

TORRES STRAIT PROTECTED ZONE JOINT AUTHORITY



*Annual Report 2009-10*



*Torres Strait Fisheries Act 1984 (Commonwealth)*



ANNUAL REPORT

1 JULY 2009 TO 30 JUNE 2010

PRESENTED TO PARLIAMENT PURSUANT TO SECTION 41 OF THE ACT

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ISSN 0819-1050 (Print)

ISSN 1835-7261 (Online)

Published by the Australian Fisheries Management Authority  
on behalf of the Protected Zone Joint Authority

ABN 81 098 497 517

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## ACRONYMS AND ABBREVIATIONS

ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
AFMA	Australian Fisheries Management Authority
AQIS	Australian Quarantine and Inspection Service
BAP	Bycatch Action Plan
CSA	Cost Sharing Arrangement
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Department of Agriculture, Fisheries and Forestry
DEEDI	Department of Employment, Economic Development and Innovation
DEWHA	Department of Environment, Water, Heritage and the Arts
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
F <sub>MSY</sub>	Fishery Maximum Sustainable Yield
GBRMPA	Great Barrier Reef Marine Park Authority
MAC	Management Advisory Committee
MSY	Maximum Sustainable Yield
PNG	Papua New Guinea
PZJA	Protected Zone Joint Authority
QBFP	Queensland Boating and Fisheries Patrol (a division of DEEDI)
QPI&F	Queensland Primary Industries and Fisheries (a division of DEEDI)
QSIA	Queensland Seafood Industry Association
RAG	Resource Assessment Group
SAC	Scientific Advisory Committee
TAC	Total Allowable Catch
TAE	Total Allowable Effort





The Act	<i>The Torres Strait Fisheries Act 1984</i>
The Treaty	<i>The Torres Strait Treaty 1985</i>
TIB	Traditional Inhabitant Fishing Boat Licence
TRL	Tropical Rock Lobster
TSBDMF	Torres Strait Bêche-de-mer Fishery
TSCF	Torres Strait Crab Fishery
TSD&TF	Torres Strait Dugong and Turtle Fishery
TSFMAC	Torres Strait Fisheries Management Advisory Committee
TSPF	Torres Strait Prawn Fishery
TSPMAC	Torres Strait Prawn Management Advisory Committee
TSPSF	Torres Strait Pearl Shell Fishery
TSPZ	Torres Strait Protected Zone
TSTRLF	Torres Strait Tropical Rock Lobster Fishery
TSTF	Torres Strait Trochus Fishery
TSRA	Torres Strait Regional Authority
TVH	Torres Strait Fishing Boat Licence (Transferable Vessel Holder)
UFC	Units of Fishing Capacity
WG	Working Group
WTO	Wildlife Trade Operation

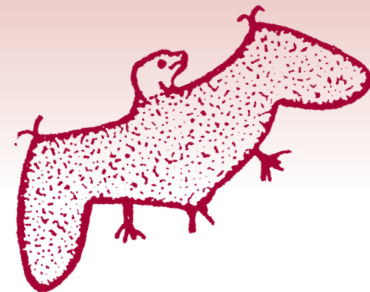
## ACKNOWLEDGMENTS

The Protected Zone Joint Authority gratefully acknowledges the late Lindsay Wilson for permission to use drawings of traditional Torres Strait artefacts and other objects in this Annual Report series from the publications “*Thalilgaw emeret lu, a handbook of traditional Torres Strait Islands material culture*” and “*Kerkar lu: contemporary artefacts of the Torres Strait Islanders*”.



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# 1 INTRODUCTION

This, the twenty-fourth Annual Report of the Protected Zone Joint Authority (PZJA), describes PZJA activities during the year ended 30 June 2010 and the condition of the fisheries in the Torres Strait Protected Zone (TSPZ) (Fig. 1). The PZJA is responsible for management of commercial and traditional fishing in the Australian area of the TSPZ and designated adjacent Torres Strait waters.

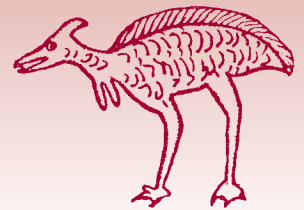
# 2 BACKGROUND

## THE TORRES STRAIT

The Torres Strait is located between the tip of Cape York Peninsula and Papua New Guinea (PNG). It consists of over one hundred islands and reefs which have evolved from four major origins: volcanic, alluvial, coral cays and flooded land bridges which were once part of the Great Dividing Range. Geographically, the islands are divided into inner, eastern, central, western, and top-western island groups; 18 of which are currently inhabited.

## THE TORRES STRAIT TREATY

Australia ratified the Torres Strait Treaty (the Treaty) on 15 February 1985. The Treaty is concerned with sovereignty and maritime boundaries in the area between Australia and PNG. The Treaty establishes the TSPZ which aims to protect the traditional way of life and livelihood of the Traditional Inhabitants of the Torres Strait and adjacent coastal areas of the two countries. Australia and PNG are obligated to cooperate in the conservation, management and utilisation of the TSPZ fisheries and both countries enjoy sovereign rights within the TSPZ. This includes the right to a share of the commercial harvest of swimming fish and sedentary species on the respective sides of the agreed fisheries and seabed jurisdiction lines (see Figure 1).





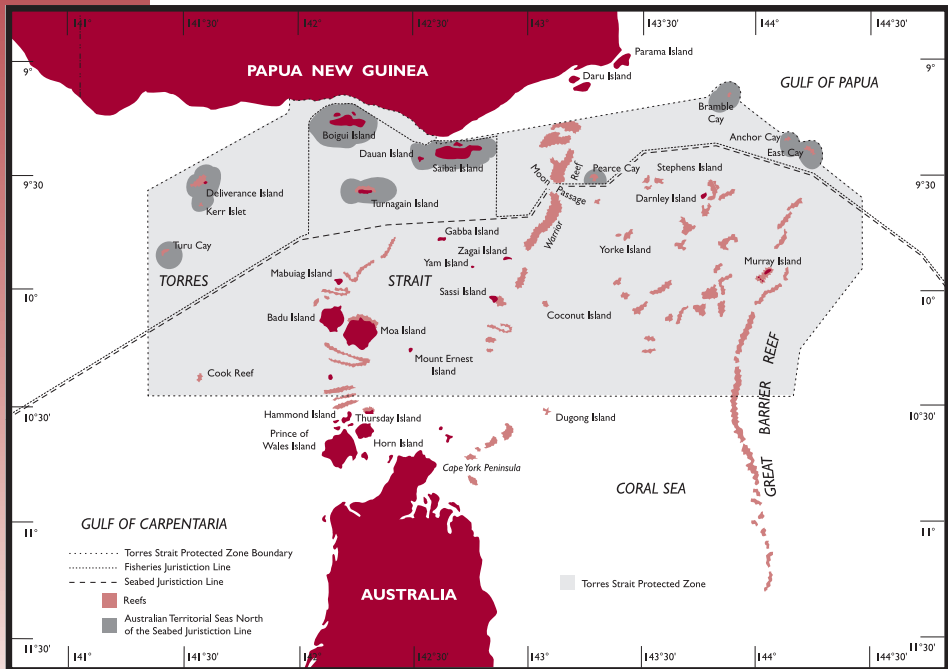


Figure 1. The Torres Strait Protected Zone.

## THE TORRES STRAIT FISHERIES ACT 1984

The *Torres Strait Fisheries Act 1984* (the Act) came into force on 15 February 1985. The purpose of the Act is to give effect, in Australian law, to the fisheries elements of the Treaty. Section 8 of the Act specifies the objectives to be pursued in the management of Torres Strait fisheries. Section 8 states:

*“In the administration of this Act, regard shall be had to the rights and obligations conferred on Australia by the Torres Strait Treaty.”*

In October 1988 the PZJA adopted fishery specific objectives for the fisheries under its jurisdiction. These objectives are specified in Section 5 of this report.

In October 2001 the PZJA accepted a recommendation that the Chair of the Torres Strait Regional Authority (TSRA) should be made a full member of the PZJA. The legislation detailing this change to the Act received royal assent on 10 November 2002.

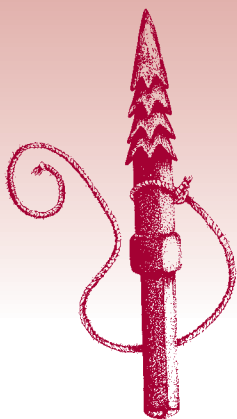


In April 2005, the PZJA agreed to significant changes in the management of the Australian share of the commercial fisheries in the TSPZ (including the outside but near area) and to resolve resource allocation between Traditional Inhabitants and non-Traditional Inhabitants in the Tropical Rock Lobster (TRL) and Finfish fisheries. To facilitate these decisions, the PZJA agreed that changes to the Act were required to:

- (a) ensure that Torres Strait fisheries can be managed sustainably under appropriate output controls; and
- (b) improve the operational and administrative efficiency of Torres Strait fishery management arrangements.

Amendments to the Act were passed by the Australian Parliament on 28 June 2007.





### 3 THE PROTECTED ZONE JOINT AUTHORITY

The PZJA, established under the Act, is responsible for the management of PZJA fisheries. Its members comprise the Commonwealth and Queensland Ministers responsible for fisheries, and the Chair of the TSRA. During 2009–10, the members of the PZJA were:

- The Hon. Tony Burke, MP, Commonwealth Minister for Agriculture, Fisheries and Forestry;
- The Hon. Tim Mulherin, MP, Queensland Minister for Primary Industries and Fisheries; and
- Mr John T. Kris, Chair of the Torres Strait Regional Authority.

The Commonwealth Minister is the Chair of the Authority.

#### ROLES AND RESPONSIBILITIES

The PZJA is responsible for monitoring the condition of the designated fisheries and for the formulation of policies and plans for their management. 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 the capacity to engage in traditional fishing.

Prior to 1999, the PZJA managed the following designated fisheries in accordance with Commonwealth law in the Australian component of the TSPZ:

- traditional fishing;
- those fisheries which Australia and PNG have agreed to jointly manage in the TSPZ under Article 22 of the Treaty including prawns, Spanish Mackerel, pearl shell, TRL, dugong and turtle; and
- the barramundi fishery in the territorial waters adjacent to the six Australian islands near the PNG coastline: Saibai, Boigu, Moimi, Kaumag, Aubusi and Dauan.

In October 1996 the PZJA agreed that all fishing in Torres Strait would come under PZJA management. Arrangements were



introduced on 1 April 1999 to include the former Queensland managed commercial fisheries.

This included the following fisheries:

- finfish (incorporating Barramundi);
- crab;
- trochus; and
- bêche-de-mer (sea cucumber).

Details on the management arrangements for each of these fisheries are provided in Section 5 of this report. Commercial fishing for any other species not incorporated in the above fisheries is treated as developmental fishing by the PZJA.

In December 2005, the Commonwealth Minister for Fisheries, Forestry and Conservation, set a new direction in Commonwealth fisheries management policy, issuing a formal direction to the Australian Fisheries Management Authority (AFMA) stating that:

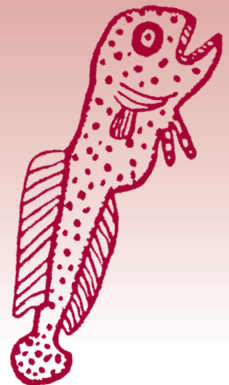
*“The Australian government considers that decisive action is needed immediately to halt overfishing and to create the conditions that will give overfished stocks a chance to recover to an acceptable level in the near future.”*

A key element in implementing the Minister’s directive is the development and application of a harvest strategy framework which sets ‘goalposts’ for managing catches by setting agreed target and limit reference points and clear decision rules for each species.

While the Minister’s direction does not directly apply to PZJA fisheries, which are jointly managed with Queensland and the TSRA; AFMA is obliged to pursue the objectives set in the December 2005 directive in joint authority fisheries to which the Commonwealth is a party.

In light of this, the PZJA has developed a long term harvest strategy for the Torres Strait Prawn Fishery (TSPF) with a range of rules that control the intensity of fishing activity according to the biological and economic conditions of the fishery. It is expected that the TSPF harvest strategy will be implemented in 2011.

The Torres Strait TRL Resource Assessment Group (RAG) have developed harvest control rules for the Torres Strait Tropical Rock Lobster Fishery (TSTRLF) including recommending





total allowable catches to be set at levels that maintain escape close to 1.5 times the equilibrium spawning stock biomass associated with maximum sustainable yield (MSY). The harvest control rules are in line with the Commonwealth Harvest Strategy Policy and provides for a precautionary management framework in the TSTRLF. Target and limit reference points for the TSTRLF have been set, however these reference points will be reviewed by the RAG in response to development of a new stock assessment model by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in 2011 utilising information from Management Strategy Evaluation research currently underway.

Recreational fishing, including charter fishing, is managed by Queensland under Queensland law. Queensland also retains responsibility for aquaculture and fisheries marketing in the TSPZ. Information on these activities can be obtained from Queensland Primary Industries and Fisheries (QPI&F).

## MEETINGS

The PZJA made a number of out of session decisions during the 2009–10 financial year. These decisions are detailed in Annex A.

## CONSULTATIVE STRUCTURE

To assist in the management of the PZJA fisheries, the PZJA has established a consultative process including a structure of advisory bodies (Figure 2). The consultative structure incorporates Australian Traditional Inhabitant commercial and traditional fishers, non-Traditional Inhabitant commercial fishers, Australian and Queensland government officials, and technical experts.

The PZJA may be advised by the Standing Committee, Management Advisory Committees (MAC), Scientific Advisory Committee (SAC), and RAG on issues associated with TSPZ fisheries.

Consultation and communication can be difficult across all islands of the Torres Strait, but are important elements in the effective management of the region's fisheries. The consultative committees are therefore complemented by meetings between fisheries officers and fishers in communities around the Torres Strait. These meetings are occasionally supplemented by fisheries programs broadcast on radio and articles/advertisements in newspapers.

While the committees and groups outlined in Figure 2 are the main means of the PZJA obtaining advice and information, it is not the only means. The PZJA may seek advice and views from others with relevant expertise or interest. This includes PZJA agencies, other government agencies, independent consultants, operators in fisheries more broadly and representatives of the broader community.

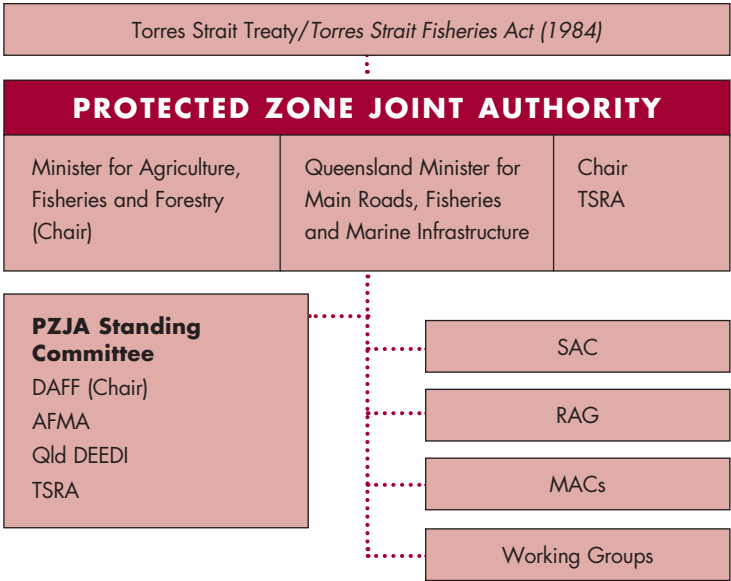


Figure 2. The consultative structure of the Torres Strait PZJA.

The full membership of the committees/groups and the dates on which they met during 2009–10 are set out in Annex B.

**Role and functions of the PZJA Standing Committee**

The PZJA Standing Committee’s role and function is to provide strategic advice to the PZJA on the management of the fisheries in accordance with the PZJAs statutory obligations and to oversee the implementation of the PZJAs agreed policy commitments.

