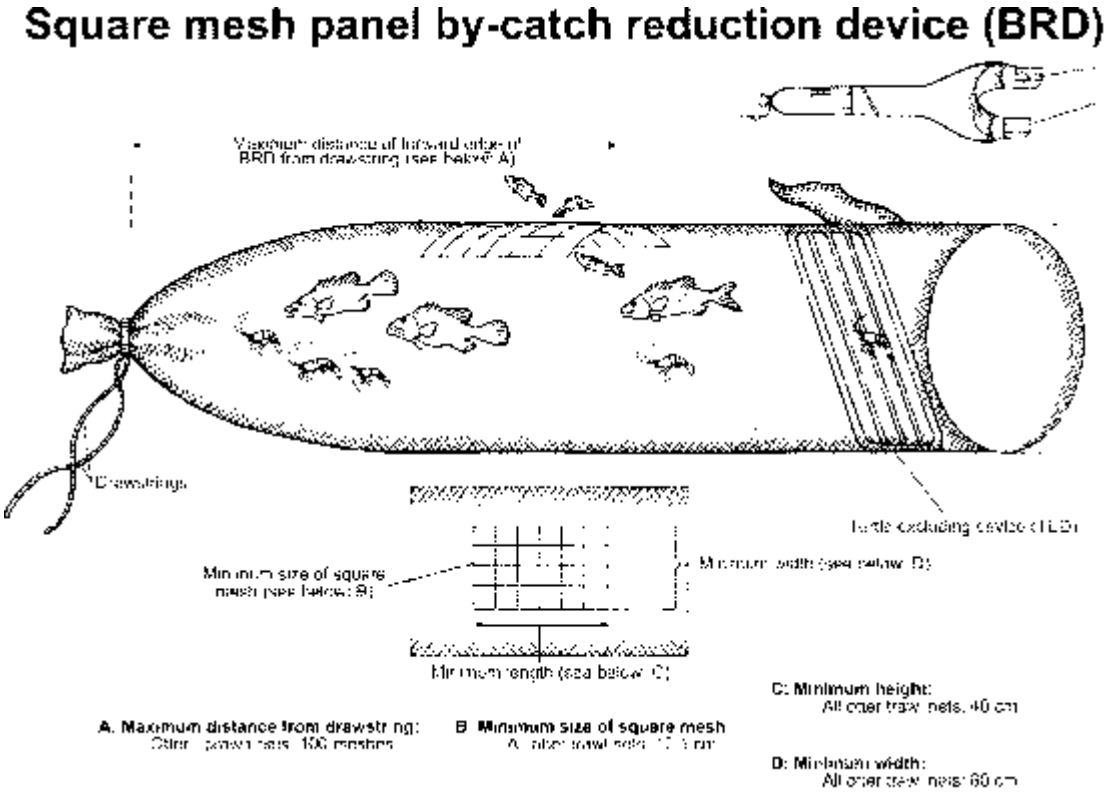


Figure 9. The Square-Mesh Panel BRD.

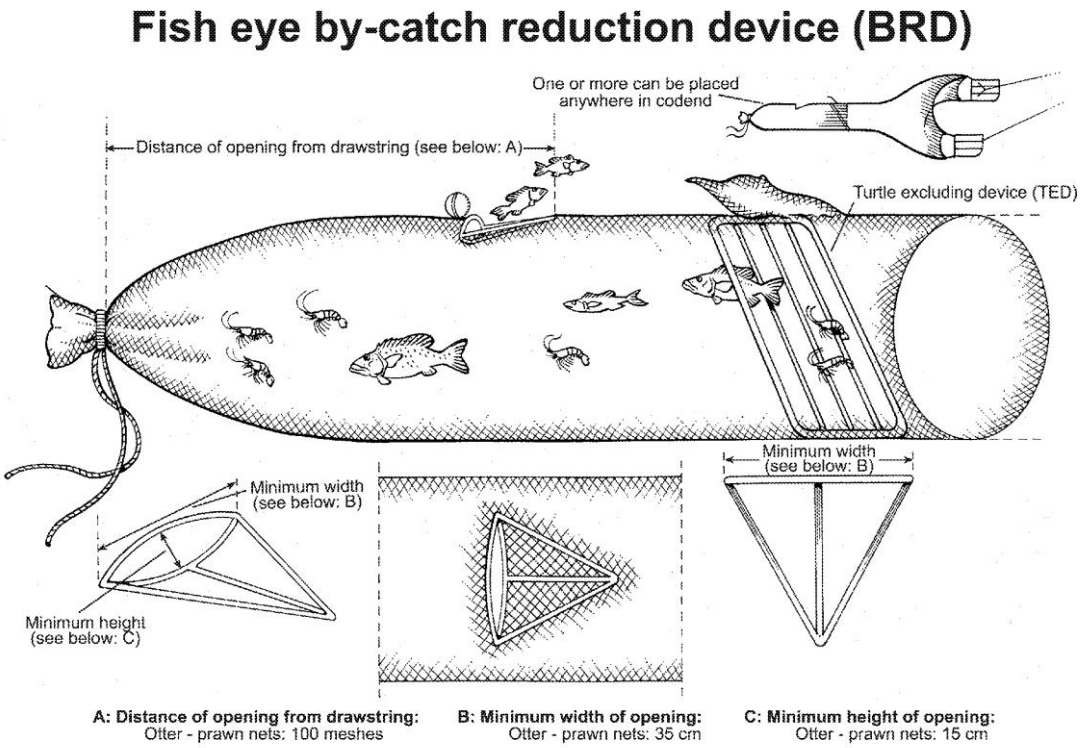


Figure 10. The Fish Eye BRD.

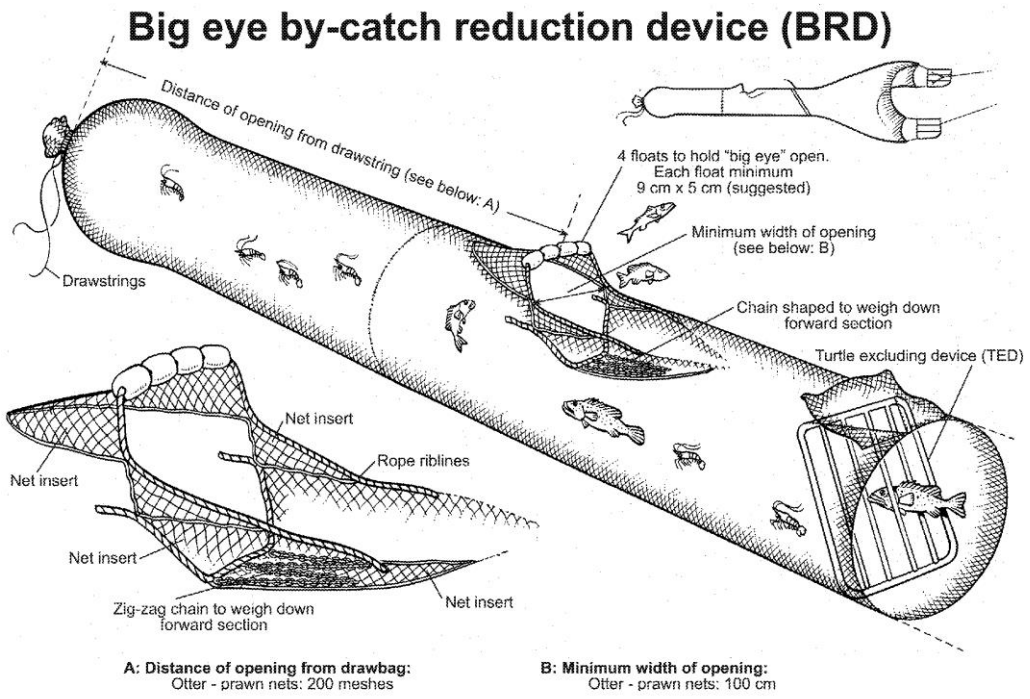


Figure 11. The Big Eye BRD.

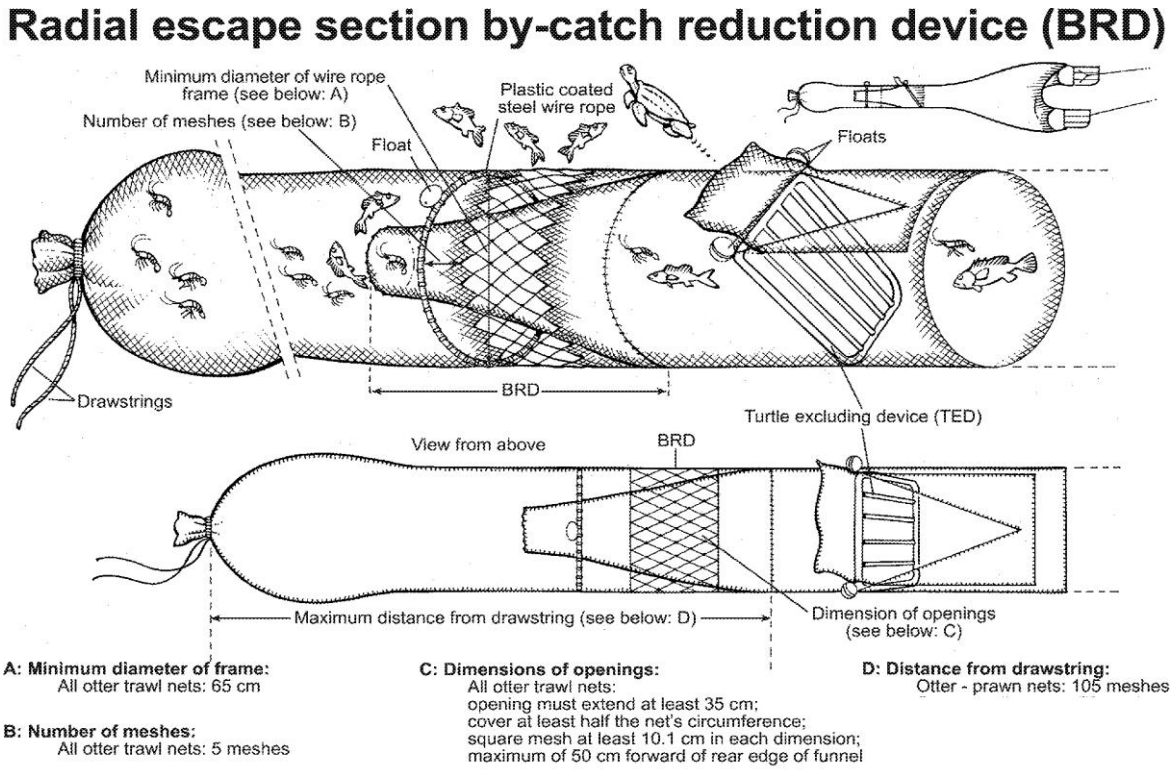


Figure 12. The Radial Escape Section BRD.

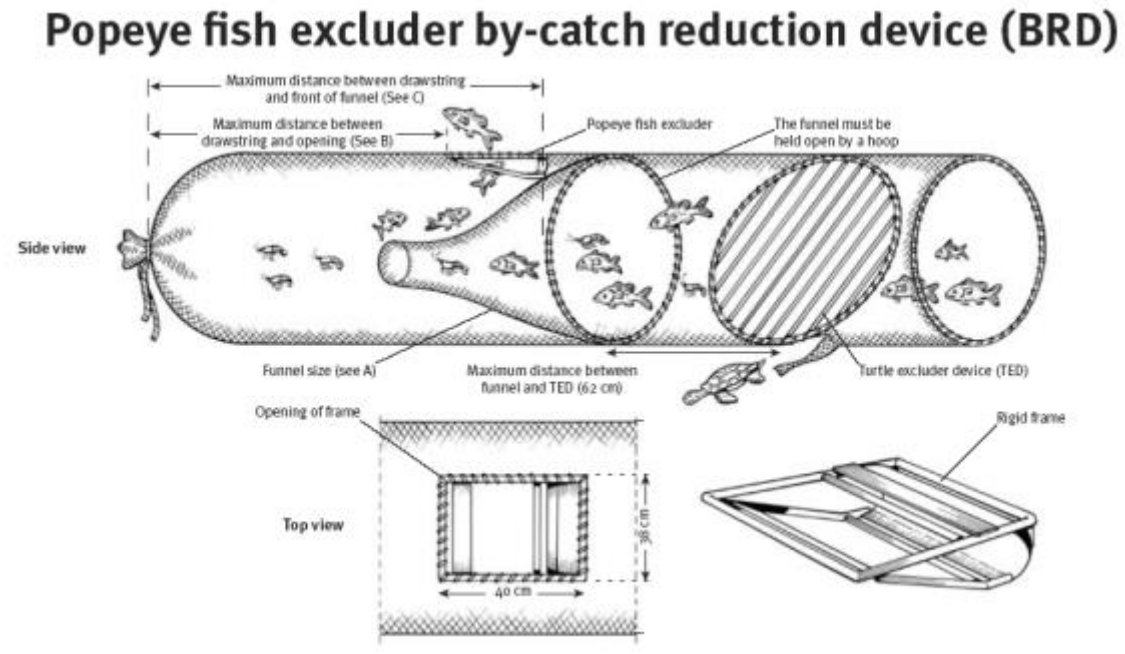


Figure 13. The Popeye Fish Excluder BRD.

3.13 Carriage of other species

Table 1 shows the by-product limits for the TSPF under the Plan. Size limits are also shown for some species.

Table 1. TSPF species carriage allowances.

SPECIES	MAXIMUM QUANTITY UNDER TSPF MANAGEMENT PLAN 2009
Mackerels (Scombrids)	Total of 20kg combined in any form (FMI 79).
Finfish	Total of 20kg combined in any form, including Mackerels (FMI 79).
Shark	Nil
Shark fin	Nil
Tropical rock lobster	Nil
Pearl shell	Nil
Turtle	Nil
Coral	Nil
Moreton Bay Bug	No quantity limit. 75mm minimum carapace width.

3.14 Logbook reporting

Logbook reporting in the TSPF is compulsory. The **NP16** logbook was introduced for the TSPF for the 2009 season and will remain in effect until revoked. Licence holders or their authorised agents are required to ensure all fields contained in the logbook are fully completed by no later than one day after the day on which the fishing activities took place. Each logbook contains full instructions on how the logbook should be completed and licence holders or their authorised agents are required to return them in the manner specified in the logbook. Logbooks are supplied by AFMA and a new logbook may be acquired by contacting:

AFMA Logbook Section
PO Box 7051
Canberra Business Centre
Canberra 2610 ACT
or
AFMA Direct: 1300 723 621

IMPORTANT REMINDER

COMPLETING AND RETURNING LOGBOOKS ON TIME

Licence holders or their authorised agents are asked to ensure that logbooks have all fields fully completed and the logsheet copies sent to AFMA as per the instructions contained in the logbook, "a vessel must submit their completed up to date logsheets to AFMA each time they return to port or rendezvous with a mothership that holds an AFMA carrier boat permit"

late and irregular returns create difficulties for staff processing the data and result in incomplete information for reports such as this handbook.

the penalty for failure to supply or complete logbook returns correctly is up to $10,000 and/or cancellation of licence.

Registration for use of e-logs

TSPF licence holders have the option of using electronic logbook (e-logs) instead of paper logs in the TSPF. To use e-logs, operators are required to purchase and install an e-logs software package that has been accredited by AFMA. An accredited e-logs software list is available on the AFMA website. Operators also need to register for GOFish, AFMA's online business facility.

You will still be required to submit paper logbook forms for TED's and BRD's.

For information on e-logs, please visit the AFMA website (www.afma.gov.au) or contact Narelle Williams direct on 02 6225 5542 or 1300 723 621 or email dataentry@afma.gov.au

If e-logs are used, the NP16 Logbook **must** be carried on board the vessel at all times and must be used if the e-log system is not operational at any time during the season.

4 Reporting requirements for Vessel Monitoring Systems (VMS)

4.1 Vessel Monitoring System (VMS)

All Torres Strait prawn trawl boats are required to have an approved VMS fitted. The VMS unit must be operational at all times unless prior arrangements have been entered into with the PZJA or manual position reporting is being undertaken as a result of a unit failure. For detailed information about specifications and installation of your VMS unit, see the TSPF VMS guidelines on the PZJA website.

How is VMS to be used in the fishery?

The primary role of VMS is to monitor (count) fishing days and where people are fishing as a compliance and management tool.

How will VMS be used to count fishing days?

When a boat enters the TSPF it is automatically determined by VMS and every subsequent day is monitored whilst the boat remains in the fishery.

Whilst in the area of the fishery "fishing days" will only be deducted if:

1. the boat is in an area where prawns are permitted to be taken; and

2. the boat is not within the area of one of the designated anchorages specified below in section 4.2; and

3. the boat has moved more than 250 metres at any time between 1800 hours local time on one day and 0600 hours local time on the next day; or

4. no boat position reports are received via the VMS or through another arrangement entered into with PZJA (i.e. the VMS is malfunctioning and an alternate arrangement hasn't been entered into with the PZJA).

How will I know if my VMS has broken down?

QDAFF will contact the boat or licence holder and advise that the unit is not responding. However, if you become aware that your VMS is not operational, please inform QDAFF VMS hotline immediately on (07) 3211 9111.

What must I do if my VMS breaks down?

If your VMS breaks down the master will be contacted and efforts made to rectify the fault. Should this not be possible, the master will be requested to submit manual position reports to QDAFF at times, or at a frequency determined by QDAFF, until the VMS unit is properly functioning. More information on manual reporting is in the VMS guidelines on the PZJA website (www.pzja.gov.au).

