



Australian Government

Department of the Environment

Assessment of the
Tasmanian Giant Crab Fishery

July 2014

© Copyright Commonwealth of Australia, 2014.



Assessment of the Tasmanian Giant Crab Fishery July 2014 is licensed by the Commonwealth of Australia for use under a Creative Commons By Attribution 3.0 Australia licence with the exception of the Coat of Arms of the Commonwealth of Australia, the logo of the agency responsible for publishing the report, content supplied by third parties, and any images depicting people. For licence conditions see: <http://creativecommons.org/licenses/by/3.0/au/>.

This report should be attributed as '*Assessment of the Tasmanian Giant Crab Fishery July 2014*, Commonwealth of Australia 2014'.

Disclaimer

This document is an assessment carried out by the Department of the Environment 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 the Environment on the fishery in relation to decisions under Parts 13 and 13A of the *Environment Protection and Biodiversity Conservation Act 1999*. The views expressed do not necessarily reflect those of the Minister for the Environment or the Australian Government.

While reasonable efforts have been made to ensure that the contents of this report are factually correct, the Australian Government does not accept responsibility for the accuracy or completeness of the contents, and shall not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on, the contents of this report. You should not rely solely on the information presented in the report when making a commercial or other decision.

CONTENTS

Table 1:	Summary of the Tasmanian Giant Crab Fishery.....	1
-----------------	---	----------

Table 1 contains a brief overview of the operation of the fishery, including: the gear used, species targeted, byproduct species, bycatch species, annual catch, management regime and ecosystem impacts.

Table 2:	Progress in implementation of recommendations made in the 2009 assessment of the Tasmanian Giant Crab Fishery	6
-----------------	--	----------

Table 2 contains an update on the progress that has been made by the Tasmanian Department of Primary Industries, Parks, Water, and Environment in implementing the recommendations made in the 2009 assessment.

Table 3:	The Department of the Environment's' assessment of the Tasmanian Giant Crab Fishery against the requirements of the EPBC Act related to decisions made under Part 13 and Part 13A. .	10
-----------------	---	-----------

Table 3 contains the Department's assessment of the fishery's management arrangements against all the relevant parts of the *Environment Protection and Biodiversity Conservation Act 1999* that the delegate must consider before making a decision.

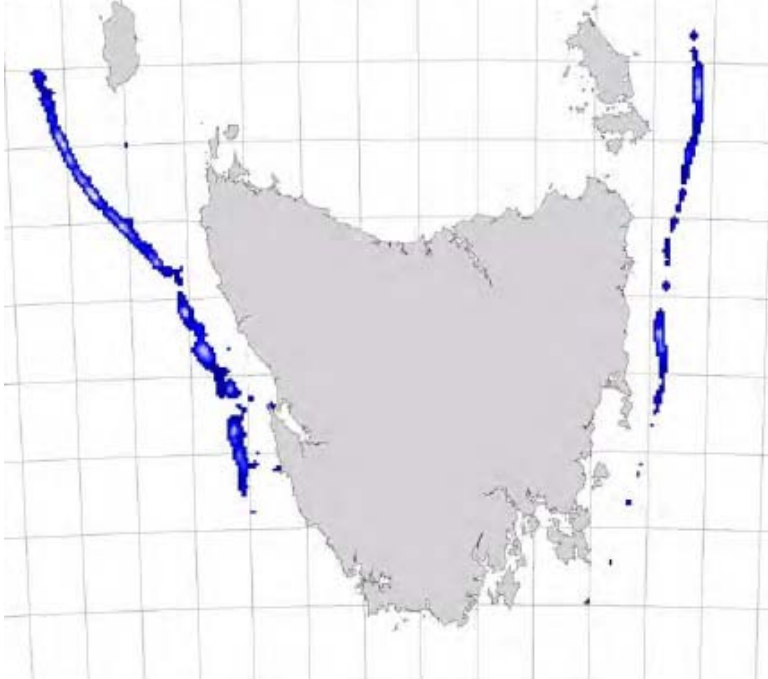
The Department of the Environment's final recommendations to the Tasmanian Department of Primary Industries, Parks, Water and Environment for the Tasmanian Giant Crab Fishery	18
---	-----------

This section contains the Department's assessment of the 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 derived from the fishery be included in the list of exempt native specimens.

