



Australian Government

Department of Sustainability, Environment, Water, Population and Communities

Assessment of the
Western Australian
Exmouth Gulf Prawn Managed Fishery

February 2013

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Disclaimer

This document is an assessment carried out by the Department of Sustainability, Environment, Water, Population and Communities of a commercial fishery against the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'. It forms part of the advice provided to the Minister for Sustainability, Environment, Water, Population and Communities on the fishery in relation to decisions under Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999*. The views expressed do not necessarily reflect those of the Minister for Sustainability, Environment, Water, Population and Communities or the Australian Government.

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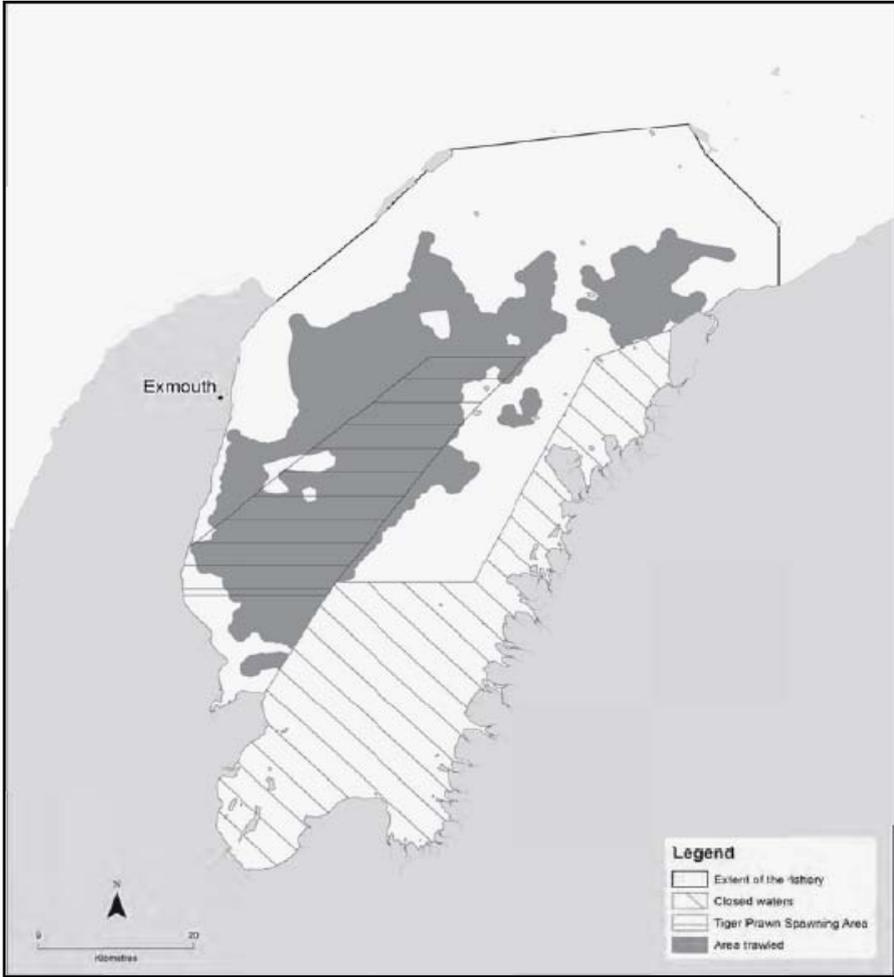
This section contains the department's assessment of the Exmouth Gulf Prawn Managed Fishery's performance against the Australian Government's 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition' and outlines the reasons the department recommends that product from the fishery be included in the list of exempt native specimens.

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Table 4 contains a description of the issues identified by the department with the current management regime for the Exmouth Gulf Prawn Managed Fishery and outlines the proposed recommendations that would form part of the delegate's decision to include product derived from the fishery in the list of exempt native specimens.