Allocated fishing days and VMS detection

Each month, licence holders are sent a 'Torres Strait Prawn Fishery Use of Fishing Days' statement. The statement lists the fishing days recorded as being used for that month. If you think that there is a day recorded that you didn't fish, you should submit evidence to demonstrate that the boat was not fishing on that particular day. To avoid delays in processing applications, they should be lodged as soon as possible after receiving the notice.

These applications are subject to the decision of the PZJA delegate. You should not use a trawl fishing day on the presumption that an application will be successful. You must await the delegate's decision.

Please forward all correspondence and supporting documents to:

Senior Fisheries Management Officer - Torres Strait Fisheries
Queensland DAFF
GPO BOX 46
Brisbane QLD 4001
Ph: (07) 3087 8071 Fax: (07) 3229 8146

4.2 Designated anchorages

The geographical co-ordinates used in these areas are in **WGS84**.

AUREED ISLAND

That area of waters bounded by a line:

(1) commencing at the point of intersection of the parallel of Latitude 9° 55' 59.10" South and the meridian of Longitude 143° 18' 56.10" East;

(2) running thence south-easterly along the geodesic to the point of Latitude 9° 57' 18.54" South, Longitude 143° 19' 22.38" East;

(3) thence south-westerly along the geodesic to the point of Latitude 9° 58' 47.22" South, Longitude 143° 18' 02.28" East;

(4) thence west along the geodesic to the point of Latitude 9° 58' 31.02" South, Longitude 143° 15' 52.92" East;

(5) thence north along the geodesic to the point of Latitude 9° 57' 28.32" South, Longitude 143° 15' 51.24" East;

(6) thence north-easterly along the geodesic to the point of Latitude 9° 56' 00.18" South, Longitude 143° 17’10.08" East;

(7) thence easterly along the meridian to the point of commencement where it terminates.

YORKE ISLANDS

That area of waters bounded by a line:

(1) commencing at the point of intersection of the parallel of Latitude 9° 43' 11.82"

(2) South and the meridian of Longitude 143° 27' 38.82" East;

(3) running thence south-easterly along the geodesic to the point of Latitude 9° 43' 47.04"South, Longitude 143° 28' 01.86" East;

(4) thence south along the geodesic to the point of Latitude 9° 44' 42.72" South, Longitude 143° 28' 04.38" East;

(5) thence south-westerly along the geodesic to the point of Latitude 9° 45' 27.48" South, Longitude 143° 27' 35.22" East;

(6) thence south-westerly along the geodesic to the point of Latitude 9° 45' 51.18" South, Longitude 143° 26' 45.42" East;

(7) thence south-westerly along the geodesic to the point of Latitude 9° 46' 02.34" South, Longitude 143° 25' 43.68" East;

(8) thence south-westerly along the geodesic to the point of Latitude 9° 46' 21.42" South, Longitude 143° 24' 33.30" East;

(9) thence north-westerly along the geodesic to the point of Latitude 9° 46' 05.88" South, Longitude 143° 23' 49.68" East;

(10) thence north-westerly along the geodesic to the point of Latitude 9° 45' 22.80" South, Longitude 143° 23' 25.86" East;

(11) thence north-easterly along the geodesic to the point of Latitude 9° 44' 45.90" South, Longitude 143° 23' 36.84" East;

(12) thence north-easterly along the geodesic to the point of Latitude 9° 43' 15.96" South, Longitude 143° 26' 33.90" East;

(13) thence easterly along that meridian to the point of commencement where it terminates.

DUGONG ISLAND

That area of waters bounded by a line:

(1) commencing at the point of intersection of the parallel of Latitude 10° 30’ 19.62" South and the meridian of Longitude 143° 04’ 27.78" East;

(2) running thence east along the geodesic to the point of Latitude 10° 30’ 19.08" South, Longitude 143° 05’ 48.54" East;

(3) thence south-easterly along the geodesic to the point of Latitude 10° 30’ 36.00" South, Longitude 143° 06’ 44.16" East;

(4) thence south-easterly along the geodesic to the point of Latitude 10° 31’ 05.88" South, Longitude 143° 07’ 22.92" East;

(5) thence south along the geodesic to the point of Latitude 10° 31’ 55.38" South, Longitude 143° 07’ 25.56" East;

(6) thence south-westerly along the geodesic to the point of Latitude 10° 32’ 30.66" South, Longitude 143° 07’ 04.86" East;

(7) thence south-westerly along the geodesic to the point of Latitude 10° 32’ 37.68" South, Longitude 143° 06’ 14.64" East; and

(8) thence north-westerly along the geodesic to the point of Latitude 10° 31’ 26.94" South, Longitude 143° 03’ 56.64" East;

(9) thence north-easterly along that meridian to the point of commencement where it terminates.

COCONUT ISLAND

That area of waters bounded by a line:

(1) commencing at the point of intersection of the parallel of Latitude 10° 02’ 24.18" South and the meridian of Longitude 143° 04’ 00.72" East;

(2) running thence south-easterly along the geodesic to the point of Latitude 10°02’ 25.98" South, Longitude 143° 04’ 29.46" East;

(3) thence south-easterly along the geodesic to the point of Latitude 10° 02’ 40.14" South, Longitude 143° 06’ 01.08" East;

(4) thence east along the geodesic to the point of Latitude 10° 02’ 27.12" South, Longitude 143° 07’ 11.46" East;

(5) thence south-easterly along the geodesic to the point of Latitude 10° 02’ 43.50" South, Longitude 143° 07’ 53.46" East;

(6) thence south-easterly along the geodesic to the point of Latitude 10° 03’ 38.46" South, Longitude 143° 08’ 10.32" East;

(7) thence south-westerly along the geodesic to the point of Latitude 10° 04’ 20.88" South, Longitude 143° 06’ 36.48" East;;

(8) thence west along the geodesic to the point of Latitude 10° 04’ 26.82" South, Longitude 143° 04’ 33.72" East;

(9) thence north-westerly along the geodesic to the point of Latitude 10° 03’ 20.88" South, Longitude 143° 02’ 43.02" East;

(10) thence north-easterly along the geodesic to the point of Latitude 10° 02’ 31.92" South, Longitude 143° 03’ 29.94" East;

(11) thence north-easterly along that meridian to the point of commencement where it terminates.

_____

5 Closures and Exclusion Zones

Seasonal area closures and exclusion zones are an important management tool in the TSPF. The closures protected sensitive areas, seagrass beds, or restrict fishing during certain times of year such as during the recruitment of small prawns to the fishery.

The summaries given below are to be used only as a guide and do not replace the formal legislation in FMNs. It is strongly recommended that you contact AFMA, QDAFF or the QB&FP if you have any questions.

5.1 Seasonal closure of the entire fishery

The entire TSPF is closed between 0600 hours local time on 1 December in any year and 1700 hours local time on 1 March in the following year (specified in the Plan and Fisheries Management Instrument no. 1).

Carriage of equipment: During the seasonal closure of the entire fishery all equipment that is capable of being used for any kind of trawling, or being used for taking Prawns (this includes nets, boards, beams, and skids) must be carried either in the racks or on the deck; except;

1. between 1200 hours and 1700 hours local time on 1 March (in any year) if the boat is anchored; or

2. between 0600 hours and 1800 hours local time on 1 December (in any year);

    - if all equipment is out of the water; or

    - if any part of the equipment is in the water - that part is drawn up to the boat and is visible from nearby aircraft or boat, and if the equipment includes cod ends, the cod ends are open.

Carriage of prawns: The carriage of prawns is prohibited in the area of the TSPF from 0600 local time on 15 December to 1700 hours local time on 1 March each year. This is provided for in FMI No 1 (FMI1).

5.2 Kailag Enterprises sponge aquaculture farm

Kailag Enterprises Pty has a commercial aquaculture sponge farm in the area around Masig (York) Island. There have been marine incidences with this farm, including TSPF vessels. The coordinates of the farm are detailed below.

Latitude 9 degrees 44.800’S Longitude 143 degrees 25.630’E

Latitude 9 degrees 44.695’S Longitude 143 degrees 25.860’E

Latitude 9 degrees 44.520’S Longitude 143 degrees 25.780’E

Latitude 9 degrees 44.630’S Longitude 144 degrees 25.550’E

Although the farm does not have a formal exclusion zone or closure in place, PZJA agencies support the operation and expect operators to be aware of the sponge farm and to make the necessary amendments to their navigation systems and charts to clearly indicate the farm site co-ordinates.

5.3 West of Warrior Reef exclusion zone

The taking of prawns in the area west of Warrior Reef is permanently prohibited. This is currently provided for in FMI No. 2. The prohibition also specifies that prawns may not be carried in this area with the exception of the transit zone as described in Schedule 1 of FMI No. 1.

This closure, as well as providing some protection for smaller prawns, was introduced taking into consideration that most of the inhabited islands are in this region and that a significant concentration of traditional fishing for tropical rock lobster occurs in this area.

Carriage of equipment: In the west of Warrior Reef exclusion zone all equipment that is capable of being used for any kind of trawling, or being used for taking Prawns (this includes nets, boards, beams, and skids) must be carried either in the racks or on the deck.

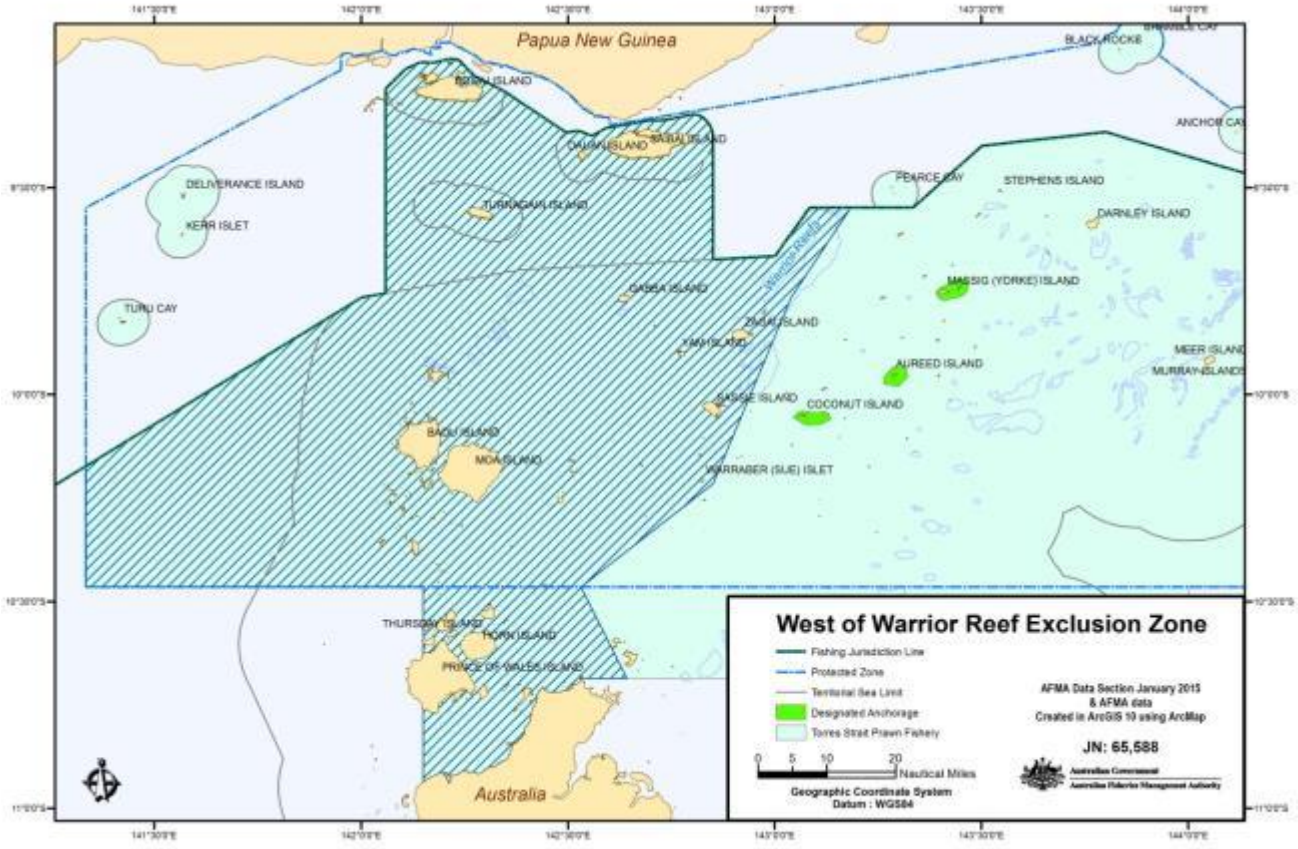


Figure 14. Map of West Warrior Reef exclusion zone.

5.3 Transit zone - exemption to exclusion zone

The transit zone, which overlaps the west of Warrior Reef exclusion zone, was designed to allow vessels safe passage into Thursday Island.

Carriage of equipment: In the transit zone all equipment that is capable of being used for any kind of trawling, or being used for taking Prawns (this includes nets, boards, beams, and skids) must be carried so that all of the equipment is out of the water, or if any part of the equipment is in the water that all codends are open and drawn up to the boat so that the codends would be visible from an aircraft or another boat and the boards are at the blocks.

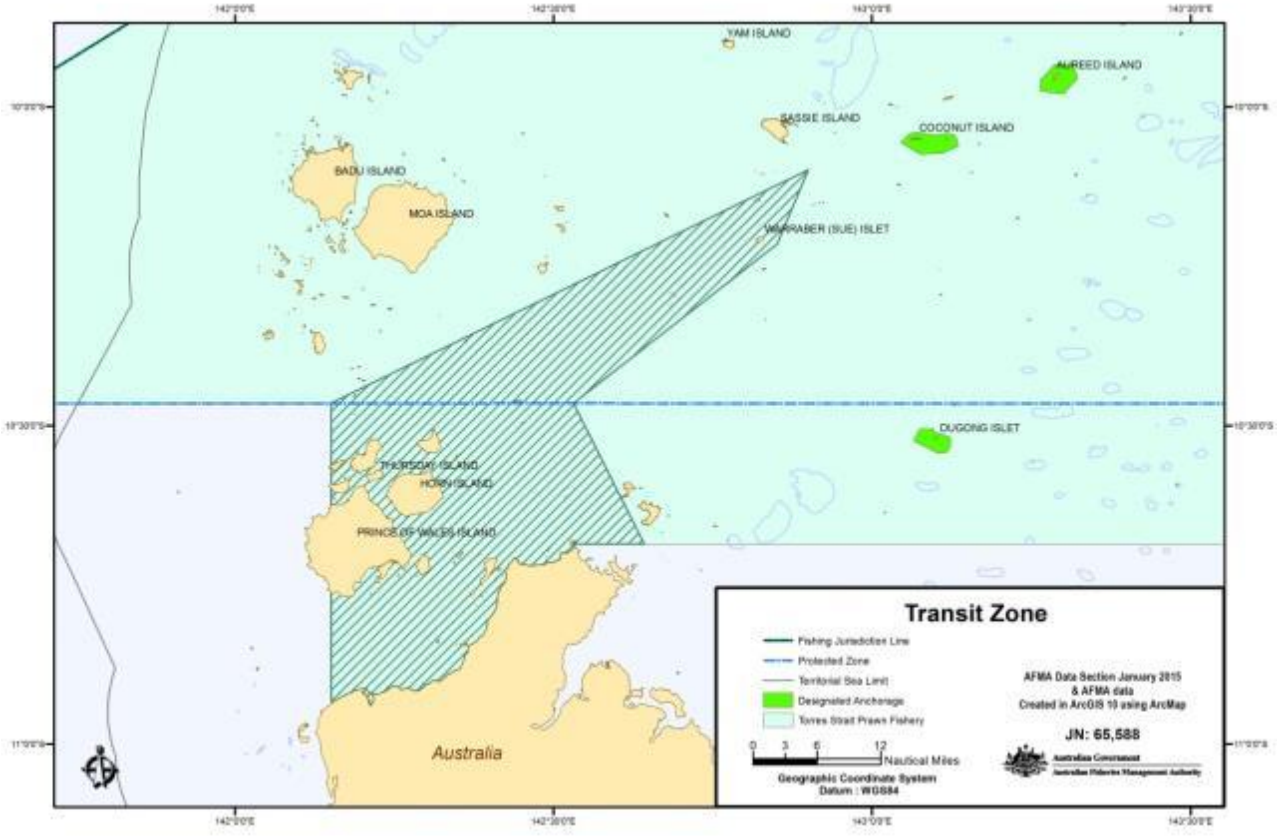


Figure 15. Map transit zone.

5.4 Darnley Island exclusion zone

The Darnley Island exclusion zone was introduced in response to traditional inhabitants concerns in relation to the potential for trawling to damage pearl shell beds in the area.

Carriage of equipment: In the Darnley Island exclusion zone all equipment that is capable of being used for any kind of trawling, or being used for taking Prawns (this includes nets, boards, beams, and skids) must be carried so that all of the equipment is out of the water, or if any part of the equipment is in the water that all codends are open and drawn up to the boat so that the codends would be visible from an aircraft or another boat and the boards are at the blocks.

