



Queensland  
Government



TORRES STRAIT  
**PZJA**  
PROTECTED ZONE  
JOINT AUTHORITY

## Strategic and Export Reassessment Report

Torres Strait Finfish Fishery  
September 2008

Prepared by the Australian Fisheries Management Authority on behalf of the Torres Strait Protected Zone Joint Authority

[www.afma.gov.au](http://www.afma.gov.au)

 Protecting **our** fishing future

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# 1 Description of the Fishery

## 1.1 Target/permitted/prohibited species

The Torres Strait Finfish Fishery (TSFF) is a multi-species fishery targeting a range of reef and inshore fish. The fishery is broadly separated into two sectors based on the target species and fishing method used:

- the Spanish Mackerel sector;
- the reef-line sector; and

The key target species in the Spanish Mackerel sector is the Narrow-barred Spanish Mackerel (*Scomberomorus commerson*). The main byproduct species taken are School mackerel, (*S. queenslandicus*), Grey mackerel (*S. semifasciatus*), Spotted mackerel (*S. munroi*) and Shark mackerel (*Grammatorcynus bicarinatus*).

The reef-line sector targets four species of Coral Trout (*Plectropomus leopardus*, *P. maculatus*, *P. areolatus* and *P. laevis*), Red Emperor (*Lutjanus sebae*) and Barramundi Cod (*Cromileptes altivelis*). However over 50 species of fish may be taken as by product including mackerels (*Scomberomorus* spp.), sea-perches, snappers (*Lutjanus* spp.), emperors and sea bream (*Lethrinus* spp.) and numerous species of rock cods (*Epinephelus* spp.). Williams *et al.* (2007) identify the byproduct species as being dominated by Tropical snappers (*Lutjanus* sp), emperor (*Lethrinus* sp), cods (*Cephalopholis* and *Epinephelus* sp) and undersized coral trout.

## 1.2 Management arrangements employed in the fishery

Management objectives for the Spanish Mackerel fishery, in accordance with the Torres Strait Treaty (the Treaty) and *Torres Strait Fisheries Act 1984* (TSF Act), are:

- to manage the mackerel resource so as to achieve its optimal utilisation;
- to maximise the opportunities for Traditional Inhabitants of both Australia and Papua New Guinea to participate in the commercial fishery;
- to promote the fishery as a line fishery; and
- to continue monitoring of the fishery and enter into a catch sharing agreement with Papua New Guinea.

Management objectives for the reef line fishery, in accordance with the Torres Strait Treaty (the Treaty) and *Torres Strait Fisheries Act 1984* (TSF Act), are:

- to manage the resource so as to achieve optimum utilisation;
- to maximise opportunities for Traditional Inhabitants of Australia and PNG to participate in the commercial fishery; and with respect to the barramundi fishery:
- to manage the resource so as to achieve optimal utilisation; and
- to reserve barramundi stocks for the exclusive use of Islanders.



Management controls currently in place for the Finfish Fishery are set out in Fisheries Management Notices numbers 78 & 79. See Attachment 1 for copies of these Notices. Included in these Notices are the following:

- Minimum size limits, and for several species additional maximum size limits
- Restriction on fishing methods, ie. limited to handlining, drop lining, trolling and rod and reel
- Limits on the numbers of hooks that may be used
- Prohibition on the retention of live fish
- Area closure in the Reef line fishery

#### Licensing arrangements

The Torres Strait Finfish Fishery is reserved for Traditional Inhabitants only. Traditional Inhabitants can participate in the Finfish Fishery at any time by applying for and being granted a Traditional Inhabitant Boat (TIB) licence, or by fishing from an already licensed boat.

Arrangements to remove all non-traditional inhabitant (TVH) licences from the fishery through a voluntary buy-out were finalised in November 2007. The surrender of these licences was completed over two dates to help provide a continued supply of product, this saw the final licences removed on June 30 2008. Non-islander fishers may participate in the fishery through the temporary transfer of sunset licences held by the TSRA on behalf of Torres Strait Islanders. This process is reviewed on an annual basis and facilitated through a national tender process.

The Queensland Department of Primary Industries and Fisheries (QDPI&F) as delegates of the PZJA issue all licences for Torres Strait Fisheries.

### **1.3 Fishing methods employed**

Spanish Mackerel is targeted using troll lines with hooks baited with garfish or, occasionally, an artificial lure. Troll lines are deployed from dories of between five and six metres in length. Non-traditional inhabitant fishers operate dories from a primary vessel that are typically between nine and sixteen metres in length with freezers allowing them to stay at sea for over a month. Traditional inhabitants fish from smaller vessels with limited holding capacity and return their catch to island community freezer facilities. The catch from both sectors is predominately processed to fillet for the domestic market in fish and chip shops in Queensland.