Table 4:	The Tasmanian Giant Crab Fishery Assessment – Summary of Issues and Recommendations, July 2014	22
-----------------	---	-----------

Table 4 contains a description of the issues identified by the Department with the current management regime for the 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.

TABLE 1: SUMMARY OF THE TASMANIAN GIANT CRAB FISHERY

Key documents relevant to the fishery	<ul style="list-style-type: none"> ▪ Tasmanian <i>Living Marine Resources Management Act 1995</i> ▪ Tasmanian <i>Fisheries (giant crab) rules 2013</i> (the Management Plan) ▪ Institute for Marine and Antarctic Studies - <i>Fishery Assessment Report: Tasmanian Giant Crab Fishery 2009/10</i> (IMAS Fishery Assessment Report) ▪ Application to the Department of the Environment on the Tasmanian Giant Crab Fishery 2014 ▪ Fisheries Research and Development Corporation - <i>Status of Key Australian Fish Stocks Reports 2012</i>
Area	 <p>Figure 1: Map of fishing effort in the Tasmanian Giant Crab Fishery (Source, IMAS)</p> <p>The area of the fishery includes waters surrounding the state of Tasmania generally south of 39°12' and out to the outer edge of the Australian Exclusive Economic Zone. The vast majority of the Tasmanian Giant Crab Fishery is in Commonwealth waters, however the entire fishery is managed by Tasmania under an Offshore Constitutional Settlement (OCS) between the Australian Government and the Government of Tasmania.</p> <p>Within the area of the fishery, most fishing effort takes place on the edge of the continental slope, as highlighted in Figure 1.</p>
Target Species	<p>Giant crabs (<i>Pseudocarcinus gigas</i>) are endemic to the waters of southern Australia, extending from waters offshore of Perth in Western Australia to Victoria and the waters surrounding Tasmania. Giant crabs are slow growing and long-lived (30+ years) and can be found at depths of between 18-400 metres (m), with most harvesting occurring at depths between 140 m and 270 m.</p>

Fishery status	<p>The Total Allowable Catch (TAC) for giant crabs in the fishery has been reduced significantly since quota management was introduced in the late 1990s. The TAC was initially set at 104 tonnes (t) in 2000, however, was reduced to 47 t in 2010/11 to prevent stock decline and increase economic yield. For the 2014/15 quota year, the TAC was further reduced to 38.3 t, a reduction of 25%, to attempt to increase catch rates to more economically viable levels and increase biomass.</p> <p>The <i>Status of Key Australian Fish Stocks Reports 2012</i> determined that the stock status for giant crabs in southern Australia was sustainable in 2012. This report noted that the Tasmanian component of the stock was not considered to be recruitment overfished and, due to the level of fishing mortality, was unlikely to become so. An update of the <i>Status of Key Australian Fish Stocks Reports</i> is due in late 2014.</p>
Byproduct Species	<p>Fishers record byproduct species taken in the fishery's logbook, the Giant Crab Catch Record Book. Species retained as byproduct include cod (<i>Pseudophycis barbata</i>), conger eel (<i>Conger verreauxi</i>), pink ling (<i>Genypterus blacodes</i>), and morwong (<i>Nemadactylus spp.</i>).</p>
Gear	<p>The Tasmanian Giant Crab Fishery initially harvested giant crabs with modified rock lobster pots, however larger, heavier steel pots (traps) are now used to target the species. There are limits on the number, dimensions and structure of giant crab traps that can be deployed from each licensed vessel. A mandatory requirement for each trap is one or two escape gaps of defined minimum dimensions.</p>
Season	<p>For management purposes, the fishing year commences on 1 March and concludes on the last day of February the following year. Fishing for male giant crabs is permitted year round. A spawning closure for females applies between 1 June and 14 November inclusive. Monthly summaries of catch records published on the DPIPWE website indicate that highest catches occur in summer and autumn.</p>