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Table 1: Summary of the Western Australian (WA) Exmouth Gulf Prawn Managed Fishery

<p>Key documents</p>	<ul style="list-style-type: none"> • WA Fish Resources Management Act 1994 (FRM Act) • WA Fish Resources Management Regulations 1995 (FRM Regulations) • Exmouth Gulf Prawn Fishery Management Plan 1989 • <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) • WA Department of Fisheries Application to the Department of Sustainability, Environment, Water, Population and Communities on the Exmouth Gulf Prawn Fishery, November 2012 • WA Department of Fisheries, Ecologically Sustainable Development (ESD) Report Series No. 1 - Exmouth Gulf Prawn Fishery, January 2006 (ESD Report) • WA Department of Fisheries State of the Fisheries Reports from 2006/07 to 2010/12
<p>Area</p>	<p>The area of the Exmouth Gulf Prawn Managed Fishery encompasses the waters of the north-west side of the Exmouth Gulf in WA (Figure 1). The south-east side of the Gulf is closed to trawling.</p> <p>The entire fishery occurs within WA state waters.</p>  <p>The map shows the Exmouth Gulf with various management zones. A legend in the bottom right corner identifies: 'Extent of the fishery' (white area), 'Closed waters' (diagonal hatching), 'Tiger Prawn Spawning Area' (horizontal hatching), and 'Area trawled' (solid grey area). A north arrow and a scale bar (0 to 20 kilometers) are also present.</p> <p>Figure 1: Map of the Exmouth Gulf Prawn Managed Fishery showing area trawled (Source: WA Department of Fisheries).</p>

<p>Target Species</p>	<p>Western king prawns (<i>Penaeus latisulcatus</i>), brown tiger prawns (<i>P. esculentus</i>), endeavour prawns (<i>Metapenaeus spp.</i>) and banana prawns (<i>P. merguensis</i>).</p> <p>Species Biology:</p> <p><i>Western king prawn:</i></p> <p>The western king prawn is found from south-east Africa north to the Red Sea, in the Persian Gulf, around India, south-east Asia and throughout the Malay archipelago to Japan and Korea and south to Australia. In Australian waters it is found from South Australia north all around the coast to northern New South Wales. Living on hard bottoms of sand, sandy mud or gravel, the species prefers shallow marine water to depths of around 90 metres (m). The western king prawn is a fast growing species that grows to a maximum size of 20 centimetres (cm) and is a highly fecund species, reaching sexual maturity at six to nine months.</p> <p><i>Brown tiger prawn:</i></p> <p>The brown tiger prawn is endemic to Australian waters and is found in warm waters from Sydney north around to Shark Bay in Western Australia, living offshore in depths up to 200 m but chiefly in waters to depths of 20 m. Brown tiger prawns reach sexual maturity at a carapace length of 3.2 cm and reach a maximum size of 15.5 cm.</p> <p><i>Endeavour prawn:</i></p> <p>The endeavour prawn, <i>Metapenaeus endeavouri</i>, is restricted to northern Australian waters between northern New South Wales and Shark Bay in Western Australia. This species is generally found in coastal waters down to approximately 50 m and is commonly trawled in muddy or sand/mud sediment substrates. The species is generally found inshore of the main fishing grounds for tiger and king prawns. Endeavour prawns spawn year round and in Queensland spawning peaks in March and September. Endeavour prawns are generally caught when they are 7-14 cm but they have been known to grow to 19 cm.</p> <p><i>Banana prawn:</i></p> <p>Banana prawns occur in shallow estuarine and intertidal areas to depths of 45 m from the Tweed River in northern New South Wales through northern Australian waters to Shark Bay in northern WA. Banana prawns sexually mature at around seven to eight months of age and will spawn continually until they die. However, there are generally spawning 'peaks' during both spring and autumn. The maximum life span for banana prawns is around 12 to 18 months.</p> <p>Further information on the biology of the target species can be found in the ESD Report for the fishery, available on the WA Department of Fisheries website.</p>
<p>Fishery status</p>	<p>The target species have been assessed by the WA Department of Fisheries as having 'adequate' spawning stocks. The WA Department of Fisheries' assessment indicates that annual variations in recruitment to parental biomass are due to environmental impacts, rather than fishing pressure, and that parental biomass is sufficient for ongoing successful spawning.</p> <p>The main performance measures for the Exmouth Gulf Prawn Managed</p>