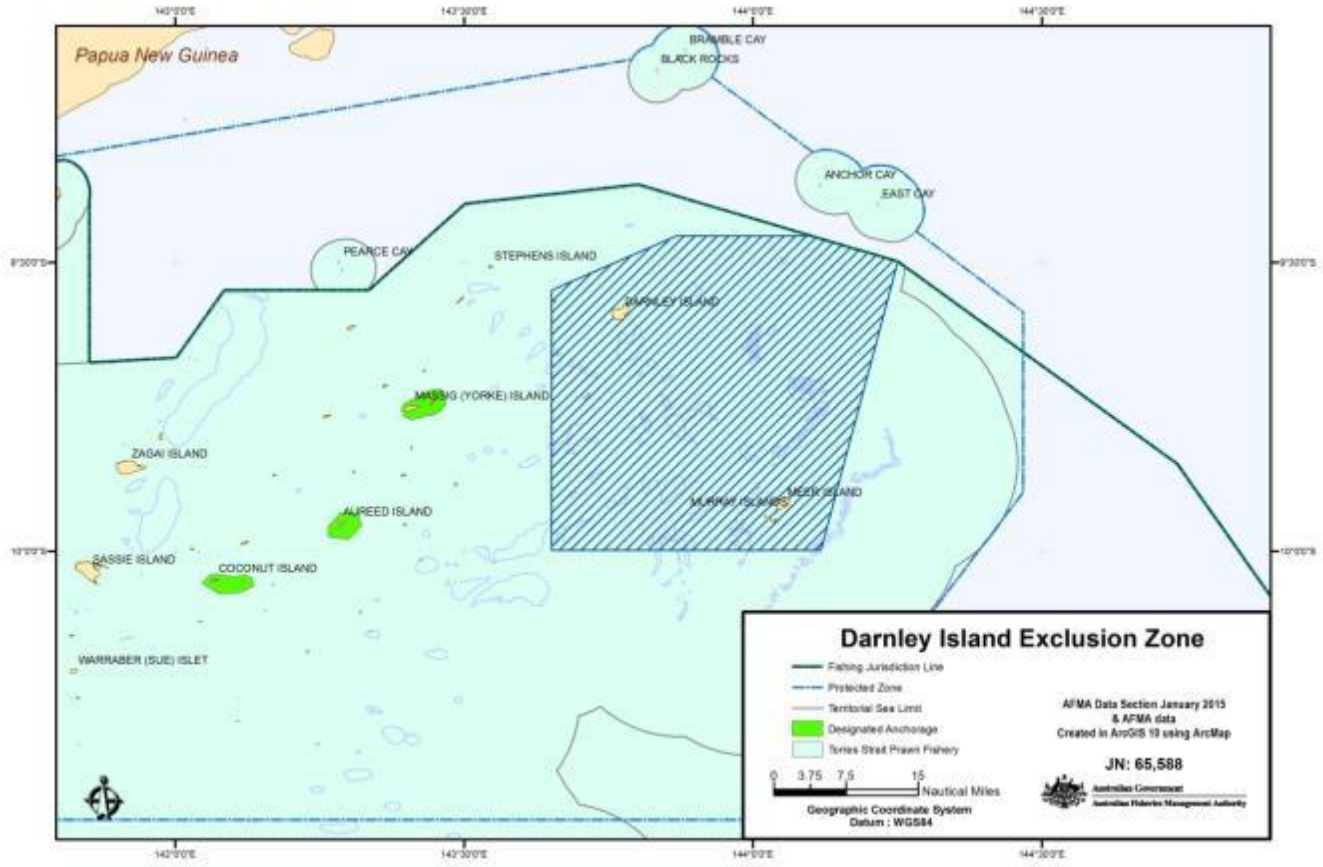


Figure 16. Map of Darney Island exclusion zone.

5.5 Deliverance, Kerr and Turu exclusion zones

In May 2008 the PZJA agreed to implement exclusion zones under the Plan around Deliverance Island, Kerr Islet, and Turu Cay. These areas have been excluded from the fishery in response to concern about the important nesting areas for Green and Flatback turtles.

Carriage of equipment: In the Deliverance Island, Kerr Islet, and Turu Cay exclusion zones all equipment that is capable of being used for any kind of trawling, or being used for taking Prawns (this includes nets, boards, beams, and skids) must be carried so that all of the equipment is out of the water, or if any part of the equipment is in the water that all codends are open and drawn up to the boat so that the codends would be visible from an aircraft or another boat and the boards are at the blocks.

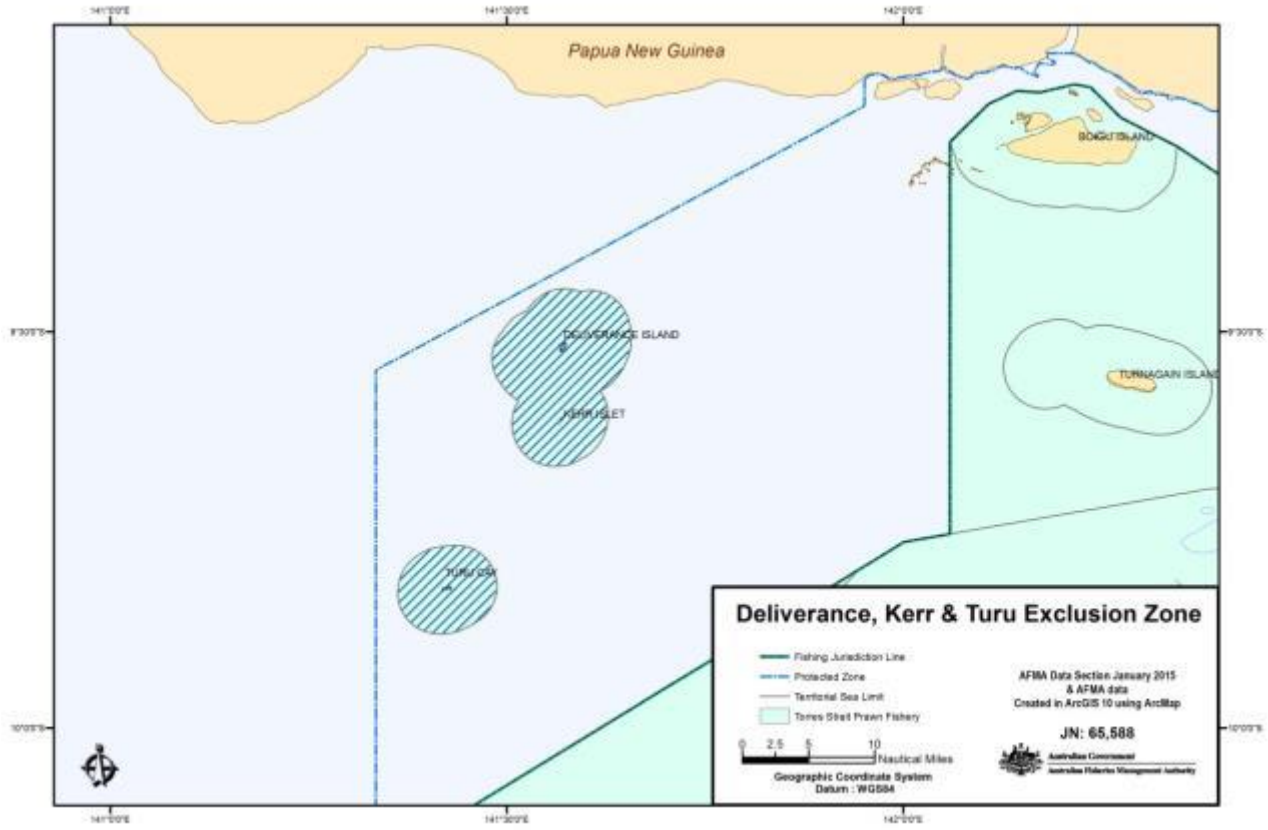


Figure 17. Map of Deliverence, Kerr and Turu exclusion zones.

5.6 East of Warrior Reef seasonal closure

This closure was introduced following a request from industry with the aim of improving the economic yield from the prawns harvested in this area by protecting juvenile prawns.

Timing: The east of Warrior Reef closure applies every year from 0600 hours local time on 1 December in any year and ends at 1700 hours local time on 31 July in the following year.

Carriage of equipment: During the seasonal closure of the entire fishery all equipment that is capable of being used for any kind of trawling, or being used for taking Prawns (this includes nets, boards, beams, and skids) must be carried either in the racks or on the deck; except between 1200 hours and 1700 hours local time on 1 March (in any year), the boat is anchored; or between 0600 hours and 1800 hours local time on 1 December (in any year), all equipment is out of the water or if any part of the equipment is in the water - that part is drawn up to the boat and is visible from nearby aircraft or boat; and if the equipment includes codends, the codends are open.

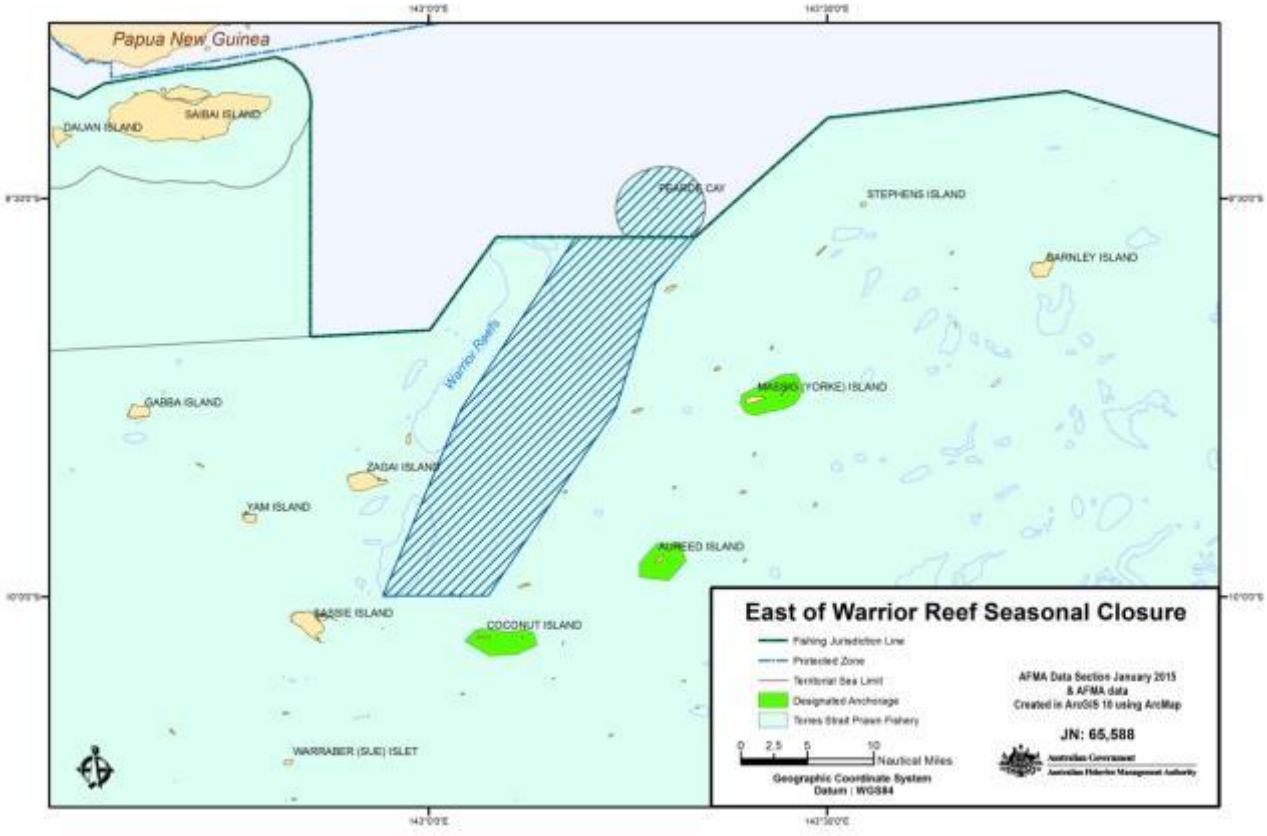


Figure 18. Map of East Warrior Reef exclusion zone.

6 Breaches of regulations

The Torres Strait Treaty allows Australian authorities to consider cancellation or suspension of Australian TSPZ licences held by persons convicted under the Commonwealth *Torres Strait Fisheries Act 1984* (the Act) for either:

- breach of PNG law; or
- being found by the Australian authorities, on the basis of the available evidence, to have contravened or failed to comply with a condition of a licence while fishing in PNG jurisdiction of the TSPZ.

If an Australian boat, endorsed by PNG under catch sharing arrangements to fish in the PNG sector of the TSPZ, is charged under the Commonwealth the Act for breach of PNG law, the PNG authorities may, if the Commonwealth Government requests, cancel or suspend this endorsement.

The Treaty requires Australia to consider in Australian courts corrective action (including apprehension of a suspected offender, prosecution, execution of penalties ordered by a Court and cancellation/suspension of licences) against Australians who breach PNG law.

The Act allows the Australian authorities to suspend, for up to one month, an Australian vessel licence on reasonable suspicion that:

- there has been a breach or failure to comply with a condition to which the licence is subject;
- the licence holder or a person acting on their behalf has done an act prohibited by a Notice or Instrument; or
- the applicant for the licence knowingly made a false or misleading statement in relation to a material particular in the application.

In July 1999 the PZJA agreed that Master Fisherman's licences will be suspended for serious fisheries offences (i.e. fishing in closed waters) in the TSPF as follows:-

First Offence	3 month suspension
Second Offence	12 month suspension
Third Offence	5 year suspension

7 Index of Fisheries Management Instruments and Notices

Fisheries Management Instruments outline the rules and regulations in fisheries in addition to the rules within the *Torres Strait Prawn Fishery Management Plan 2009* and *Torres Strait Fisheries Act 1984*. A list of current instruments is in the table below. The instruments can be found on the PZJA website:

Notice No.	Description
43	Torres Strait Prawn Fishery – Prohibition on taking Prawns (Time allocation) and amendment to FMN No 40.
47	Torres Strait Fisheries – restriction on size of boats
71	Torres Strait Prawn Fishery – restriction on net sizes
81	Torres Strait Prawn Fishery – requirement for use of Turtle Excluder Device
82	Requirement for use of bycatch reduction devices

Instrument No.	
1	Torres Strait Prawn Fishery – Prohibition on taking Prawns (time allocation, transit zone and designated anchorages)
2	Torres Strait Prawn Fishery – Prohibition on taking Prawns and carrying equipment (exclusion zones)
3	Torres Strait Prawn Fishery – Prohibition on taking Prawns and carrying equipment (seasonal area closures)
4	Torres Strait Prawn Fishery – Prohibition on taking Prawns by Papua New Guinea boats
5	Revocation of Fisheries Management Notices 19 and 61

Extract from the Papua New Guinea *Torres Strait Fisheries Act*

	Carriage of equipment while on route between two areas of Australian jurisdiction

8 Maps

The map of the TSPF below is indicative only. The charts listed below are given as a reference to fishermen so they can accurately plot the different closures and boundary lines within the Torres Strait Protected Zone.

AUS 376 Torres Strait (West of Warrior Reef exclusion zone) (the Fisheries Jurisdiction Line is marked on this chart).

AUS 377 Bligh entrance to Eastern Fields (Darnley Island exclusion zone) (the Fisheries Jurisdiction Line is marked on this chart).

AUS 839 Cairncross Island to Arden Island (Outside but near area of the prawn fishery).

AUS 840 Arden Island to Bramble Cay (East of Warrior Reef seasonal closure).

8.1 Fisheries jurisdiction line

Feedback from fishermen indicates that the fisheries notices in this Handbook are useful for skippers to enter the co-ordinates of closures in their plotters and charts. The co-ordinates of the Australia-PNG Fisheries Jurisdiction line are defined in the *Torres Strait Fisheries Act 1984* but not specifically detailed in the notices in the Handbook. In order to assist skippers who may find this useful the co-ordinates of this line are set out below.

Co-ordinates of the Fisheries Jurisdiction Line as provided in Annex 8 to the Torres Strait Treaty.

