

**Draft DEWHA recommendations to the Protected Zone Joint Authority (PZJA) for the Torres Strait Prawn Fishery (TSPF)**

The material submitted by the PZJA demonstrates that the management arrangements for the TSPF meet most of the requirements of the Australian Government's *Guidelines for the Ecologically Sustainable Management of Fisheries – 2<sup>nd</sup> Edition*.

The TSPF is managed under the Torres Strait Prawn Fishery Management Plan, in force under the *Torres Strait Fisheries Act 1984* (TSF Act). Management is via an effort-based system, with total allowable effort (TAE) for each season, distributed via effort units nominated to transferable fishing licenses. Additional management tools include spatial restrictions, temporal closures, gear restrictions, and size limits (for byproduct species). The Department of the Environment, Water, Heritage and the Arts (DEWHA) considers that the overall management regime aims to ensure that fishing is conducted in a manner that does not lead to overfishing and for fishing operations to be managed to minimise their impact on the structure, productivity, function and biodiversity of the ecosystem.

Despite the management arrangements in place in the TSPF, DEWHA has identified a number of risks and uncertainties that must be managed to ensure that impacts are minimised:

- a need to better understand the dynamics of target prawn stocks and to ensure that the level of effort in the fishery is set at a level which will make certain the ongoing sustainability of these stocks;
- a need to ensure the current observer program is statistically robust to validate logbook data and provide fishery-independent catch and effort information;
- using current knowledge of the Torres Strait region, spatial restrictions around key areas of ecological concern need to be further considered;
- bycatch in the fishery remains a high proportion of the total catch; and
- Bycatch Reduction Devices (BRDs) and/or Turtle Excluder Devices (TEDs) are not currently required on Try Nets which appears inconsistent with the Australian Government's Recovery Plan for Marine Turtles in Australia.

DEWHA is satisfied that the TSPF will not be detrimental to the survival or conservation status of the taxa to which they relate in the short term. Similarly, it is not likely to threaten any relevant ecosystem in the short term. To contain and minimise the risks in the longer term a number of recommendations have been made. The immediate key challenges for this fishery are to: complete regular stock assessments for key target prawn stocks (Brown Tiger Prawns and Blue Endeavour Prawns) and use this information along with other scientific advice, as available, to determine a Harvest Strategy for the fishery, including setting the Total Allowable Effort (TAE) at a sustainable level; complete a Harvest Strategy for target and byproduct species based on stock assessments and scientific advice; and complete the Ecological Risk Assessment (ERA) for the TSPF and use this information in determining management arrangements.

DEWHA considers that until it can be demonstrated that these issues have been adequately dealt with, a 3-year Wildlife Trade Operation declaration is appropriate. In light of new management arrangements coming into force, there is also a need to re-accredit the TSPF under Parts 10 and 13 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

DEWHA considers that the operation of the TSPF does not, or is not likely to, adversely affect the survival in nature of a listed threatened species or population of that species, or the conservation status of a listed migratory species, cetacean or listed marine species or a population of any of those species. The Torres Strait Fisheries Management Plan has recently been developed to formalise the management arrangements for the TSPF.

Given the Management Plan and legislation in force in the Torres Strait, DEWHA considers that all reasonable steps are being taken to prevent the killing or injuring of any listed or threatened species in the TSPF. DEWHA therefore believes it appropriate to accredit the management regime for the fishery under Part 13 of the EPBC Act.

**DRAFT CONDITIONS ON THE APPROVED WILDLIFE TRADE  
OPERATION (WTO) DECLARATION FOR THE TORRES STRAIT PRAWN  
FISHERY (TSPF)**

1. Operation of the fishery will be carried out in accordance with the Torres Strait Prawn Fishery Management Plan under the *Torres Strait Fisheries Act 1984*.
2. The Protected Zone Joint Authority (PZJA) to inform the Department of the Environment, Water, Heritage and the Arts (DEWHA) of any intended amendments to the management arrangements that may affect the assessment of the TSPF against the criteria on which *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) decisions are based.
3. The PZJA to produce and present reports to DEWHA annually as per Appendix B to the *Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition*.

The following comments and recommendations are provided for consideration in the preparation of the final documentation relating to the assessment of the Torres Strait Prawn Fishery. Any advice prior to any assessment decision is without prejudice to the final assessment.