	<p>Fishery relate to maintenance of breeding stocks for each of the major target prawn species.</p> <p>In 2011, the breeding stock indicators (catches within specified ranges) for tiger and endeavour prawns were met. The breeding stock indicator for king prawns was slightly lower than 2010 due to a conservative harvesting strategy which is a positive step to ensure a sufficient breeding stock for future years. The breeding stock indicator was not met for banana prawns in 2011, which was attributed to low rainfall experienced over the summer months. The spawning catch rate indicator for tiger prawns was maintained above the threshold level.</p> <p>In 2010, the breeding stock indicators for each species were met.</p>
Byproduct Species	<p>The fishery takes a range of byproduct species, including coral prawns, blue swimmer crab (<i>Portunicus armatus</i>), squid, bugs (<i>Thenus orientalis and perindicus</i>) and cuttlefish. Retention of sharks and rays is not allowed.</p> <p>The recorded landings of byproduct for 2011 included 58 tonnes (t) of blue swimmer crab, six tonnes of squid, two tonnes of bugs and less than one tonne of coral prawns and octopus.</p> <p>The recorded landings of byproduct for 2010 included 16 tonnes of blue swimmer crab, 17 tonnes of squid, two tonnes of bugs, 18 tonnes of coral prawns and two tonnes of octopus.</p>
Gear	<p>Twin gear otter trawl with 10 millimetre ground chain (a chain that weighs down the trawl net). These trawl nets are towed along the seabed and are held open by a pair of otter boards on either side attached to the wings of the net. The inner wings of the trawl nets are attached to a sledge (a steel frame which drags along the benthos) which keeps the nets on the bottom.</p> <p>The fishery as a whole is subject to a maximum head rope (a rope sewn along the upper edge of the mouth of the net) allocation of 240 fathoms (438.91 m) which was reduced in the 2010 season through a voluntary fisheries adjustment package. However, the gear configuration package (net and board sizes) permitted within this total allocation are under review, with vessels operating for the last two seasons under an exemption allowing the use of 'quad gear' (four smaller nets) rather than the standard twin 7.5 fathom nets. This has resulted in a reduction in the number of boats, with the head rope allocation redistributed among the remaining boats. The total head rope allocation for the fishery is now 216 fathoms (395 m). Since 2007, the total head rope allocation utilised by nine boats has not been above 206 fathoms (376.73 m).</p> <p>All vessels are required to fish with a bycatch reduction device (BRD) and a secondary BRD or fish escapement device (FED) in each net.</p>

Season	<p>Opening and closing dates vary each year depending on environmental conditions, moon phase and predictions of tiger prawn recruitment from pre-season fishery-independent surveys.</p> <p>Management arrangements in recent seasons have provided for a maximum of 200 fishing nights with a minimum of 28 non-fishing nights for moon closures (ie. four nights each full moon).</p> <p>In 2011, the season commenced on 1 May and closed on 30 November (181 nights) allowing 5 nights closure each full moon. There were also spatial closures during the early part of the season (April–July) to avoid fishing on small prawns.</p> <p>In 2010, the season commenced on 22 March and closed on 20 November.</p>
Commercial harvest	<p>The total landings of major prawn species for the 2011 season was 976 tonnes, comprising 97 tonnes of king prawns, 749 tonnes of tiger prawns and 130 tonnes of endeavour prawns. Less than three tonnes of banana prawns were landed during the 2011 season.</p> <p>The total landings of major prawn species for the 2010 season were 779 tonnes, comprising 254 tonnes of king prawns, 388 tonnes of tiger prawns and 138 tonnes of endeavour prawns. Less than one tonne of banana prawns were landed during the 2010 season. The total landings were lower than in the 2008/2009 seasons, but remained within the target catch range.</p>
Value of commercial harvest	<p>In 2011 the approximate value of the fishery (including byproduct) was \$11.2 million.</p>
Take by other sectors	<p>There was no reported significant take of target species by recreational, Indigenous or other sectors.</p>
Commercial licences issued	<p>There are 15 boat licences in the fishery, however, only nine boats operated during 2011.</p> <p>The ongoing restructure of the fleet to improve economic efficiency (ie. use of quad gear and different net sizes) has utilised all of the net head rope allocation, while reducing the number of vessels operating in the fishery.</p>
Management arrangements	<p>The Exmouth Gulf Prawn Managed Fishery is managed under the Exmouth Gulf Prawn Management Plan 1989, Exmouth Gulf Prawn Managed Fishery Licences, FRM Regulations and FRM Act.</p> <p>Management of the Exmouth Gulf Prawn Managed Fishery is based on input controls which include limited entry, seasonal and area openings and closures, moon closures, gear controls and a fleet-wide vessel monitoring system. The fishery is subject to a maximum total head rope allocation which is currently under review and has resulted in a reduction of boat numbers in the fishery.</p> <p>Stringent measures are in place to ensure that spawning stock levels for tiger prawns are maintained at adequate levels by utilizing pre-season surveys to predict prawn recruitment. It is further strengthened through research surveys conducted during the season to identify any changes in prawn distribution, abundance and size composition. These surveys enable the fishery to respond rapidly to resource fluctuations to optimise catch and size grades while still providing sustainable stock management. In 2008, 2009 and 2010, spatial closures were put in place during the early part of the season to avoid fishing on small prawns.</p>