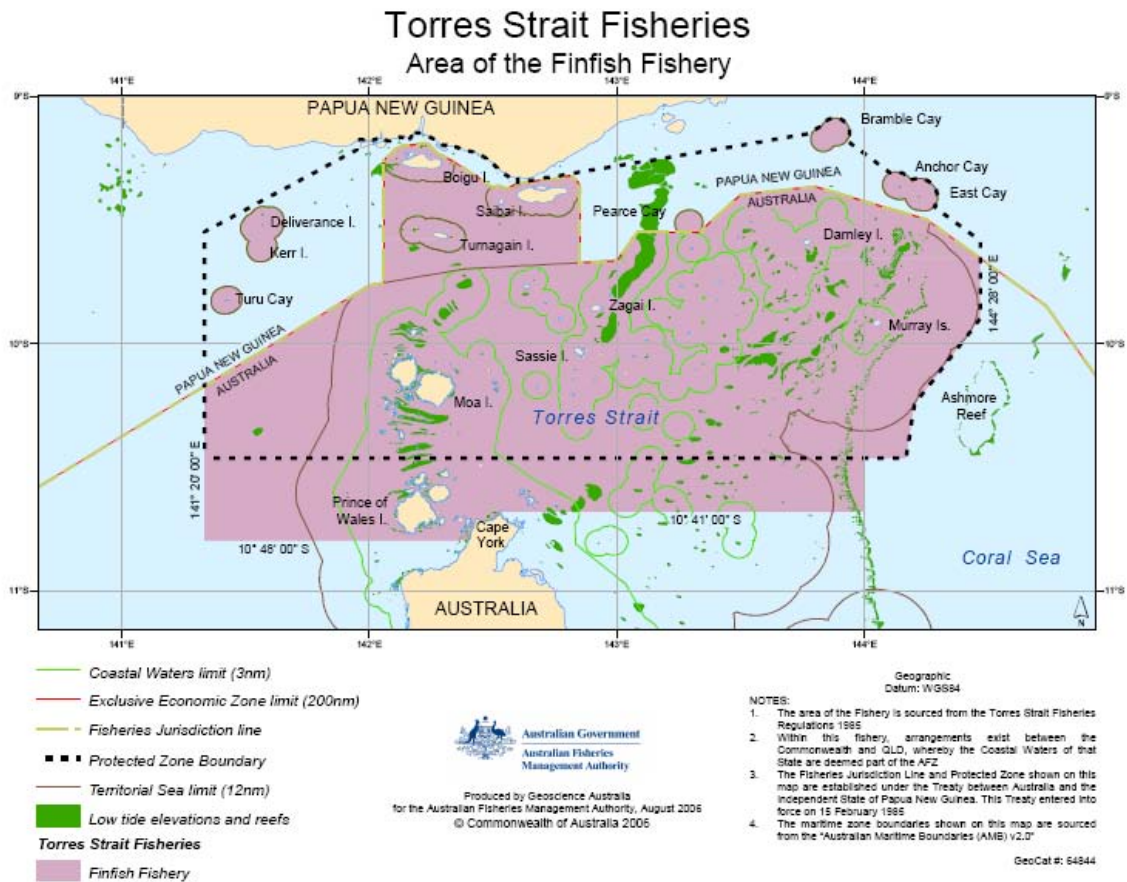
The reef line fishery mainly use hand lines with single hooks baited with pilchards. Fishing rods or mechanically operated reels may also be used. Fishers fish from dories of less than six metres in length. Non-traditional inhabitant fishers operate dories from a larger primary vessels up to 18 metres in length. Traditional inhabitants return their catch to island community freezer facilities. Catch is filleted or gutted and gilled and stored as frozen product for the domestic or export market.

### **1.4 Fishing area**

The TSFF comprises tidal waters within the Torres Strait Protected Zone (TSPZ) and the area declared under the TSF Act to be '*outside but near*' the TSPZ for commercial fishing for finfish (Figure 1). For the TSFF, the outside but near area extends to waters just south of Prince of Wales Island to the west and to due east of Cape York Peninsula.

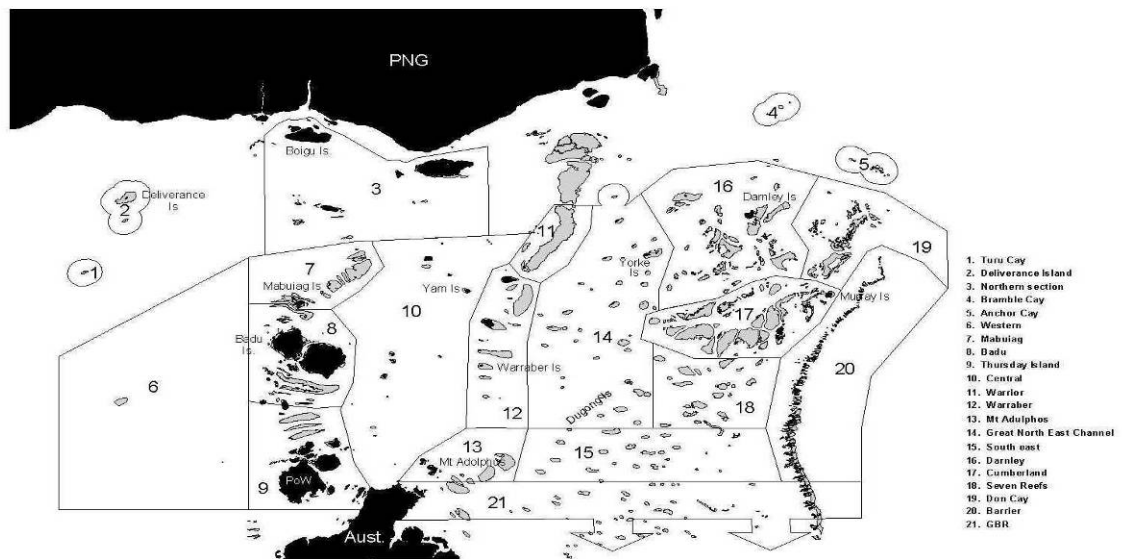


There is a closure to the fishery west of Longitude 142° 31'49" set out in Fisheries Management Notice No. 78. In addition, there is a restriction on fishers holding sunset licences from fishing within 10nm of Mer (Murray) Island, Ugar (Stephen) Island, Masig (Yorke) Island, and Erub (Darnley) Island under licence conditions on these temporary licences.