A line-

(a) commencing at the point of Latitude 10° 50’ 00”South, Longitude 139° 12’ 00”East;

(b) running thence south-easterly along the geodesic to the point of Latitude 11° 09’ 00”South, Longitude 139° 23’ 00”East;

(c) thence north-easterly along the geodesic to the point of Latitude 10° 59’ 00”South, Longitude 140° 00’ 00”East;

(d) thence north-easterly along the geodesic to the point of Latitude 9° 46’ 00”South, Longitude 142° 00’ 00”East;

(e) thence north-easterly along the geodesic to the point of Latitude 9° 45’ 24”South, Longitude 142° 03’ 30”East;

(f) thence north along the meridian of Longitude 142° 03’ 30”East to its intersection by the parallel of Latitude 9° 15’ 43”South;

(g) thence north-easterly along the geodesic to the point of Latitude 9° 12’ 50”South, Longitude 142° 06’ 25”East;

(h) thence north-easterly along the geodesic to the point of Latitude 9° 11’ 51”South, Longitude 142° 08’ 33”East;

(i) thence south-easterly along the geodesic to the point of Latitude 9° 11’ 58”South, Longitude 142° 10’ 18”East;

(j) thence north-easterly along the geodesic to the point of Latitude 9° 11’ 22”South, Longitude 142° 12’ 54”East;

(k) thence south-easterly along the geodesic to the point of Latitude 9° 11’ 34”South, Longitude 142° 14’ 08”East;

(l) thence south-easterly along the geodesic to the point of Latitude 9° 13’ 53”South, Longitude 142° 16’ 26”East;

(m) thence south-easterly along the geodesic to the point of Latitude 9° 16’ 04”South, Longitude 142° 20’ 41”East;

(n) thence south-easterly along the geodesic to the point of Latitude 9° 22’ 04”South, Longitude 142° 29’ 41”East;

(o) thence north-easterly along the geodesic to the point of Latitude 9° 21’ 48”South, Longitude 142° 31’ 29”East;

(p) thence south-easterly along the geodesic to the point of Latitude 9° 22’ 33”South, Longitude 142° 33’ 28”East;

(q) thence north-easterly along the geodesic to the point of Latitude 9° 21’ 25”South, Longitude 142° 35’ 29”East;

(r) thence north-easterly along the geodesic to the point of Latitude 9° 20’ 21”South, Longitude 142° 41’ 43”East;

(s) thence north-easterly along the geodesic to the point of Latitude 9° 20’ 16”South, Longitude 142° 43’ 53”East;

(t) thence north-easterly along the geodesic to the point of Latitude 9° 19’ 26”South, Longitude 142° 48’ 18”East where it joins the outer limit of the three mile territorial sea of Saibai Island;

(u) thence along that outer limit so as to pass to the east of Saibai Island to the point of Latitude 9° 23’ 40”South, Longitude 142° 51’ 00”East;

(v) thence south along the meridian Longitude 142° 51’ 00”East to its intersection by the parallel of Latitude 9° 40’ 30”South;

(w) thence north-easterly along the geodesic to the point of Latitude 9° 40’ 00”South, Longitude 143° 00’ 00”East;

(x) thence north-easterly along the geodesic to the point of Latitude 9° 33’ 00”South, Longitude 143° 05’ 00”East;

(y) hence east along the parallel of Latitude 9° 33’ 00”South to its intersection by the meridian of Longitude 143° 20’ 00”East;

(z) thence north-easterly along the geodesic to the point of Latitude 9° 24’ 00”South, Longitude 143° 30’ 00”East;

(za) thence north-easterly along the geodesic to the point of Latitude 9° 22’ 00”South, Longitude 143° 48’ 00”East;

(zb) thence south-easterly along the geodesic to the point of Latitude 9° 30’ 00”South, Longitude 144° 15’ 00”East;

(zc) thence south-easterly along the geodesic to the point of Latitude 9° 51’ 00”South, Longitude 144° 44’ 00”East;

(zd) thence south-easterly along the geodesic to the point of Latitude 12° 20’ 00”South, Longitude 146° 30’ 00”East;

(ze) thence south-easterly along the geodesic to the point of Latitude 12° 38’ 30”South, Longitude 147° 08’ 30”East;

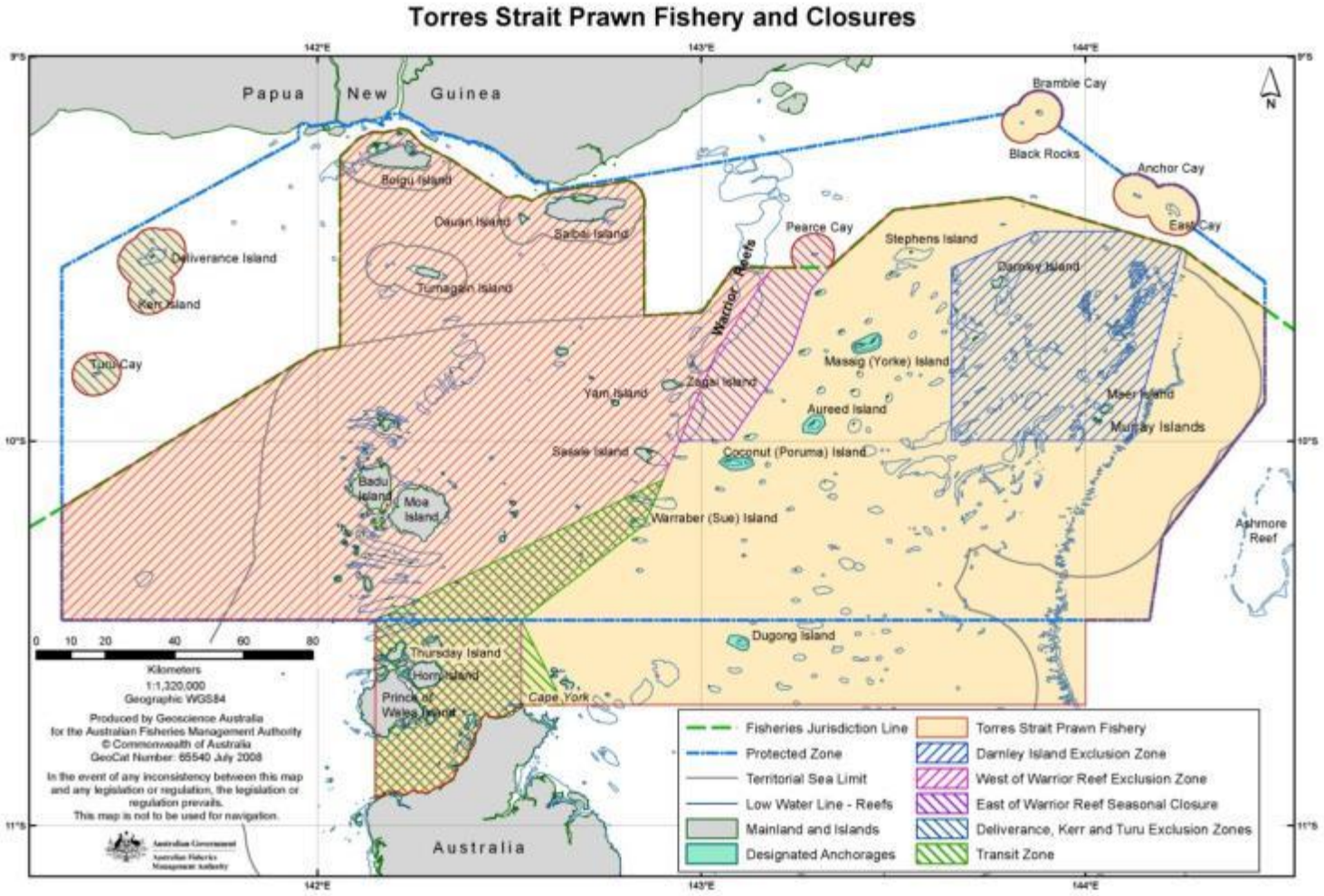
(zf) thence south-easterly along the geodesic to the point of Latitude 13° 10’ 30”South, Longitude 148° 05’ 00”East;

(zg) thence south-easterly along the geodesic to the point of Latitude 14° 38’ 00”South, Longitude 152° 07’ 00”East;

(zh) thence south-easterly along the geodesic to the point of Latitude 14° 45’ 00”South, Longitude 154° 15’ 00”East; and

(zi) thence north-easterly along the geodesic to the point of Latitude 14° 05’ 00”South, Longitude 156° 37’ 00”East where it terminates.

8.2 Map of the Torres Strait Prawn Fishery and Closures



9 Research

Research is undertaken in the TSPF as required. The current research priorities for the TSPF (as identified in the Torres Strait Scientific Advisory Committee (TSSAC) annual operational plan) relate to fishing power and exploring other economic efficiencies, improving effort uptake in the fishery and bycatch reduction devices. During 2014, two major research projects were undertaken in the fishery. The final reports are available the PZJA website.

Improving Torres Strait Prawn Fishery Profitability and Flow of Benefits to Traditional Owners

One major research project is currently underway for 2015 titled "*improving Torres Strait Prawn Fishery Profitability and Flow of Benefits to Traditional Owners*"**.** The project recognises that declining participation and profitability for the TSPF in recent years and flow on effects threaten the viability of the fishery, asset values, and future benefits. If the fishery declines below a certain point, critical infrastructure, business assets, and knowledge and capabilities may decline to the point where longer term viability is compromised. This would also threaten TSPF related business development and capacity building opportunities for Traditional Owners and their communities.

The project team will work closely with traditional owners, including people from the Erub, Masig, Poruma and Ugar Island communities to understand what they want from the prawn fishery, and what sort of benefits might be most suitable both for traditional owners and prawn fishery operators. A more profitable prawn fishery is also likely to increase the value of licences. And a fishery that understands and supports the needs of the traditional owners is also more likely to be valued and supported by the communities. The project is due for completion by July 2015.

10 Logbook Statistics

Provided by: **Clive Turnbull**
Fisheries consultant and scientific member for the TSPMAC

As logbook records were still being submitted for the later part of last season when this analysis was done the final 2014 catches and logbook effort will be higher than those shown in this edition. The estimates of logbook coverage for the last five months (Jul to Nov) are: 65%, 59%, 57%, 54% and 39% respectively. Thanks to the cooperation of trawler skippers in filling out and returning their log sheets, an essential record of catches and effort for the fishery has been built up over many years. This "time-series" of data is used to monitor trends in fishing effort, catches and catch rates by area (spatial trends) and time (temporal trends). A long time-series with wide variations in fishing effort and catches is needed for stock models. These models are used to estimate the level of fishing effort and catch that will ensure sustainability of the harvest while maximising the productivity of the fishery.

10.1 Total fishing days spent in the area of the fishery

The total fishing days spent in the area of the fishery from 1993-2014 are illustrated in Figure 19. The total percentages of days used in 2014 are shown in Figure 20.

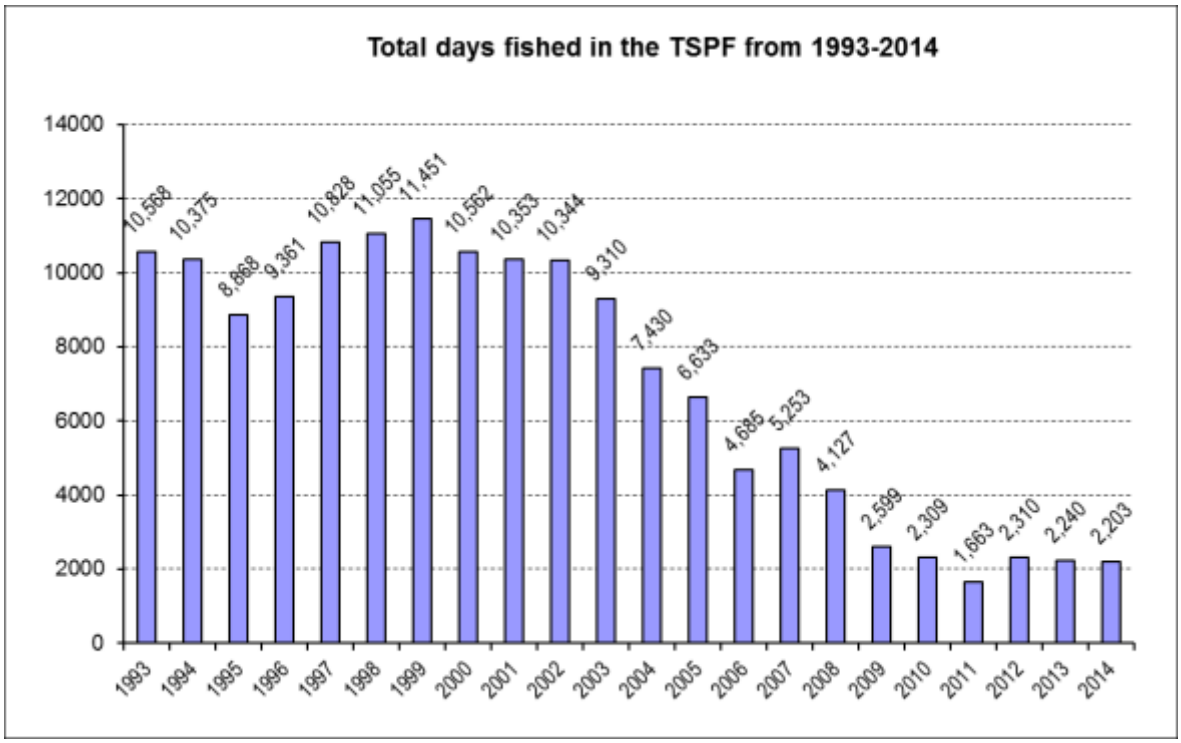


Figure 19. Total days in the area of the fishery 1993 – 2014.

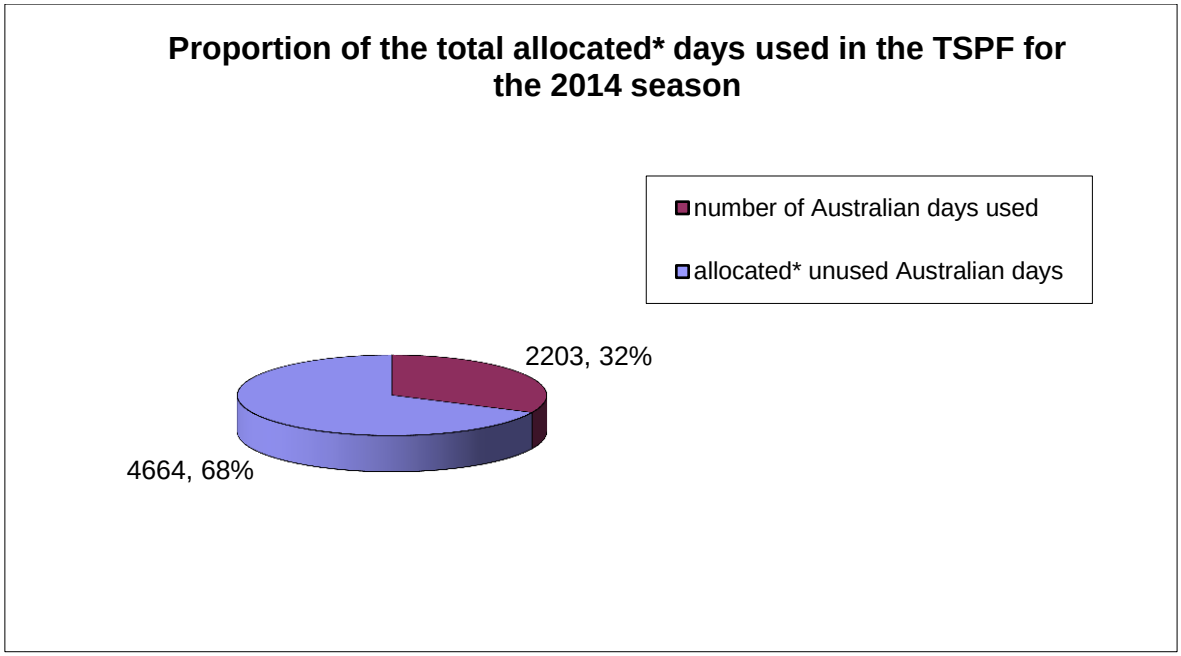


Figure 20. Proportion of the total allocated fishing days spent in the TSPF for the 2014 season.

10.2 Catch and effort by year

Figure 21 shows that fishing effort appears to have stabilised at around 2,000 nights following a general downwards trend between 2001 and 2011. The 2011 fishing season was the year of lowest fishing effort and catches since 1989. Although the 2014 fishing effort was lower than the two preceding years (2012-13), possibly as a result of lower tiger prawn catch rates, the final tiger prawn catch for 2014 should be close to the average of 343 tonne for the last five years of full logbook data (2009-13). The final endeavour prawn catch for 2014 should be close to 85 tonne which will be slightly higher than the lowest endeavour prawn catch of 74 tonnes that occurred in 2011.

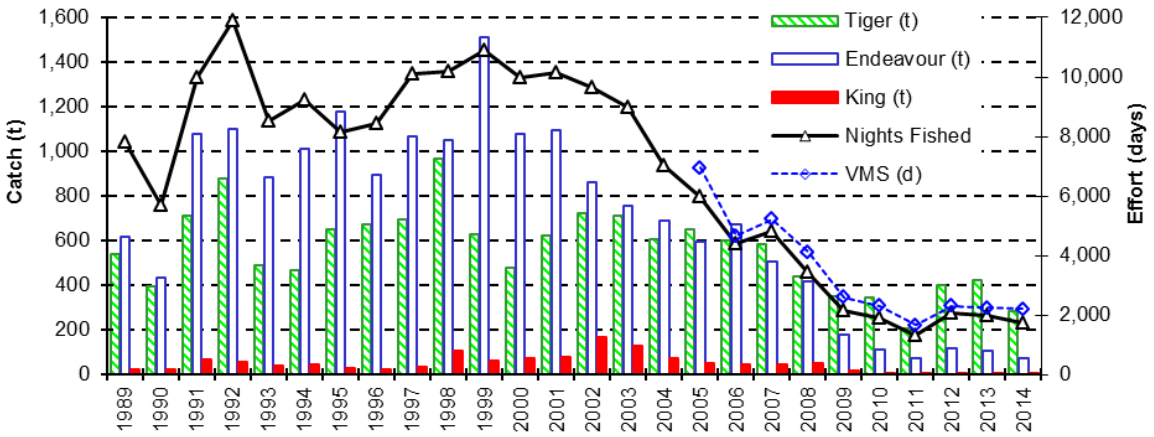


Figure 21 Prawn catches by species (columns) and effort (line). Note that the 2014 logbook data catches and effort is incomplete.