**Role and functions of a Management Advisory Committee**

MACs are the principal source of advice for the PZJA on fishery-specific management issues in all Torres Strait fisheries.



A MAC and its working group/s have specific functions that support the decision making process.

A MAC advises the PZJA on fishery objectives, strategies, reference points, risk profiles and management arrangements for achieving fishery-specific goals. For the PZJA to be able to make decisions based upon MAC advice, the PZJA has to be confident that a MAC has put in place rigorous processes to determine the best package of measures in pursuit of the PZJAs objectives. Good governance and business efficiency demand that the PZJA is normally able to approve MAC advice without delving into MAC business details, or needing to seek clarification from a MAC.

The role of a MAC is to advise the PZJA on management issues for the fisheries managed under the Act. It provides the forum where issues relating to the fisheries are discussed, problems identified and possible solutions developed. The outcome of these deliberations determines the recommendations a MAC will make to the PZJA concerning the management of relevant fisheries.

Two MACs exist under the PZJA structure; the Torres Strait Prawn Management Advisory Committee (TSPMAC) and the Torres Strait Fisheries Management Advisory Committee (TSFMAC) (for all fisheries other than prawn).

### ***Role and functions of a Scientific Advisory Committee (SAC)***

The main role of the SAC is to advise the PZJA on the strategic direction, priorities and funding for research relevant to meeting information needs and objectives of the PZJA and its relevant consultative bodies.

The SAC normally provides a review process for research conducted by research providers to ensure that milestones are met and that the research outcomes represent good value for money. The SAC may also be called upon to make its own assessments of fisheries data and comment on stock assessment results. The SAC may also solicit external review if questions asked fall outside the SACs area of expertise.

The SAC may also provide advice to the MACs, Working Groups and RAG on scientific and research issues in the TSPZ.



### *Role and functions of a Working Group (WG)*

To assist in the operations of a MAC, WGs have been established to provide advice on particular matters relevant to individual fisheries. In order to be manageable and cost effective, WGs will be no larger than is necessary to ensure the appropriate blend of knowledge and expertise is available to provide the required advice to a MAC.

Ordinarily the WGs deal with the fishery specific issues, including the specification of management objectives, research priorities for the particular fishery, management issues and strategies, and compliance issues. In addition to these tasks the WGs deal with a range of ad hoc issues. These are reported to a MAC and/or SAC as appropriate.

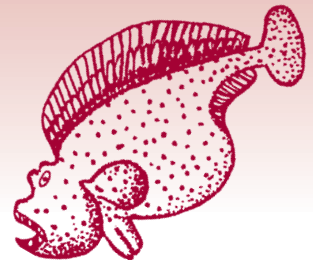
### *Role and functions of a Resource Assessment Group (RAG)*

The main role of the RAG is to provide advice on the status of fish stocks, sub-stocks, species (target and non-target species) and on the impact of fishing on the marine environment. Advice provided by a RAG should address biological, economic and wider ecological factors affecting the fishery.

A RAG should also evaluate alternative harvest options proposed by the relevant fishery WG and/or MAC. This includes advising on the impact over time of different harvest strategies (for example, the time required for a particular fish stock to reach a reference point), stock depletion or recovery rates, the confidence levels of the fishery assessment, and risks to the attainment of approved fishery objectives.

A RAG reports to the PZJA. It also informs the SAC, relevant MACs or WGs of work on stock assessments in progress or potential issues, but is not restricted by them. This ensures that the potential conflict of interest generated by the assessment roles of RAGs and the management advisory roles of other consultative bodies does not impact on the quality of advice provided to the PZJA. A MAC (including its WGs) and associated RAG are likely to have some common membership, therefore it is essential that members' roles be recognised and differentiated by the respective chairs.

One RAG exists under the PZJA consultative structure and specifically focuses on the TSTRLF.







## 4 COOPERATION WITH PAPUA NEW GUINEA

The Treaty requires Australia and PNG to cooperate in the conservation, management and optimum utilisation of all of the Article 22 commercial fisheries of the TSPZ.

### CATCH SHARING

Articles 22 and 23 of the Treaty allow for the sharing of catch within the TSPZ. The catch-sharing arrangements with PNG for 2010 were agreed to at the Australia-Papua New Guinea Fisheries Bilateral meeting held on 22–23 September 2009 in Madang, PNG. The key outcomes from this meeting were:

- TSPF – PNG will allow Australia to use its 25 per cent share of the fishery in 2010 – consistent with 2009 arrangements;
- TSTRLF – Catch sharing access for 2010 was agreed and allowed PNG to seek cross-border endorsement for up to 1036 fishing days, to be allocated evenly between seven primary vessels with up to seven tenders each;
- Traditional Fisheries – PNG will consult with Australian and PNG stakeholders about introducing net size restrictions in PNG waters complementing Australian restrictions.
- Hand Collectables Fishery – PNG notified Australia of its three-year nation wide closure of the bêche-de-mer fishery for sustainability reasons.

### OUTSIDE BUT NEAR AREAS

When part of a fisheries stock in the TSPZ extends outside but near to the TSPZ, the Act and its PNG equivalent allow Australia and PNG to extend TSPZ management arrangements into these areas. These are referred to as the “outside but near areas”. The Treaty also provides for the two countries to agree to management and conservation measures in areas extending beyond the TSPZ. One of the management and conservation measures in place is a prohibition on the incidental taking and carrying of TRL by prawn trawlers in the TSPF and in certain waters outside but near the TSPZ. This measure has been in place since 1988.





## 5 FISHERIES

Torres Strait fisheries can be subdivided into two broad categories, Article 22 fisheries and non-Article 22 fisheries, both of which include traditional and/or commercial fisheries.

Article 22 fisheries are those fisheries where the mechanism identified in Article 22 of the Treaty has been exercised by Australia and PNG, whereby common conservation and management arrangements have been negotiated and applied to specified fisheries. Article 22 fisheries are primarily those with commercial sectors as well as the turtle and dugong fisheries.

Non-Article 22 fisheries are those that are not managed in conjunction with PNG.

### COMMERCIAL FISHERIES

Commercial fishing is one of the most important economic activities in the TSPZ and provides a significant opportunity for financial independence for Traditional Inhabitant fishers (holders of Traditional Inhabitant Fishing Boat Licences (TIB)). The PZJA has a policy of enhancing the opportunities for Traditional Inhabitant participation in all sectors of the fishing industry.

A limited number of non-Traditional Inhabitants participate in the TSPZ commercial fisheries. The PZJA has prevented expansion of this group as required by the Treaty. This means that non-Traditional Inhabitants must purchase an existing Torres Strait Fishing Boat Licence (TVH) or lease a Sunset Licence to gain access to a fishery. Where there is scope for expansion in Torres Strait fisheries, the PZJA has attempted to reserve growth for Torres Strait Traditional Inhabitants.

### TRADITIONAL FISHERIES

Torres Strait Traditional Inhabitants have always exploited a diverse range of marine animals for subsistence and use in cultural activities (unlicensed non-commercial fishing) including dugong, turtle, TRL, finfish, shellfish, crab, and octopus. As such, sea-based resources are of significant importance to Traditional Inhabitants of the Torres Strait.





The most important resources for Traditional Inhabitants are dugong, Green turtle and a variety of finfish and shell fish, although the relative importance of each group varies between island communities and throughout the year. With respect to commercial and artisanal fishing activities, sea-based resources such as TRL, Spanish Mackerel, reef fish and pearl fisheries remain of significant importance to these communities.

The most common fishing activities undertaken by Traditional Inhabitants for subsistence include hand lining for finfish and diving for many species including TRL. Other means of gathering seafood include spearing, reef gleaning, cast-netting, traditional hunting for dugong and turtle, gill netting, trolling from dinghies, crabbing, seining, jigging for squid, hand collection for species such as trochus, and trading with PNG. In general, men fish from boats away from the home island and the women and children fish on fringing reefs around the island.

It is difficult to assess all species separately because of the diverse range of marine animals taken in the course of traditional fishing. However, studies undertaken during the 1980s and more recently in 2007 and 2008 (*Evaluation of the Eastern Torres Strait Reef Line Fishery* by Williams *et al.*, 2007 and *The Subsistence Coral Reef Fish Fishery in the Torres Strait* by Busilacchi, 2008), indicated that seafood are very important to Torres Strait Islanders. While rates of exploitation may have increased during the intervening period, it is unlikely that they are now excessive; except for dugong and turtles for which the Department of Environment, Water, Heritage and the Arts (DEWHA) strategic assessment of the fishery raised concern regarding the harvest rates.

The only management restrictions placed on traditional fishing activities in the 2009–10 period relate to dugong and turtle, and a bag limit on TRL and bêche-de-mer (sea cucumber).

## ARTICLE 22 FISHERIES

A summary of each of the Article 22 fisheries during 2009–10 are detailed below. Note that landing data in this report is presented by calendar year due to the fact that most fisheries data is collected and presented to industry by calendar year.

**PRAWN**

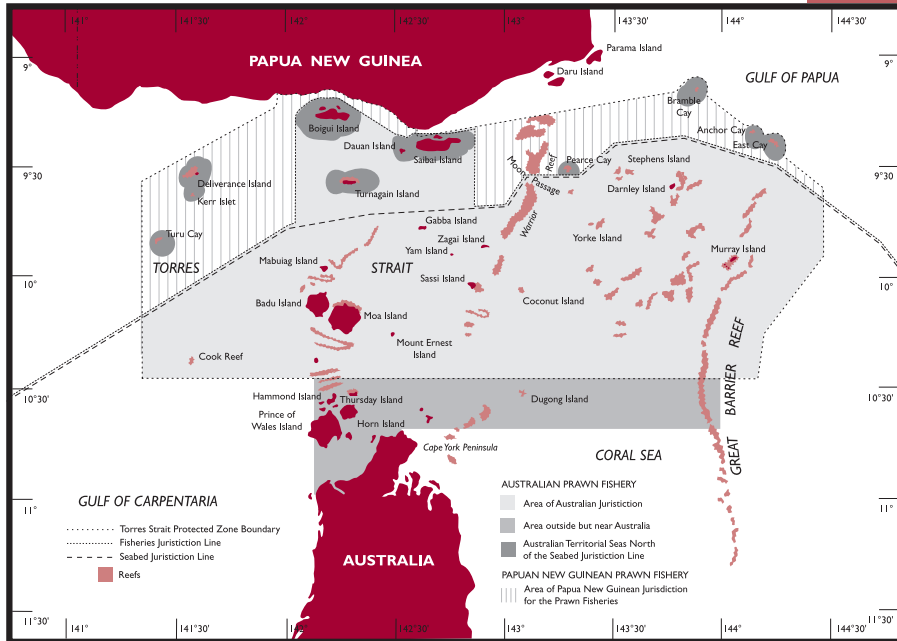
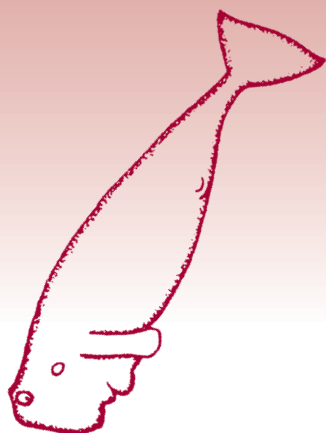


Figure 3. Area of the Torres Strait Prawn Fishery.

**Description of the fishery**

The TSPF (Figure 3) is one of the most valuable commercial fisheries in the Torres Strait, with 505 tonnes of product valued at over \$6.1 million taken in the 2009 fishing season (Wilson et al., 2010). The TSPF is a multi-species prawn fishery which operates in the eastern part of the Torres Strait. Brown Tiger Prawn (*Penaeus esculentus*) and the Blue Endeavour Prawn (*Metapenaeus endeavouri*) are the key target species, with the Red Spot King Prawn (*Melicertus longistylus*) taken as by-product.

Fishing is permitted in the TSPF from 1 March to 1 December each year and is limited by a Total Allowable Effort (TAE) in the form of fishing days. Prawn harvesting occurs at night, primarily using the otter trawl (quad) method which involves towing up to four trawl nets behind a vessel. The TSPF has restrictions on the type of gear and vessel that can be used during harvesting.



The following information for the TSPF including the data presented in Table 1 is based on the 2009 fishing season (1 March to 1 Dec 2009) rather than the 2009–10 financial year. A more detailed account of the TSPF can be found in the Torres Strait Prawn Fishery Handbook 2010 (Kertesz *et al.* 2010).

### Management arrangements under the TSPF Management Plan 2009

With the introduction of a new management plan (the Plan) for the 2009 fishing season, the fishery was managed using allocated Units of Fishing Capacity (UFC). These units were initially allocated to the 61 Australian licence holders on a one for one basis, with one UFC for each fishing day previously held. The value of each unit will change between seasons dependant on the TAE for the season. Under the new management arrangements the maximum number of boat licences in the fishery remains capped at 61 and the number of UFC's is capped at 9,200. 6,867 units are allocated to Australian operators, and 2,333 are held in trust by the Commonwealth; a portion of this is then allocated to PNG under catch sharing arrangements. In 2009 PNG agreed to allow Australia to utilise the 25 per cent allocation offered to PNG (2,070 units for 2009 season) of Australian jurisdiction days under the Treaty catch sharing arrangements.

The prawn fishery is a cost recovered fishery through levy fees. The levies consist of fixed costs (licence fees) and variable costs (UFC fees). The levies are implemented prior to each season through the *Fisheries Levy (Torres Strait Prawn Fishery) Amendment Regulations*.

A bycatch action plan (BAP) is in place for the prawn fishery, and is subject to periodic review. The primary aims of the TSPF BAP are to:

- eliminate, to the greatest extent feasible, the catch of large animals such as turtles and stingrays; and
- substantially reduce the ratio of bycatch to prawns.

To achieve these aims, the BAP has adopted the following strategies:

- to modify fishing gear to minimise turtle and other bycatch;
- to ensure bycatch is monitored in the TSPF; and



- to continue to make information available to fishers and the community regarding bycatch.
- A harvest strategy for the TSPF is also under development by the PZJA agencies. The harvest strategy will provide a framework for the setting of effort levels within the fishery together with control rules so that management is more transparent and logical and the fishery meets pre-defined ecological and economic goals.

### Management objectives

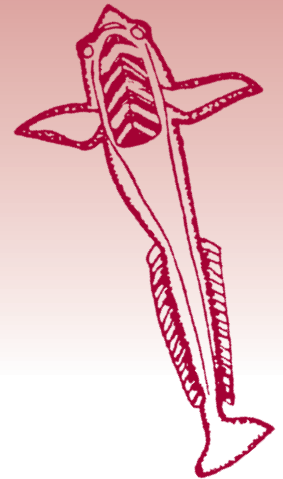
For the 2009 fishing season the TSPF operated in accordance with the following objectives under the Plan:

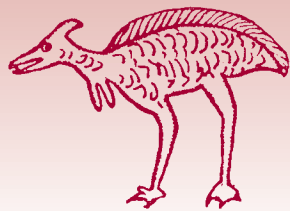
- to control effort in the fishery and provide for catch sharing to occur with PNG;
- to encourage Traditional Inhabitants to participate in the TSPF;
- optimum utilisation of fishery resources within the TSPF, is consistent with the principles of ecologically sustainable development and the exercise of the precautionary principle;
- to promote economic efficiency in the utilisation of the fisheries resources within the TSPF;
- to ensure cooperative, efficient and cost effective management of the fishery; and
- to manage the fishery's interactions with the marine environment including the incidental capture of non-target species and impacts on demersal habitats.

These objectives were to be achieved in a manner that minimised negative impacts to other fisheries and the marine environment.