**Figure 1:** Area of the Torres Strait Finfish Fishery.





**Figure 2:** Torres Strait bioregions.

### 1.5 Allocation between sectors

Following the restructure of the fishery in early 2008, 100% of the Australian share of the fishery is allocated to traditional inhabitants. Currently a committee is responsible for annually determining the amount of Coral Trout and Spanish Mackerel in kilograms that will be available for non-traditional inhabitant leasing. This amount is a balance between the forecast to be caught by TIB fishers and the supply required by processors and suppliers.

An unknown quantity, but presumably small catch of finfish is taken by traditional inhabitants for subsistence.

The Spanish Mackerel fishery is an Article 22 Fishery under the Torres Strait Treaty and the resource is shared between Papua New Guinea and Australia under guidelines set out in the treaty. The reef line fishery is not an Article 22 Fishery.

### 1.6 Governing legislation/fishing authority

The TSFF is managed by the Protected Zone Joint Authority (PZJA) considering advice from its consultative bodies. This Authority consists of the Australian Government (represented by the Minister for Agriculture Fisheries and Forestry), the Queensland Government (represented by the Minister for Primary Industries and Fisheries) and the Torres Strait Regional Authority (represented by the Chair). The Australian Fisheries Management Authority (AFMA) coordinates and delivers fisheries management and surveillance/enforcement programs in the Torres Strait in conjunction with the Queensland Department of Primary Industries and Fisheries (DPI&F) on behalf of the



PZJA and in accordance with the TSF Act. Recreational fishing, including charter fishing, is managed under Queensland law.

Since 1999, when management of the fishery was transferred from the Queensland Government to the PZJA, the fishery has been managed under the TSF Act. The management regime is legislated through Fisheries Management Notices (FMN) under the TSFA and conditions on fishing permits. FMNs are issued under the TSF Act and give effect to the fisheries responsibilities of the Torres Strait Treaty and related subsidiary management arrangements between Australia and Papua New Guinea. Under Section 16 of the TSF Act any formal amendments regulating fishing activities requires the Minister to issue a FMN published in the Commonwealth Gazette.

### **1.7 Status of export approval/accreditation under the *Environment Protection and Biodiversity Act 1999***

The TSFF was strategically assessed in 2005 under Parts 10, 13 and 13A of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Export approval was granted through declaring the TSFF a Wildlife Trade Operation (WTO) for a period of three years, which is valid until 29 November 2008.

This Assessment Report for the TSFF is submitted as the basis for reassessment of the fishery against Parts 13 and 13A of the EPBC Act, but will also be used to review whether the impact of the fishery has changed since the last assessment against Part 10.

## **2 Management**

### **2.1 Changes to management arrangements**

The TSFF has changed significantly with the voluntary buyout of all of the non-traditional inhabitant licences in the fishery, although non-traditional fishers remain in the fishery through the temporary transfer of licences from the TSRA with a total allowable catch of Spanish Mackerel or Coral Trout attached to it. This buyout has significantly changed the fishing dynamics in the fishery.

Since the last strategic assessment, the PZJA has been developing a plan of management for the TSFF that will introduce a total allowable catch for Coral Trout and Spanish Mackerel. As much of the stakeholders focus has been concentrated to this process there have been few changes to the current management arrangements. Changes to management arrangements that have been made include:

- prohibition on take of Humphead Maori Wrasse (*Cheilinus undulatus*), Potato Cod (*Epinephelus tukula*), Queensland Groper (*E. lanceolatus*), Chinaman fish *Symphorus nematophorus*), paddletail (*Lutjanus gibbus*), Hammerhead Shark *Sphyrna lewini*), Grey Nurse (*Carcharias taurus*) and Tiger shark (*Galeocerdo cuvier*).
- Changes to the legal size limits for Red Bass (*Lutjanus bohar*) to minimum of 450mm and maximum of 550mm.



- Changes to the legal size limit for Blue-spot Trout (*Plectropomus laevis*) to minimum of 500mm and maximum of 800mm.
- Introduction of a maximum legal size limit of 200mm for shark of the subclass Elasmobranchii but excluding electric rays (Torpediniforms) skates (Rajiformes), and stingrays (Myliobatiforms)

In addition the PZJA agencies are moving towards making Torres Strait seafood buyers and processors docket book reporting compulsory. Docket book returns have been a promising source of data regarding effort in Torres Strait fisheries and catch reporting is expected to improve once it has become compulsory.

AFMA will keep the Department of the Environment, Water, Heritage and the Arts (DEWHA) regularly informed of the progress of the aforementioned projects.

## **2.2 A statement of the performance of the fishery against objectives, performance indicators and performance measures**

The TSFF is managed in accordance with the objectives specified in *Torres Strait Fisheries Act 1984* (the Act). The performance of the fishery is reported in the annual report available at webpage:

<http://www.pzja.gov.au/resources/publications/reports.htm>

## **2.3 Compliance risks present in the fishery and actions taken to reduce these risks**

Queensland Boating and Fisheries Patrol (QB&FP) enforcement officers check for compliance with regulations such as gear restrictions and size limits, as well as any unlicensed fishing for commercial purposes. QB&FP allocated 10 days of patrol each year targeted specifically at the Finfish Fishery. The *Torres Strait Fisheries Act 1984* outlines the penalties associated with non-compliance. Over the past three year there have been no prosecutions specifically in the Finfish Fishery.