Commercial harvest	The harvest of giant crabs has fallen in recent years, as summarised in Figure 2.		
	Quota year (March – Feb)	Total catch (tonnes)	% of TAC
	2005/06	58.8	94.69
	2006/07	52.7	84.82
	2007/08	49.0	78.96
	2008/09	52.6	84.76
	2009/10	46.3	89.42
	2010/11	47.0	90.84
	2011/12	44.1	85.18
	2012/13	27.3	58.49
	2013/14	26.4	56.64
	<p>Figure 2. Harvest of giant crabs since 2005/06 in the Tasmanian Giant Crab Fishery.</p> <p>The factors influencing this fall in commercial harvest rates in recent years are not well understood, preliminary analyses by the Institute for Marine and Antarctic Studies (IMAS) suggest it may not be stock related. Increases in undercatch of the TAC may be due to a combination of factors including low catch rates, low beach prices and a prohibition introduced in 2013 on unloading product in Victoria, which impacted some Victorian based fishers. In addition, the north east sector of the Giant Crab fishery was closed for much of the summer in 2012/13 due to the detection of shellfish toxins, reducing catch in that part of the fishery. High prices received for rock lobster over the last two years may also have directed fishing effort away from targeting giant crab in order to focus more effort in the rock lobster fishery.</p> <p>Over the history of quota management in the Tasmanian Giant Crab Fishery, the TAC has seldom been caught due to the structure of the fishery and its link to the rock lobster fishery. Most vessels capable of targeting giant crab are owned by fishers who mainly target rock lobster but also have a small amount of giant crab quota. It may often not be practical for these licence holders to pursue catch of their giant crab quota or to lease it out due to the low quota lease price and transfer fees.</p>		
Value of commercial harvest	\$1.36 million in 2013/14.		

Take by other sectors	<p>Take of giant crab by Indigenous fishers and recreational fishers is considered negligible due to the inaccessibility of the deep, offshore waters in which giant crabs are found. A possession limit of one giant crab applies to recreational fishers.</p> <p>Giant crabs form part of the byproduct of the Tasmanian Rock Lobster Fishery, although take is minor with an estimated 87 kilograms (kg) caught in 2008/09. Take of giant crab has also been reported by the Commonwealth Trawl Sector of the Commonwealth Southern and Eastern Scalefish and Shark Fishery (SESSF). Giant crab catch in this fishery is generally around 5 t annually, but can vary significantly. Catch as high as 19.6 t was recorded in the 2003/04 season, however in 2010 only 1.5 t was recorded.</p> <p>The level of interaction and overlap between the Tasmanian Giant Crab Fishery and the Commonwealth Trawl Sector of the SESSF is an issue of ongoing concern for Tasmanian fishers. Funding has been sought from the Fisheries Research and Development Corporation (FRDC) to undertake a joint DPIPWE and IMAS project to investigate and quantify the level of incidental mortality and bycatch of giant crabs by trawlers.</p>
Commercial licences issued	<p>A maximum of 84 licences can be issued in the Tasmanian Giant Crab Fishery, and fishers may hold more than one giant crab licence. The Tasmanian Giant Crab Fishery is linked to the Tasmanian Rock Lobster Fishery through a requirement to hold both a rock lobster licence and a giant crab licence in order to target giant crabs. However, the Tasmanian Giant Crab Fishery is a specialised fishery with only a small number of vessels appropriately geared to target giant crabs.</p> <p>In 2013/14, 17 giant crab licences recorded catch of giant crabs, with 67 licences not recording any harvest. Of the 17 vessels that recorded landing giant crab in 2013/14, only eight recorded taking more than one tonne.</p>
Management arrangements	<p>The Tasmanian Giant Crab Fishery is managed under the <i>Tasmanian Fisheries (giant crab) rules 2013</i>, under the <i>Tasmanian Living Marine Resources Management Act 1995</i>.</p> <p>Under these arrangements, input controls include limited entry, pot restrictions and a seasonal spawning closure to protect females.</p> <p>Output controls include quota management through individual transferable quotas for giant crab, annually determined TACs, minimum size limits and catch limits for recreational fishers.</p>
Export	<p>Live giant crabs are sold to both domestic and international (Asian) markets.</p>