During the years 2001 to 2007 the tiger prawn catch remained close to the long term average despite the large decrease in fishing effort whereas endeavour prawn catch immediately tracked downward, mirroring the decrease in effort (Figure 21 and Table 2). After 2007 the catch of both tiger and endeavour prawn tracked downward and reached their lowest points in 2011 when fishing effort was at its lowest. The decline in fishing effort after 2001 was mainly driven by increasing fuel prices and decreasing produce value making it less profitable to fish. The decrease in the endeavour prawn catch occurred first because it is the lower value product and it was more profitable for fishers to target tiger prawn.

Fishing effort is plotted in Figure 21 using both the number of daily vessel logbook records (Nights Fished) and the Vessel Monitoring System data (VMS). The “VMS” plot (or line) is slightly higher than the “Nights Fished” plot as vessels are automatically flagged as fishing when steaming at trawl speed or if the VMS unit fails to poll. Fishers can claim a credit if they can verify that they were not fishing but often do not if it is near the end of the season and they have unused days of access.

Table 2 Yearly totals since the 2005 effort reduction *(t = tonnes and d = boat days)*.

Year	Hours Trawled	Nights Fished	VMS (d)	All prawn (t)	Tiger (t)	Endeavour (t)	King (t)
2005	63,300	5,966	6957	1,311	651	594	51
2006	47,273	4,407	4654	1,331	602	672	45
2007	51,398	4,832	5218	1,137	582	503	47
2008	37,023	3,453	4127	907	439	418	48
2009	19,435	2,165	2599	547	348	178	17
2010	20,480	1,879	2309	465	344	110	9
2011	14,613	1,309	1663	283	204	74	4
2012	23,337	2,081	2310	517	398	115	3
2013	22,061	1,993	2240	528	420	103	4
2014	19,561	1,726	2203	359	286	70	2
Average (1991-03)	103,247	9,710		1,786	668	1,044	70
Average (2009-13)	19,985	1,885	2,224	468	343	116	7

Note: The “All prawn” column includes “mixed prawn” and other minor categories and so may be higher than the sum of the tiger, endeavour and king prawn columns. The 2014 catches and “Nights Fished” are based on incomplete data. The two average rows at the bottom of Table 2 compare catch and effort for the last 5 years of complete data (2009-13) with the period of highest effort (1991-2003).

The prawn fishery in Torres Strait began in the mid-1970s. Based on the first year of unloading records in 1978, tiger prawn made up 83% of the 338 tonne harvest while endeavour prawn was only 16% of the catch. During the years 1989-2004 endeavour prawn was the largest component of the annual catch (48-60%). Since 2009 the species composition has reverted back to that observed in the early years of the fishery (Figure 22). The 2013 and 2014 harvests were 80% tiger prawn, 19% endeavour prawn and 1% king prawn; these are the highest percentages for tiger and lowest for endeavour since 1978.

The changes in species composition over the years have been driven by variability in the annual recruitment of each species and changes in the landed value of each species. Recruitment determines the abundance of each species on the sea bed and the landed prices influence which species are targeted by fishers. King prawn has always been a small component of the catch and is regarded as a by-product of fishing for tiger and endeavour prawns. During 2002-03 the proportion of king prawns was higher than the long term average indicating that they were years of higher king prawn recruitment.

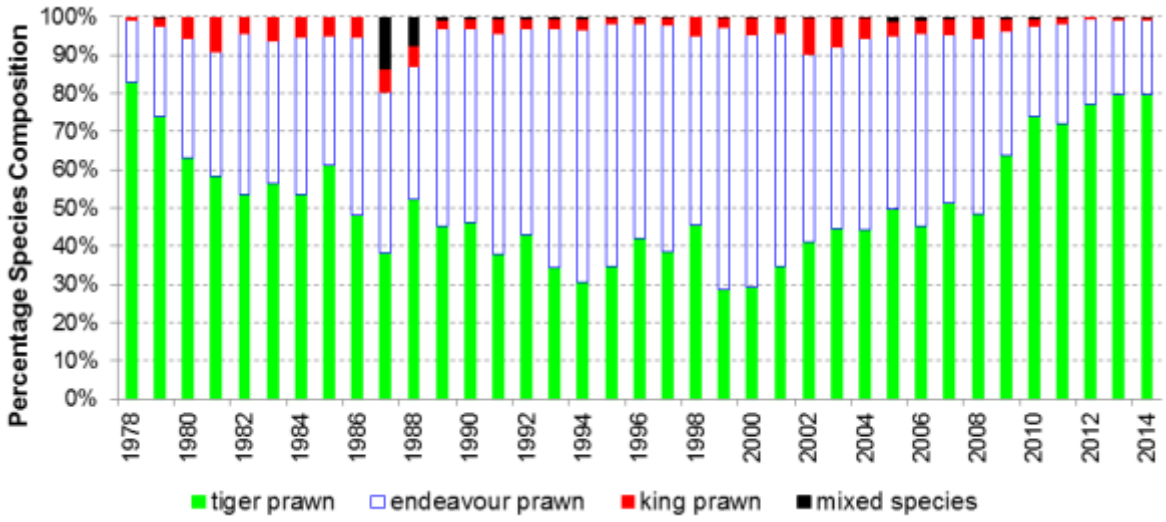


Figure 22. The percentage species composition of the prawn harvest by weight for each year. The percentages for the years prior to 1989 are based on unload records and the remainder are based on AFMA logbook data.

10.2 Fishing catch rates and stock biomass

Figure 23 shows the trends in “catch rates” or “Catch Per Unit of Effort” (CPUE) for the total prawn harvest and the tiger and endeavour prawn components of the catch. This is measured as the average kilograms of catch per boat day of fishing (kg/d).

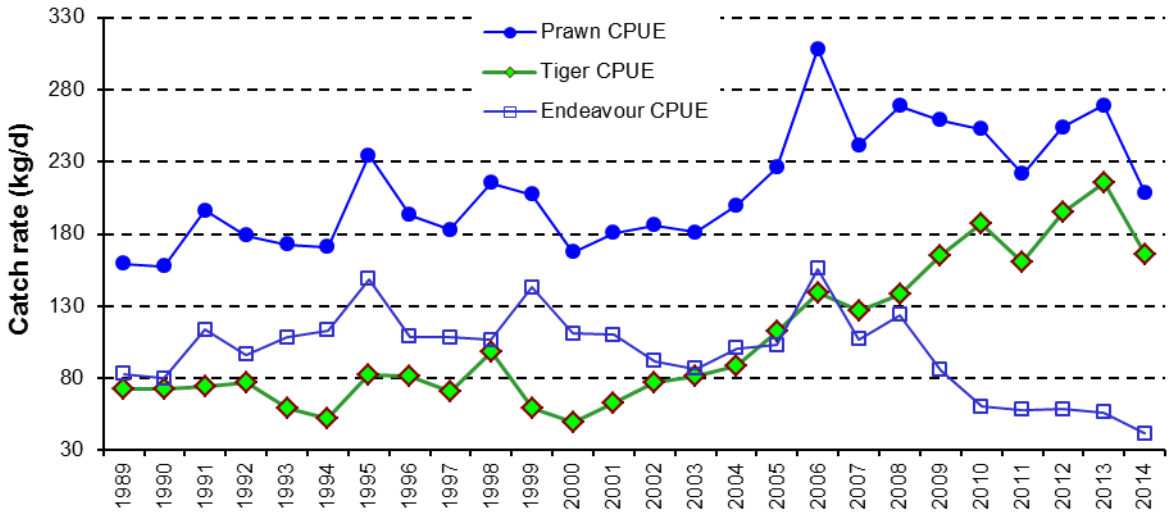


Figure 23. Yearly CPUE indices for tiger, endeavour and the total prawn catch.

Although the 2014 tiger prawn CPUE (166 kg/d) was lower than in 2010, 2012 and 2013 it was still more than double the 72 kg/d average tiger prawn catch rate for the 1990’s (Figure 23). In contrast, the endeavour prawn CPUE (42 kg/d) was the lowest since 1989 and was well below the 103 kg/d average for the 1990’s. The lower tiger prawn CPUE in 2014 is most likely a result of the natural variability in recruitment of tiger prawn stocks.

The 2014 prawn CPUE is the lowest since 2004 due to the drop in both tiger and endeavour CPUE’s but is still above the average for the 1990’s. The highest prawn CPUE was in 2006 as a result of high catch rates for both tiger and endeavour prawn. The higher than average endeavour prawn CPUE for 1995, 1999 and 2006 indicate higher than average annual recruitment. Because catch rates are often lower at the end of the season and the logbook data for the later part of the 2014 season was incomplete when the data was analysed, the final estimates of the CPUE for 2014 may be slightly lower than those plotted in Figure 23.

Ideally “catch rates” (CPUE) is an indication of the numbers of prawns on the seabed. High CPUE indicates a large prawn biomass while low CPUE indicates a small prawn biomass. There are, however, many other factors that can impact on the CPUE of an individual vessel other than prawn abundance. These factors are vessel size, engine power, type of nets, time of the year, moon phase, area within the fishery etc. The standardised CPUE used in the stock assessment models are slightly different to those shown in Figure 23 as they are adjusted for the factors that can affect individual vessel catch rates. This ensures that the catch rates can more accurately reflect the biomass of prawns on the seabed.

The increase in tiger prawn CPUE since 2000 is most likely due to the combined effect of fishers targeting tiger prawn in preference to endeavour prawn and the higher abundance of tiger prawn due to the decrease in fishing effort. This is supported by stock assessment results which indicate that the tiger prawn biomass was increasing during 2002-06, was at a higher level than during the 1990s and was above Bmsy (The biomass that supports Maximum Sustainable Yield (MSY)).

Table 3. Effort in days based on logbook records for the TSPF. This table compares the effort in days since 2010 with the historic average for the years 1991-2003. The VMS effort estimate is shown in brackets. *The 2014 logbook effort is based on incomplete data.

Average effort 1991-2003	2010 effort	2011 effort	2012 effort	2013 effort	2014 effort
9710	1859 (2309)	1309 (1663)	2081 (2310)	1993 (2240)	*1726 (2203)

Table 4. Comparison of recent harvest levels with the historic averages for 1991-2003 and the estimates of MSY. *The 2014 catches are based on incomplete data.

Species	Average 1991-03 (t)	MSY (t)	2010 catch (t)	2011 catch (t)	2012 catch (t)	2013 catch (t)	*2014 catch (t)
Tiger prawn	668	676	344	240	398	420	286
Endeavour	1044	1105	110	74	115	103	70

Since 2010 fishing effort (Table 3) has been approximately a quarter of the 1991-2003 average (9,710 days) and the Emsy limit reference point (9,200 days). The 2010-14 tiger prawn catches were roughly 50% of the historic catch levels during the years 1991-2003 and the estimated Maximum Sustainable Yield (MSY) for tiger prawn (Table 4). Tiger prawn catch rates (CPUE) for 2010-14, however, are the highest recorded since 1989 (Figure 23). This high CPUE combined with the low harvest of tiger prawns in recent years suggests that the tiger prawn stock is still well above the Bmsy sustainability reference point.

The below average endeavour prawn catch rates since 2009 (Figure 23) most likely reflect fishers focusing on the higher value tiger prawns. Since 2001 the endeavour prawn catch has dropped to approximately 10% of historic levels and the estimate of MSY (Table 4). Therefore the impact of fishing (fishing mortality) on the endeavour prawn stock has been quite low compared with the 1990s when fishing mortality was much higher due to fishers targeting endeavour prawns, more vessels and much higher fishing effort. There is nothing to indicate that the endeavour stock has been overfished. This species is more resilient to high fishing effort than tiger prawns and in the early years of this fishery the endeavour prawn stock appeared to increase with increased fishing effort.

10.3 Spatial distribution of fishing effort and catches

Figure 24 and Figure 25 compare the spatial distribution of fishing effort and catch for 2014 with 2005 summarised to the 6 minute grid level. The 2005 fishing season was chosen as a base year for comparison as effort was just under 6,000 days which is approximately 60% of the average effort for 1991-03. In addition the tiger prawn catches had not started declining and the catch (651t) was just below the 1991-03 average (668t) and the estimate of MSY (676t).

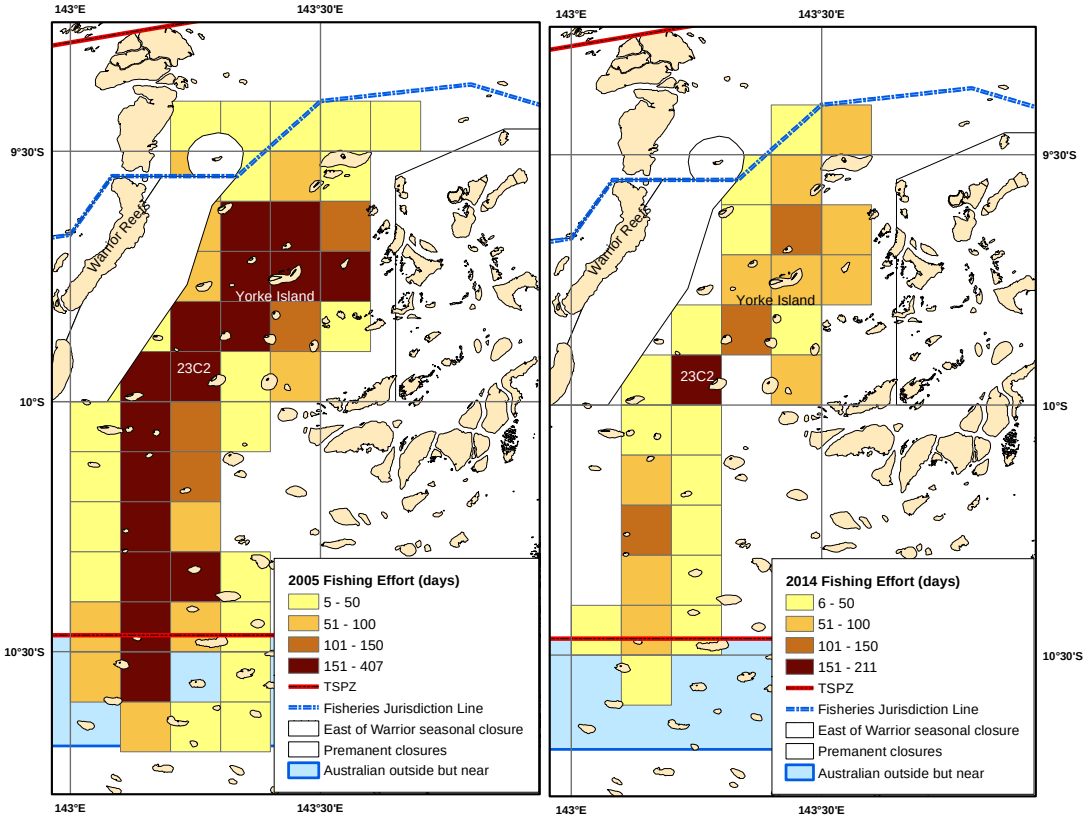


Figure 24. Effort distribution (fishing days) within the TSPF for the 2005 and 2014 fishing seasons by 6-minute grid.

There were 16 grids where effort was above 150 days during the 2005 fishing season (Figure 24). In contrast there was only one grid (23C2) where fishing effort was greater than 150 days during 2014 and the reduction in the number of grids fished shows how the fishery has contracted into a smaller fishing area.

During 2014 grid 23C2 was fished by only 13 vessels and fishing effort was 211 days producing 36 tonne of tiger prawn but only 8 tonne of endeavour prawn (Figure 25). In contrast, during the 2005 season the same grid was fished by 52 vessels resulting in 407 days of effort, a similar tiger prawn catch (35t) but a much higher endeavour prawn catch (40t). This grid had the largest total prawn catch and tiger prawn catch for the 2014 fishing season. The grid with the highest effort and catch in 2005 was 17C3 where 407 days of effort from 53 vessels produced 39 tonne of tiger prawn, 47 tonne of endeavour prawn and 2.3 tonne of king prawn.

Although the 2005 plot indicates that the proportion of endeavour prawn catch was slightly higher in the southern half of the fishery compared with the northern half (Figure 25) the reduction in endeavour prawn catch between 2005 and 2014 has occurred over the whole of the fishery.