Compliance in the TSFF is difficult as much of the fishing occurs in remote areas amongst many boats that are spread over a vast area. The current compliance program is restricted by the costs of implementing a program in these circumstances. However, the restricted entry of non-traditional inhabitant operators to the fishery will allow for a much higher level of monitoring of this sectors operations relative to the reduced numbers and greater spatial restrictions.

Foreign illegal fishing is not considered a risk for the TSTF due to the low level of interest by foreign fishers in finfish. AFMA Foreign Compliance officers have not found any finfish on foreign fishing vessels in Australian waters to date.

Despite this AFMA has sought to reduce foreign compliance risks for all Torres Strait fisheries by increasing response coverage by approximately 80% since September 2007. AFMA compliance capabilities include:

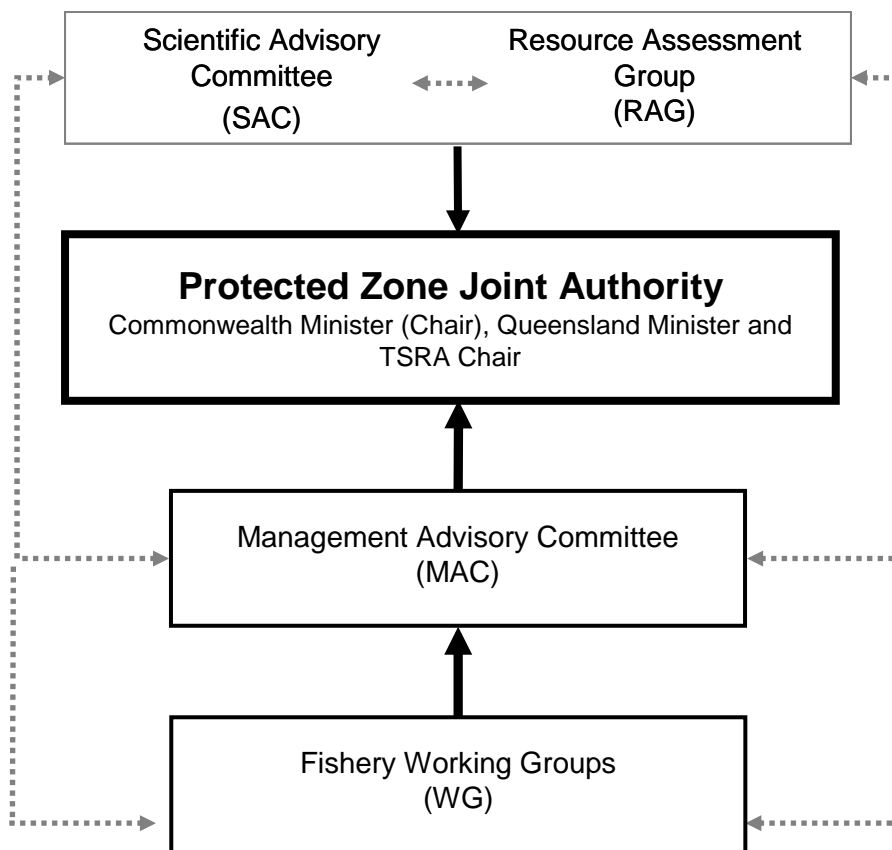
- Two daily Coastwatch flights
- One Customs ACV and one Australian Navy platform patrolling the Warrior reef complex daily



- At least one additional Navy vessel patrolling the Torres Strait region daily.

## 2.4 Consultation processes

The PZJA at its November 2003 meeting established a new consultative structure of advisory bodies, which allows for greater participation from Islander representatives at all levels of the consultative process. Islander representatives, together with industry and government representatives, actively participate in the development of management arrangements (Figure 3). The PZJA also approved changing the Torres Strait Fisheries Management Committee (TSFMC) to the TSFMAC.



**Figure 3:** The consultative structure of the Torres Strait Protected Zone Joint Authority (PZJA). Solid lines and dashed lines indicate primary and secondary lines of communication respectively

AFMA consults as widely as practicable to develop sound fisheries management arrangements. Before management arrangements are changed, stakeholders and registered interested persons are invited to discuss issues relevant to the fishery and are discussed at regular stakeholder meetings. This allows AFMA to take into account any representations received when making management decisions.

AFMA also consults with the DEWHA in regard to proposed management arrangements.



## **2.5 Description of cross-jurisdictional management arrangements**

Australia and Papua New Guinea entered into the Treaty on 15 February 1985. The Treaty is concerned with sovereignty and maritime boundaries in the area between the two countries and the protection of the traditional way of life and livelihood of traditional inhabitants and of the marine environment. The Treaty also establishes the TSPZ in which each country exercises sovereign jurisdiction for swimming fish and sedentary species on the respective sides of the agreed jurisdiction lines. The lines are known as the Fisheries Jurisdiction Line and Seabed Jurisdiction Line (Figure 1).

The Commonwealth parliament passed the TSF Act to give effect to the fisheries provisions of the Treaty. The TSF Act established the PZJA. The PZJA comprises both the Commonwealth and State (Queensland) Ministers responsible for fisheries and since October 2001, has included the chair of the Torres Strait Regional Authority (TSRA). The PZJA has regard to the rights and obligations conferred on Australia by the Treaty, in particular the protection of the traditional way of life and livelihood of the traditional inhabitants, including their traditional fishing.