	<p>Management guidelines first introduced in 2002 prescribe a mandatory closure of the tiger prawn spawning area when the tiger prawn catch rate (using quad gear) falls to below 25 kilograms per hour (kg/hr) (based upon quad gear catch rate) or on 1 August, whichever occurs first. From 1 November, after the main spawning period, the catch rate threshold level is reduced to 19kg/hr. In some circumstances fishing may not reopen if the stock level is low.</p> <p>Since 2002 fishers have also used 'hopper' in-water sorting systems to improve the quality of prawns and reduce mortality of some bycatch species.</p>
Export	<p>Major markets for tiger prawns are Japan and Taiwan. Europe, the United States of America and Taiwan are the major markets for western king prawns, as well as domestic sales. Endeavour prawns are mainly sold in Australia and New Zealand.</p>
Bycatch	<p>All vessels are required to fish with a BRD and FED in each net. In addition, many boats are using hoppers (in-water sorting systems) which improve bycatch survival. These measures have significantly reduced the number of sharks and finfish taken by trawl in the fishery. The trialling of square mesh cod end nets to further reduce the volume of overall bycatch continued throughout the 2012 season.</p> <p>Results of a Fisheries Research and Development Corporation (FRDC) Biodiversity Project, examining the biodiversity of bycatch species in trawled and untrawled areas of Exmouth Gulf, found that the faunal composition was generally similar in trawled and untrawled areas. Providing the area trawled in future does not exceed that observed in recent years (ie. 20 – 40 per cent of the fishery), the impacts of the fishery on bycatch species can be effectively surveyed by considering trawled areas only.</p> <p>The area trawled during 2011 was 29 per cent (of the total fishery) which is below the performance indicator for the fishery (40 per cent).</p>
Interaction with Protected Species¹	<p>While protected species including whales, dolphins, dugongs, turtles and sea snakes occur in Exmouth Gulf, only turtles and sea snakes are seen regularly in the trawl catches.</p> <p>Due to the low speeds at which the trawlers operate (approximately 4 knots), whales, dolphins and dugongs are able to move out of the path of the vessel and trawl gear.</p> <p>The survivorship of marine turtles and sea snakes that may interact with trawl gear has been greatly improved by the introduction of mandatory BRD's and FED's in 2003. The compulsory use of grids has all but eliminated the incidental capture of turtles. While 28 turtles were reported to have been captured in nets in 2011, all were returned to the water unharmed.</p> <p>The short-nosed sea snake (<i>Aipysurus apraefrontalis</i>) which is listed under the EPBC Act as a critically endangered species, has previously been recorded as bycatch in the fishery. In 2011, 497 sea snakes (specific species not reported) were reported to have been captured in nets, with 449 of those being returned to the water alive. It is not clear as to how many of those captures may have been short-nosed sea snakes.</p> <p>The research logbooks completed by licence holders within the Exmouth</p>

¹ 'Protected species' means all species listed under Part 13 of the EPBC Act, including whales and other cetaceans and threatened, marine and migratory species.