### Condition of the fishery

The current estimate of Maximum Sustainable Yield (MSY) for the TSPF is 9,200 days. If this amount of effort was achieved in a given season, the fishery would be considered to be fully exploited. However, the fishery has historically operated at much less than the maximum allocated effort. Due to the recurring low levels of effort, the PZJA agreed to offer the PNG portion of fishing days (2,070) to the Australian licence holders for the 2009 fishing season on a pro rata basis in an attempt to stimulate effort in the fishery. This was facilitated by increasing the TAE to 12,325 days under section 4.3 of the Plan. This resulted in





9,200 days of effort for the Australian Sector and 3,125 days for the PNG sector. There was agreement that this PNG portion of effort would be held in trust by the Commonwealth and not fished during the 2009 season, meaning the effort that could be fished was still only 9,200 days. This system allowed additional days to be allocated to the Australian sector without an additional levy being collected.

In 2009, only 2,058 of the available 9,200 days allocated to Australian operators were used (2009 logbook data). The catch since 1999 has declined steadily from 2,200 to 704 tonnes in 2009 (Fig. 4). Species composition for the 2009 fishing season is shown in Table 1.

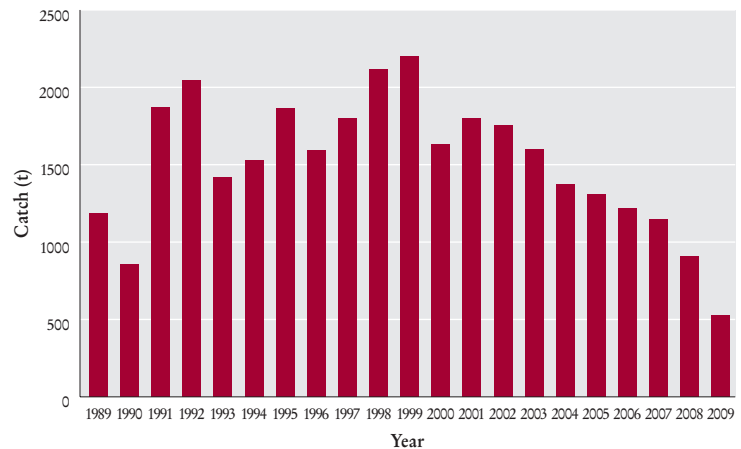


Figure 4. Annual catches of all prawn species in the TSPF 1989–2009. Data is presented in fishing seasons (1 March to 1 December) (Source: Logbook data 1989–2009).

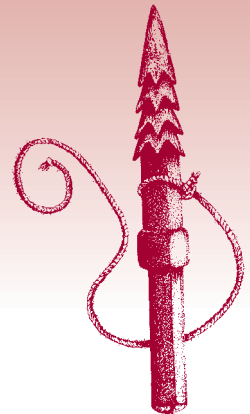


Table 1. Prawn catches in the TSPF for the 2009 season (1 March to 1 December 2009) (Source: Prawn Handbook).

Species	Catch (tonnes)
Blue Endeavour Prawns ( <i>Metapenaeus endeavouri</i> )	173
Brown Tiger Prawns ( <i>Penaeus esculentus</i> )	338
Red Spot King Prawn ( <i>Melicertus longistylus</i> )	16
Other	1
<b>Total</b>	<b>528</b>

### Strategic Assessment

With the implementation of the management plan in 2009, the TSPF was re-assessed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) to be re-accredited as a Wildlife Trade Operation (WTO). On 27 February 2009 the TSPF was formally declared a WTO for three years to 25 February 2012 by DEWHA.







## TROPICAL ROCK LOBSTER

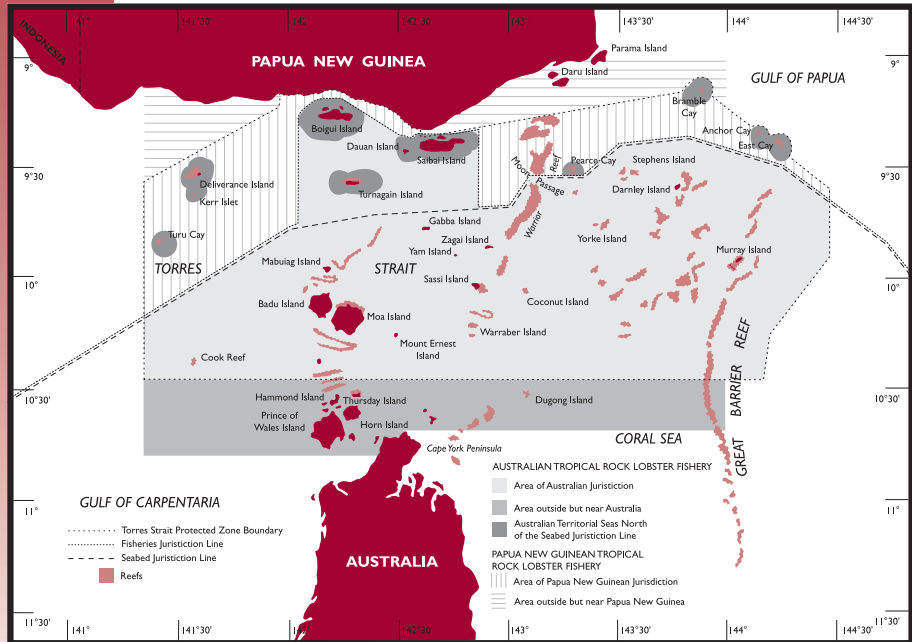


Figure 5. Tropical Rock Lobster Fishery.

### Description of the fishery

The TSTRLF (Figure 5) is the most valuable commercial fishery in the Torres Strait. It is a single species fishery targeting the Ornate Tropical Rock Lobster (*Panulirus ornatus*) and is an important commodity to both Traditional Inhabitants and non-Traditional Inhabitants. TRL are collected by hand, short hand spear or loops by divers working from dinghies. Divers free dive on shallow reef tops or use hookah equipment (surface supplied air) to dive the large areas of “open bottom” in the Torres Strait. Most fishing occurs during neap tides when currents ease and underwater visibility improves.

The commercial fishing season for TRL is from 1 December through to 30 September the following year (inclusive), with the use of Hookah gear prohibited from 1 October to 31 January (inclusive). The peak effort period for the TSTRLF occurs from



March to August. In comparison, Traditional Inhabitants fishing for subsistence (traditional catch) can take lobster at any time of the year with some restrictions:

- up to three lobsters per person without the use of a boat, or where there is only one person aboard the boat; or
- up to six per boat where there is more than one person aboard the boat.

### Management objectives

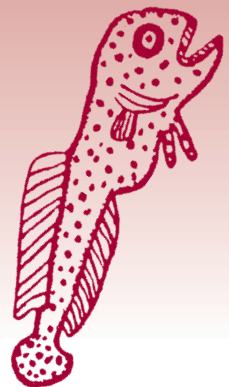
Management objectives for the TSTRLF adopted at PZJA 19, held 27–28 April 2006 are:

- to maintain the fishing mortality at a level below that which produces MSY ( $F_{MSY}$ ) (accounting for all sources of fishing mortality);
- in accordance with the Treaty, to protect the traditional way of life and livelihood of Traditional Inhabitants, in particular in relation to their traditional fishing for TRL;
- to provide for the optimal utilisation, cooperative management with Queensland and PNG and for catch sharing to occur with PNG;
- to monitor interactions between the prawn and TRL fisheries;
- to maintain appropriate controls on fishing gear allowed in the fishery so as to minimise impacts on the environment;
- to promote economic development in the Torres Strait area with an emphasis on providing the framework for commercial opportunities for Traditional Inhabitants and to ensure that the opportunities available to all stakeholders are socially and culturally appropriate for the Torres Strait and the wider Queensland and Australian community; and
- to optimise the value of the fishery.

### Management arrangements

Management arrangements as outlined in Fisheries Management Notice No. 80 were applicable during 2009–10 and include:

- limiting the method of taking of TRL to either hand or with the use of a hand held implement, such as a spear or scoop net;





- seasonal closures – complete closure from October–November (inclusive) and hookah equipment closure from December–January (inclusive);
- size limits for all commercial and recreational take – minimum tail size of 115 mm or minimum carapace length of 90 mm;
- bag limits for traditional and recreational fishing – three lobsters per person or six per boat, if there is more than one person in the boat; and
- a prohibition on the processing or carrying of lobster meat that has been removed from any part of the TRL on any boat.

In addition to the above mentioned management arrangements, expansion in the fishery is limited to Traditional Inhabitants. A number of provisions are in place to prevent the growth of the non-Traditional Inhabitant sector including:

- a boat replacement policy which aims to control fishing capacity by preventing the introduction of larger more efficient boats; and
- a ban on trawlers taking TRL to prevent pressure on the lobster resource from the prawn trawling fleet.

Since 2003 a number of interim measures have been agreed to annually and implemented as a means of reducing effort in the non-Traditional Inhabitant sector. During 2009–10 interim measures included:

- a 30 per cent reduction in the number of months that tenders were allowed to operate for licence holders that have two or more tenders associated with a primary vessel. In practice, this meant that licence holders could work some of their tenders for the entire season but others ceased operation at various times to effect the reduction; and
- a prohibition on the use of hookah equipment three days before, on, and three days after either the full or new moon each month from February to September.



### Condition of the fishery

The status of the TRL stocks in the TSPZ was not considered to be overfished or subject to overfishing during 2009 (Wilson *et al.*, 2010).

During 2009 the recommended Total Allowable Catch (TAC) for TRL in the TSPZ was 484 tonnes (based on a mid-season survey and harvest control rule recommended by the TRL RAG), although quota was not implemented. If the TAC had been implemented, 326.7 tonnes would have been allocated to Australian fishers and 157 tonnes to PNG fishers.

The total reported Australian catch of 228 tonnes (Fig. 6) in 2009 accounted for only 65 per cent of the recommended Australian share of the TAC. The Australian fishery was valued at around \$6.94 million in 2009.

At 30 June 2010 there were 298 TIB licences with lobster entries and 13 TVH licence holders licensed to fish in the TSTRLF.

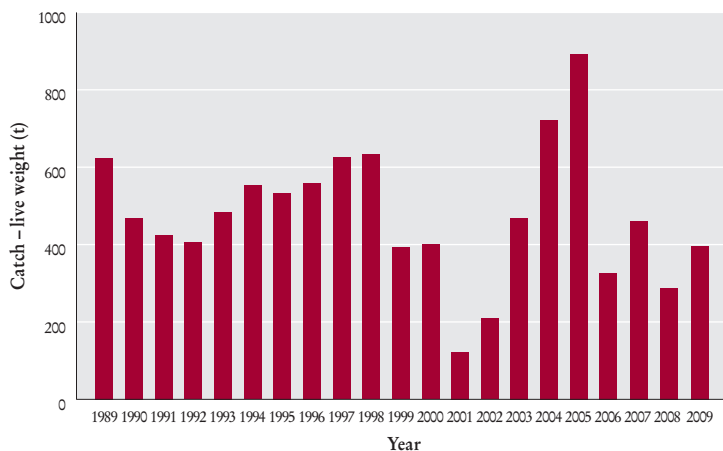


Figure 6. Annual catch of the TSTRLF 1989–2009 in the Australian Jurisdiction (Source: Logbook data 1989–2009, docket book data 2004–2009 and other records).

### Strategic Assessment

The TSTRLF was strategically assessed under the EPBC Act on 23 November 2007 and accredited as a WTO for three years,



until 23 November 2010. This WTO declaration is subject to the conditions and recommendations developed by DEWHA.

### FINFISH (SPANISH MACKEREL)

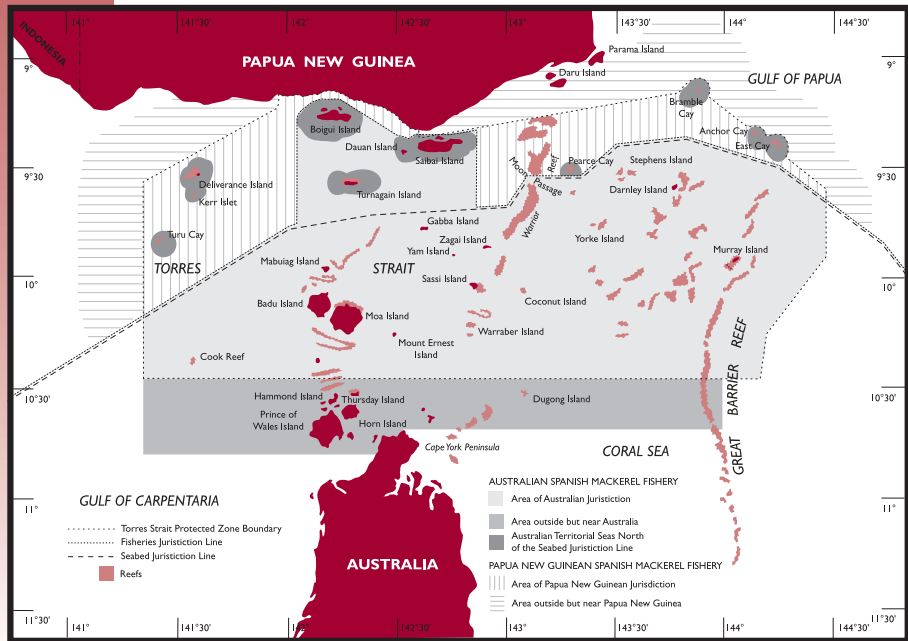


Figure 7. Spanish Mackerel Fishery.

#### Description of the fishery

The Torres Strait Spanish Mackerel Fishery (Fig. 7) operates predominantly in the eastern Torres Strait, targeting the Narrow-barred Spanish Mackerel (*Scomberomorus commerson*). In 1999, other species were added to the list of permitted species including School Mackerel (*S. queenslandicus*), Grey Mackerel (*S. semifasciatus*), Spotted Mackerel (*S. munroi*), and Shark Mackerel (*Grammatorcynus bicarinatus*). Spanish Mackerel are fished by trolling, generally from dories/dinghies operating either to a primary vessel or by themselves.

While Spanish Mackerel is not generally targeted by Traditional Inhabitants, a large number of TIB licence holders take the species opportunistically.

In 2007–08, a voluntary buy-back of the 17 TVH licences endorsed to fish in the Torres Strait Finfish Fishery (Spanish



Mackerel) resulted in a transfer of all Australian fishing catch entitlements to the Traditional Inhabitant sector. These entitlements are held in trust by the TSRA or held for PNG in accordance with the Treaty. However leasing arrangements are in place to allow for non-Traditional Inhabitants to continue participating in the fishery by leasing a Sunset Licence from TSRA with a condition of an agreed limit on the harvest of Spanish Mackerel allowed for on that licence.

In 2009–10 four Sunset Licence packages were issued to non-Traditional Inhabitant fishers to fish for a collective total of 105 tonnes of Spanish Mackerel in the Torres Strait.

### Management objectives

Objectives adopted for the Torres Strait Spanish Mackerel Fishery during 2009–10 were:

- to manage the mackerel resource to achieve its optimal utilisation;
- to maximise the opportunities for Traditional Inhabitants of both Australia and PNG to participate in the commercial fishery; and
- to promote the fishery as a line fishery.

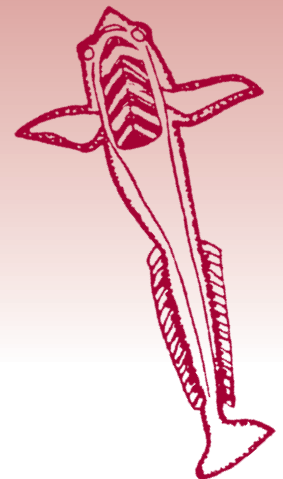
The management objectives for this fishery will be reviewed as part of the development of the Torres Strait Finfish Fishery Management Plan.

### Management arrangements

A management plan for the Torres Strait Finfish (Reef Line and Spanish Mackerel) Fishery is under development. The management objectives and arrangements for the Torres Strait Spanish Mackerel Fishery will be reviewed as a part of this process. In the interim, the existing management arrangements continue to apply as per Fisheries Management Notice No. 79 and include certain gear restrictions and size limits.

### Condition of the fishery

Available information for the Torres Strait Spanish Mackerel Fishery indicates that the Spanish Mackerel stock was fully exploited prior to 2007. However a reduction in catch and effort in 2007 and 2008 has reduced the pressure on the fishery.