While having obligations to protect the traditional way of life of the traditional inhabitants, the PZJA is also responsible for monitoring the condition of Australian fisheries in the Torres Strait and for the formulation of policies and plans for their management. These fisheries are prawn, tropical rock lobster, pearl shell, mackerel, bêche-de-mer, trochus, finfish, barramundi, crab and traditional fishing (including turtle and dugong).

In addition AFMA in conjunction with the QBFP coordinates and delivers fisheries management and surveillance/enforcement programs in the TSPZ on behalf of the PZJA and in accordance with the provisions of the TSF Act.

## **2.6 Outcomes of review processes**

There are currently no review processes.

## **2.7 Demonstration of compliance with threat abatement plans, recovery plans, etc and also relevant domestic and international agreements.**

Due to the TSFF being restricted to fishing with hand lines rigged with a single hook and the small scale of the fishery there are no relevant threat abatement plans, recovery plans, etc to comply with and also relevant domestic and international agreements.

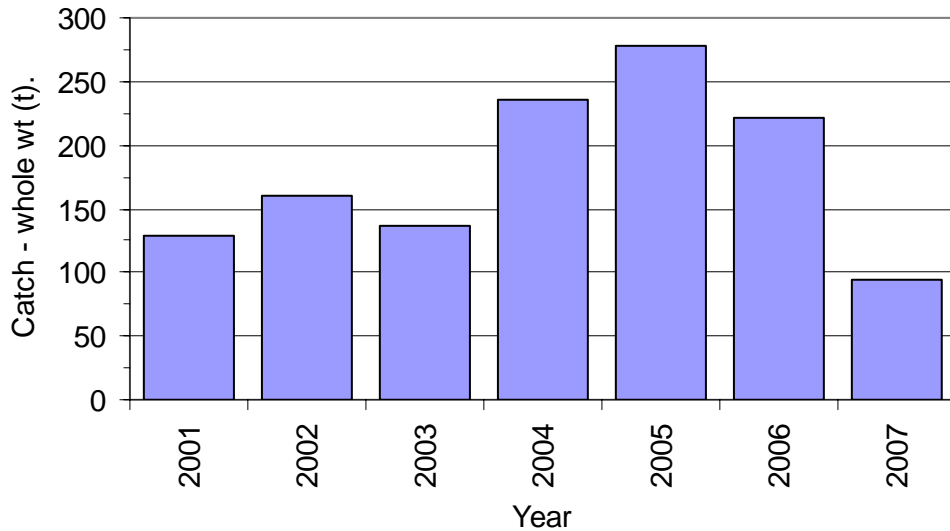


### 3 Catch data

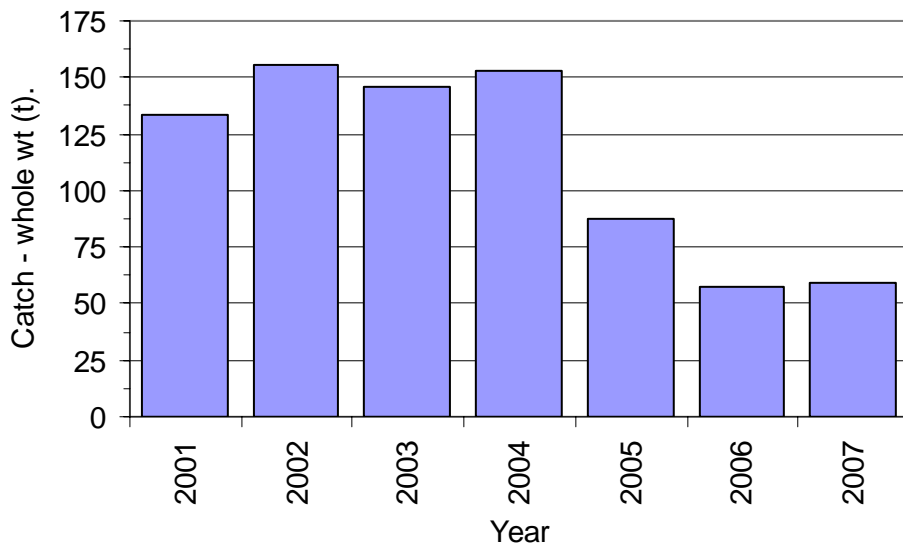
#### 3.1 Total catch of target species (including retained and discarded catch)

The total catch of target species for 2007 were:

Spanish Mackerel ( <i>Scomberomorus commerson</i> )	94.7t
Coral Trout ( <i>Plectropomus</i> sp.)	59.4t



**Figure 4:** Catches of the Torres Strait Spanish Mackerel Fishery (*Scomberomorus commerson*) 2001-07.



**Figure 5:** Catches of Coral Trout (*Plectropomus* sp.) in the Torres Strait Reef Line Fishery (2001-2007).



### 3.2 Total catch of target species taken in other fisheries

There is no catch of target species in other fisheries.

### 3.3 Catch of by-product species (reported by species)

The total catch of by-product species for 2007 were:

Red Emperor ( <i>Lutjanus sebae</i> )	304kg
Barramundi Cod ( <i>Cromileptes altivelis</i> )	1701kg
Mixed reef fish	6631kg

### 3.4 Total catch of bycatch species (reported by species if possible)

Due to the TSFF being restricted to fishing with hand lines rigged with a single hook and the small scale of the fishery all bycatch is returned to the water alive. Observation of fishing practices in Torres Strait indicates that between 40 and 45% of total catch are released (Williams et al 2007). Survival rates for released reef fish are considered to be high ranging from between 40% and 100% depending on species (Released Fish Survival National Strategy, [www.info-fish.net/releasefish](http://www.info-fish.net/releasefish)).