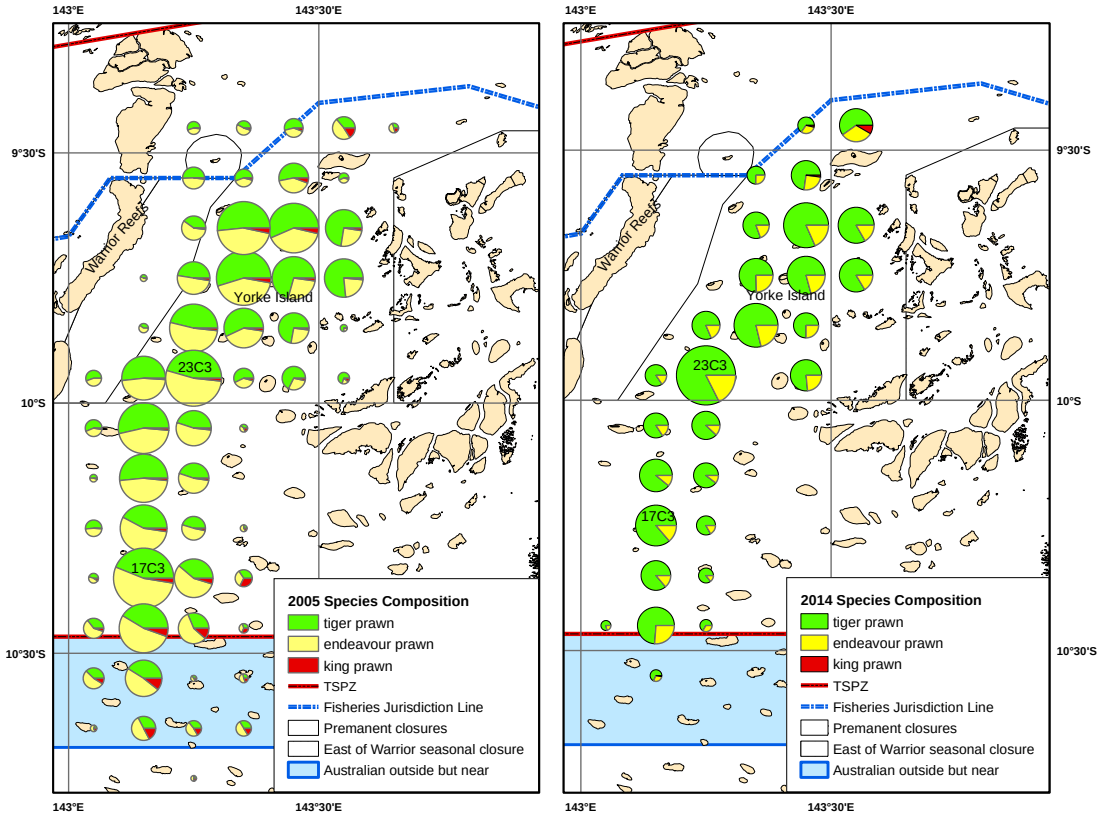


Figure 25. Spatial distribution of catch during the 2005 and 2014 fishing seasons. The diameters of the pie charts are scaled by the total prawn catch for each grid.

In both the catch and effort figures, data for grids where less than five vessels fished during the season were not included in the maps. This is done to abide with confidentiality requirements. Because the Fisheries Jurisdiction Line passes through the lower sections of some grids along the border region the catch of these grids 'appear' to be in PNG waters as the grid centre is north of the line.

10.4 Regional catch and effort

The distribution of catch and effort since 2006 over four regions within the fishery is shown in Figure 26. In the late 1980s Peter Channells arbitrarily defined these regions and since then they have been used in all the Torres Strait Newsletters and Handbooks. The regions are defined by latitude and are; Dalrymple-Yorke 9° 22" to 9° 46", Aureed-Bourke 9° 46" to 10°, Coconut-PD 10° to 10° 26", Dugong 10° 26" to 10° 41".

Since 2011, effort and catches have been highest in the north of the fishery (Dalrymple-Yorke) and have progressively decreased towards the south (Dugong) and in all regions the endeavour catch has been lower compared to the tiger prawn catch. In most of the earlier years, effort and catches were more evenly spread across the Darymyle-Yorke,

Aureed-Bourke and Coconut-PD regions. In some years fishing effort and catches, endeavour in particular, were highest in the Coconut-PD region (i.e 2007 and 2008).

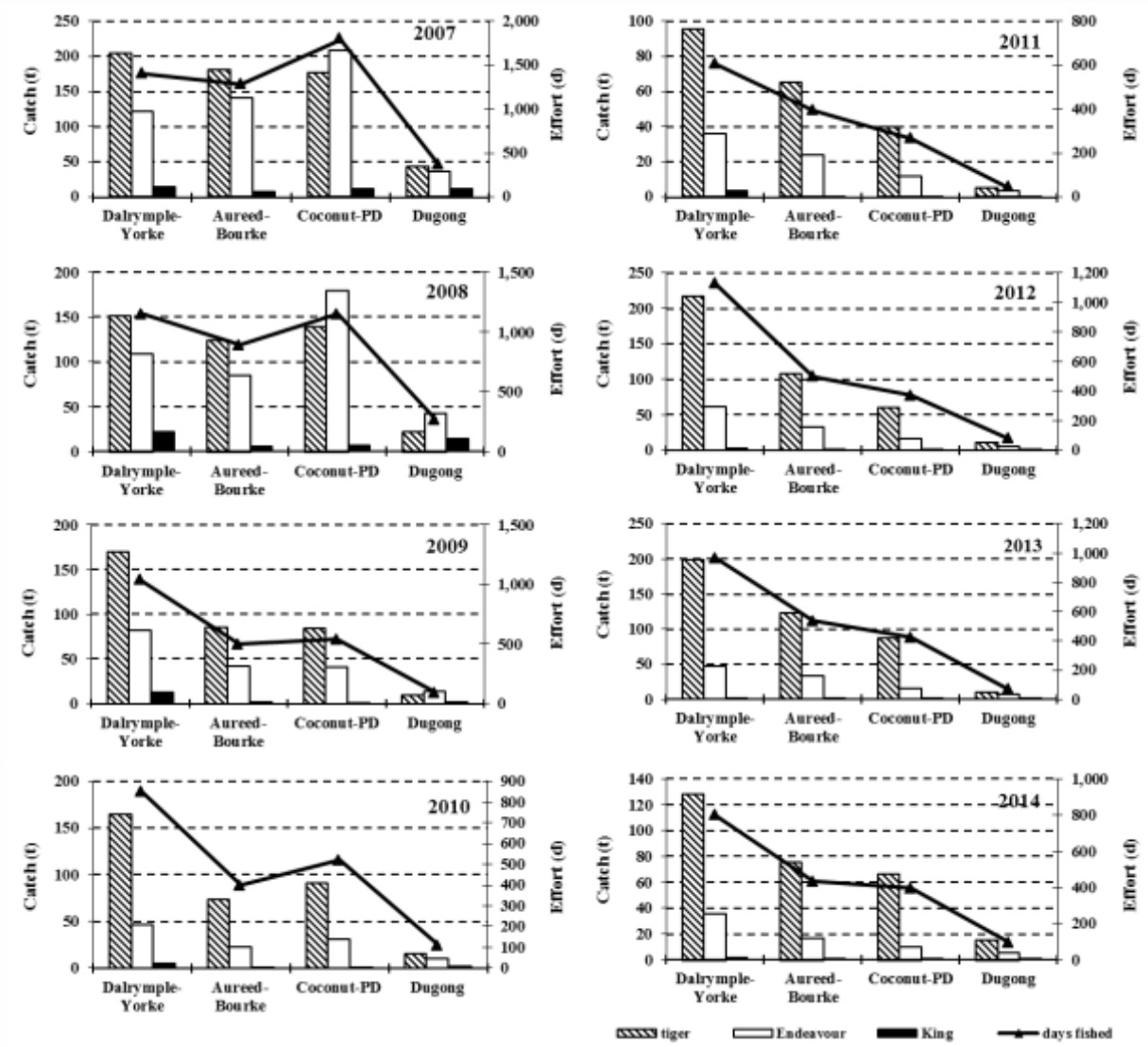


Figure 26. Regional distribution of effort and catch. The catches in tonnes for each species are shown as columns and are scaled to the left axis. The effort measured as days fished in each area is shown as a line, which is scaled to the right axis.

10.5 Monthly trends in catch and effort

The following figures compare the monthly trends for the last two seasons with the average of the prior years. The range markers on the average lines in Figure 27 to Figure 28 indicate the minimum and maximum values that occurred over the years 1989-12.

Based on the VMS data the monthly fishing effort for the first half of the 2014 season (March to July) was 7-20% lower than in 2013 whereas fishing effort during September to November was 10-48% higher. The highest effort months in 2014 were March followed by October and November was the lowest effort month with April as the second lowest (Figure 27). The gap between the 2014 VMS and logbook lines post August indicates that

logbook coverage of fishing effort for September, October and November is 79%, 58% and 26% respectively.

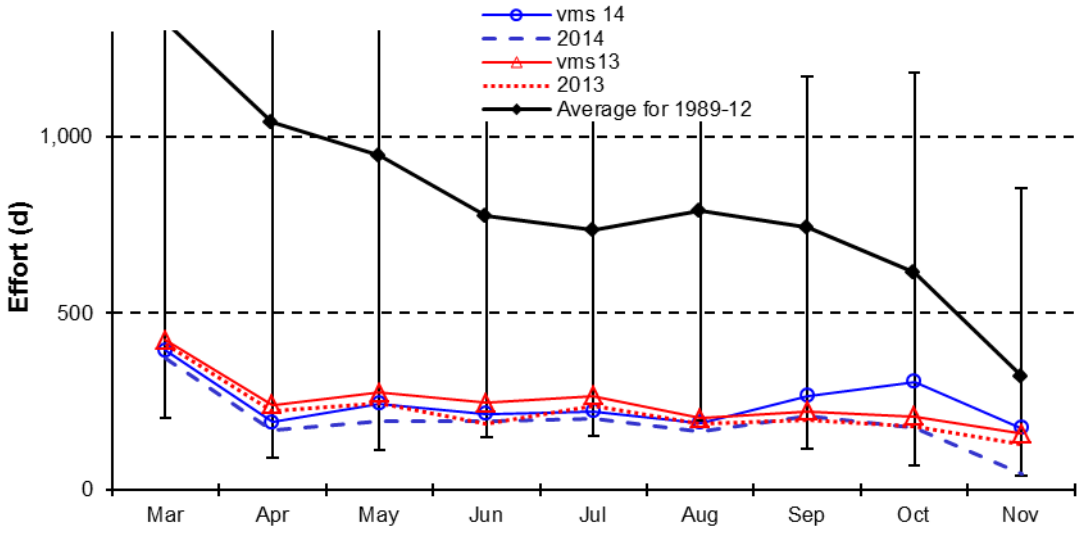


Figure 27. Monthly fishing effort in days. The blue solid and dotted lines show the 2014 VMS and logbook measures of monthly effort and the red lines show the 2013 fishing effort.

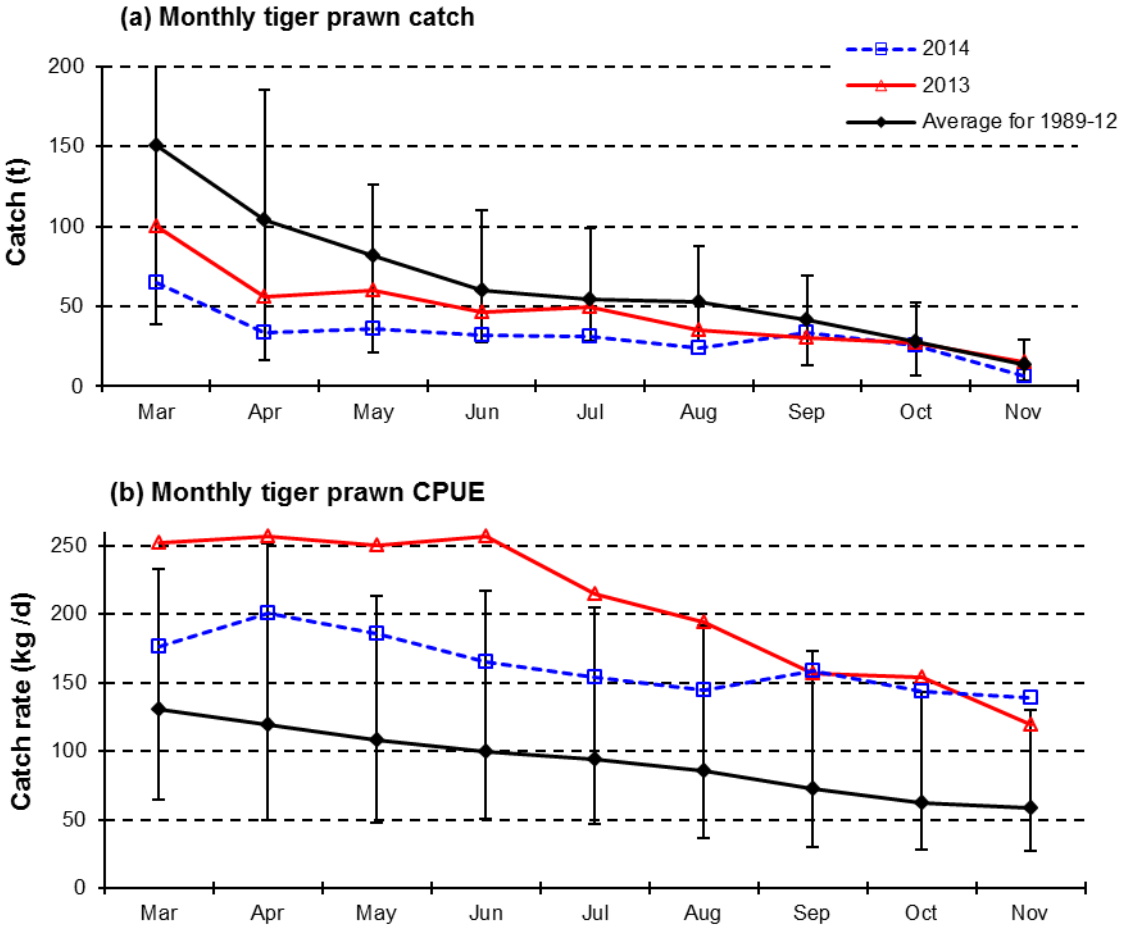


Figure 28. Monthly tiger prawn catches and catch rates (CPUE)

The tiger prawn catch from March to August of 2014 (Figure 28) was lower than in the corresponding months of 2013. This is due to both lower fishing effort (Figure 28) and catch rates (CPUE) during March to August of 2014. Adjusting the tiger prawn catch based on the logbook coverage estimates suggests that the final estimates of tiger and endeavour prawn catches for 2014 will be close to 345 and 85 tonnes respectively.

The endeavour prawn catch from March to August of 2014 (Figure 29) was also slightly lower than in most of the corresponding months of 2013. This is due to lower fishing effort (Figure 29) and slightly lower endeavour prawn catch rates during March to August of 2014. During April to August of 2014 the endeavour prawn CPUE's were the lowest recorded.

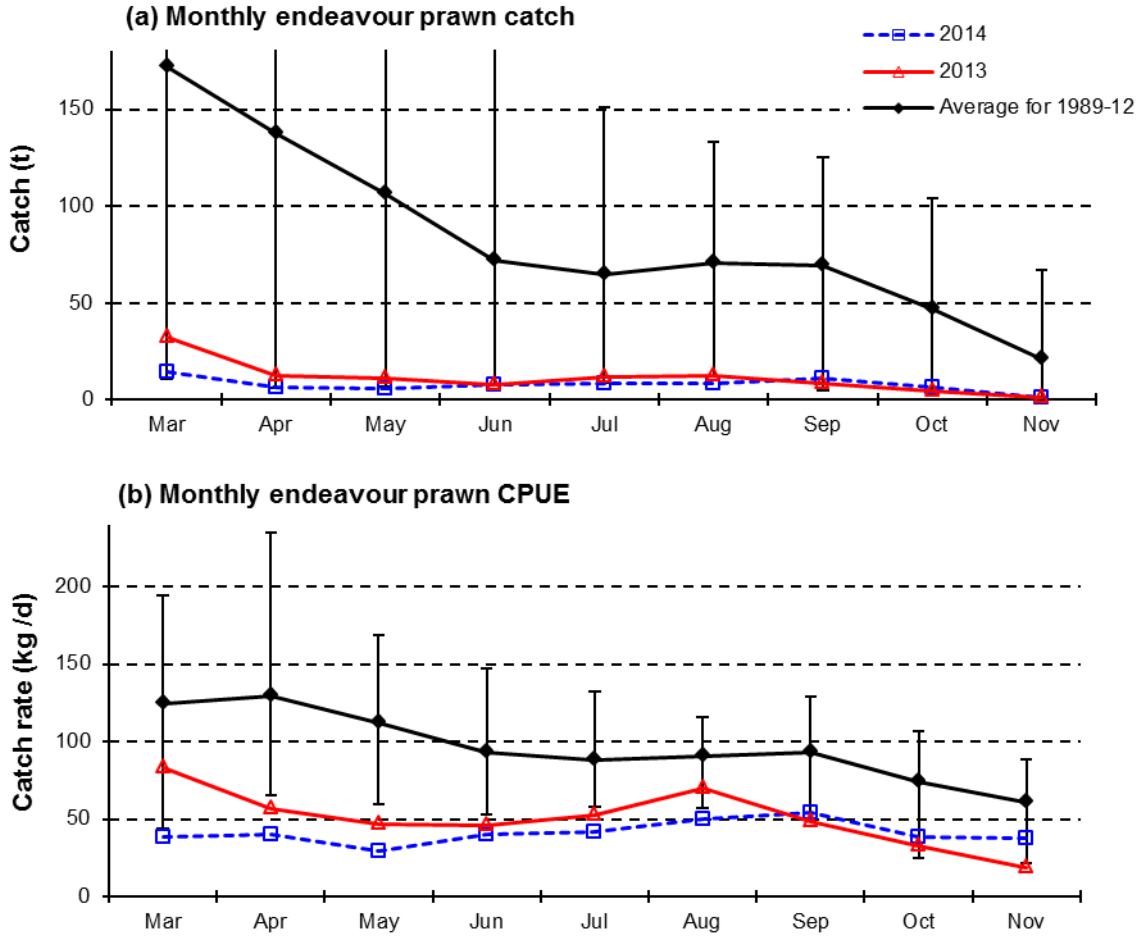


Figure 29. Monthly endeavour prawn catches and catch rates (CPUE).