	<p>Gulf Prawn Managed Fishery include provisions to report any interactions with protected species, which are then provided to the WA Department of Fisheries.</p> <p>Under sections 199, 214, 232 and 256 of the EPBC Act, persons who interact with a protected species must report that interaction within seven days of the incident occurring to the Department of Sustainability, Environment, Water, Population and Communities (the department).</p> <p>A Memorandum of Understanding between the Western Australian Department of Fisheries and the Department of Sustainability, Environment, Water, Population and Communities is currently being negotiated for the Reporting of Fisheries Interactions with Protected Species. Once in place this will streamline reporting requirements for interactions with protected species, assisting fishers in meeting their requirements under the <i>Environment Protection and Biodiversity Conservation Act 1999</i>.</p> <p>Reporting requirements are included as a standing item on the agenda for annual pre-season briefings.</p>
<p>Ecosystem Impacts</p>	<p>The trophic impacts are likely to be low due to the high natural mortality and variable biomass levels of prawns, and the extent of non-trawled areas in the fishery. Similarly, direct physical impacts are managed through area closures ensuring over 60 per cent of the trawl area remains untrawled. Additionally, many specific habitats, such as hard corals and seagrass beds, do not overlap spatially with the predominantly mud and sand habitats of the main trawling grounds.</p> <p>The management tools used in the Exmouth Gulf Prawn Managed Fishery, such as limited entry, seasonal and area openings and closures, gear controls and vessel monitoring system assist the fishery in implementing sufficiently precautionary management measures to minimise the impact on the ecosystem.</p>

Table 2: Progress in implementation of recommendations made in previous assessment of the Western Australian (WA) Exmouth Gulf Prawn Managed Fishery

Recommendation	Progress	Recommended Action
<p>1. Recommendation 1: Operation of the fishery will be carried out in accordance with the Exmouth Gulf Prawn Management Plan 1989 made under the Western Australian <i>Fish Resources Management Act 1994</i>.</p>	<p>The WA Department of Fisheries has advised that the Exmouth Gulf Prawn Managed Fishery continues to operate in accordance with the Exmouth Gulf Prawn Management Plan 1989 under the <i>Fish Resources Management Act 1994</i>.</p>	<p>The Department of Sustainability, Environment, Water, Population and Communities (the department) considers that this recommendation has been met.</p> <p>The department recommends that this action be continued (see Recommendation 1, Table 4).</p>
<p>2. Recommendation 2: Western Australian Department of Fisheries to advise DEWHA of any intended material change to the EGPMF legislated management regime and management arrangements that could affect the criteria on which EPBC Act decisions are based.</p>	<p>The WA Department of Fisheries has advised the department that there have been no material changes to the Exmouth Gulf Prawn Managed Fishery management regime since the previous (2008) assessment.</p>	<p>The department considers that this recommendation has been met.</p> <p>The department recommends that this action be continued (see Recommendation 2, Table 4).</p>
<p>3. Recommendation 3: Western Australian Department of Fisheries to produce and present reports to DEWHA annually as per Appendix B of the Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition.</p>	<p>The Exmouth Gulf Prawn Managed Fishery is included in the WA Department of Fisheries' publication, the 'Annual State of the Fisheries and Aquatic Resources' which is provided to the department. The Report includes all available information on the fishery.</p>	<p>The department considers that this recommendation has been met.</p> <p>The department recommends that this action be continued (see Recommendation 3, Table 4).</p>

Recommendation	Progress	Recommended Action
<p>4. Recommendation 4: By August 2009, Western Australian Department of Fisheries to identify and review risk levels for target species, byproduct, bycatch (including protected species) and impacts on the environment for the EGPMF. Western Australian Department of Fisheries to implement appropriate measures to ensure identified risks are addressed and minimised.</p>	<p>The WA Department of Fisheries has advised the department that a new risk assessment was completed in November 2008 which identifies and reviews the risk levels for target species, byproduct, bycatch (including protected species) and impacts on the environment within the Exmouth Gulf Prawn Managed Fishery. The WA Department of Fisheries has also advised that appropriate measures have been implemented to address and minimise any identified risks.</p>	<p>The department considers that this recommendation has been met.</p>