### 3.5 Harvest by each sector (commercial, recreational, indigenous and illegal)

The total harvest is only known for the commercial fishery but this is likely to be an underestimate as only the non-traditional inhabitant sector are legally required to report catch. The traditional inhabitant commercial take is reported in a voluntary program. It is believed that this voluntary program is providing reasonable estimates of catch by the traditional inhabitant commercial sector. The level of indigenous harvests (subsistence) is unknown. Illegal take is assumed to be minimal.

### 3.6 Effort data including information on any trends

Effort in the non-traditional inhabitant sector has declined over recent years since a peak in the late 1990s early 2000s. Fishing operations recorded catch of Spanish Mackerel on over 1000 days in 1999 compared to 441 days in 2007. This is partly due to the reduction in number of active boats in the non-traditional inhabitant sector, removal of latent effort in 2004 and uncertainty in the future operating environment prior to the 100% buyout in November 2007.

The traditional inhabitant sector has been much more stable in levels of effort in both the reef line (approximal 1000 days/year) and Spanish Mackerel (approximately 200-300 days/year).

### 3.7 Spatial issues/trends

Commercial harvest of reef fish is mainly from the north eastern area of Torres Strait. This is partly due to a closure to finfish fishing in Western Torres Strait, but also due to suitable reef habitat in the eastern areas. There are clear differences in the distribution of harvest between the commercial traditional and non-traditional sectors. Non-traditional inhabitant catch are distributed over a wide area of the fishery but predominately around



the north eastern Torres Strait area. Traditional inhabitant catch is concentrated on reefs near the islands of Masig, Mer, Erub and Ugar (Williams *et al.* 2007).

Spanish Mackerel catch from the non-traditional inhabitant sector predominately comes from the far northern area of Bramble Cay and Black Rock. The traditional inhabitant sector catch tends to be concentrated around Erub Is, although smaller quantities are recorded from Mer, Masig and Ugar also (Begg *et al.* 2006).

## **4 Status of target stock**

### **4.1 Resource concerns**

With the recent 100% buyout of all non-traditional inhabitant licences in both the reef line and Spanish Mackerel fisheries much of the latent effort in the fishery has been removed. Although, some non-traditional fishers are still fishing in the fishery through the temporary transfer of licences from the TSRA, they are limited in total take of the Coral Trout and/or Spanish Mackerel. With the low current rates of fishing by the traditional inhabitant sector and cap on total catch by non-traditional inhabitants there is low risk of over fishing the resource.

### **4.2 Results of any stock assessments**

No stock assessments have been undertaken for the reef line fishery. A stock assessment for Spanish Mackerel in Torres Strait was reported in 2006 which indicated that the stock was most likely fully exploited (Begg *et al.* 2006).

### **4.3 Results of any stock recovery strategies (if applicable)**

The Bureau of Rural Sciences (BRS) has classified the stock status of the reef line fishery as uncertain and the Spanish Mackerel fishery not over fished. As the fishery has not yet been considered overfished, stock recovery strategies have not been applicable.

## **5 Interactions with protected species**

### **5.1 Frequency and nature of interactions**

Due to the fishery using simple gears of single hooked, hand-lines only; no interactions with protected species have been recorded or are considered likely.

### **5.2 Management action taken to reduce interactions and results of such action**

See section 5.1.

## **6 Impacts of the fishery on the ecosystem in which it operates**



## 6.1 Results of any Ecological Risk Assessments

Ecological Risk Assessment (ERA) has not been conducted. A timeframe for an ERA for this fishery will be considered before 2009.

## 6.2 Nature of impacts on the ecosystem

Although an ERA has not been conducted for the fishery it could be envisaged that impacts on the ecosystem would be restricted to:

- Anchoring/mooring and other anthropogenic activities;
- Vessel accidents leading to pollution such as oil spills;
- Concerns about translocation of species via hull and anchor fouling.

## 6.3 Management action taken to reduce impacts and results of such action

As there has not been an ERA conducted for this fishery to date, there have been no formal management actions taken.

## 7 Progress in implementing recommendations and conditions resulting from the Department of the Environment and Heritage assessment of the fishery

### 7.1 Description of progress in implementing each recommendation and condition

Progresses regarding the implementation of DEWHA recommendations are listed in Table 2.

**Table 2:** Recommendations to the Protected Zone Joint Authority (PZJA) on the ecologically sustainable management of the Torres Strait Finfish Fishery.

Performance Criteria	Level of Achievement as at 30 <sup>th</sup> June 2008	Deadline
1. DEWHA to be informed of any proposed amendment to the management regime for the TSFF to enable DEH to evaluate any impact on the ecological sustainability of the fishery.	DEWHA is informed about management activities in the fishery through their attendance at the TSFMAC, provision of TSFMAC papers and informal correspondence and conversation.	Ongoing
2. PZJA to continue to ensure that consultative processes are conducted in a manner that ensures the timely implementation of management responses essential for the sustainability of the fishery.	The Finfish Working Group (FFWG) met twice in 2007, most recently in May. Issues raised at the WG were recommended for consideration by the TSFMAC, and by the PZJA.	Ongoing
3. PZJA to develop and apply, during the	Management objectives have been	December