The current status of the stocks in the TSPZ is not considered to be overfished or subject to overfishing (ABARES, 2010).

During the 2009 season, information on the quantity of Spanish Mackerel taken by Traditional Inhabitants was collected through the non-compulsory docket book system. Therefore the data presented is only an estimate as a complete set of the data is not available. The quantity of Spanish Mackerel taken for traditional purposes is unknown.

- The catch of Spanish Mackerel in 2009 was approximately 100<sup>1</sup> tonnes (whole weight) (Fig. 8) with a value of approximately \$0.3 million (Wilson *et al.*, 2010).
- At 30 June 2010 there were 161 TIB licences with Spanish Mackerel entries.

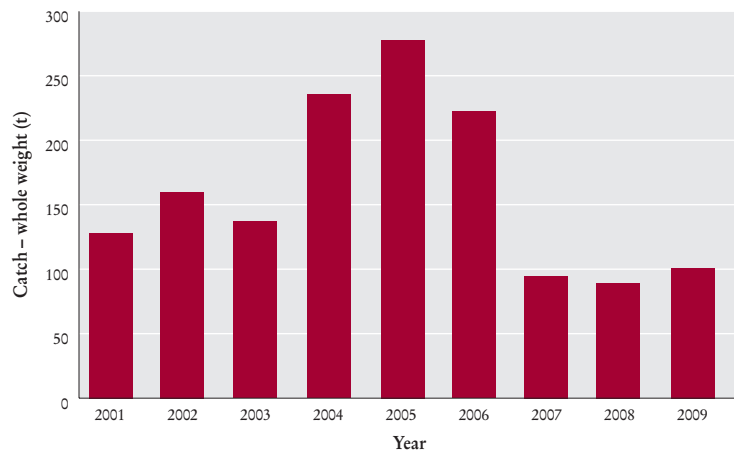


Figure 8. Catches of the Torres Strait Spanish Mackerel Fishery (*S. commerson*) (Source: Logbook data docket book data 2004-2009 and other records 2001-2009).

### Strategic Assessment

The fishery was strategically assessed under the EPBC Act in 2008 and was formally accredited as a WTO in November 2008. DEWHA also provided a number of accreditation recommendations to improve the sustainability of the fishery. The export accreditation is valid until 25 November 2011 at which time the fishery will be re-assessed.

<sup>1</sup> Collection of catch data from Traditional Inhabitant fishers is voluntary therefore catch records for 2009 are provisional.

## PEARL SHELL

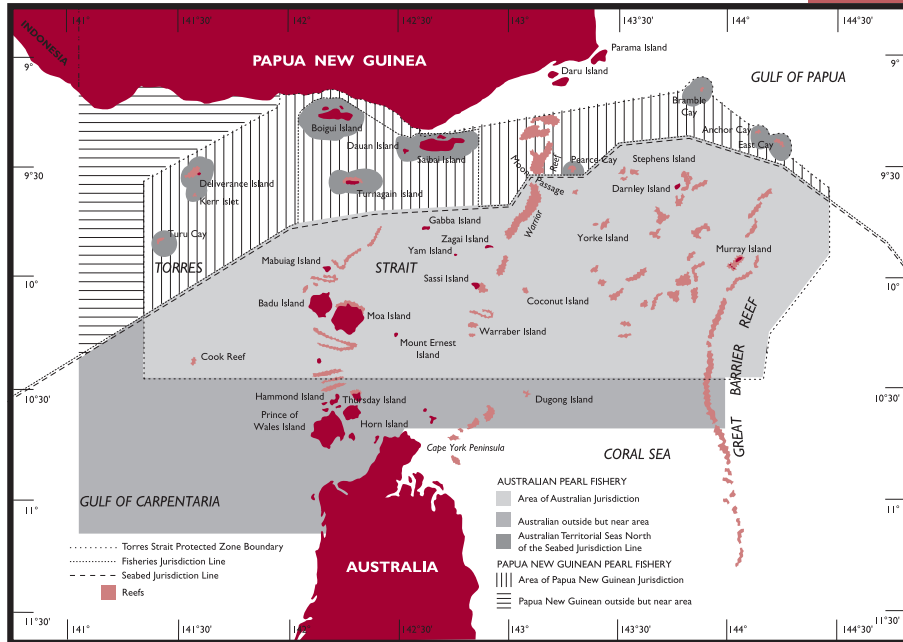


Figure 9. Pearl Shell Fishery.

### Description of the fishery

The PZJA is responsible for the management of wild pearl shell collection in the Torres Strait (Fig. 9). Aquaculture farming of pearl shell is regulated and managed by the Department of Employment, Economic Development and Innovation (DEEDI).

The Gold-lipped Pearl Shell (*Pinctada maxima*) is the main species targeted in the Torres Strait, although another six species, including the Black-lipped Pearl Shell (*P. margaritifera*) also occur. Pearl shell is collected live for pearl culture farms, principally by divers using hookah equipment (surface supplied air). Only a few boats specialise in collecting pearl shell, primarily through the months of October to March, although a number of licences also have TRL endorsements allowing divers to collect pearl shell whilst fishing for TRL.





## Management objectives

Objectives adopted for the Torres Strait Pearl Shell Fishery (TSPSF) are:

- to conserve the stock of pearl shell to achieve its optimal utilisation; and
- to maximise the opportunities for the Traditional Inhabitants of Australia and PNG to participate in this fishery.

## Management arrangements

Expansion of licence numbers in the TSPSF is limited to Traditional Inhabitants in order to maximise their opportunities.

Provisions applying to the non-Traditional Inhabitant sector of the fishery include a prohibition on the issue of boat and master licences, strict boat replacement policies, and the linking of tender boats with specific primary boats.

Current management regulations require divers to harvest only live shells, and adhere to size limits of 130 mm minimum and 230 mm maximum for Gold-lip Pearl Oyster, and 90 mm minimum for Black-lip Pearl Oyster. There is a ban on the taking of shell by any method other than collecting by hand.

## Condition of the fishery

Based on past surveys, the abundance of pearl shell on the main fishing grounds is low, and the stock status remains uncertain.

In 2006 and 2008 there was no commercial activity in the TSPSF. The number of shells collected in 2007 and 2009 remains confidential owing to the low level of participation in the fishery.

At 30 June 2010 there were 46 TIB licences with Pearl Shell endorsements.

## Strategic Assessment

The TSPSF has not undergone a strategic assessment. It may in the future, depending on activity in the fishery.

## DUGONG AND TURTLE

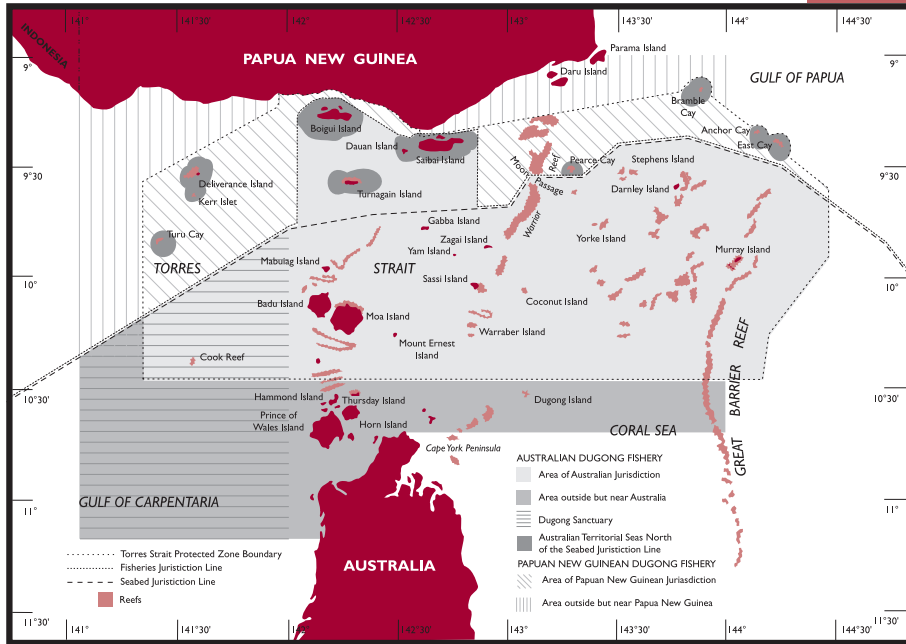


Figure 10. Dugong Fishery.

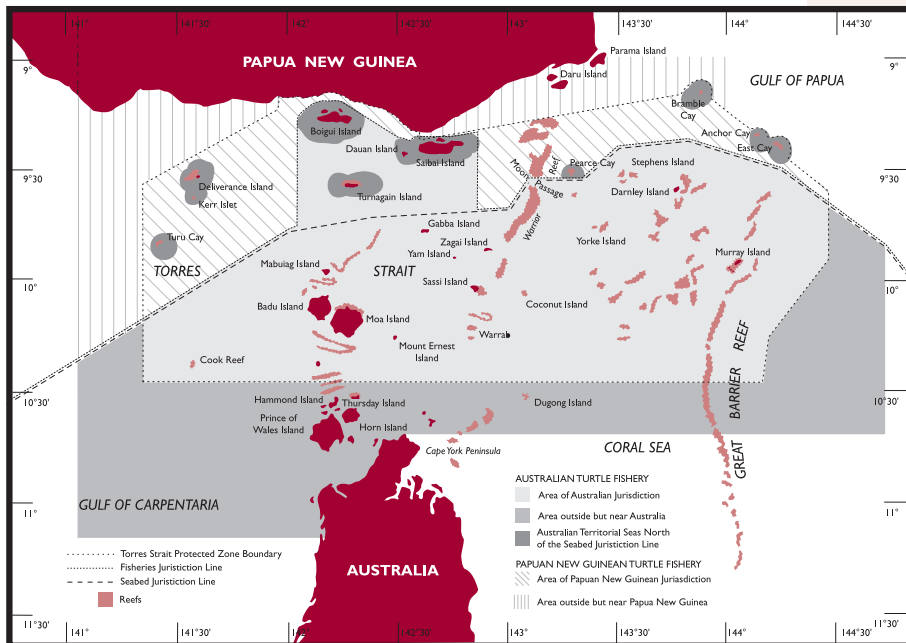
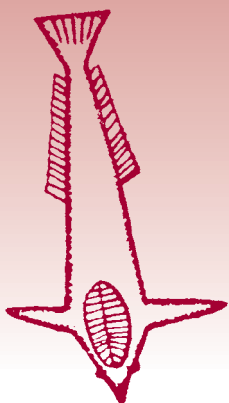


Figure 11. Turtle Fishery.



## Description of the fisheries

The Torres Strait Dugong and Turtle Fisheries (TSD&TF) (Figs. 10 and 11) are traditional subsistence fisheries limited to Traditional Inhabitants of the Torres Strait. Hunting for dugong and turtle is an important part of the traditional way of life and livelihood of the Traditional Inhabitants of the Torres Strait and is also a major source of protein in their diet. Dugong (*Dugong dugon*) and turtles are hunted using a traditional spear (*wap*) thrown by hand from a dinghy. Turtles are also caught by hand from jumping out of a dinghy. In some areas of the Torres Strait, nesting turtles are taken off the beach before or after nesting. Turtle eggs are also harvested.

Turtles are taken in all areas of the Torres Strait, while dugongs are caught mainly in the western region.

## Management objectives

Objectives adopted for the TSD&TF are:

- to promote the conservation of dugong and turtle stocks; and
- to restrict the take of dugongs and turtles to Traditional Inhabitants fishing for traditional purposes.

## Management arrangements

Participation in the TSD&TF is restricted to Traditional Inhabitants of the Torres Strait and PNG Treaty villages for traditional purposes.

A dugong sanctuary in the south-western area of the Torres Strait has been established where dugong hunting is not permitted. Outside this area dugongs may only be taken using a *wap*.

In addition, dugongs and turtles cannot be taken or carried in a commercially licensed fishing boat greater than 6 meters in length. TIB licensed boats less than 6 meters in length are permitted to take and carry dugong and turtle.

Community-based Dugong and Turtle Management Plans are now being rolled out in all Torres Strait island communities. These management plans include a range of culturally-based and legislated management arrangements that are implemented at a community level. Arrangements in each community differ slightly.

A Torres Strait Indigenous Ranger Program is being rolled out as a means of implementing these community-based management plans. In 2009–10 the ranger program was established at Badu,



Boigu, Darnley (Erub), and Yam (Iama) in addition to the already established ranger group on Mabuiag Island. Roll out of the ranger program to the remaining Torres Strait communities is proposed during 2010–11. The Australian Government has provided \$15.5 million to establish this program.

Strong partnerships have been established in regards to research into dugongs and turtles between Torres Strait Island communities, TSRA, Torres Strait Island Regional Council, relevant Registered Native Title Body Corporations and research institutions, including James Cook University. Research projects include dugong aerial surveys, turtle tagging, turtle foraging population surveys, nesting turtle tagging surveys and migration surveys through satellite tracking for both dugongs and turtles. Research into dugong and turtle populations in the Torres Strait is a priority for the TSRA (under its Environment Program) as well as for the SAC.

### Condition of the fisheries

**Dugong:** The Torres Strait dugong population was estimated through aerial surveys in 1987, 1991, 1996, 2001 and 2006. These surveys covered the western and central waters of the Torres Strait and adjacent coastal waters of Cape York and PNG. The 2006 population estimate was  $14,747 \pm \text{s.e. } 2,292$ . No current estimate exists for the harvest of dugong.

The ABARES reported in its *Fishery Status Report 2006* that the population estimate obtained from the 1996 survey did not differ statistically from the 1991 estimate, which could suggest that the dugong population in the Torres Strait was stable during 1991–96. However, the surveyed population of dugongs decreased by nearly 50 per cent between 1996 and 2001. A similar estimate to that obtained for 2001 was made in 1987. This variability may result from the movement of dugongs in and out of the survey area, perhaps driven by changes in the availability of food (seagrass).

Since 1976, estimated annual catches have ranged from 240 to more than 800 individuals. Current harvest rates are unknown, but the implementation of community-based management plans have started to address this through the introduction of catch monitoring programs.





**Turtle:** There are no population estimates for turtle stocks in the Torres Strait however the monitoring of key turtle nesting sites in north Queensland has raised concerns about the Green turtle (*Chelonia mydas*) and Hawksbill turtle (*Eretmochelys imbricata*) stocks. As a result, there is a growing awareness of the need to manage the traditional take of Green turtles and the harvest of Hawksbill turtle eggs to ensure the long term viability of these populations. No current estimate exists for the harvest of turtles however the implementation of the community-based management plans have started to address this through catch monitoring programs.

Other turtle species are not generally taken for food however the eggs of the Hawksbill, Flatback (*Natator depressus*), and Green turtles are regularly harvested by Traditional Inhabitants. The level of annual egg harvest is unknown.

### **Habitat**

Seagrass meadows are the primary food resource for turtle and dugong and habitat for fish species. Approximately 30 per cent of Queensland's seagrass meadows are in the Torres Strait. These meadows are being assessed and monitored by the TSRA in partnership with QPI&F. A recent survey of the Torres Strait dugong sanctuary found it has one of the largest single continuous seagrass meadows recorded in Australia.

Intertidal seagrass sites are being monitored by the TSRA in partnership with Seagrass-Watch (QPI&F). Results from these sites indicate that seagrass is in a good condition and increasing in abundance at some locations. The large areas of seagrass found in the relatively shallow waters of the Torres Strait supports the view that the Torres Strait is an important refuge for dugong and turtle in Queensland and northern Australia.

### **Strategic Assessment**

The Strategic Assessment Report of the Torres Strait Turtle and Dugong Fisheries was submitted to DEWHA in 2007 after consideration by the TSFMAC, the AFMA Environment Committee and the PZJA. SEWPAC has made several recommendations in consultation with Torres Strait communities and relevant Government agencies. This report is being finalised by SEWPAC before it is provided to the PZJA.



## NON-ARTICLE 22 FISHERIES

A summary of the fisheries not managed in conjunction with PNG (non-Article 22 fisheries) for 2009–10 are detailed below. Landing data is presented by calendar year.