## DRAFT RECOMMENDATIONS – Torres Strait Prawn Fishery

ISSUE	DEWHA Recommendation	PZJA Response
<p><b>Target species</b>            In 2006 a stock assessment for Brown Tiger Prawns was completed, and this is currently being updated using recent data. A stock assessment for Blue Endeavour Prawns is underway and is scheduled for completion during 2008. DEWHA considers that the PZJA should use the results of these stock assessments, along with a harvest strategy to determine the Total Allowable Effort (TAE) for the TSPF. The harvest strategy for the TSPF should where possible be consistent with the <i>Commonwealth Fisheries Harvest Strategy Policy</i>.</p> <p><b>Performance measures</b>            As part of the development of the TSPF Management Plan, the PZJA has determined measures and performance criteria for the fishery. There remains a requirement to produce a harvest strategy for the TSPF. In the Draft TSPF Management Plan, the development of a harvest strategy, including biological reference points for key species, has been proposed for completion by mid-2009. Also in the Draft Management Plan is an undertaking that the PZJA will develop a clear process for determining performance measure triggers and for implementing appropriate management measures within</p>	<p><b>Recommendation 1:</b>  <i>Within 12 months, the PZJA to develop a harvest strategy for the fishery that:</i></p> <ul style="list-style-type: none"> <li>• <i>includes a clear process for implementing appropriate management responses within specific timeframes in the event of a performance measure being triggered;</i></li> <li>• <i>sets the TAE at a level which will not result in higher than sustainable catches of key target and byproduct species; and</i></li> <li>• <i>is based on information gained through: stock assessments: scientific advice; analysis of changing fishing practices;; and the results of the Ecological Risk Assessment for the TSPF.</i></li> </ul> <p><b>[continuation and expansion of</b></p>	<p>AGREE</p>

<p>specific timeframes. DEWHA considers that these developments will be important for the long-term sustainability of the TSPF and should be a priority for the PZJA.</p> <p><b>Effort management in the fishery</b> Effort creep will keep putting upward pressure on effective effort and therefore force down the estimate of Emsy. The number of days available for fishing (TAE) should continue to be reviewed on an annual basis in light of changing fishing practices in the TSPF and in light of additional stock assessment advice.</p>	<p><b>2005 recommendations 3,4, 9 and 10]</b></p>	
<p><b>Bycatch</b> Bycatch in the TSPF is highly diverse with over 260 species caught. The species assemblage is dominated by bony fish, at an average of 78% by weight of total landings. An assessment of the relative sustainability of the fish bycatch was undertaken by examining the susceptibility of species to capture and mortality due to trawling and the ability of a population to recover once depleted. Species that are more susceptible to impact in the Torres Strait Protected Zone are those that have benthic or demersal habitat preferences with large portions of their distribution in the TSPF trawl grounds. Poor taxonomic resolution of invertebrate species caught in the TSPF is thought to mask some diversity. Recently, new devices to reduce bycatch have been implemented in the TSPF when found to be effective in similar Australian prawn trawl fisheries. DEWHA encourages</p>	<p><i>Recommendation 2: PZJA to continue to pursue a reduction in the composition and volume of bycatch taken in the TSPF through:</i></p> <ul style="list-style-type: none"> <li>• <i>refining bycatch mitigation technology;</i></li> <li>• <i>investigating and implementing methods for increasing the survivability of bycatch species; and</i></li> <li>• <i>investigating and then mitigating any found impacts of not using BRDs on Try Nets.</i></li> </ul> <p><b>[continuation and expansion of</b></p>	<p>AGREE</p>

<p>such initiatives to reduce bycatch in the fishery and considers that the pursuit of such reductions should be an ongoing recommendation for the TSPF.</p> <p>Bycatch Reduction Devices (BRDs) are required on all fishing nets except Try Nets (nets no longer than 10 metres, used for shots of up to 25 minutes, for the purposes of sampling or testing or to work out the abundance or presence of prawn) in the TSPF. DEWHA recommends that in the interests of pursuing continued reductions in bycatch in the fishery, the PZJA should consider whether BRDs should be required on Try Nets used in the TSPF.</p>	<p><b>2005 recommendation 11]</b></p>	
<p><b>Protected Species Interactions</b></p> <p>The TSPF is known to interact with a number of species listed under the EPBC Act, including marine turtles, seasnakes and syngnathids. The capture of protected species of sawfishes (within the family Pristidae) may also be of concern, given the vulnerability of these species to trawl gear.</p> <p>The eastern area of the TSPZ (Kerr Island, Deliverance Island and Turu Cay), which is open to the TSPF although not currently heavily fished, represent significant nesting sites for turtles. The area of waters to 3 nm from these three islands is under Australian jurisdiction. Surrounding this group of islands, PNG has jurisdiction over seagrass beds which are important</p>	<p><b>Recommendation 3:</b> <i>PZJA continue to mitigate protected species interactions through:</i></p> <ul style="list-style-type: none"> <li>• <i>promoting research into the impacts of the TSPF on protected species, and in particular, on protected species within the family Pristidae (sawfishes);</i></li> <li>• <i>protecting important nesting and feeding grounds of sea turtles from the impacts of trawling through spatial restrictions;</i></li> <li>• <i>promoting to other jurisdictions the importance of protecting important feeding and nesting</i></li> </ul>	<p>AGREE</p>