Performance Criteria	Level of Achievement as at 30 <sup>th</sup> June 2008	Deadline
2007 fishing season, fishery specific management objectives, performance indicators and performance measures for target, key byproduct and bycatch species, protected species and the ecosystem impacts.	further refined at FFWG meetings in 2007. Key byproduct species were identified by the FFWG members and performance measures with trigger reference points agreed upon. This will require refined monitoring and reporting methods which are currently being considered. Other issues in the fishery have taken priority over these performance criteria including voluntary tender process and more recently a 100% buyout of the TSFF.	2008
4. PZJA to develop a clear process for determining the reason for a performance measure being triggered and for implementing appropriate management measures within specified timeframes.	This will have to follow development and application of the objectives and performance indicators. The current progress towards developing clear objectives will aid in identifying appropriate performance measures and trigger points that will be essential to the successful completion of this criteria	29 November 2008
5. PZJA to report annually on performance of the fishery against specified objectives and measures, once developed, with the reports to be made publicly available.	This will have to follow development and application of the objectives and performance indicators.	29 November 2008
6. PZJA to ensure that mechanisms are in place to collect adequate and reliable data on catch and effort, appropriate to the scale of the fishery, from all sectors to ensure sustainable management of finfish resources. Initial priority should be given to the commercial sectors of the fishery. Options for the collection of non-commercial catch and effort data will be evaluated, taking account of outcomes of recent research programs, and appropriate options progressively developed and implemented to improve estimates of non-commercial catch and effort used in stock assessments and management controls.	The make up and scale of the fishery post voluntary tender/100% buyout <sup>1</sup> process will give guidance to the scope of this undertaking. Careful consideration of appropriate reporting systems in the QMS on implementation of a TACC for Coral Trout and Spanish Mackerel will be important in meeting this criteria.	29 November 2008
7. PZJA, within 18 months, to review available options to validate catch and effort data on target and byproduct species in the TSFF. Appropriate	The initial phase of validation was complete in February 2007 and provided useful feedback on the status of commercial data held by	29 May 2007

<sup>1</sup> A voluntary tender process was to be complete by July 2007. However, there have been prolonged discussions by industry government and TSRA regarding a 100% buyout of the non-community sector of the TSFF with strong support from all involved.



Performance Criteria	Level of Achievement as at 30 <sup>th</sup> June 2008	Deadline
validation mechanisms for target and byproduct catch and effort data to be progressively developed and applied in the fishery from the 2008 fishing season.	community and non-community fishers in the TSFF. Significant work by AFMA and DPI&F staff has been completed on the data sets to bring them up to a standard suitable for setting provisional TACCs for Coral Trout and Spanish Mackerel, and ITQ's for non-community fishers prior to the voluntary tender/100% buyout. A system for further validation of catch and effort data is now being developed for the second phase of data validation.	
8. PZJA to continue to work towards developing more refined yield estimates of target and key byproduct species to determine sustainable harvest levels.	Work with the AFMA data section during the period conducted to this end as per the selection criteria above.	29 November 2008
9. PZJA to control fishing mortality, through effort controls or other mechanisms across all sectors, to maintain stocks at ecologically sustainable levels.	All input controls have been maintained in the lead up to the introduction of output management controls. There are no major concerns that these measures are currently inadequate for controlling fishing mortality.	29 November 2008
10. PZJA, within 18 months, to develop and implement an ongoing program to collect information on the composition and abundance of bycatch across the commercial sectors of the fishery.	AFMA is awaiting the results of two CRC Torres Strait projects which collected data that will shed some light on this and inform any future program. These reports are now thought to be due sometime after August 2007.	29 December 2007

## 7.2 Reasons for any missed deadlines

A number of deadlines for the implementation DEWHA recommendations have been missed. The specific recommendations include:

*3. PZJA to develop and apply, during the 2007 fishing season, fishery specific management objectives, performance indicators and performance measures for target, key byproduct and bycatch species, protected species and the ecosystem impacts.*

*4. PZJA to develop a clear process for determining the reason for a performance measure being triggered and for implementing appropriate management measures within specified timeframes.*

*6. PZJA to ensure that mechanisms are in place to collect adequate and reliable data on catch and effort, appropriate to the scale of the fishery, from all sectors to ensure sustainable management of finfish resources. Initial priority should be given to the commercial sectors of the fishery. Options for the collection of non-commercial catch and effort data will be evaluated, taking account of outcomes of recent research programs,*



*and appropriate options progressively developed and implemented to improve estimates of non-commercial catch and effort used in stock assessments and management controls.*

*7. PZJA, within 18 months, to review available options to validate catch and effort data on target and byproduct species in the TSFF. Appropriate validation mechanisms for target and byproduct catch and effort data to be progressively developed and applied in the fishery from the 2008 fishing season.*

*8. PZJA to continue to work towards developing more refined yield estimates of target and key byproduct species to determine sustainable harvest levels.*

*10. PZJA, within 18 months, to develop and implement an ongoing program to collect information on the composition and abundance of bycatch across the commercial sectors of the fishery.*

The focus for the Finfish Fishery since November 2007 has been on completing the 100% buyout of non-traditional inhabitant licences and implementing temporary leasing arrangements to ensure that supply chains and on-shore business are maintained. This has resulted in slow progress towards implementing a management plan and TAC for the fishery and meeting a number of the DEWHA recommendations.

In addition, the low levels of fishing effort and catch in the fishery of both target and by-product species has significantly reduced the risk of overfishing in the fishery as well as any ecosystem effects. Hence, consideration should be given to costs and benefits of management strategies, monitoring and research in this fishery against other higher value Torres Strait fisheries.