Due to the very low level of effort in the fishery and fishers targeting the higher value tiger prawn, the monthly CPUE of endeavour prawns can be easily biased by which vessels are fishing and where they are fishing; therefore the current CPUE indices for endeavour prawn are a poor index of the abundance of that stock.

The 2013 and 2014 monthly king prawn catches (Figure 30) were well below average throughout both seasons reflecting the low level of effort. In past years when effort was higher most of the king prawn catch came from the first two months of the season. The 2013 and 2014 king prawn monthly catch rates are highly variable due to the low level of effort but oscillate around the historical average indicting that there is no stock abundance concern.

In Torres Strait the king prawn catch category consists almost entirely of the Red Spot King prawn (Melicertus longistylus). During March to May of 2002 and 2003 the monthly catches were the highest recorded suggesting that these were years of above average recruitment for Red Spot King prawn.

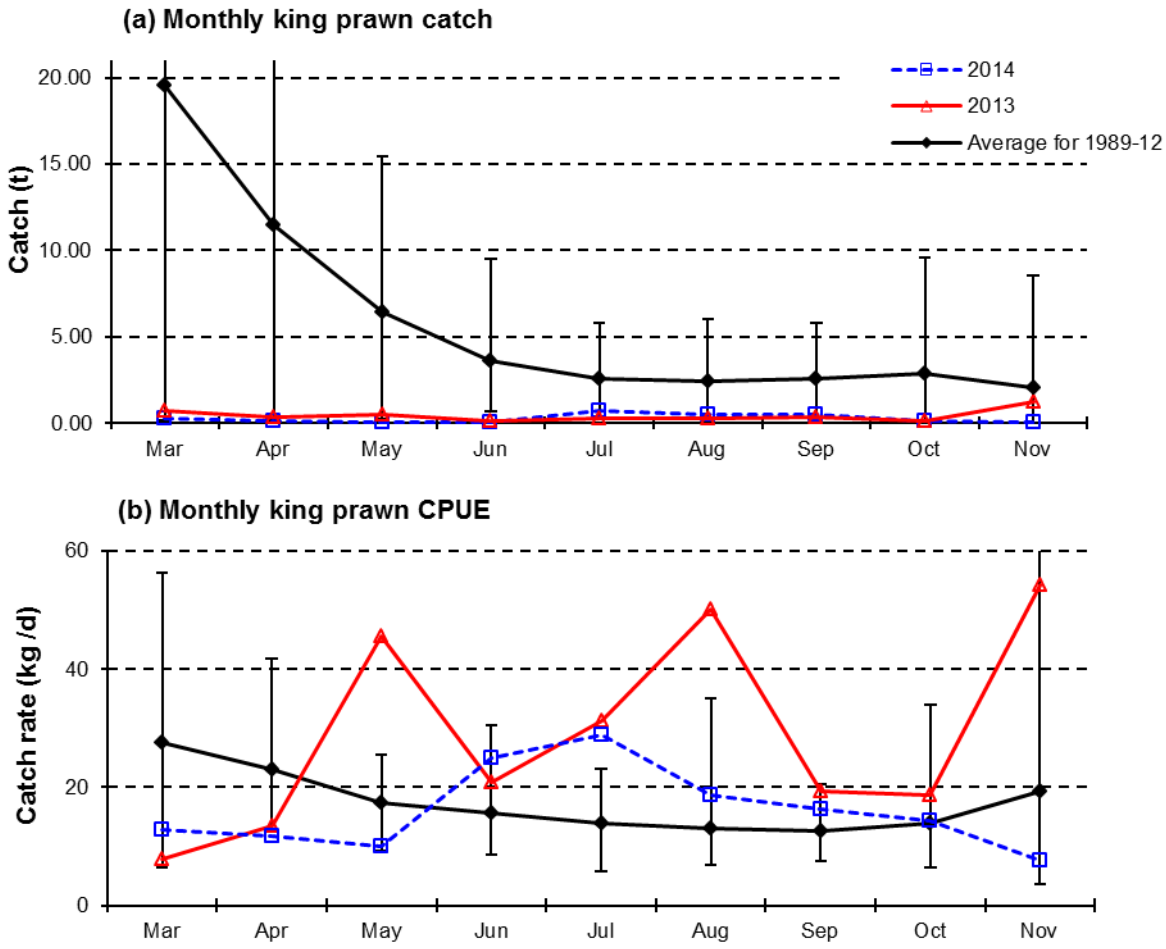


Figure 30. Monthly king prawn catches and catch rates (CPUE).

10.6 Details by month of catches and effort since 1989

For fishers interested in more detail than that presented in the graphs the tables below provide a summary of catch and effort for each month of each year since 1989.

**Note: Only the southern section of Torres Strait was open during March of 1989 so this data was neither presented nor used to calculate the averages displayed in the previous monthly figures.*

Table 5 Tiger prawn catch in tonnes by month and year.

Year	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Mar	13*		217	245	90	124	187	246	172	261	129	121	133	195	177	141	194	191	117	87	90	63	39	84	100	65
Apr	169	99	67	147	87	87	120	90	109	185	89	74	124	141	134	111	165	117	126	81	51	43	16	69	56	34
May	126	76	117	102	64	64	107	68	92	117	96	52	88	112	79	80	96	79	111	71	44	32	21	71	60	36
Jun	64	41	110	87	40	51	73	71	59	108	74	61	75	57	61	61	51	45	59	37	45	31	28	54	47	32
Jul	60	66	56	62	51	42	53	58	53	99	76	59	64	46	77	65	31	45	40	51	28	31	32	52	49	31
Aug	43	46	42	87	72	41	45	57	74	77	62	42	56	54	74	67	34	49	46	46	28	58	38	32	35	24
Sep	30	34	49	67	37	26	36	40	69	60	49	36	48	48	54	44	42	38	40	29	30	52	20	14	30	33
Oct	25	22	31	52	30	20	20	29	43	43	35	23	24	44	36	22	28	28	31	23	25	23	7	15	27	25
Nov	9	11	20	29	16	10	9	10	23	15	18	10	10	24	20	16	10	11	12	13	7	11	3	9	15	6

Table 6 Endeavour prawn catch in tonnes by month and year.

Year	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Mar			125	103	159	131	176	144	144	115	195	149	160	120	94	105	108	167	125	167	97	62	52	44	83	39
Apr	104	73	143	114	141	148	182	133	132	123	235	134	148	119	105	119	109	207	132	175	104	65	71	80	57	40
May	82	70	147	92	101	130	169	116	117	118	166	126	131	78	86	124	113	169	127	136	97	59	59	71	47	30
Jun	71	72	93	79	92	120	141	91	89	112	130	97	76	79	80	100	94	147	99	102	87	53	56	65	46	40
Jul	72	69	87	77	91	97	125	91	93	116	116	91	79	69	79	96	82	132	91	95	73	58	71	60	53	42
Aug	77	84	104	104	89	92	115	93	99	103	110	97	71	76	86	90	100	116	89	105	76	75	57	58	70	50
Sep	79	101	126	111	103	90	129	105	97	88	102	90	87	80	77	86	114	118	87	113	85	68	53	49	49	54
Oct	77	104	88	93	92	71	94	66	80	84	86	72	70	77	68	78	88	107	68	67	42	36	44	25	32	39
Nov	54	81	85	82	79	61	89	74	57	59	68	50	70	72	69	74	76	68	34	35	29	22	40	24	18	38

Table 7 King prawn catch in tonnes by month and year.

Year	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Mar	3*		30.02	20.30	11.97	13.24	9.56	9.57	6.32	29.41	19.34	33.77	27.60	75.46	47.99	26.16	11.83	15.70	16.75	16.13	5.74	2.41	0.54	0.16	0.73	0.26
Apr	5.74	5.25	5.51	8.04	7.02	10.86	6.32	5.87	7.26	24.57	13.22	18.16	14.35	45.15	26.03	16.14	13.58	12.31	12.02	11.86	3.73	1.57	0.19	0.77	0.33	0.14
May	6.23	6.58	8.83	5.24	5.44	8.28	6.12	2.73	4.41	13.75	6.29	6.09	6.19	15.43	15.21	8.07	9.90	6.25	5.90	4.78	1.82	1.09	0.21	0.38	0.50	0.05
Jun	3.19	2.66	5.85	5.61	2.84	3.84	2.81	1.42	3.13	9.48	4.06	4.26	2.56	4.55	7.23	4.69	4.64	2.62	3.08	2.23	2.25	0.67	0.98	1.21	0.13	0.05
Jul	1.67	3.17	4.38	2.51	3.46	2.27	2.72	1.31	1.51	5.83	3.64	3.80	1.34	2.64	5.00	3.82	1.40	1.97	2.20	4.94	1.16	0.40	1.23	0.24	0.25	0.69
Aug	1.35	1.99	3.35	3.31	4.69	2.07	1.23	0.93	2.88	5.99	3.02	1.97	1.62	2.07	4.29	4.02	2.10	2.48	2.25	4.05	0.56	1.08	0.99	0.04	0.30	0.48
Sep	1.51	1.49	4.46	4.32	1.25	1.20	1.03	1.18	2.59	5.82	3.76	2.05	5.42	4.06	5.60	4.84	3.19	2.14	1.58	2.24	0.69	1.10	0.09	0.25	0.37	0.51
Oct	1.68	0.85	4.64	2.87	1.25	0.96	0.83	1.14	3.16	6.80	3.89	1.57	9.61	8.23	8.37	4.03	3.28	1.29	1.71	1.41	0.70	0.30	0.06	0.09	0.15	0.12
Nov	0.60	1.49	2.97	3.13	0.55	2.23	0.08	0.40	3.44	2.74	3.50	0.76	8.57	7.24	6.16	2.58	0.76	0.45	1.32	0.60	0.12	0.17	0.21	0.01	1.26	0.06

Table 8 Number of nights recorded as fished in Torres Strait by the fleet.

Year	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Mar	184*		2,431	2,218	1,115	1,570	1,610	1,709	1,672	1,694	1,387	1,892	1,835	1,916	1,797	1,123	1,129	1,145	1,023	534	488	321	204	365	411	371
Apr	1,370	910	596	1,453	1,076	1,494	1,249	1,080	1,488	1,371	1,332	1,506	1,565	1,506	1,573	1,107	1,184	878	871	535	300	223	92	276	222	168
May	1,605	1,005	1,228	1,377	1,016	1,160	1,147	882	1,306	1,126	1,479	1,101	1,365	1,445	1,066	844	914	578	703	532	238	172	112	335	245	193
Jun	1,062	509	1,531	1,358	645	956	970	877	1,092	1,099	1,505	1,061	1,206	864	620	675	606	358	442	341	284	149	167	275	185	194
Jul	1,064	867	1,030	1,084	794	921	868	918	853	1,199	1,335	1,154	1,063	715	765	788	386	316	342	370	193	153	204	294	238	203
Aug	812	812	734	1,209	1,440	1,161	842	1,078	1,209	1,104	1,252	934	1,056	851	930	984	432	356	425	414	197	307	253	220	186	165
Sep	744	724	1,046	1,170	949	887	763	833	1,157	1,051	1,148	1,098	1,082	970	1,007	802	583	361	432	291	202	309	170	116	197	210
Oct	670	543	856	1,184	933	734	488	736	853	1,031	964	835	700	908	794	447	547	304	409	271	204	163	67	122	181	177
Nov	282	318	531	854	557	361	221	340	467	507	502	398	285	466	448	271	185	111	185	165	59	82	40	78	128	45

11 Fishery Observer Program

11.1 Objective of the program

Introduced in the 2005 fishing season, the purpose of the TSPF Observer Program is to provide fisheries management, research organisations, fishing industry and the wider community with up-to-date, reliable and accurate information on the fishing catch, effort and practice in the TSPF. The primary objective of the program is to place observers on fishing boats to collect fishery independent scientific data, including commercial catch, bycatch and Threatened, Endangered and Protected (TEP) species information. The data is used to aid fisheries management decisions and assist in verifying data required by Logbooks, the Bycatch Action Plan (BAP) and the Ecological Risk Assessment (ERA). Since the 2010 fishing season, the observer program has also collected data on species of particular cultural significance to the Torres Strait Islander community.

A total of 47 days of observer coverage were achieved in the TSPF for the 2013/14 financial year. This equates to approximately 2.53% observer coverage based on 2013/14 season effort of 1,856 fishing nights. 50 observer days have been budgeted again for the 2014/15 financial year.

Boat owners and masters wishing to participate should contact the Observer Coordinator to organise placement. The Observer Program wish to express their thanks for the cooperation of industry and boat crews involved in the program to date.

Observer Manager

Australian Fisheries Management Authority
Phone: (02) 6225 5555 **Fax:** (02) 6225 5440 **Email:** observers@afma.gov.au

12 Other Information

12.1 Torres Strait Islanders and their lifestyle

It is important that fishers operating in the Torres Strait have an understanding of the culture and lifestyle of the Torres Strait Islanders. The Torres Strait is culturally distinct area within Australia, being home to Australia's indigenous Melanesian people - the Torres Strait Islanders. It is estimated that 8000 Islanders live within the Torres Strait, including 3500 living in the major commercial and administrative centre of Thursday Island.

The Islanders have a strong relationship with the sea, coast and reefs. The significance of the sea as a basis of their livelihoods and food source can be appreciated by the fact that average rates of consumption of seafood in the Torres Strait are amongst the highest in the world. This is reflected in their myths and legends that contain many references to fish, turtle, dugong and shellfish. Marine resources, particularly dugong and turtle, are important in community ceremonies such as weddings and tombstone openings.

Everyday life on island communities revolves around maintaining essential services, schooling and supporting other members of the village as well as duties to the various churches of the islands. Islanders today use outboard motors and dinghies for fishing and inter-island travel rather than dugouts as they did in the past. Islanders are involved in the commercial fishing for lobster, sea cucumbers, mackerel and reef fish, trochus and pearl shell. The taking of turtle and dugong is restricted to the indigenous inhabitants and the sale of either species (including the shell of the turtle) is strictly prohibited. Women often handline for fish which is consumed by their immediate and extended family.

Protocols when visiting communities

The communities are managed by elected Chairpersons and Councillors in the same way as local councils are on the mainland. Visitors to communities are reminded that resources on communities are limited. Water and telephone and medical services are designed for community use only. When visiting a community for medical help or to connect with an airline service, visitors are asked to respect community standards and remember that you are on someone else's home or property. There are accepted protocols for visiting island communities, including wearing appropriate clothing and covering up tattoos and piercings from impressionable young community members.

Seeking permission prior to landing on Torres Strait islands (inhabited and uninhabited)

Before coming ashore any of the Torres Strait Islands you should contact the council office and speak to the Prescribed Body Corporate Chairperson and the local councillor or clerk. Please explain why you wish to come to the island and how long you will be staying. Remember that some of the islands have a complete ban on alcohol.

When coming ashore an uninhabited island, only the PBC chair needs contacting. Please refer to the list of PBC chairs relevant to each uninhabited island.

It is the responsibility of TSPF licence holders to ensure that skippers and crew are familiar with cultural sensitivities. It is encouraged that people read the TSRA Cultural

Protocols guide (www.tsra.gov.au/the-tsra/tsra-cultural-policy) which contains detailed information about working in and around Torres Strait communities.

12.3 Interactions with protected species under national environmental law

It is an offence to kill, injure, or move a protected species listed under Part 13 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) in Commonwealth waters without the appropriate approval issued under that Act.

All Commonwealth managed fisheries have been assessed and accredited under the EPBC Act on the basis that the management plan includes all reasonable steps to ensure that members of protected species are not adversely affected by the fishing operation. As long as operators are fishing in accordance with the fishery management plan it is not an offence to interact with a protected species. It is, however, an offence not to report these interactions.

Failure to report an interaction with a protected species is an offence under the EPBC Act.

What is a protected species?

The classification of a species as "protected" provides for the recovery of populations and/or the long-term conservation of a species. The EPBC Act establishes four categories of protected species in Commonwealth managed areas:

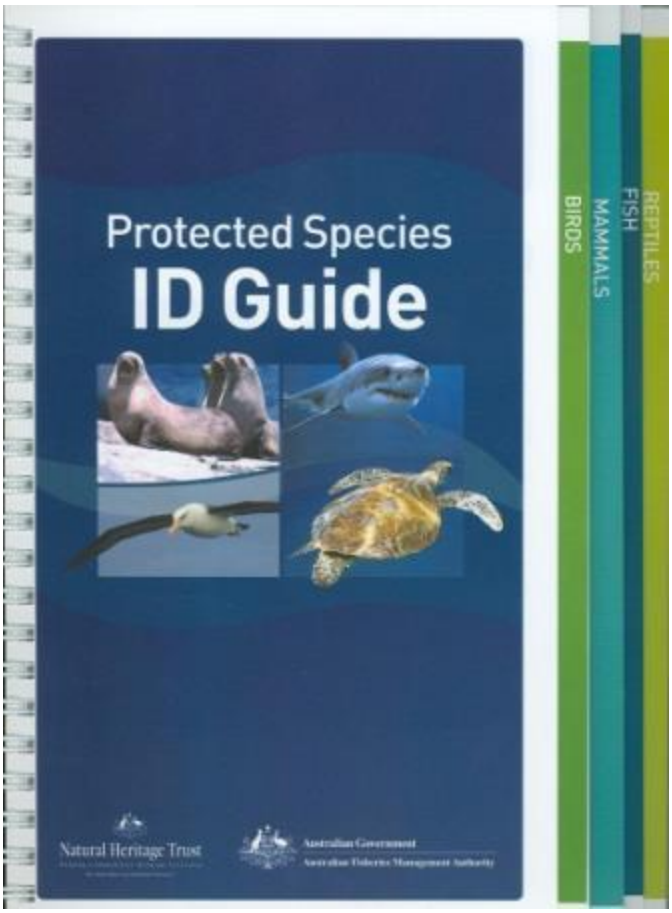
1. Listed threatened species or ecological communities – species or communities whose survival is threatened, e.g. those with low population numbers or which have had a reduction in habitat or distribution.