Bycatch	Low – bycatch in the Tasmanian Giant Crab Fishery is negligible and the fishery is considered a low risk to other species due to the small amount of trapping effort. The majority of bycatch species do not have swim bladders, so can be returned to the sea unharmed. The most abundant bycatch species are hermit crabs (<i>Trizopagarus strigimanus</i>), and draughtboard sharks (<i>Cephaloscyllium laticeps</i>).
Interaction with Protected Species¹	<p>Risk of interactions with protected species is considered negligible, due to the selectivity of the fishing gear, the depth of the water where fishing occurs and reduction in catches over winter months during whale migration seasons, supported by the seasonal closure for spawning female giant crabs. The distance of fishing effort from coastal areas further reduces the risk of interactions with protected pinniped species, particularly juveniles.</p> <p>Interactions with protected species are recorded in log books that are provided on a monthly basis to DPIPWE, with the data forwarded to IMAS. Consolidated assessments on all aspects of the fishery's performance, including protected species interactions, are provided by IMAS on a two yearly basis, although interactions with EPBC Act listed species, such as whales, are noted by DPIPWE as they occur. No protected species interactions were reported in the IMAS <i>Fishery Assessment Report: Tasmanian Giant Crab Fishery 2009/10</i>, and no interactions with EPBC Act listed species have been noted by DPIPWE since this time. The next consolidated IMAS assessment of the fishery is expected in late 2014, after the 2011/12 assessment was missed.</p> <p>Under sections 199, 214, 232 and 256 of the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act), persons who interact with a protected species must report that interaction within seven days of the incident occurring to the Department of the Environment.</p>
Ecosystem Impacts	Fishing effort in the Tasmanian Giant Crab Fishery occurs mainly on habitat found along the edge of the continental shelf, on bryozoan turf growing on sand and mud sediments. The impact of the fishery on this habitat is considered to be low because gear is limited in size and is static when it rests on the benthos.

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

Table 2: Progress in implementation of recommendations made in 2009 assessment of the Tasmanian Giant Crab Fishery

Recommendation	Progress	Recommended Action
1. Operation of the fishery will be carried out in accordance with the Fisheries (Giant Crab) Rules 2006 made under the Tasmanian <i>Living Marine Resources Management Act 1995</i> .	The fishery has operated in accordance with the legislated management regime over the course of the current export approval.	The Department of the Environment considers that this recommendation has been met. The Department proposes that this action be continued (see Recommendation 1, Table 4).
2. DPIW to inform DEWHA of any intended amendments to the TGCF management arrangements that may affect the assessment of the fishery against the criteria on which EPBC Act decisions are based.	The Department of Primary Industries, Parks, Water, and Environment (DPIPWE) has advised the Department of management changes that have occurred in the fishery, in particular, the 2013 management plan change.	The Department of the Environment considers that this recommendation has been met. The Department proposes that this action be continued (see Recommendation 2, Table 4).
3. DPIW to produce and present reports to DEWHA annually as per Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i> .	Annual reports have been provided by DPIPWE.	The Department of the Environment considers that this recommendation has been met. The Department proposes that this action be continued (see Recommendation 3, Table 4).