### FINFISH (REEF LINE)

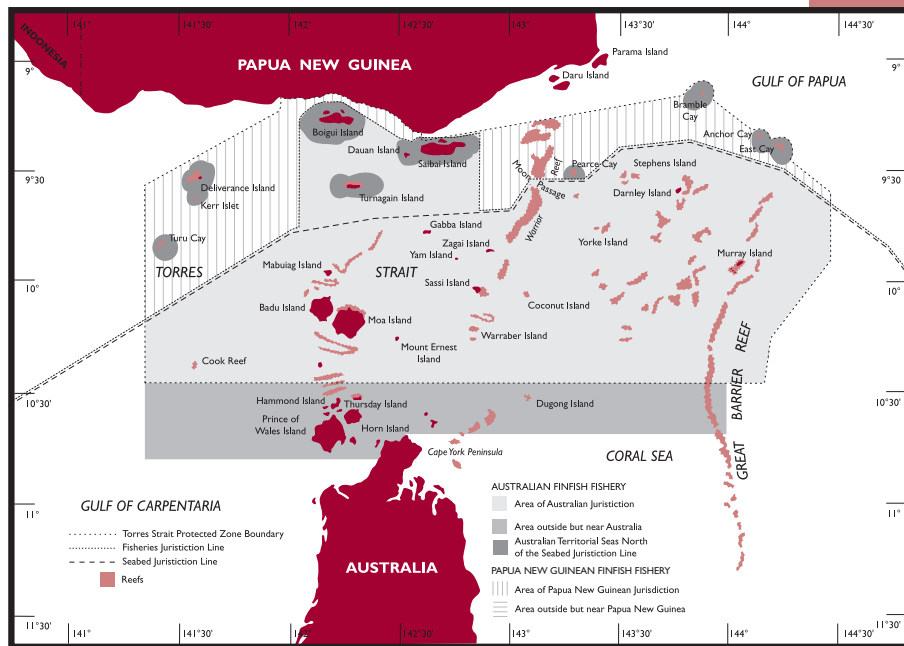
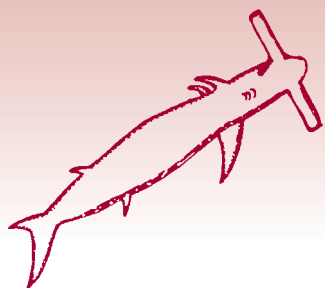


Figure 12. Reef Line Fishery.

### Description of the fishery

The Torres Strait Finfish (Reef Line) Fishery (Fig. 12) is a multi-species fishery targeting a range of reef fish species. The fishery focuses primarily on the highly valued Coral Trout species (*Plectropomus* spp.), Barramundi Cod (*Cromileptes altivelis*), mixed reef fish (*Lutjanus* spp. and *Lethrinus* spp.), and numerous species of Rock Cod (*Epinephelus* spp.). Barramundi (*Lates calcarifer*) harvest included in the Torres Strait Finfish Fishery is limited to the territorial waters adjacent to the six Australian islands in the north-west of the Torres Strait near the PNG coast: Saibai, Boigu, Moimi, Kaumag, Aubusi and Dauan. Most of the Barramundi taken in these communities is



for subsistence and there are no records of commercial sales of this species.

Finfish are generally taken by hand lines and since December 2005 the use of nets has been banned throughout the TSPZ and the outside but near area. This ban may be reconsidered in future to allow for a small net fishery around the communities of Boigu, Dauan and Saibai targeting Barramundi.

In 2007–08, a voluntary buy-back of the 9 TVH licences endorsed to fish in the Torres Strait Finfish Fishery (Reef Line) resulted in a transfer of all fishing catch entitlements to the Traditional Inhabitant sector. These entitlements are held in trust by the TSRA or held for PNG in accordance with the Treaty. However leasing arrangements are in place that allow non-Traditional Inhabitants to continue participating in the fishery by leasing a Sunset Licence from TSRA with a condition of an agreed limit on the harvest of Coral Trout species allowed for on that licence. In 2009–10 one sunset licence package was issued to a non-Traditional Inhabitant fisher to fish for 13 tonnes of Coral Trout in the Torres Strait.

### **Management objectives**

The objectives for the Torres Strait Finfish (Reef Line) Fishery were developed in conjunction with the objectives of the Act and the Treaty. These objectives reflect the status of the fishery following the change in jurisdiction from a fishery managed solely under Queensland law to one managed by the Commonwealth in 1999. The objectives adopted include:

- to manage the resource to achieve its optimum utilisation; and
- to maximise opportunities for Traditional Inhabitants of Australia and PNG to participate in the commercial fishery.

### **Management arrangements**

A management plan for the Finfish (Reef Line and Spanish Mackerel) Fishery is currently under development. The management plan will include arrangements for the Torres Strait Spanish Mackerel (Article 22) Fishery as well as the reef fish species (non-Article 22 fisheries). The management objectives and arrangements for the Torres Strait Reef Line Fishery will be reviewed and amended where required as a part of this process.



In the interim, the existing management arrangements apply as per Fisheries Management Notice No. 78 and include:

- gear restrictions;
- minimum and maximum size limits;
- no-take species;
- restriction on retaining live fish;
- restriction on shark finning and discarding the torso;
- permanent closure west of latitude 142°31'49"; and
- a seasonal closure for Barramundi.

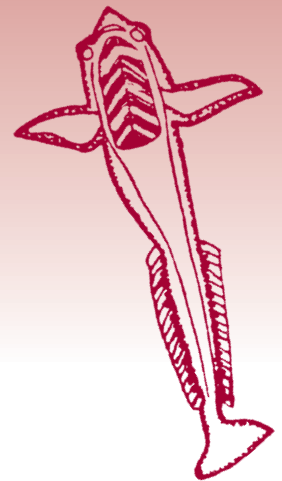
### Condition of the fishery

The status of Finfish stocks in the TSPZ is considered to not be subject to overfishing, or to being overfished (Wilson *et al.* 2010).

In 2009, the Torres Strait Finfish (Reef Line) Fishery was considered to be under exploited with landed species totalling 35.1 tonnes<sup>2</sup>. Coral Trout made up the majority of the catch (28.9 tonnes, Table 2). Between 2001 and 2004 catches of Coral Trout were relatively stable however from 2004 catches declined substantially (Fig. 13) reflecting the reduced effort and number of operations in the fishery. The 2009 season catch of Coral Trout (27 tonnes) had an estimated value of \$0.83 million (Wilson *et al.*, 2010).

Based on data collected from fish buyers<sup>3</sup>, it is estimated that of the 145 licensed TIB fishers with a reef line entry, few participated in the Reef Line Fishery in 2009. It is important to note though, that Traditional Inhabitants are not required to complete individual catch returns. Therefore, the quantity of finfish taken by Traditional Inhabitants with TIB licences may be underestimated.

The level of Traditional Inhabitant commercial fishing in this fishery may increase in future due to the high value of the target species and the fact that this fishery provides an important economic development opportunity for Traditional Inhabitants



2 Collection of catch data from Traditional Inhabitant fishers is voluntary therefore catch records for 2009 are provisional.

3 Recorded in Torres Strait Docketbooks. Reporting of purchases of fish is not compulsory.

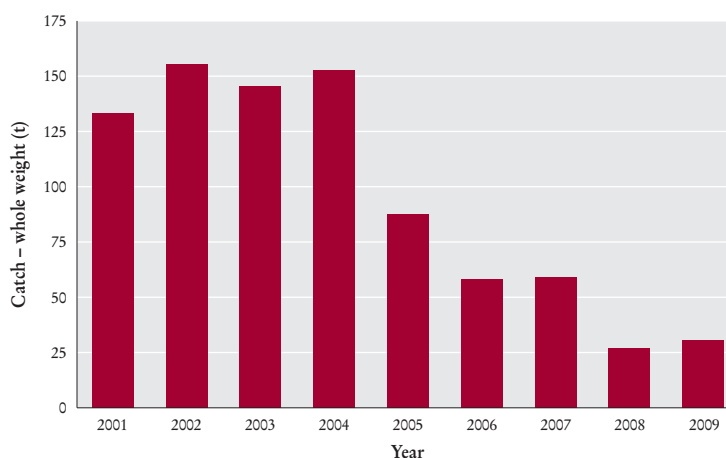




in the eastern Torres Strait. An unknown quantity of finfish is also taken during the course of traditional fishing.

*Table 2. Logbook catch data from the Torres Strait Finfish (Reef Line) Fishery (including catches from both TIB-licensed boats and Sunset-licensed boats) received during 2009.*

<i>Species</i>	<i>Catch (kg)</i>
Coral Trout	28,916
Red Emperor	185
Barramundi Cod	724
Other	5305
<b>Total</b>	<b>35,130</b>



*Figure 13. Catches of Coral Trout (Plectropomus sp.) in the Torres Strait Finfish (Reef Line) Fishery (Source: Logbook data 2001-2009, docket book data 2004-2009 and other records).*

### Strategic Assessment

The fishery was strategically assessed under the EPBC Act during 2008 and was formally accredited as a WTO in November 2008. DEWHA also provided a number of accreditation recommendations to improve the sustainability of the fishery. The export accreditation is valid until 25 November 2011 at which time the fishery will be re-assessed.



## CRAB

### Description of the fishery

The Torres Strait Crab Fishery (TSCF) primarily targets Mud Crab (*Scylla* spp.), however smaller quantities of Blue Swimmer Crab (*Portunus pelagicus*) have been retained in the past. The level of participation in the commercial fishery is low and restricted mainly to Saibai and Boigu where there is a large area of crab habitat.

All fishery participants are Traditional Inhabitants of Australia. Mud crabs are generally captured by hand or using scoop nets.

### Management objectives

The objectives for the TSCF have been developed in conjunction with the objectives of the Act and the Treaty. These objectives reflect the status of the fishery following the change in jurisdiction in 1999, from a fishery managed solely under Queensland law to one managed by the Commonwealth. The objectives adopted include:

- to manage the resource to achieve its optimum utilisation; and
- to maximise opportunities for Traditional Inhabitants of Australia and PNG to participate in the commercial fishery.

### Management arrangements

Participation in the TSCF is limited to Traditional Inhabitants. A number of management arrangements apply including:

- a prohibition on the take or possession of female crabs and Spanner Crabs (*Ranina ranina*);
- a limit of 50 prescribed crab apparatus per operator;
- no vessels greater than 14 m in length; and
- a minimum carapace length of 15 cm for Mud Crabs.

### Condition of the fishery

At 30 June 2010 there were 78 TIB fishers licensed to operate in the TSCF however no commercial activity was recorded in 2009.

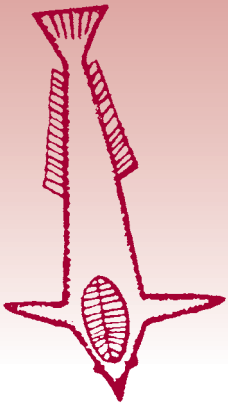




An unknown quantity of Mud Crab was taken in the course of traditional fishing. The status of crab stocks in the TSPZ is uncertain.

### **Strategic Assessment**

The TSCF has not been strategically assessed under the EPBC Act. It may in the future, depending on activity in the fishery.





## TROCHUS

### Description of the fishery

The Torres Strait Trochus Fishery (TSTF), targeting Trochus (*Trochus niloticus*), is a small, single-species commercial and traditional fishery reserved for Traditional Inhabitants of Australia. The fishery has been an important source of income for some Traditional Inhabitants, especially in the central and eastern Torres Strait communities; particularly between 1920 and 1950 and more recently during the 1980s. The fishery is characterised, like trochus fisheries elsewhere, by fluctuating fishing activity when the price paid for shell is economically attractive. The level of participation in the fishery has continued to decrease since 2006 in response to a fall in the price paid for the shell.

Trochus is usually taken by free diving with fishers generally operating from dinghies with a crew of two or three. Reef top collection of Trochus is also possible at low tide. In December 2005 the use of underwater breathing apparatus was formally banned.

### Management objectives

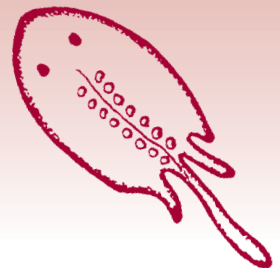
The objectives adopted for the TSTF during 2009–10 were:

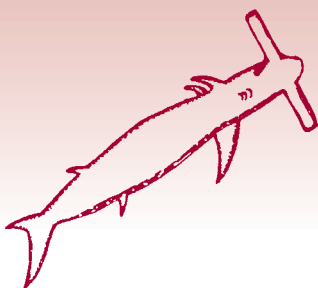
- to manage the resource to achieve its optimum utilisation;
- to maximise opportunities for Traditional Inhabitants of Australia; and
- to encourage Traditional Inhabitants to participate in the TSTF.

### Management arrangements

Participation in the TSTF is limited to Traditional Inhabitants of Australia.

The taking of Trochus is restricted to hand collection or by hand-held non-mechanical implements. The use of underwater breathing apparatus is not permitted. A minimum size limit of 80 mm and maximum size limit of 125 mm applies to all commercial fishing and there is a total TAC of 150 tonnes for the TSPZ.





### Condition of the fishery

As at 30 June 2010 there were 80 TIB licences with *Trochus* endorsements. Because of its small size, low value and lack of fishery data, a stock assessment of the fishery has not been possible.

The catch in the fishery during 2009 was approximately 1.5 tonnes (Figure 14). *Trochus* meat is often consumed by fishers' families or other members of the community and there is interest to find a viable market for *Trochus* shells as well as *Trochus* meat. The status of *Trochus* stocks in the TSPZ in 2009 was classified by ABARES as being not subject to overfishing, but uncertain with regard to being overfished.

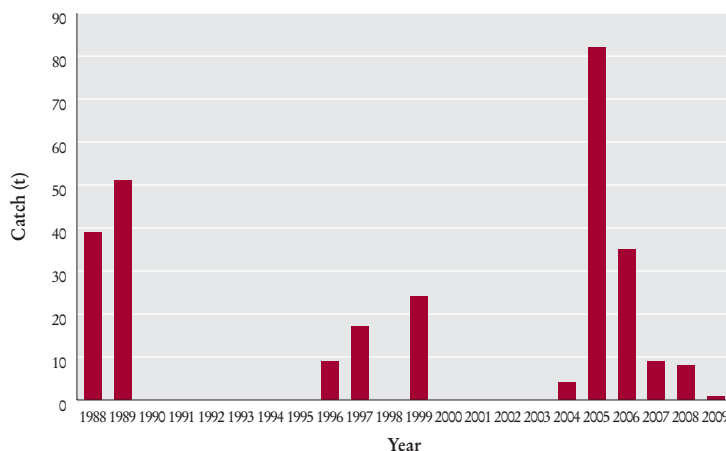


Figure 14. TSTF *Trochus* catch between 1988 and 2009. Data not available between 1990-1995 and 2000-2003 inclusive (Source: AFMA Docket book database).

Results from a 2009 survey of trochus in eastern Torres Strait indicate trochus stocks are stable or increasing in abundance, however with some uncertainty due to the patchy distribution of *Trochus*. A dedicated *Trochus* survey has been proposed to provide more certainty to the abundance estimates.

### Strategic Assessment

The TSTF was strategically assessed under the EPBC Act in 2008 and formally accredited a WTO on 25 November 2008 for continued export approval until 25 November 2011. The WTO



declaration is subject to the conditions and recommendations developed by DEWHA.

## ***BÊCHE-DE-MER (SEA CUCUMBER)***

### **Description of the fishery**

The Torres Strait Bêche-de-mer Fishery (TSBDMF) is an important commercial fishery to some Torres Strait Traditional Inhabitants. The fishery dates back to at least the 19<sup>th</sup> century or earlier. During its history there have been several “booms and busts” which have been a feature of these fisheries in most places.

Fishing for bêche-de-mer in the Torres Strait is mainly by free diving from dinghies crewed by two or three fishers or by hand collection along reefs at low tide. Once collected, the animal is gutted, graded, cleaned, boiled, smoked and dried. This is a labour-intensive process usually carried out on processing vessels or at shore-based facilities.