Recommendation	Progress	Recommended Action
<p>5. Recommendation 5: By December 2009, Western Australian Department of Fisheries to develop, finalise and implement the Bycatch Action Plan for the EGPMF, including ongoing review and progress reporting on its implementation.</p>	<p>The WA Department of fisheries has advised the department that due to the findings of previous research that bycatch is a low risk in the Exmouth Gulf Prawn Managed Fishery, the WA Department of Fisheries has determined that a formal bycatch action plan is unnecessary.</p> <p>As an alternative, a Bycatch Action Plan (BAP) matrix covering a range of fisheries was developed in 2010 to manage ongoing bycatch issues. The BAP matrix was produced by reviewing and identifying issues in the fisheries and assessing what improvements could be made. The WA Department of Fisheries has stated that it aims to review the BAP matrix every two years. Under the current BAP matrix, all trawl nets in the fishery are required to be fitted with bycatch reduction grids and fish exclusion devices, along with other measures.</p> <p>The WA Department of Fisheries has advised that bycatch reduction devices and fish exclusion devices are mandatory for all trawl nets in the fishery and that a review of grid size and openings was undertaken in 2012 due to net size increases in the fishery. The WA Department of Fisheries also advised that increased grid sizes and openings are likely to be incorporated into licence conditions for the fishery in 2013/14.</p>	<p>The department considers that this recommendation has been partially met.</p>

Recommendation	Progress	Recommended Action
<p>6. Recommendation 6: In conjunction with Recommendations 4 and 5, Western Australian Department of Fisheries to develop and implement a program to identify long-term trends in bycatch diversity and abundance in the Exmouth Gulf.</p>	<p>The WA Department of Fisheries have advised that a FRDC Biodiversity Project found that fish biodiversity within trawled and untrawled areas of the fishery was similar and that it is likely current closures in the fishery provide sufficient refuge from trawling. The fishery is monitored annually to ensure the area trawled has not increased.</p>	<p>The department considers that this recommendation has been partially met.</p> <p>The department recommends that a similar action be continued (see Recommendation 5, Table 4).</p>
<p>7. Recommendation 7: By December 2010, Western Australian Department of Fisheries to implement a strategy for managing the take of byproduct in the EGPMF.</p>	<p>The WA Department of Fisheries have advised that a review of risks to byproduct species was undertaken in November 2008 and all risks remained the same as the previous assessments in 2002.</p> <p>The WA Department of Fisheries' strategy is to monitor the take of byproduct annually and if the take exceeds historic levels, then additional management may be implemented.</p> <p>The WA Department of Fisheries has also advised that the retention of byproduct in the fishery during 2011/12 was extremely low and is not expected to increase due to changes in the fishery to onboard processing and freezing of prawns.</p>	<p>The department considers that this recommendation has been met.</p>

Table 3: The Department of Sustainability, Environment, Water, Population and Communities' assessment of the Western Australian (WA) Exmouth Gulf Prawn Managed Fishery against the requirements of the EPBC Act related to decisions made under Part 13A.

Please Note – the table below is not a complete or exact representation of the EPBC Act. It is intended as a summary of relevant sections and components of the EPBC Act to provide advice on the fishery in relation to decisions under Part 13A. A complete version of the EPBC Act can be found on the department's website.

Part 13A

Section 303BA Objects of Part 13A
<p>(1) The objects of this Part are as follows:</p> <ul style="list-style-type: none">(a) to ensure that Australia complies with its obligations under CITES² and the Biodiversity Convention(b) to protect wildlife that may be adversely affected by trade(c) to promote the conservation of biodiversity in Australia and other countries(d) to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way(e) to promote the humane treatment of wildlife(f) to ensure ethical conduct during any research associated with the utilisation of wildlife, and(h) to ensure the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife.

² Convention on International Trade in Endangered Species of Wild Fauna and Flora

Part 13A

Section 303DC Minister may amend list	The department's assessment of the Exmouth Gulf Prawn Managed Fishery
<p>(1) Minister may, by instrument published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by:</p> <ul style="list-style-type: none">(a) including items in the list;(b) deleting items from the list; or(c) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; or(d) varying of revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or(e) correcting an inaccuracy or updating the name of a species.	
<p>(1A) In deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10.</p>	<p>No assessment of the Exmouth Gulf Prawn Managed Fishery has been carried out under Part 10 of the EPBC Act.</p>