Recommendation	Progress	Recommended Action
<p>4. As part of the 2010 review of the management plan DPIW to finalise new performance indicators for the TGCF, and ensure that appropriate management responses are also developed should limits be reached.</p>	<p>DPIPWE has developed a draft harvest strategy containing performance indicators and management responses. While this harvest strategy has not yet been formally adopted, DPIPWE has advised that it will be finalised following an assessment of the target and limit reference points currently being conducted by the Institute for Marina and Antarctic Studies (IMAS).</p>	<p>The Department of the Environment considers that this recommendation is ongoing.</p> <p>The Department proposes that this action be continued (see Recommendation 5, Table 4).</p>
<p>5. DPIW to continue to monitor the impact of discarding of undersize crabs on the giant crab stock and to implement appropriate management measures should risks be identified.</p>	<p>DPIPWE has monitored discards of undersized crabs through the Giant Crab Catch Record Book. The most recent information available from 2009/10 indicates that there has been a general reduction in catch rates of undersized crabs.</p> <p>In its submission to the Department, DPIPWE notes that recent (unpublished) data have indicated that catch rates for undersized crabs have increased in the western zone of the fishery. According to the 2009 IMAS assessment of the fishery, catch rates for undersized crabs have traditionally been low in the western zone, with numbers falling to record lows in recent years. As the documented survival rate of released giant crabs is high, DPIPWE has concluded that there is no increased risk.</p>	<p>The Department of the Environment considers that this recommendation has been met.</p>

Recommendation	Progress	Recommended Action
<p>6. DPIW to implement an appropriate research plan to pursue and support research, in particular to address the following areas:</p> <ul style="list-style-type: none"> • continued decline in the exploitable biomass of giant crabs; • increase in catch rates of undersized crabs; and • need to improve the stock assessment data for the east coast of the fishery. 	<p>DPIPWE and IMAS have developed a project to investigate the continued decline in catch rates in the fishery, with particular focus on the interaction between the fishery and the Commonwealth Trawl Sector of the Southern and Eastern Scalefish and Shark Fishery (SESSF).</p> <p>To improve the level of stock assessment data in the fishery, a voluntary length frequency data collection system was introduced into the fishery. However, support and participation by fishers has been limited, with the current length-frequency data available for the fishery being provided by just a single operator.</p> <p>DPIPWE has advised the Department that it is currently working with fishers to improve the level of data collection in the fishery.</p>	<p>The Department of the Environment considers that this recommendation is ongoing</p> <p>The Department proposes that this action be continued (see Recommendations 5 & 6, Table 4).</p>

Recommendation	Progress	Recommended Action
<p>7. DPIW to</p> <p>a) work collaboratively with AFMA to address the recommendations of the FRDC shelf break habitat study.</p> <p>b) to continue to work with relevant fishery management agencies in the management of the shared giant crab stocks.</p>	<p>DPIPWE has advised that prior to 2013, collaboration with the Australian Fisheries Management Authority (AFMA) on the shelf break habitat study was not seen as a high priority in the fishery. This was due to the declining trawl effort in the area (thought to be linked to changes in target species abundance and industry restructure).</p> <p>In October 2013, fishers raised concerns about the increase of trawl effort in the fishery, in particular on the west coast. DPIPWE has informed the Department that as a result of these concerns, a project to investigate the level of interactions and overlap between the Giant Crab Fishery and the Commonwealth Trawl Sector of the SESSF was identified as a high priority. DPIPWE is currently pursuing funding from the Fisheries Research and Development Corporation (FRDC) to undertake the project.</p> <p>DPIPWE have continued to work collaboratively with jurisdictions that share giant crab stock. In February 2014, DPIPWE participated in a tri-state giant crab workshop with Victoria and South Australia. The workshop addressed a number of issues including complimentary data collection, stock status and harvest strategies.</p>	<p>The Department of the Environment considers that this recommendation is ongoing.</p> <p>The Department proposes that this action be continued (see Recommendation 4, Table 4).</p>

Table 3: The Department of the Environment’s assessment of the Tasmanian Giant Crab Fishery against the requirements of the EPBC Act related to decisions made under Part 13 and 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 Parts 13 and Part 13A. A complete version of the EPBC Act can be found at <http://www.comlaw.gov.au/>.