### **Management objectives**

Objectives adopted for the TSBDMF included in the Torres Strait Bêche-de-mer Fishery Statement of Management Arrangements<sup>4</sup> during 2009–2010 were:

- to ensure the sustainable use of all sea cucumber in Torres Strait;
- to ensure that utilisation of the sea cucumber resources is for the direct benefit of the Australian Traditional Inhabitants of the Torres Strait;
- to ensure increased involvement in the management and control of all aspects of the fishery by the Australian Traditional Inhabitants of the Torres Strait;
- to promote a cooperative approach to management with PNG; and
- in consultation with industry and traditional fishers, to ensure the recovery of the sandfish stock on Warrior Reef by adopting a precautionary approach when setting catch levels in the early years of rebuilding the fishery.



<sup>4</sup> The Torres Strait Bêche-de-mer Fishery Statement of Management Arrangements including these management objectives were endorsed at PZJA 18 (July 2005) and amended in 2008 to include new TACs for white teatfish and prickly redfish.



## Management arrangements

Participation in the TSBDMF is limited to Traditional Inhabitants only, with the exception of one long-term non-Traditional Inhabitant who was active in the fishery prior to the introduction of licence limitations in this fishery in late 1995.

Bêche-de-mer can only be taken by hand collection or hand-held non-mechanical implements and the use of hookah or scuba diving gear is not permitted.

A bag limit of three per person or six per boat applies to traditional fishing. A competitive TAC (measured in wet weight gutted) and size limits apply to commercial fishing. Three species currently have a zero TAC and are closed to fishing (Table 3). Boat sizes are also limited to a maximum of seven metres in length.

*Table 3. TACs and size limits of commercially harvested species in the TSBDMF. All species listed as ‘Combined TAC’ in the TAC column have a combined TAC of 80 tonnes (Source: Fisheries Management Notice No. 64).*

<i>Commercial Value</i>	<i>Common name</i>	<i>Scientific name</i>	<i>TAC (Tonnes)</i>	<i>Size Limits (mm)</i>
<b>High</b>	Sandfish	<i>Holothuria scabra</i>	0	180
	White Teatfish	<i>Holothuria fuscogilva</i>	15	320
	Black Teatfish*	<i>Holothuria whitmaei</i>	0	250
<b>Medium</b>	Surf Redfish	<i>Actinopyga mauritiana</i>	0	220
	Deepwater Redfish	<i>Actinopyga echinites</i>	Combined TAC	120
	Blackfish	<i>Actinopyga miliaris</i>	Combined TAC	220
	Prickly Redfish	<i>Thelenota ananas</i>	20	300
<b>Low</b>	Stonefish	<i>Actinopyga lecanora</i>	Combined TAC	NA
	Lollyfish	<i>Holothuria atra</i>	Combined TAC	150
	Elephant’s Trunkfish	<i>Holothuria fuscopunctata</i>	Combined TAC	240
	Greenfish	<i>Stichopus chloronotus</i>	Combined TAC	NA
	Curryfish**	<i>Stichopus hermanni</i>	Combined TAC	270
	Amberfish	<i>Thelenota anax</i>	Combined TAC	NA
	Brown Sandfish	<i>Bohadschia vitiensis</i>	Combined TAC	NA
	Leopardfish***	<i>Bohadschia argus</i>	Combined TAC	NA
	Pinkfish	<i>Holothuria edulis</i>	Combined TAC	NA

\* previously *H. nobilis*; \*\* previously *S. variegatus*; \*\*\* also known as Tigerfish



## Condition of the fishery

Bêche-de-mer is especially susceptible to overfishing because they are large, easily seen, easily collected, and do not require sophisticated fishing techniques. During the 1990s, the fishery was based primarily on Sandfish (*Holothuria scabra*), a high-value species occurring in relatively shallow waters, and as a result vulnerable to over-harvesting. Following concerns of serious resource depletion and overexploitation of Sandfish stocks on Warrior Reef, six fishery-independent surveys were commissioned to assess the level of reduction in Sandfish abundance in 1995–1996, 1998, 2000, 2002, 2004 and 2005. Following the 1998 survey the harvest of Sandfish was prohibited as results indicated the remaining stock on Warrior Reef was approximately 80 per cent less than three years earlier. Subsequent surveys did not record any substantial increase in stock. The 2004 survey indicated a further decline in stock abundance that may have been the result of illegal harvesting.

Following the closure of harvest for Sandfish, fishing switched to other high value species focused on Surf Redfish (*Actinopyga mauritiana*), Black Teatfish (*H. whitmaei*), White Teatfish (*H. fuscogilva*) and some lower-value species. The 2002 CSIRO survey on the eastern reefs of the Torres Strait indicated that the Black Teatfish and Surf Redfish had experienced significant declines in abundance, and as a result the PZJA set zero TACs for Surf Redfish and Black Teatfish, effectively closing the fishery for these two species. Another survey in 2005 showed no increase in abundance and the TAC of these two species remains set at zero.

The 2005 survey of the eastern Torres Strait reefs also resulted in the PZJA agreeing to set far more precautionary TACs for the White Teatfish and Prickly Redfish (*Thelenota ananus*) of 15 and 20 tonnes respectively in 2006. Setting single species quotas for both species was recommended by the then Minister for the Environment and Heritage.

Surveys in 2006 showed that the three species currently closed to fishing, Sandfish, Black Teatfish and Surf Redfish had not recovered from their low densities observed in previous surveys. Although there is zero recorded harvest of these species in docket books for 2008, the extent of illegal, unregulated or unreported harvest of these stocks is unknown and so the stocks are classified uncertain with regard to overfishing.







Of the remaining fished species, Prickly Redfish and White Teatfish showed decreases in average density and/or average size. While the report did not propose any changes to the recommended TACs of these species as catches have remained low since 2002, it led to the recommendation that they should be closely monitored through regular population surveys.

In 2009, CSIRO conducted a stock abundance survey of Bêche-de-mer and Trochus in eastern Torres Strait, particularly focussing on Black Teatfish. This survey included training and involving twelve Torres Strait Traditional Inhabitants in survey techniques. The survey results from the Bêche-de-mer baseline abundance survey in the Eastern Torres Strait found that Black Teatfish, currently with a zero TAC, showed signs of recovery with higher numbers and larger individuals being recorded compared to previous surveys. The survey also noted that other Bêche-de-mer species were showing stable or increasing abundance. The researchers recommended an increase in TAC for Black Teatfish from zero to 25 tonnes. This recommendation is being considered by the Hand Collectables WG in conjunction with community based harvest strategies.

- In 2010, a survey of Sandfish at Warrior Reef and the surrounding area was conducted and provisional results indicate some signs of stock recovery, although further analysis of these results is pending. The survey also identified potential uncertainty in the estimates of stock abundance due to difficulties of the survey techniques in recording Sandfish that are burrowed.
- Illegal fishing incursions by PNG nationals at Warrior Reef have reduced substantially since the closure of PNG's Bêche-de-mer fishery in October 2009. Australia has closely monitored activity on Warrior Reef since the commencement of the closure and pleasingly there has been no evidence to date of harvesting of Bêche-de-mer. Australia will continue to conduct surveillance of Warrior Reef and maintain a response capability in the area through AFMA's foreign surveillance team. Coastwatch flights also sweep the area daily.



There has been little or no reported catch from docket book returns since 2005 and low levels of activity in the fishery due to the poor market price for the remaining Bêche-de-mer species open to fishing. There was no reported commercial catch in the TSBDMF in 2009 (Figure 15).

At 30 June 2010 there were 48 TIB licences with Bêche-de-mer entries.

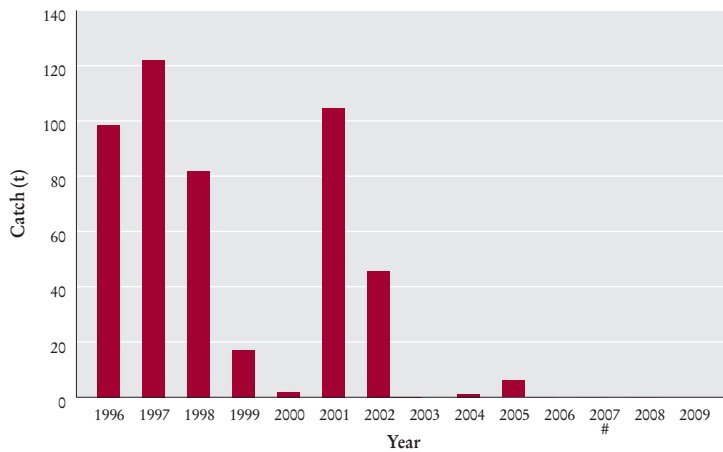


Figure 15. Total Torres Strait Bêche-de-mer catch between 1996 and 2009 (Source: Strategic & Export Annual Report, Torres Strait Bêche-de-mer Fishery, AFMA 2010).

# A limited amount of catch was reported in 2007, but due to confidentiality requirements the amount is not able to be reported.

### Strategic Assessment

The TSBDMF was strategically assessed under the EPBC Act during 2005 and was formally accredited as a WTO on 18 June 2008. It was accredited as a WTO for three years, until 18 June 2011. This WTO declaration is subject to conditions and recommendations developed by DEWHA.





## 6 LICENSING

Fishing boat licences are required to fish commercially in all PZJA fisheries. Three types of fishing boat licences exist:

- Traditional Inhabitant Fishing Boat Licences (TIB);
- Torres Strait Fishing Boat Licences (TVH); and
- Torres Strait Sunset Fishing Boat Licences.

TIB licences are exclusively for Australian Traditional Inhabitants, that is:

- Torres Strait Islanders;
- Aboriginal people from five Northern Peninsula Area communities (Bamaga, Injinoo, New Mapoon, Seisia, and Umagico);
- certain former Papua New Guineans who are now Australian citizens; or
- licensees who are resident in the TSPZ or the outside but near area. TIB's must be fully owned and operated by Australian Traditional Inhabitants. Certain fisheries are restricted to Australian Traditional Inhabitants only, and therefore the entries for these fisheries are only found on TIB licences.

TVH licences can be owned by either Australian Traditional Inhabitants or non-traditional Inhabitant Australians. A Torres Strait Master Fisherman's Licence is required to operate this type of licensed boat. The Torres Strait Master Fisherman's Licence must also have fishery entries appropriate to operate the boat (Table 4).

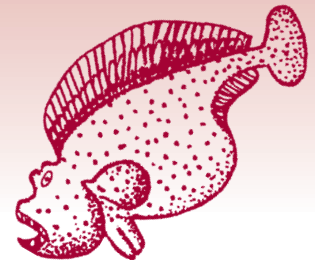
The numbers of licences issued or renewed by the PZJA during 2009–10 which were current as at 30 June 2010 are provided in Tables 4 to 7. Numbers provided for boat licences exclude those held in "No Boat" status.

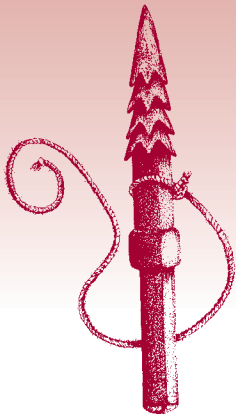


Under catch sharing arrangements set out in the Treaty, PNG is entitled to 25 per cent of the fishing catch or effort in the Australian area of the TSPZ. The PZJA have been working towards introducing TACs in the TRL, Reef Line, and Spanish Mackerel fisheries and a reallocation of these resources in order to meet the Australian Government’s obligations to PNG, and to redistribute a greater share of the total allowable catches to Australian Traditional Inhabitants.

During 2007–08, the Australian government successfully negotiated a voluntary surrender of all Reef Line and Spanish Mackerel fishery endorsements within the TVH sector (or the whole licence if no other endorsements appeared on the licence). The surrender process was finalised on 30 June 2008. Whilst access to both the Reef Line and Spanish Mackerel fisheries is now fully restricted to Traditional Australians and PNG nationals holding a TIB Licence, a ‘quota leasing system’ has been introduced to allow the temporary transfer of effort to non-Traditional Inhabitants. The intent of this system is to maintain the market for these fisheries by ensuring ongoing supply of product from the TSPZ until a point where the Traditional Inhabitant effort increases to an appropriate level. This process is administered via the issuing of sunset licences.

Sunset Fishing Boat Licences can only be owned by the TSRA. These licences have been granted for the purposes of temporarily transferring some of the unused effort in the Reef Line and Spanish Mackerel fisheries to non-Traditional Inhabitants. A Torres Strait Master Fisherman’s Licence is also required to operate this type of licensed boat.





*Table 4. Number of Master Fisherman's licences by combinations of Torres Strait fisheries (current as at 30 June 2010).*

<i>Fishery</i>	<i>Licences</i>
Tropical rock lobster	18
Tropical rock lobster, reef line, Spanish mackerel, and pearl	6
Tropical rock lobster, reef line, and prawn	1
Tropical rock lobster, reef line, Spanish mackerel, pearl, and prawn	4
Tropical rock lobster, and Spanish mackerel	1
Tropical rock lobster, Spanish mackerel, and pearl	42
Tropical rock lobster and pearl	3
Reef Line	5
Reef line and Spanish mackerel	4
Reef line, Spanish mackerel, and prawn	4
Reef line and prawn	61
Spanish mackerel	8
Pearl	4
Prawn	45
Bêche-de-mer	3
<b>Total</b>	<b>209</b>

*Table 5. Number of Traditional Inhabitant Boat licences in each Torres Strait fishery (current as at 30 June 2010).*

<i>Fishery</i>	<i>Licences</i>
Bêche-de-mer	48
Crab	78
Tropical rock lobster	298
Reef line	145
Spanish Mackerel	161
Pearl shell	46
Trochus	80

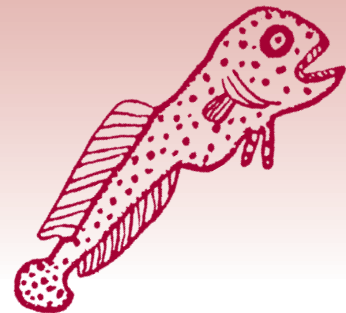


*Table 6. Number of Torres Strait Fishing Boat Licences in each Torres Strait fishery (current as at 30 June 2010). Numbers provided for boat licences exclude those held in “No Boat” status.*

<i>Fishery</i>	<i>Primary</i>	<i>Tenders</i>	<i>Total</i>
Bêche-de-mer	0	0	0
Tropical rock lobster	13	33	46
Pearl shell	11	20	31
Prawn	41	0	41
Torres Strait fisheries which are not covered by a Fisheries Management Notice <sup>5</sup>	2	12	14

*Table 7. Number of Torres Strait Sunset Fishing Boat Licences in each Torres Strait fishery (current as at 30 June 2010). Numbers provided for boat licences exclude those held in “No Boat” status.*

<i>Fishery</i>	<i>Primary</i>	<i>Tenders</i>	<i>Total</i>
Reef line	1	4	5
Spanish Mackerel	4	9	13



<sup>5</sup> In 2004–05, the PZJA implemented a process to remove latent (unused) effort from the TRL and Finfish fisheries. This has resulted in a number of licences that no longer have any specific fishery entries. These “non-endorsed” licences still allow the operators to catch fish species that are not subject to specific management arrangements under a Fishery Management Notice (such as squid).



## 7 SURVEILLANCE AND ENFORCEMENT

### BACKGROUND

The purpose of the surveillance and enforcement program is to:

- carry out surveillance and enforcement duties to support the legislation and the policies of the PZJA;
- provide an education and extension service for both traditional and commercial fishers to enhance the development and management of the fisheries within the TSPZ; and
- Undertake such duties as required by the PZJA to protect TSPZ resources and to enhance their exploitation by persons permitted to utilise these resources in keeping with the spirit of the Treaty between Australia and PNG.

The program is run by the Queensland Boating and Fisheries Patrol (QBFP) out of its office on Thursday Island. The office is staffed by:

- one District Officer;
- one Field Officer; and
- one Administrative Assistant.