<p>(1C) The above does not limit the matters that may be taken into account in deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery.</p>	<p>It is not possible to list exhaustively the factors that you may take into account in amending the list of exempt native specimens. The objects of Part 13A, which are set out above this table, provide general guidance in determining factors that might be taken into account. A matter that is relevant to determining whether an amendment to the list is consistent with those objects is likely to be a relevant factor.</p> <p>The department considers that the amendment of the list of exempt native specimens to include product taken in the Exmouth Gulf Prawn Managed Fishery would be consistent with the provisions of Part 13A (listed above) as:</p> <ul style="list-style-type: none"> ▪ the fishery will not harvest any Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) listed species ▪ there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1) ▪ the operation of the Exmouth Gulf Prawn Managed Fishery is unlikely to be unsustainable and threaten biodiversity within the next 5 years, and ▪ the Environment Protection and Biodiversity Conservation Regulations 2000 do not specify prawns as a class of animal in relation to the welfare of live specimens.
<p>(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister:</p> <p>(a) must consult such other Minister or Ministers as the Minister considers appropriate; and</p> <p>(b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and</p> <p>(c) may consult such other persons and organisations as the Minister considers appropriate.</p>	<p>The public comment period on the Western Australian Department of Fisheries' submission sought comment on the annual reports and submission for the Exmouth Gulf Prawn Managed Fishery and provided sufficient opportunity for consultation with other persons and organisations. No comments were received</p> <p>A letter to the WA Fisheries Minister, the Hon Norman Moore MP, advises him of the intention to declare the fishery exempt from the export provisions of the EPBC Act.</p>
<p>(5) A copy of an instrument made under section 303DC is to be made available for inspection on the Internet.</p>	<p>The instrument for the Exmouth Gulf Prawn Managed Fishery made under section 303DC will be gazetted and made available on the department's website.</p>

Part 16

Section 391 Minister must consider precautionary principle in making decisions	The department's assessment of the Exmouth Gulf Prawn Managed Fishery
(1) The Minister must take account of the precautionary principle in making a decision under section 303DC and/or section 303FN, to the extent he or she can do so consistently with the other provisions of this Act.	Having regard to the precautionary management measures in place in this fishery, summarised in Table 1, the department considers that the precautionary principle has been accounted for in the preparation of advice in relation to a decision under section 303DC.
(2) The precautionary principle is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.	

The Department of Sustainability, Environment, Water, Population and Communities' final recommendations to the Western Australian Department of Fisheries for the Western Australian (WA) Exmouth Gulf Prawn Managed Fishery

The material submitted by the Western Australian (WA) Department of Fisheries indicates that the WA Exmouth Gulf Prawn Managed Fishery operates in accordance with the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'.

Stock Status

According to the 'Western Australian Annual State of the Fisheries and Resources Report 2011 (SoFAR)', the fishery's target prawn parent stocks have been assessed to be 'adequate'. The SoFAR assessment indicates that annual variations in recruitment to the parental biomass are due to environmental impacts, rather than fishing pressure.

In 2009 a voluntary fisheries adjustment scheme (VFAS) reduced the number of licences operating in the Exmouth Gulf Prawn Managed Fishery from 16 to 15. In addition, fishery independent surveys are regularly conducted to establish recruitment strength (and spawning stock for tiger and king prawns) in the fisheries. Management measures in place in the fisheries include:

- limited entry
- seasonal and area openings and closures
- mandatory use of bycatch reduction devices and fish escapement devices, and
- gear controls.

The department considers that the range of management measures is sufficient to ensure that the fishery is conducted in a manner that does not lead to over-fishing and that stocks are not currently overfished.

Ecosystem Impacts

Taking into account the management measures for the target and byproduct species and the mandatory requirements for all trawl operators to use bycatch reduction devices, the department considers that fishing operations conducted under the Exmouth Gulf Prawn Fishery Management Plan 1989 will be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

The department considers that product taken in the fishery should be included in the list of exempt native specimens under Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999* for a period of five years. To contain and minimise the risks in the longer term the recommendations listed in Table 4 have been made. Unless a specific time frame is provided, each recommendation should be addressed during the five year period.

Table 4: Exmouth Gulf Prawn Managed Fishery Assessment – Summary of Issues and Recommendations - February 2013.