Part 13

Division 1 Listed threatened species Section 208A Minister may accredit plans or regimes	The Department’s assessment of the Tasmanian Giant Crab Fishery
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <p>i. made by a State or self-governing Territory; and</p> <p>ii. in force under a law of the State or self-governing Territory;</p> <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed threatened species (other than conservation dependent species) are not killed or injured as a result of the fishing; and</p>	<p>The Tasmanian Giant Crab Fishery will be managed under the Tasmanian <i>Fisheries (giant crab) rules 2013</i> and the Tasmanian <i>Living Marine Resources Management Act 1995</i>.</p> <p>The management regime for the Tasmanian Giant Crab Fishery was most recently accredited under section 208A (Part 13) of the EPBC Act in February 2013. There have been no material changes to the management regime since this time that have changed the requirement for fishers to take all reasonable steps to ensure that members of listed threatened species (other than conservation dependent species) are not killed or injured as a result of the fishing.</p> <p>Listed threatened species that may interact with the fishery due to geographic overlap include some large whale species and some seabird species. The management regime for the Tasmanian Giant Crab Fishery prescribes limits and restrictions on fishing gear used in</p>

<p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the survival or recovery in nature of the species.</p>	<p>the fishery, as described in Table 1. Given these limits and restrictions, that keep fishing effort constrained enough that the risk of whale entanglements is low, coupled with the relatively benign fishing methods that do not pose a risk to seabirds, the Department considers that the management regime for the Tasmanian Giant Crab Fishery still requires operators to take all reasonable steps to ensure that members of listed threatened species are not killed or injured in Commonwealth waters as a result of the fishing.</p> <p>Given the management measures described in Table 1, the Department considers the likelihood of interactions with listed threatened species in the Tasmanian Giant Crab Fishery to be very low. Therefore, the Department considers the current operation of the Tasmanian Giant Crab Fishery is not likely to adversely affect the survival or recovery in nature of any listed threatened species.</p>
---	---

Part 13 (*cont.*)

<p>Division 2 Migratory species</p> <p>Section 222A Minister may accredit plans or regimes</p>	<p>The Department's assessment of the Tasmanian Giant Crab Fishery</p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; 	<p>The Tasmanian Giant Crab Fishery will be managed under the Tasmanian <i>Fisheries (giant crab) rules 2013</i> and the Tasmanian <i>Living Marine Resources Management Act 1995</i>.</p>

<p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed migratory species or a population of that species.</p>	<p>The management regime for the Tasmanian Giant Crab Fishery was most recently accredited under section 222A (Part 13) of the EPBC Act in February 2013. There have been no material changes to the management regime since this time that have changed the requirement for fishers to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing.</p> <p>Listed migratory species that may interact with the fishery due to geographic overlap include large whale species and some seabird species. The management regime for the Tasmanian Giant Crab Fishery prescribes limits and restrictions on fishing gear used in the fishery, as described in Table 1. Given these limits and restrictions, that keep fishing effort constrained enough that the risk of whale entanglements is low, coupled with the relatively benign fishing methods that do not pose a risk to seabirds, the Department considers that the management regime for the Tasmanian Giant Crab Fishery still requires operators to take all reasonable steps to ensure that members of listed migratory species are not killed or injured in Commonwealth waters as a result of the fishing.</p> <p>Given the management measures described in Table 1, the Department considers the likelihood of interactions with listed migratory species in the Tasmanian Giant Crab Fishery to be very low. Therefore, the Department considers the current operation of the Tasmanian Giant Crab Fishery is not likely to adversely affect the conservation status of a listed migratory species or a population of that species.</p>
---	--

Part 13 (cont.)