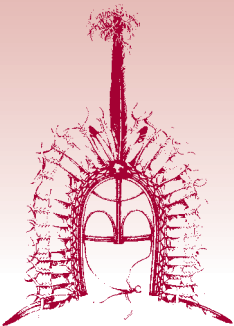
In addition, Field Officers are made available from other QBFP Districts to assist with resource allocation.

The program is planned as an at-sea surveillance program.

The program is achieved by a number of surface platforms, including the Queensland Police service and locally based Departmental vessels.

### PROGRAM OUTCOMES

The QBFP have recently trialled the Queensland Police Service vessel as a patrol platform and staff may be teamed along side Police Officers when performing field duties. This agreement commenced in March 2010. Previously the District utilised a private charter vessel.





Utilising other Government resources such as Police improves the Districts ability to patrol and enforce fisheries legislation throughout the TSPZ.

Additionally the District has a number of resources that may be used to accommodate a response when the need arises. These platforms can include other Government resources such as the Royal Australian Navy and other private commercial vessels that may be chartered.

### *Royal Australian Navy*

The vessel was not used.

### *Locally based QBFP*

The QBFP has two commercially registered departmental vessels that are used to conduct local fishery and marine safety patrols.

#### 1) Patrol Vessel *Pelagic* 6.7 metre

The vessel is capable of achieving patrols of the Prince of Wales group of islands and some of the closer island communities

#### 2) Patrol Vessel *Sea Jay* 4.3 metre

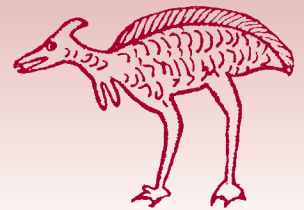
The 4.3 M vessel is used to patrol the local port area only and respond to local complaints.

### *Community Visits*

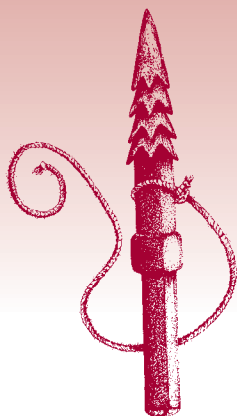
Whilst not a key role of QBFP, the District does, in addition to inspections within the various fisheries, perform extension services such as community visits. These visits are imperative for achieving voluntary compliance. During 2009–10 the QBFP visited the following communities:

- Badu;
- Poruma;
- Erub;
- Mabuiag; and
- Masig

Community visits are also used to gain intelligence which provides useful information for forecasting TSPZ patrols. These may include trends and hot spots. The visits further allow stakeholders to liaise with officers and access information on issues pertaining to commercial, traditional and recreational fishing as well as boating safety issues.







Issues arising from community visits include

- licensing procedures;
- unlicensed fishing; and
- confusion as to the licensing requirements for Traditional Inhabitants who wish to exercise their traditional rights in regards to traditional fishing.

QBFP continue to commit to educating operators whilst performing field compliance duties.

Patrols have focused on the following fisheries with a summary of issues below:

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#### *Bêche-de-mer*

- Take of no take species (Sandfish, Black Teatfish, Surf Redfish); and
- Unlicensed fishing.

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#### *Pearl Shell*

- Nil

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#### *Prawn*

- Failure to produce documentation (vessel's fishing authority, vessel's fishing and safety manuals including manning certificates); and
- Failure to carry safety equipment in accordance with registration requirements.

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#### *Reef Line/Spanish Mackerel*

- Low knowledge of current fishery legislation (take/no take species); and
- Failure to carry safety equipment in accordance with registration requirements.

---

#### *Dugong/Turtle*

- Lack of knowledge of the fishery sanctuary;
  - Non traditional persons participating in activity
  - Reported sale of Dugong and Turtle products; and
  - Failure to carry safety equipment in accordance with registration requirements.
-



### *Tropical Rock Lobster*

- Failure to hold a Torres Strait Master Fisherman’s Licence;
- Failure to complete a variation when replacing tenders;
- Failure to comply with conditions of a licence;
- Lack of knowledge of relevant licensing conditions;
- Taking/retaining undersized lobster;
- Failure to produce documentation (manning certificates); and
- Failure to carry safety equipment in accordance with registration requirements.

## **OVERALL PROGRAM OUTCOMES**

During 2009–10 QBFP achieved a total of 62 patrol days. The table below identifies the patrol platform used to achieve patrol.

*Table 8. Patrol platform used to achieve patrol.*

Private charter	24
Queensland Police vessel	10
Departmental assets	28
<b>Total</b>	<b>62</b>

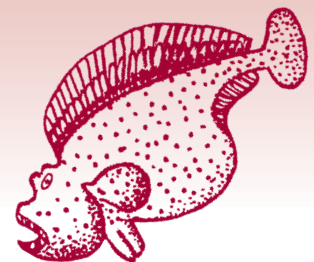
### *District Operational Achievements*

The District underwent a restructure during 2009-10, which aimed at improving the efficiency and effectiveness of the compliance program. This includes:

- a move towards utilising other government resources such as Police vessels; and
- the use of contingency resources to accommodate a response when the need arises.

### *District Compliance Priorities*

Key priorities in the TSPZ have been determined through a Compliance Risk Assessment process shown at Table 9.



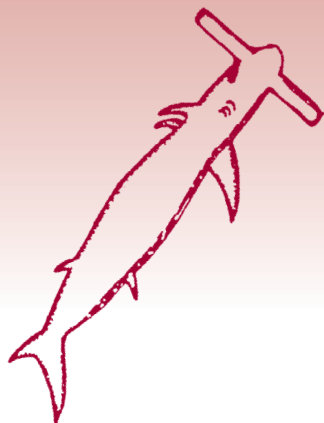


Table 9. Key compliance priorities in the TSPZ.

<i>Fisbery</i>	<i>Enforcement Priorities</i>	<i>Targeted Days</i>	<i>Achieved Days</i>
Bêche-de-mer	<ul style="list-style-type: none"> <li>• Unlicensed (PNG nationals taking BDM within TSPZ)</li> <li>• Take of no take species</li> </ul>	4	0
Reef Line/ Spanish Mackerel	<ul style="list-style-type: none"> <li>• Unlicensed</li> <li>• Excess tenders</li> </ul>	10	0
Pearl Shell	<ul style="list-style-type: none"> <li>• Unlicensed</li> </ul>	2	1
Prawn	<ul style="list-style-type: none"> <li>• Vessel Monitoring System</li> <li>• Bycatch Reduction Device/Turtle Exclusion Device</li> <li>• Gear restriction</li> <li>• Shark finning</li> <li>• Bycatch (TRL)</li> </ul>	26	21
TRL	<ul style="list-style-type: none"> <li>• Unlicensed tenders</li> <li>• Size restriction</li> <li>• Closures</li> </ul>	77	39
Turtle and Dugong	<ul style="list-style-type: none"> <li>• Non-Traditional Inhabitant take</li> <li>• Gear restriction</li> </ul>	2	1

A total of 62 days were achieved from a targeted 121.

The above table shows that not all of the targeted days were achieved throughout the reporting period.

The following factors contributed to the District's inability to achieve the targeted at sea days:

- mechanical breakdowns and unsuitable weather conditions;
- restricted access to suitable vessels and the remote nature of Torres Strait fisheries;
- charter platform not available at required patrol times (seasonal fisheries)



DEEDI is committed to protecting the resources of the TSPZ by ensuring that PZJA policies and legislation are adhered to. Targeted days at sea during 2009–10 were not completed due to a lack of vessel availability. While the addition of Queensland Police vessel did assist but did not totally resolve this issue, PZJA agencies are continuing to explore avenues to make better use of shared resources within the Torres Strait.





## 8 RESEARCH PROGRAMS

The re-formed SAC in 2009–10 developed a number of transparent operating procedures to facilitate its tasks.

A five-year Strategic Research Plan and Annual Operational Plan for Torres Strait Fisheries were developed and evaluation processes for assessing research projects and proposals were formalised. The SAC is continuing to focus on supporting strategic, efficient and coordinated fisheries research in the Torres Strait. The SAC has continued to provide independent advice on strategic direction for fisheries research in the Torres Strait to the PZJA. It also recommends research projects for funding to AFMA or, where appropriate, to other funding providers.

In 2009-10 four research initiatives recommended by the SAC were funded by AFMA:

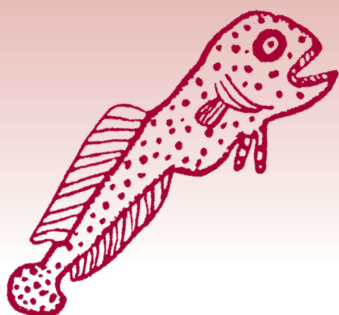
Table 10. Research projects.

<i>Research project</i>	<i>Research provider</i>	<i>Principal Investigator</i>
Recovery of the <i>Holothria scabra</i> (sandfish) population on Warrior Reef, Torres Strait	CSIRO	Mr Tim Skewes
Refined stock assessment and TAC estimation for the TSTRLF	CSIRO	Dr Eva Plaganyi-Lloyd
An Integrated Management Strategy Evaluation (MSE) for the TSTRLF	CSIRO	Dr Eva Plaganyi-Lloyd
Development of Cultural Protocols for Torres Strait	Private consultant	Professor NM Nakata

In 2009–10, one Torres Strait research project was completed:

Table 11. Research project completed.

<i>Research project</i>	<i>Research provider</i>	<i>Principal Investigator</i>
Sustainable harvest strategies for the Torres Strait Hand Collectables fisheries	CSIRO	Mr Tim Skewes





## 9 FINANCIAL ARRANGEMENTS

### COST SHARING

The Commonwealth (represented by AFMA) and the State of Queensland (represented by DEEDI-QPI&F) have joint responsibilities for administering certain PZJA fishery functions (e.g. fisheries management, licensing and compliance). There is a cost share arrangement (CSA) between the two parties initially signed in January 1986 and updated in 1999, and again in 2010. The 1999 CSA specifies amongst other matters, how costs are shared and acquitted during each financial year and how assets are managed.

AFMA and QPI&F jointly reviewed the 1999 CSA during 2009 in response to a 2008 PZJA decision. Both QPI&F and AFMA identified the requirement to equally share costs and revenue through an annual acquittal process placed a significant financial risk upon each agency. There was a high probability that either agency could incur a significant unfunded and unbudgeted liability at the end of each financial year.

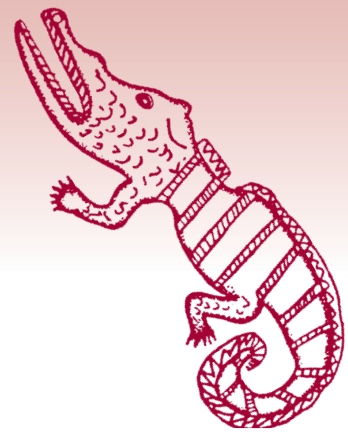
A new CSA has been agreed and maintains the existing sharing of PZJA functions but avoids the risk of unbudgeted expenditure. The agreement was signed in June 2010 by the Chief Executive Officer of AFMA and by the Managing Director of QPI&F and applies to the 2009–10 financial year onwards.

### CAPITAL ITEMS

Implementation of the initial capital items program, fully funded by the Commonwealth, began in 1985–86 and was completed in the first half of the financial year 1991–92. The capital items purchased as at 30 June 1999 and still held include:

- a joint fisheries/quarantine administrative centre on Thursday Island; and
- the regional fisheries manager's and QPI&F District Officer's residences on Thursday Island.

In 2010, AFMA finalised the purchase of a regional staff residence costing \$620,025.





The acquisition costs of replacement capital items purchased since then are shared equally between the Commonwealth and Queensland governments.

Extensive remedial works to the Thursday Island administrative centre were undertaken in July–August 2009 at a cost of \$512,000. These expenses were cost shared between the Commonwealth and Queensland government agencies that occupy the building (AFMA 29.5 per cent; AQIS 41 per cent; Queensland government 29.5 per cent). Of these costs, \$492,212 was capital expenditure.

## RESEARCH COSTS

Research costs are not subject to the CSA. The Commonwealth and Queensland governments separately fund fisheries research in the TSPZ in accordance with the overall State and Commonwealth research programs approved by the respective Ministers. The research costs are shown in the Table 12.

Table 12. Research costs incurred during 2009–10.

<i>Government</i>	<i>Costs</i>
<b>Commonwealth</b>	
TRL Stock Assessment and TAC Setting	\$338 461
Development of Cultural Protocols for Torres Strait	\$10 876
Recovery of <i>Holothuria scabra</i> (Sandfish) population on Warrior Reef, Torres Strait	\$79 600
An integrated Management Strategy Evaluation (MSE) for the Torres Strait Tropical Rock Lobster population	\$150 000
<b>Total Torres Strait Research</b>	<b>\$578 937</b>



## BUDGETED COSTS

Whilst AFMA's and QPI&F's direct fisheries management costs are subject to the CSA, the costs of the other agencies that contribute to the management of the PZJA fisheries are not. The overall budget for managing the PZJA fisheries during 2009–10 is outlined in Table 13.

Table 13. 2009–10 Overall PZJA Budget.

Description	AFMA	DEEDI	DAFF	TSRA	Total
<b>Direct Costs</b>					
Salaries & On-costs	\$1,013,521	\$716,202	\$235,000	\$258,419	\$2,114,784
Consultants and Contractors	\$341,293	\$280,000	\$10,000	\$87,412	\$588,156
Travel & Subsistence	\$211,639	\$80,000	\$35,000	\$40,000	\$592,214
Other Administrative Costs	\$539,179	\$99,000		\$55,897	\$694,986
<b>Total Direct Costs</b>	<b>\$2,105,632</b>	<b>\$1,175,202</b>	<b>\$280,000</b>	<b>\$441,728</b>	<b>\$3,990,140</b>
<b>Overheads</b>	<b>\$604,844</b>	<b>\$546,779</b>		-	<b>\$1,194,841</b>
<b>Research</b>	<b>\$648,131</b>				<b>\$706,600</b>
<b>Research Administration</b>					<b>\$200,000</b>
<b>Indirect Costs</b>					
Logbook program	\$25,264				\$34,526
Data Management	\$103,142				\$16,377
Compliance	\$291,756				\$79,985
Observers	\$43,786				\$147,841
Vehicle lease/operating costs		\$20,000			\$20,000
Information Services (VMS polling)		\$18,000			\$18,000
Leased asset costs		\$20,000			\$20,000
<b>Total Indirect Costs</b>	<b>\$463,948</b>	<b>\$58,000</b>			<b>\$336,729</b>
<b>Depreciation</b>	<b>\$25,472</b>				
<b>Income from licences and levies</b>	<b>\$480,130</b>				
<b>Total Costs</b>	<b>\$3,367,897</b>	<b>\$1,779,981</b>	<b>\$280,000</b>	<b>\$441,728</b>	<b>\$6,428,310</b>





## ANNEX A: PZJA OUTCOMES 2009–10

The following decisions were made by the PZJA by correspondence on 30 December 2009:

### With respect to the TSTRLF:

- 1.1 The PZJA **AGREED** to the following management arrangements for the TSTRLF for 2010:
  - a. A 7 day moon-tide hookah closure; and
  - b. A 30% tender reduction for TVH fishers.
- 1.2 The PZJA **AGREED** that the interim management arrangements will be for 2010 only and that any future management arrangements will only be introduced if they support the outcomes the TRL 5 year business plan.
- 1.3 The PZJA **NOTED** that other management options have been identified, however these should wait until the TRL 5 year business plan is complete.