Issue	Recommendation
<p><u>General Management</u></p> <p>Export decisions relate to the arrangements in force at the time of the decision. To ensure that these decisions remain valid and export approval continues uninterrupted, the Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) needs to be advised of any changes that are made to the management regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision. This includes operational and legislated amendments that may affect sustainability of the target species or negatively impact on byproduct, bycatch, protected species or the ecosystem.</p>	<p>Recommendation 1:</p> <p>Operation of the fishery will be carried out in accordance with the Western Australian (WA) Exmouth Gulf Prawn Fishery Management Plan 1989 in force under the Western Australian <i>Fish Resources Management Act 1994</i>.</p> <p>Recommendation 2:</p> <p>WA Department of Fisheries to advise the department of any intended material change to the fishery's legislated management regime and management arrangements that could affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are based.</p>
<p><u>Annual reporting</u></p> <p>It is important that reports be produced and presented to the department annually in order for the performance of the fishery and progress in implementing the recommendations in this report and other managerial commitments to be monitored and assessed throughout the life of the accreditation.</p> <p>Annual reports should include: a description of the fishery, management arrangements in place, research and monitoring outcomes, recent catch data for all sectors of the fishery, status of target stock, interactions with protected species, impacts of the fishery on the ecosystem in which it operates and information outlining progress in implementing recommendations resulting from the previous accreditation of the fishery (for a complete description of annual reporting requirements, see Appendix B of the 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition' available from the department's website at http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html).</p>	<p>Recommendation 3:</p> <p>WA Department of Fisheries to produce and present reports to the department annually as per Appendix B of the 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'.</p>

Issue	Recommendation
<p><u>Protected Species Reporting</u></p> <p>The department is aware that the WA Department of Fisheries has already implemented measures to reduce the bycatch of sea snakes in the fishery. However, species specific identification for remaining interactions could be improved. Given that two EPBC Act listed threatened sea snake species occur in north Western Australian waters, it is important to determine which species are being caught as bycatch.</p> <p>The department recognises that species level identification is difficult for sea snakes, however species level reporting remains important for the future management of protected species. The department therefore recommends that the WA Department of Fisheries investigate methods of improving species level reporting for protected species interactions in the fishery, with particular attention to sea snakes.</p>	<p>Recommendation 4:</p> <p>WA Department of Fisheries to investigate measures to improve protected species interaction reporting, including species level identification, with particular attention to sea snake species.</p>
<p><u>Monitoring bycatch</u></p> <p>A major biodiversity survey completed in 2002 found that trawled areas had similar biodiversity to larger adjacent untrawled areas, indicating that the impact of trawling on bycatch species biodiversity was low. In addition, large spatial closures in the fishery provided refuge to bycatch species from trawling. Since this time, the strategy adopted by the WA Department of Fisheries to ensure that risk to bycatch species remains low has been to focus on reducing effort and trawl area in the fishery. Direct bycatch management measures have also been imposed, including the mandating of bycatch reduction devices and fish escapement devices. Ongoing bycatch management actions for the Exmouth Gulf Prawn Managed Fishery are informed by the Bycatch Action Plan (BAP) Matrix for all trawl fisheries in the Gascoyne Coast Bioregion. This BAP Matrix is scheduled for review every two years.</p> <p>The department is aware that bycatch has been historically low in this fishery, that fishing effort and trawled area have been substantially reduced since the last comprehensive biodiversity survey and that bycatch reduction devices are used in all nets. While the department concurs that it is likely that bycatch will remain low, it considers that the WA Department of Fisheries should undertake an appropriate level of ongoing research and/or monitoring to ensure that the actions directed through the BAP Matrix remain relevant to the fishery.</p>	<p>Recommendation 5:</p> <p>WA Department of Fisheries to conduct appropriate ongoing research and/or monitoring to determine whether the actions undertaken in the Bycatch Action Plan Matrix are sufficient to minimise risk to bycatch species in the fishery.</p>

References

Courtney, A.J., Dredge, M.C.L. and Masel, J.M. 1989. 'Reproductive biology and spawning periodicity of endeavour shrimps *Metapenaeus endeavouri* (Schmitt, 1926) and *Metapenaeus ensis* (de Haan, 1850) from a central Queensland (Australian) fishery. *Asian Fisheries Science* 3: 133–147.

Grey, D.L., Dall, W., Baker, A., 1983. A guide to the Australian penaeid prawns. Northern Territory Government Printing Office.

Kangas, M.I., Morrison, S., Unsworth, P., Lai, E., Wright, I. and Thomson, A. 2007. Development of biodiversity and habitat monitoring systems for key trawl fisheries in Western Australia. Final report to the Fisheries Research and Development Corporation (FRDC) on Project No. 2002/038. Fisheries Research Report No. 160, Department of Fisheries, Western Australia, 334p. (FRDC Biodiversity Project).