<p>Division 3 Whales and other cetaceans</p> <p>Section 245 Minister may accredit plans or regimes</p>	<p>The Department's assessment of the Tasmanian Giant Crab Fishery</p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing; and</p>	<p>The Tasmanian Giant Crab Fishery will be managed under the <i>Tasmanian Fisheries (giant crab) rules 2013</i> and the <i>Tasmanian Living Marine Resources Management Act 1995</i>.</p> <p>The management regime for the Tasmanian Giant Crab Fishery was most recently accredited under section 245 (Part 13) of the EPBC Act in February 2013. There have been no material changes to the management regime since this time that have changed the requirement for fishers to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing.</p> <p>There are a number of cetacean species that may interact with the fishery due to geographic overlap of fishing effort with migration routes, particularly for humpback whales and southern right whales, although there have been no reported interactions since at least 2009. The management regime for the Tasmanian Giant Crab Fishery prescribes limits and restrictions on fishing gear used in the fishery, as described in Table 1. Given these limits and restrictions keep fishing effort constrained enough that the risk of whale entanglements is low, particularly over the winter whale migration season, the Department considers that the management regime for the Tasmanian Giant Crab Fishery still requires operators to take all reasonable steps to ensure</p>

<p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a species of cetacean or a population of that species.</p>	<p>cetaceans are not killed or injured in Commonwealth waters as a result of the fishing.</p> <p>Given the management measures described in Table 1, the Department considers the likelihood of interactions with cetaceans in the Tasmanian Giant Crab Fishery to be very low. Therefore, the Department considers the current operation of the Tasmanian Giant Crab Fishery is not likely to adversely affect the conservation status of a species of cetacean or a population of that species.</p>
--	---

Part 13 (cont.)

<p>Division 4 Listed marine species</p> <p>Section 265 Minister may accredit plans or regimes</p>	<p>The Department's assessment of the Tasmanian Giant Crab Fishery</p>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"> i. made by a State or self-governing Territory; and ii. in force under a law of the State or self-governing Territory; <p>if satisfied that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed marine species are not killed or injured as a result of the fishing; and</p>	<p>The Tasmanian Giant Crab Fishery will be managed under the <i>Tasmanian Fisheries (giant crab) rules 2013</i> and the <i>Tasmanian Living Marine Resources Management Act 1995</i>.</p> <p>The management regime for the Tasmanian Giant Crab Fishery was most recently accredited under section 265 (Part 13) of the EPBC Act in February 2013. There have been no material changes to the management regime since this time that have changed the requirement for fishers to take all reasonable steps to ensure that members of listed marine species are not killed or injured as a result of the fishing.</p>

<p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed marine species or a population of that species.</p>	<p>Listed marine species that may interact with the fishery due to geographic overlap include pinniped species and seabird species. The management regime for the Tasmanian Giant Crab Fishery prescribes limits and restrictions on fishing gear used in the fishery, as described in Table 1. Given the relatively benign fishing methods that do not pose a risk to seabirds and the distance of fishing effort from coastal pinniped colonies, the Department considers that the management regime for the Tasmanian Giant Crab Fishery still requires operators to take all reasonable steps to ensure that members of listed marine species are not killed or injured in Commonwealth waters as a result of the fishing.</p> <p>Given the management measures described in Table 1, the Department considers the likelihood of interactions with listed marine species in the Tasmanian Giant Crab Fishery to be very low. Therefore, the Department considers the current operation of the Tasmanian Giant Crab Fishery is not likely to adversely affect the conservation status of a listed marine species or a population of that species.</p>
--	--

Part 13 (*cont.*)

Section 303AA Conditions relating to accreditation of plans, regimes and policies	The Department's assessment of the Tasmanian Giant Crab Fishery
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	The Department recommends that the management regime for the Tasmanian Giant Crab Fishery be accredited under sections 208A, 222A, 245 and 265.
(2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only: (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with. In such a case, the instrument of accreditation is to specify the period, circumstances or condition.	The Department considers that no conditions are required for the accreditation of the management regime for the Tasmanian Giant Crab Fishery under Part 13.
(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.	