<p>feeding areas for dugong. DEWHA considers that the PZJA should consider protecting important nesting and feeding grounds of sea turtles within the TSPZ, and promote the importance of such measures to other jurisdictions with which stocks are shared.</p> <p>Turtle Excluder Devices (TEDs) are required on all nets except Try Nets in the TSPF. Try Nets are nets of up to 10 metres, trawled for no longer than 25 minutes at a time. DEWHA notes that even short trawls such as these may result in interactions with marine turtles, and considers that the PZJA should determine the potential impacts of trawling with nets which are not fitted with TEDs. If it is found that Try Nets may result in a risk to marine turtles, TEDs should be required.</p>	<p><i>sites of protected species; and</i></p> <ul style="list-style-type: none"> <li>• <i>investigating and then mitigating any found impacts of not using TEDs on Try Nets</i></li> </ul> <p><b>[continuation and expansion of 2005 recommendations 12 and 13]</b></p>	
<p><b>Spatial management arrangements</b></p> <p>The TSPF already has in place a number of spatial closures and seasonal closures. Recent scientific studies are likely to add value to the closures already in place by assisting in the identification of the ecosystems and types of bycatch most likely to be at risk from trawling. Any information available to the PZJA on species and populations at high risk from trawling; important areas for target, byproduct and protected species; and benthic habitats at risk should be considered in determining spatial management arrangements for the fishery.</p>	<p><b><i>Recommendation 4: PZJA to continue to refine spatial management arrangements within the TSPF that takes account of the impacts of fishing on:</i></b></p> <ul style="list-style-type: none"> <li>• <i>species and populations identified by the ecological risk assessment process as high risk;</i></li> <li>• <i>important feeding, spawning, breeding, and refuge grounds for key target, byproduct, bycatch and protected species; and</i></li> <li>• <i>benthic habitats.</i></li> </ul>	<p>AGREE</p>

	<p><i>In developing and implementing the spatial management system, the PZJA to consider regional marine planning processes for Northern Australia, outcomes of the Ecological Risk Assessment of the TSPF, and other scientific advice.</i></p> <p><b>[continuation and expansion on 2005 recommendation 13]</b></p>	
<p><b>Data validation and fishery-independent data collection</b></p> <p>An observer program has been implemented in the TSPF to validate catch of target and byproduct species. DEWHA considers that in order to be effective, the observer program needs to be determined to be statistically robust and capable of validating effort and catch data (for target, byproduct and bycatch), as well as validating protected species interactions and impacts on the marine ecosystem.</p>	<p><b><i>Recommendation 5: PZJA to develop and implement an ongoing, robust system to validate:</i></b></p> <ul style="list-style-type: none"> <li>• <i>catch and effort data (for target, byproduct and bycatch);</i></li> <li>• <i>protected species interactions;</i></li> <li><i>and</i></li> <li>• <i>impacts on the marine ecosystem.</i></li> </ul> <p><b>[continuation and expansion of 2005 recommendation 8]</b></p>	<p>AGREE</p>

<p><b>Compliance with management arrangements</b>  A recommendation of the 2005 Assessment was for the PZJA to develop within 1 year, a strategy and timeframes for implementing any resultant recommendations arising from the formal compliance risk assessment.</p> <p>Although limited action has been taken against this recommendation across all Torres Strait fisheries, DEWHA considers that following the implementation of the TSPF Management Plan a fishery specific compliance risk assessment should be undertaken.</p>	<p><i><b>Recommendation 6:</b> PZJA to undertake a Compliance Risk Assessment of the TSPF and implement mechanisms to address high risk issues. In the interim, the PZJA to continue to manage known compliance risks in the Torres Strait region.</i></p> <p><b>[continuation of 2005 recommendation 5 ]</b></p>	<p>AGREE</p>
<p><b>Collaboration – shared stocks</b>  The TSPF shares prawn stocks with the TS PNG prawn fishery (managed by the PNG NFA).</p> <p>Recommendation 7 from the 2005 DEH Assessment Report of the TSPF required “PZJA to continue to cooperate with other relevant jurisdictions to pursue complementary management and research of shared stocks for all target, byproduct and bycatch species, which may be affected by cross-jurisdictional issues”.</p> <p>The PZJA has continued to promote complementary management arrangements, primarily through bilateral fisheries meetings with PNG. DEWHA recognises the efforts of the PZJA in collaborating with other jurisdictions and encourages continued cooperation to enable complementary management of shared stocks.</p>	<p><i><b>Recommendation 7:</b> PZJA to continue to cooperate with other relevant jurisdictions to pursue complementary management and research of shared stocks for all target, byproduct and bycatch species, which may be affected by cross-jurisdictional issues.</i></p> <p><b>[continuation and expansion of 2005 recommendation 7]</b></p>	<p>AGREE</p>