### **7.3 Expected completion dates if actions running behind schedule**

A management plan for the TSFF is due for implementation in 2010 with the introduction of a TAC for Coral Trout and Spanish Mackerel. A quota monitoring system will be developed in partnership with the management plan and will include a compulsory reporting system for islander fishers through registered fish receivers. This will greatly increase the comprehensiveness and accuracy of catch data from this sector. DEWHA will be notified of the progress of the Management Plan and implementation of a TAC for Coral Trout and Spanish Mackerel on a regular basis.

### **7.3 How the measures implemented to address the recommendations and/or conditions have improved management of the fishery**

Measures to implement the DEWHA recommendations have improved management of the fishery by focussing stakeholder discussions on moving to output controlled management and developing performance indicators against which objectives can be measured.

## **8 Research and Monitoring**

### **8.1 Results of any research completed relevant to the fishery, including how results will be incorporated into management of the fishery**

*Williams et al (2007)* research on the reef line fishery in Torres Strait has provided evidence that reducing effort in the fishery is the most robust strategy for achieving stakeholder objectives for fish stocks as well as fisheries economics. For example,



constraining effort levels to level which would result in a TAC of up to 170t of Coral Trout was predicted to maintain total biomass to above 40% of virgin biomass (Williams *et al.* 2007). The recent decline in fishing effort in the reef line and Spanish Mackerel fishery and 100% buyout of non-traditional inhabitant fishers has more than met the levels of effort modelled by this research.

Further this research provides new analysis of characteristics of the fishery including catch composition of the various sectors, spatial distribution as well as biological characteristics of Coral Trout and barramundi cod. This research has already provided evidence that has resulted in recommendations for changes to the size limits for leopard Coral Trout (*Plectropomus areolatus*) based on its significantly different biological characteristics to other *Plectropomus* species.

## **8.2 Description of monitoring programs used to gather information on the fishery (such as observer programs, long term monitoring programs etc) and results of these**

Currently monitoring is based on compulsory logbook returns from non-traditional fishers and voluntary docket book reports from buyers of fish from traditional fishers. Due to the low level of catch and effort in the fishery there are currently no planned observer programs or long-term monitoring.

## **8.3 Results of any collaborative research undertaken for the fishery**

None to date. AFMA will keep DEWHA informed of potential collaborative research.

## **References**

Begg GA, Chen CC, O'Neill MF, Rose DB. 2006. Stock assessment of the Torres Strait Spanish Mackerel fishery. CRC Reef Research Centre Technical Report No. 66. CRC Reef Research Centre, Townsville.

Williams AJ, Begg GA, Little LR, Currey LM, Ballagh AC, Murchie CD. 2007. Evaluation of the eastern Torres Strait reef line fishery. Fishing and Fisheries Research Centre Technical Report No. 1. James Cook University. Townsville.


## **List of Attachments**

Attachment A Current Fisheries Management Notices

Attachment B Torres Strait Seafood buyers and processors docket book.



**Attachment B: Torres Strait Seafood buyers and processors docket book.**

 <p><b>Torres Strait Seafood Buyers and Processors Docket Book</b></p> <p><b>RECIPIENT CREATED TAX INVOICE</b></p>		FOR Name: ..... Address: ..... ..... A.B.N.: ..... Lic. No. ....				
Seller:	JOHN SMITH	Book No.	Page No.			
Sellers ABN:	62 113 485 276	Sellers Licence No.	002 158			
Sellers Address:	THURSDAY ISLAND	Date:	01. JAN. 05			
<b>Fishing effort and boat details – TIB only</b>						
Boat symbol:	TRAWQ 005	No. of divers/fishers:	2			
Days fishing:	1	Area fished: <small>From map (write no. of area most fished)</small>	9			
Methods used: (tick box)	<input type="checkbox"/> Hookah (MDH) <input checked="" type="checkbox"/> Handline (LHL) <input type="checkbox"/> Drop line (LDR) <input type="checkbox"/> Free dive (MDF) <input type="checkbox"/> Rod and reel (LRR) <input type="checkbox"/> Other— <input checked="" type="checkbox"/> Lamp fishing (MLF) <input type="checkbox"/> Troll (LTL)    specify _____					
<b>Non TIB fishers &amp; buyers of PNG &amp; east coast product only</b>						
Region Fished: (tick box)	<input type="checkbox"/> Torres Strait <input type="checkbox"/> East Coast Queensland <input type="checkbox"/> Papua New Guinea					
Has the seller recorded their catches elsewhere?: (tick box)	<input type="checkbox"/> YES (please indicate) → <input type="checkbox"/> TRL04 Logbook <input type="checkbox"/> No <input type="checkbox"/> TSF01 Logbook <input type="checkbox"/> Other → _____					
<b>Details of catch being sold</b>						
Species	Processing Code	Grade	Kg	\$/Kg	\$/Kg	Amount
TRL	L	—	5.2	30.00		156.00
CORAL TROUT	GG	—	1.4	6.50		9.10
Completed by:	MICK JONES	Subtotal	165.10			
Signature:	<i>M Jones</i>	GST	—			
Payment received:		<b>TOTAL</b>	<b>165.10</b>			
Australian Fisheries Management Authority PO Box 376 Thursday Island QLD 4875		<b>For assistance</b> Phone: (07) 4069 1990 Fax: (07) 4069 1277		WHITE COPY: Fisher (seller) PINK COPY: Buyer (you) YELLOW COPY: AFMA		