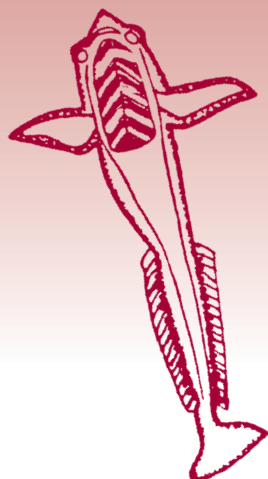
The following decisions were made by the PZJA by correspondence on 25 November 2009:

### With respect to the TSPF 2010 Total Allowable Effort:

- 1.1 The Torres Strait PZJA **AGREED**:
  - a. that the maximum combined TAE in the TSPF should be capped at 9,200 fishing days for the 2010 season, consistent with the PZJA sustainability reference point; and
  - b. that the PNG share of the fishery, as offered by PNG at the 2009 Australian-PNG fisheries bilateral meeting, should not initially be made available to Australian operators for the 2010 season.

### With respect to the 2009–10 PZJA Budget

- 1.1 The PZJA **NOTED**:
  - a. the change in CSA for the PZJA fisheries for the 2009–10 financial year;





- b. that QPI&F and AFMA will independently brief their respective Ministers on these changes to seek their endorsement; and
- c. the indicative budget for all PZJA Agencies for the 2009–10 financial year.

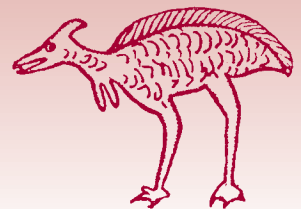
**With respect to the TSPF Levies for the 2010 Season:**

**1.1 The PZJA AGREED:**

- a. to the levy for the TSPF in 2010 continuing to be calculated using the current formula for fixed (licences) and variable (effort units) components noting that the variable component of the levies will be charged on a per unit basis as described in the TSPF Management Plan 2009;
- b. to the setting of levies for the TSPF for the 2010 fishing season at \$4,229.06 per licence and \$27.23 per effort unit;
- c. to the proposed *Fisheries Levy (Torres Strait Prawn Fishery) Amendment Regulations 2009 (No. 2)*, Explanatory Memorandum and Explanatory Statement; and
- d. to the PZJA Chair presenting the Explanatory Statement, along with the proposed *Fisheries Levy (Torres Strait Prawn Fishery) Amendment Regulations 2009 (No. 2)* to the Federal Executive Council at their 12 November 2009 or subsequent Executive Council meeting to ensure that licences can be granted for the 2010 fishing season, commencing on 1 March 2010.

**1.2 The PZJA NOTED:**

- a. the TSPMAC considered the TSPF levies for the 2010 season at an out-of-session meeting on 26 August 2009;
- b. that these levy amounts have been set using both AFMA and QPI&F budgets;
- c. that the per licence levy has decreased from \$5,833.39 in 2009 to \$4,229.06 in 2010 (\$1604.33 decrease) and the per unit levy has decreased from \$32.35 in 2009 to \$27.23 in 2010 (\$5.12 decrease); and





- d. that for the 2009–10 financial year, the total levy to be collected is \$444,951 comprising a QPI&F component of \$186,471 and an AFMA component of \$258,480. Of the total to be collected, QPI&F will retain \$186,471 to meet their expenses and provide \$258,480 to AFMA to meet AFMA expenses.





## ANNEX B: PZJA ADVISORY COMMITTEE AND TORRES STRAIT CONSULTATIVE STRUCTURE: MEMBERSHIP AND MEETING FREQUENCY

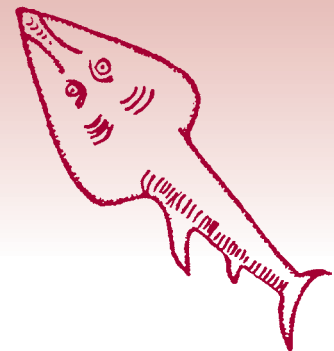
### PROTECTED ZONE JOINT AUTHORITY (PZJA)

- The Hon. Tony Burke, MP, Commonwealth Minister for Agriculture, Fisheries and Forestry;
- The Hon. Tim Mulherin, MP, Queensland Minister for Primary Industries and Fisheries; and
- Mr John T. Kris, Chair of the Torres Strait Regional Authority.

### MEMBERSHIP OF TORRES STRAIT CONSULTATIVE BODIES

Protected Zone Joint Authority Standing Committee:

<i>REPRESENTATION</i>	<i>MEMBER</i>
DAFF (Chair)	General Manager Fisheries
AFMA	Chief Executive Officer
DEEDI (QPI&F)	Deputy Director General Fisheries
TSRA	General Manager





### Torres Strait Fisheries Management Advisory Committee (TSFMAC):

<i>REPRESENTATION</i>	<i>MEMBER</i>
Chair	Mr John Pollock
Executive Officer	AFMA
CFG – Badu Island	Mr Maluwap Nona
CFG – Bamaga	Mr Clifford Waisu
CFG – Boigu Island	Mr Dimas Toby
CFG – Coconut (Poruma) Island	Mr Francis Pearson
CFG – Darnley (Erub) Island	Mr Leslie Pitt
CFG – Dauan Island	Mr Thomas Mooka
CFG – Hammond Island	VACANT – TBD
CFG – Horn (Ngurapai) Island	Mr Pearson Wigness
CFG – Injinoo	Mr Robert Bagie
CFG – Mabuiag Island	Mr Allan Repu
CFG – Moa Island (St Pauls Community)	Mr John Wigness
CFG – Moa Island (Kubin Community)	VACANT – TBD
CFG – Murray (Mer) Island	Mr James Bon
CFG – New Mapoon	Mr Trevor Lifu
CFG – Prince of Wales (Muralag) Island	Mr Yen Loban
CFG – Saibai Island	Mr Jerry Babia
CFG – Seisia	Mr Harold Townsend
CFG – Stephen (Ugar) Island	Mr William Stephen
CFG – Thursday (Waiben) Island (Port Kennedy)	Mr Graham Hirakawa
CFG – Umagico	Mr Connie Young
CFG – Warraber Island	Mr Nathan Pearson
CFG – Yam (Iama) Island	Mr Charles David
CFG – Yorke (Masig) Island	Mr Gavin Mosby
Fish Receiver representative	Mr Daniel Takai
Tropical Rock Lobster – non-Traditional Inhabitant	Dr Ray Moore
Tropical Rock Lobster – non-Traditional Inhabitant	Mr Brett Arlidge





<i>REPRESENTATION</i>	<i>MEMBER</i>
Finfish (Reef Line) – non-Traditional Inhabitant	VACANT – TBD
Finfish (Spanish Mackerel) – non-Traditional Inhabitant	VACANT – TBD
Scientific Member (TSSAC Chair)	Mr Ian Cartwright
TSRA	TSRA Fisheries Coordinator
DEEDI*	Manager (Fisheries Resources)
DEEDI	Senior Fisheries Management Officer
AFMA	Senior Manager (TS Fisheries)
AFMA	Torres Strait Fisheries Manager (TI)
DEWHA*	Sustainable Fisheries Officer

\* Denotes Permanent Observer Status

### Torres Strait Prawn Management Advisory Committee (TSPMAC):

<i>REPRESENTATION</i>	<i>MEMBER</i>
Chair	Mr Jim Gillespie
Executive Officer	AFMA
CFG – Coconut (Poruma) Island	Mr Francis Pearson
CFG – Yam (Iama) Island	Mr Charles David
CFG – Yorke (Masig) Island	Mr Gavin Mosby
Prawn, non-Traditional Inhabitant	Ms Kylie Paulsen
Prawn, non-Traditional Inhabitant	Mr Marshall Betzel
Prawn, non-Traditional Inhabitant	Mr Chris Bourke
Prawn, non-Traditional Inhabitant	Mr Ron Earle
Prawn, non-Traditional Inhabitant	VACANT – TBD
TSRA	Fisheries Policy Officer
AFMA	Senior Manager (TS Fisheries)





<i>REPRESENTATION</i>	<i>MEMBER</i>
AFMA	Torres Strait Fisheries Manager (TI)
DEEDI	Scientific Member
DEEDI	Manager (Fisheries Resources)
DEEDI	Senior Fisheries Management Officer
QBFP	Compliance Member
Papua New Guinea*	NFA Fisheries Officer
Papua New Guinea*	NFA Fisheries Officer
DFAT*	Treaty Liaison Officer
DAFF*	Policy Officer
DEWHA*	Environment Officer
ABARES*	Economist

\* Denotes permanent observer status

#### **Torres Strait Scientific Advisory Committee (TSSAC):**

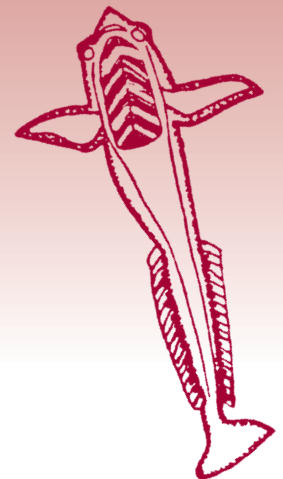
<i>REPRESENTATION</i>	<i>MEMBER</i>
Chair	Mr Ian Cartwright
Executive Officer	AFMA
Scientific Member – Social/Economic Scientist	Ms Sevaly Sen
Scientific Member	Dr Michael O'Neill
Scientific Member	Dr Roland Pitcher
Scientific Member	Dr Stephen Newman
Industry Member	Mr Tony Vass
Community Fisher Representative	Mr Charles David (TI)
AFMA Member	Dr Annabel Jones
DEEDI Member	Senior Fisheries Management Officer
TSRA Fisheries Officer*	TSRA Fisheries Coordinator
PNG NFA Representative	PNG

\* Denotes permanent observer status



### Torres Strait Finfish Working Group (TSFFWG):

<i>REPRESENTATION</i>	<i>MEMBER</i>
Chair	VACANT – TBD
Executive Officer	AFMA
CFG – Coconut (Poruma) Island	Mr Francis Pearson
CFG – Darnley (Erub) Island	Mr Leslie Pitt
CFG – Murray (Mer) Island	Mr James Bon
CFG – Stephens (Ugar) Island	Mr William Stephen
CFG – Yorke (Masig) Island	Mr Gavin Mosby
CFG – Warraber Island	Mr Nathan Pearson
Finfish (Reef Line) – non-Traditional Inhabitant	VACANT – TBD
Finfish (Spanish Mackerel) – non-Traditional Inhabitant	VACANT – TBD
Finfish – non-Traditional Inhabitant	President of QSIA
Scientific Member	VACANT – TBD
TSRA Fisheries Officer	TSRA Fisheries Coordinator
AFMA	TS Fisheries Manager (TI)
DEEDI	Senior Fisheries Management Officer
QBFP (Compliance)	District Officer



### Torres Strait Tropical Rock Lobster Working Group (TSTRLWG):

<i>REPRESENTATION</i>	<i>MEMBER</i>
Chair	VACANT – TBD
Executive Officer	AFMA
CFG – Badu Island	Mr Maluwap Nona
CFG – Mabuiag Island	Mr Allan Repu
CFG – Prince of Wales (Muralag) Islands	Mr Yen Loban
CFG – Thursday (Waiben) Island (Port Kennedy)	Mr Graham Hirakawa
CFG – Yam (Iama) Island	Mr Charles David





<i>REPRESENTATION</i>	<i>MEMBER</i>
CFG – Yorke (Masig) Island	Mr Gavin Mosby
Tropical Rock Lobster – non-Traditional Inhabitant	Dr Ray Moore
Tropical Rock Lobster – non-Traditional Inhabitant	Mr Phillip Hughes
Tropical Rock Lobster – non-Traditional Inhabitant	Mr Brett Arlidge
DEEDI	Senior Fisheries Management Officer
AFMA	Torres Strait Fisheries Manager (TI)
TSRA	Fisheries Coordinator & Policy Officer
Scientific Member	CSIRO
QBFP (Compliance)	District Officer

#### **Torres Strait Hand Collectables Working Group (TSHCWG):**

<i>REPRESENTATION</i>	<i>MEMBER</i>
Chair	Mr. Kenny Bedford (Interim)
Executive Officer	AFMA
CFG – Badu Island	Mr Maluwap Nona
CFG – Darnley (Erub) Island	Mr Leslie Pitt
CFG – Murray (Mer) Island	Mr Dennis Passi
CFG – Warraber island	Mr Nathan Pearson
CFG – Yam (Iama) Island	Mr Charles David
CFG – Yorke (Masig) Island	Mr Gavin Mosby
TVH Industry Member	Mr Nyall Ledger
Industry Member	Mr Grant Leeworthy (Tasmanian Seafoods)
Scientific Member	CSIRO
TSRA	Fisheries Coordinator
AFMA	TS Fisheries Manager (TI)
DEEDI	Senior Fisheries Management Officer

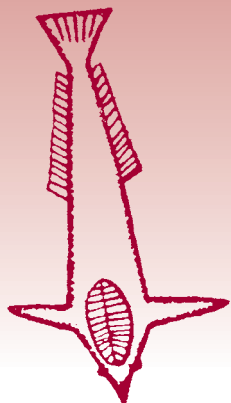


**Torres Strait Tropical Rock Lobster Resource Advisory Group (TSTRLRAG):**

<i>REPRESENTATION</i>	<i>MEMBER</i>
Chair	Mr John Pollock
Executive Officer	AFMA
Queensland Industry	Mr Brett Arlidge
DEEDI Scientist	Senior Fisheries Biologist
Torres Strait Fishery (PNG)	NFA Manager PNG-Torres Strait Fisheries
Torres Strait Industry (PNG Indigenous rep)	Mr Meremi Maina
Torres Strait Industry (Australian Indigenous rep)	Mr Graham Hirakawa
Torres Strait Industry (Australian TVH rep)	VACANT – TBD
Scientific Member	CSIRO
Independent Fisheries Scientist	Mr Nokome Bentley
Bureau of Rural Sciences	Fisheries Scientist
TSRA	Fisheries Coordinator
AFMA	TS Fisheries Manager (TI)
DEEDI	Senior Fisheries Management Officer
GBRMPA*	Senior Project Manager
PNG*	NFA Fisheries Officer

\* Denotes Permanent Observer Status





## MEETINGS

- **Protected Zone Joint Authority**  
No meetings
- **Torres Strait Fisheries Management Advisory Committee**  
Meeting No. 11: 11–12 November 2009
- **Torres Strait Scientific Advisory Committee**  
Meeting No. 50: 5–6 October 2009  
Meeting No. 51: 12 April 2010 (Teleconference)  
Meeting No. 52: 16 June 2010
- **Torres Strait Prawn Management Advisory Committee**  
Out of Session Meeting: 10 August 2009  
Out of Session Meeting: 26 August 2009  
Meeting No. 9: 8–9 December 2009  
Meeting No. 10: 30 June–1 July 2010
- **Torres Strait Finfish Working Group**  
Meeting: 22 July 2009  
Meeting: 31 March 2010
- **Torres Strait Tropical Rock Lobster Working Group**  
No meetings
- **Torres Strait Hand Collectables Working Group**  
Meeting No. 3: 5–6 August 2009
- **Torres Strait Tropical Rock Lobster Resource Assessment Group**  
Meeting No. 8: 7–8 October 2009



## ANNEX C: TORRES STRAIT FISHERIES RELATED REPORTS 2009–10

### Reports Cited

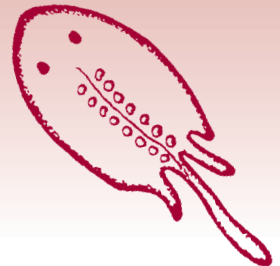
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Kertesz, M., Cocking, L., Turnbull, C., Gaddes, S. and Wilson, D. (2010). *Torres Strait Prawn Fishery Handbook 2009*, Australian Fisheries Management Authority. Canberra, Australia.

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Wilson, D., Curtotti, R., Begg, G. and Phillips, K. (eds). (2010). *Fishery status reports 2009: status of fish stocks and fisheries managed by the Australian Government*. Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra.





## **ANNEX D: FREEDOM OF INFORMATION ACT AND OCCUPATIONAL HEALTH AND SAFETY ACT STATEMENTS**

Information relating to the *Freedom of Information Act 1982* and *Occupational Health and Safety (Commonwealth Employment) Act 1991* with respect to Torres Strait fisheries is contained within the annual report issued by AFMA.