2. Listed migratory species – listed to provide protection for species listed under the international *Convention on Migratory Species*.

3. Listed marine species – listed to provide general protection to Australia's native marine wildlife to reduce the likelihood of population decline.

4. All cetaceans.

Commonwealth managed fishery operators should note that individuals from the following groups are protected; all whales, dolphins, seabirds, sea snakes, turtles, seals and sea lions, syngnathids (sea horses, sea dragons and pipefish), Sawfishes (Green, Dwarf and Freshwater), crocodiles, dugongs, some sharks (Great White, Grey Nurse, Short-fin Mako, Long-fin Mako, & Porbeagle) and other fish protected under the EPBC Act.



A full listing of protected species is available on the Department of Environment website at: www.environment.gov.au. AFMA has also provided a Protected Species Identification Guide to TSPF operators. For a copy of the guide contact the Senior Environment Officer on the contact details listed below.

What is an interaction with a protected species?

"Interaction" means any physical contact that you (personally, your boat or your fishing gear) has with a protected species that causes death, injury or stress to an individual member of a protected species. This includes any incidental collision, catching, hooking, netting, entangling, or trapping of a protected species.

Reporting an Interaction

- TSP operators must report all interactions with protected species in the Torres Strait Prawn Fisheries Daily Fishing Log (NP16) or the e-log.

- Operators, who have an interaction with a turtle, sawfish, seasnake, or a syngnathid (seahorse, pipefish, sea dragon) must record the interaction on the daily catch and effort log page.

- Operators, who have an interaction with a protected species other than those listed on the log page, are required to circle **Yes** in the box at the bottom of the log page and fill out the *Listed marine and threatened species* form located at the back of the logbook. The completed form must be returned to AFMA with the corresponding logsheets at the end of the fishing trip.

- **If there is an observer present, immediately inform them of the interaction. You are still required to report the interaction in your logbook.**

To assist operators in fulfilling their reporting obligations, AFMA provides a protected species interaction summary report to Department of Environment on a quarterly basis on behalf of fishers who report interactions in their logbook. These reports are published on the AFMA website at: http://www.afma.gov.au/managing-our-fisheries/environment-and-sustainability/protected-species/

Remember: Don't get caught just report!

Further information on interactions with protected species

Further information on interactions with protected species can be obtained from the AFMA environment section on (02) 6225 5555 or contact AFMA Direct on 1300 723 621.

Interactions with tagged wildlife

Researchers investigating wildlife species will periodically tag animals (or use bands, in the case of seabirds) to help improve the understanding of their biology and population.

Operators who capture a tagged animal should:

- record the details in the *Listed marine and threatened species* form, with the band or tag number inserted in the appropriate section of the form; and
- record the following details in the Comments section:
  - tag or band number and colour;
  - species identification or description (photos are very useful);
  - size;
  - sex; and
  - time, date and position of capture.

If the tagged animal is captured alive, operators should record as many details as possible about that animal then release it as carefully as possible, noting the condition in which it was released. AFMA will arrange to notify the appropriate researchers.

12.4 Turtle recovery procedures

The following guidelines re intended to help skippers and crews reduce deaths of any sea turtles caught when prawn trawling. The guidelines below are a copy of those provided (in colour) in the TSPF logbooks.

QCFO
QUEENSLAND COMMERCIAL FISHERMEN'S ORGANISATION

DPI
QUEENSLAND DEPARTMENT OF PRIMARY INDUSTRIES

Code of Fishing Ethics: The Capture of Sea Turtles

Sea turtle mortality is caused by a number of factors including direct harvest by indigenous people, ingestion of marine debris, predation by introduced animals, fungal and bacterial infections of eggs, entanglement in shark nets, boat propellor strikes and incidental capture in fishing gear. Although trawl related mortality is minimal, the commercial fishing industry still needs to assist in the conservation of endangered sea turtles.

By following this code of fishing ethics, fishers can assist in minimising the impact of their trawling operations on sea turtles. Individual fishers are encouraged to adhere to the code of fishing ethics.

Refrain from trawling within 2 to 3 nautical miles of 'major' turtle nesting beaches during turtle nesting season.
Why: to minimise the possibility of nesting turtles being caught in trawl nets.

Limit trawl shots to less than 90 minutes in areas of high turtle numbers.
Why: to minimise mortality of turtles caught in trawl nets. Turtles caught in trawl nets have better chance of surviving if trawl shots are less than 90 minutes.

Apply recovery procedures when appropriate. Return lively turtles to the water as soon as possible. Why: to help the recovery of turtles accidentally caught in trawl nets thereby minimising unnecessary mortality.

Forward information on tagged or marked turtles caught to Southern Fisheries Centre.
Why: to help find out about basic turtle biology such as distance moved and life spans.

Participate in research programs monitoring the incidental capture of turtles in trawl nets. Why: to assist the collection of data to determine if trawling does/does not affect sea turtles.

Participate in research programs trialing by-catch excluding equipment. Why: through fishers participating in these trials an excluder device which is most suitable to your fishing grounds is more likely to be developed, something which will advantage fishers and turtles.

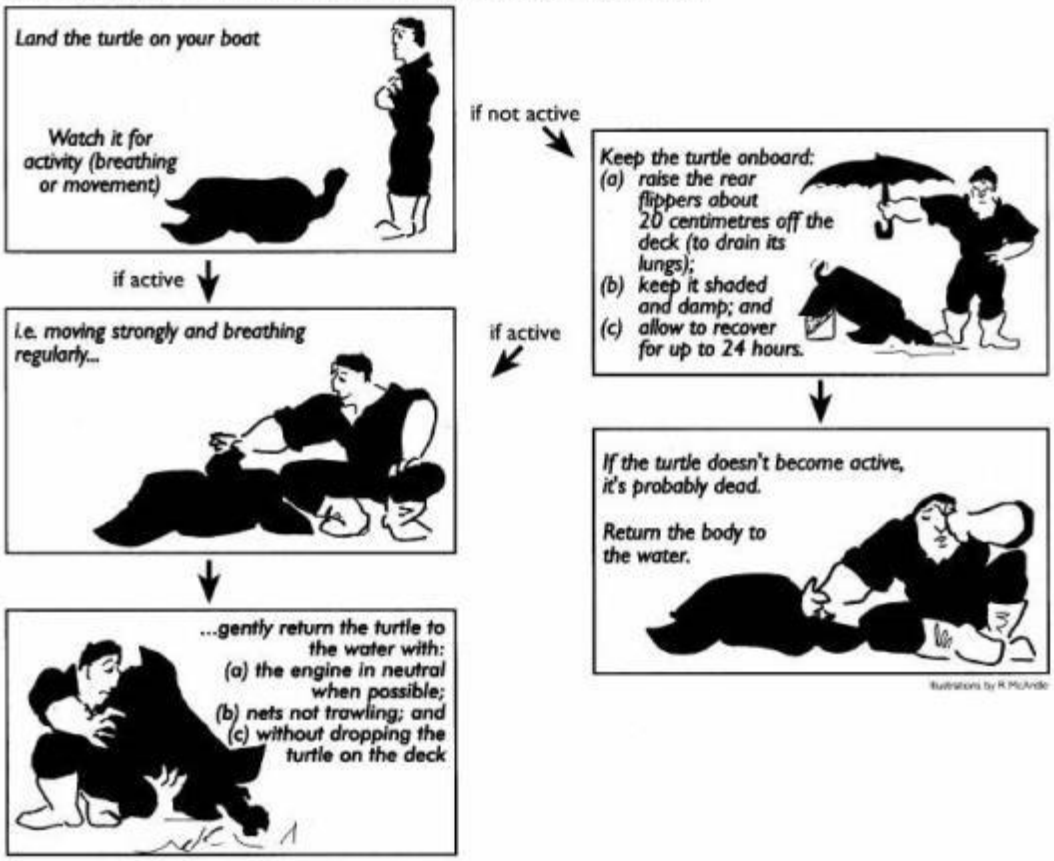
For further information contact:
QCFO (07) 3262 6855
or
Southern Fisheries Centre (07) 3817 9500

AFMA
Australian Fisheries Management Authority

FISHERIES RESEARCH & DEVELOPMENT CORPORATION

Turtle Recovery Procedures

Sea turtles caught in trawl nets may be stressed. Most are conscious and able to swim away after removal from the net, but some may be tired or appear lifeless. Turtles that appear lifeless are not necessarily dead. They may be comatose. Turtles returned to the water before they recover from a coma will drown. A turtle may recover on board your boat once its lungs have drained of water. This could take up to 24 hours. By following these steps you can help to prevent unnecessary turtle deaths:



Additional information

All records of turtle catches and deaths are important. If you catch a sea turtle record when, where, what species and what condition it was in when released. Record any tag numbers that may be on the front flippers of the turtle. This information should be recorded on your compulsory fishing log book or passed on to the Southern Fisheries Centre, telephone: (07) 3817 9500.

Indo–Pacific marine turtles

Dermochelys coriacea (Leatherback turtle)

Lepidochelys olivacea (Olive ridley turtle)

Eretmochelys imbricata (Hawksbill turtle)

Caretta caretta (Loggerhead turtle)

Natator depressus (Flatback turtle)

Chelonia mydas (Green turtle)

Queensland
Department of
Environment and
Heritage

Guide to Sea Turtle Identification

shell with
- 5 distinct ridges
- no large scales

Leatherback Turtle

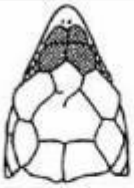
shell with
- no distinct ridges
- large scales

4 pair of scales

5 pair of scales
- shell longer than wide
- colour reddish brown

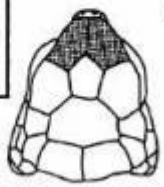
6 or more pair of scales
- shell almost circular
- colour grey green

2 pair of nasal scales
- thick overlapping shell scales



Hawksbill Turtle

1 pair nasal scales
- no thick overlapping shell scales



Loggerhead Turtle

Pacific Ridley Turtle

- shell low doomed with upturned edges
- olive grey colour

Flatback Turtle

- shell high doomed
- light to dark green colour with dark mottling

Green Turtle

Note: The colour of the shell may vary within species.

For more information contact the Southern Fisheries centre on (07) 3817 9500

12.5 Code of Practice for the handling of sharks and rays in the TSPF

Sharks and rays are elasmobranchs which means they have a cartilaginous skeleton rather than one consisting of bone as in the majority of fish species. This cartilaginous skeleton leaves sharks and rays susceptible to damage if handled inappropriately.

The internal organs of many shark and ray species are loosely held in place by connective tissue. When in the water these organs are supported, however when removed from the water, for example when on a sorting tray, the weight distribution changes and internal damage may occur. There is also the danger of damaging tendons which hold the vertebrae in place. This is particularly the case if the shark is lifted by the tail. These problems are less likely to damage small sharks, but it is best to try and lift sharks in a horizontal position. This is achieved by holding the shark by the tail with one hand, and placing the other hand under the stomach.

The use of turtle excluder devices in the TSPF has all but eliminated the capture of large sharks and rays which are most at risk to internal damage when removed from the water. However, increased awareness and better handling can further reduce the impact of the TSPF on smaller sharks and rays.

The methods below should be followed when sharks and rays are captured:

- **Crew safety is the highest priority.** In the first instance ensure that sharks and rays are handled in a safe manner, avoid handling near the jaws of sharks and avoid the tails of rays

- **Return to the water quickly.** Sharks and rays should be the first species returned to the water. Not only will this result in reduced mortality for these species but also will reduce the damage caused to the prawns and other target species,

- **Handle carefully.** Sharks and rays should be returned to the water as gently as possible and supported by the tail with one hand with the other hand supporting the shark under the stomach. Often, if a shark is turned over onto its back and held upside down, it will become quite calm and easy to handle, probably because it becomes disorientated in this position.

- **Don't swing.** Sharks and rays should never be held solely by the tail and should never be swung into the water by the tail.

12.6 Australian Maritime Safety Authority (AMSA) pollution from fishing boats

During 2010, PZJA agencies in consultation with the Torres Strait Prawn Management Advisory Committee developed an *Industry Code of Practice for the Responsible Disposal of Marine Debris* (http://pzja.gov.au/resources/publications/attachment/7). This information replaces this section of the handbook on marine pollution that was included in past years. All TSPF boats should make themselves familiar with the information within this code, which includes both the law relating to marine pollution, and further guidelines for responsible disposal of marine rubbish. A copy of this code of practice should be kept on board each TSPF boat along with this handbook for reference and can be obtained by

contacting **AFMA on (02) 6225 5451 or emailing lisa.cocking@afma.gov.au.** This Code of Practice will likely be reviewed during the 2015 fishing season.

Reporting Pollution

Under the laws pollution or potential pollution incidents should be reported to the authorities. Boats will avoid prosecution where an accident has occurred and everything has been done to minimise the pollution. Not reporting a pollution incident may result in a fine. Reporting pollution may eliminate your boat as a suspect.

Pollution incidents can be reported to the Australian Search and Rescue Centre or the local port/marine/transport authority, and the incident will be investigated. Please provide relevant details of the incident such as when and where incident occurred, name of the boat, type and extent of pollution and any other information.

The Australian Search and Rescue Centre operate 24 hours and can be contacted on:

Freecall 1800 641 792
Ph: (02) 6230 6811
Fax: (02) 6230 6868

Pollution report messages via a Telstra Maritime Communications Station are free of charge. For further information on the legislation, contact:

Marine Environment Protection Services

Australian Maritime Safety Authority

GPO Box 2181
CANBERRA ACT 2601
Telephone: (02) 6230 6811
Freecall: 1800 641 792
Facsimile: 02 2630 6868

or visit the Australian Maritime Safety Authority website.

12.7 Other reading

PZJA Annual Reports

The PZJA has produced an annual reports since its inception in February 1985. The annual reports provide background on the Treaty and the PZJA, information on the status of each fishery under PZJA control (including prawn) and financial details and decisions of the PZJA each year. The PZJA annual reports are available online.

ABARES, Fishery Status Reports, 2013

ABARES provides regular independent assessments of the status of Commonwealth managed fish stocks and the Fishery Status Reports provide an overview on the stocks of each fishery. Over time, the reports provide a means of monitoring whether management strategies are succeeding in sustaining the resources upon which each fishery is based. The 2013/14 status report is available for download from the ABARES website.

List of Contacts

MANAGEMENT (AFMA)

Manager, AFMA Canberra
Torres Strait Fisheries
PO Box 7051
Canberra BC ACT 2610
AFMA direct:
1300 723 621
Phone: (02) 6225 5555
Fax: (02) 6225 5500

Senior Management Officer (AFMA Canberra)
PO Box 7051
Canberra BC ACT 2610
AFMA direct:
1300 723 621
Phone: (02) 6225 5451
Fax: (02) 6225 5500

MANAGEMENT (QDAFF)

Senior Fisheries Management Officer (Torres Strait)
QDAFF
GPO BOX 46
BRISBANE QLD 4001
Call Centre: 13 25 23
Phone: (07) 3087 8071
Fax: (07) 3229 8146

LICENSING

PZJA Licensing Delegate
QDAFF
GPO BOX 2764
BRISBANE QLD 4001
Call Centre: 13 25 23
Phone: (07) 3225 1868
Fax: (07) 3229 8182

PRAWN LOGBOOKS

Data Entry/ Logbook Help (AFMA Canberra)
PO Box 7051
Canberra BC ACT 2610
AFMA direct:
1300 723 621
Phone: (02) 6225 5542
Fax: (02) 6235 5440

ENFORCEMENT

Queensland Boating and Fisheries Patrol
100-106 Tingira St
CAIRNS
QLD 4870
Call Centre: 13 25 23
Phone: (07) 4035 0700
Fax: (07) 4035 1603

VESSEL MONITORING SYSTEM (VMS) BREAKDOWNS

QDAFF VMS SECTION
GPO Box 46
BRISBANE QLD 4001
Phone: (07) 3211 9111
Fax: (07) 3247 5117

MANUAL REPORTING

Phone: (07) 3211 9111
Fax: (07) 3229 8146

TSPMAC TORRES STRAIT ISLANDER CONTACT

TSRA Fisheries Co-ordinator
c/- Torres Strait Regional Authority
PO Box 261
THURSDAY ISLAND
QLD 4875
Phone: (07) 4069 0700
Fax: (07) 4069 1879

TSPMAC INDUSTRY REPRESENTATIVES

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Phone: (07) 4215 1485
Fax: 07 4125 5932

JIM NEWMAN
Mobile: 0429 647 824
Phone: (07) 4035 2229

ED MORISSON
Mobile: 0429 068 320

Note: QDAFF will contact the boat or licence holder by phone, fax or e-mail and advise that the VMS unit is not responding. However, if you become aware that your VMS is not operational, please inform QDAFF immediately on the mobile telephone number listed above. The phone may not be attended at all times, if unanswered leave a message and a QDAFF staff member will contact you.