Part 13A

Section 303BA Objects of Part 13A

(1) The objects of this Part are as follows:

- (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 Tasmanian Giant Crab 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 or 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>The Department recommends that product derived from the Tasmanian Giant Crab Fishery be included in the list of exempt native specimens until 18 July 2019.</p>
<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 Tasmanian Giant Crab 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 Tasmanian Giant Crab Fishery until 18 July 2019 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 Tasmanian Giant Crab Fishery is unlikely to be unsustainable and threaten biodiversity within the next five years, and the Environment Protection and Biodiversity Conservation Regulations 2000 do not specify crustaceans 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> <ul style="list-style-type: none"> (a) must consult such other Minister or Ministers as the Minister considers appropriate; and (b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and (c) may consult such other persons and organisations as the Minister considers appropriate. 	<p>The Department considers that the consultation requirements have been met.</p> <p>The application from the Department of Primary Industries, Parks, Water and Environment (DPIPWE) was released for public comment from 11 June 2014 to 9 July 2014. The public comment period sought comment on:</p> <ul style="list-style-type: none"> the proposal to amend the list of exempt native specimens to include product derived from the Tasmanian Giant Crab Fishery, and DPIPWE's application for the Tasmanian Giant Crab Fishery. <p>No comments were received</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 Tasmanian Giant Crab Fishery made under section 303DC will be gazetted and made available through the Department's website.</p>

Part 16

Section 391 Minister must consider precautionary principle in making decisions	The Department's assessment of the Tasmanian Giant Crab 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 the 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 and section 303FN.
(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.	

Part 12

Section 176 Bioregional Plans	The Department's assessment of the Tasmanian Giant Crab Fishery
(5) Subject to this Act, the Minister must have regard to a bioregional plan in making any decision under this Act to which the plan is relevant.	There is currently no bioregional plan in place for the South East Marine Region.

The Department of the Environment's final recommendations to the Department of Primary Industries, Parks, Water and the Environment (DPIPWE) for the Tasmanian Giant Crab Fishery

The material submitted by DPIPWE indicates that the Tasmanian Giant Crab Fishery operates in accordance with the Australian Government '*Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition*'.

Stock Status

The Department of the Environment (the Department) notes that while catch rates of giant crabs have declined in recent years and the stock status is currently unclear, the management regime in place in the Tasmanian Giant Crab Fishery is actively working to increase biomass by aiming to ensure that fishing is conducted in a manner that does not lead to overfishing.

Since the previous EPBC Act assessment of this fishery in 2009, DPIPWE has implemented a new management plan and has a draft harvest strategy currently being tested and validated by the Institute for Marine and Antarctic Studies. Although catch rates have declined in the fishery, the *Status of Key Australian Fish Stocks Reports 2012* determined that the stock status for giant crabs in southern Australia was sustainable in 2012, with a revised assessment anticipated in late 2014.

Management of the fishery has a history of reacting appropriately to threats to the sustainability of target stocks, including reducing catch levels to support the rebuilding of biomass, and the Department is confident that the DPIPWE will continue to provide this high quality management through the anticipated harvest strategy for the fishery.

Management measures currently in place in the fishery include:

- limited entry
- pot restrictions
- quota management within annually determined total allowable catches
- seasonal spawning closures, and
- minimum size limits.

Ecosystem Impacts

Taking into account the limited bycatch and low impact fishing methods used, the Department considers that the management regime for the Tasmanian Giant Crab Fishery provides for fishing operations to be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

Given these management measures, the Department considers that product taken in the Tasmanian Giant Crab Fishery should be included in the list of exempt native specimens under Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) until 18 July 2019. To ensure that the decisions for the Tasmanian Giant Crab Fishery remain valid, and 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: Tasmanian Giant Crab Fishery Assessment – Summary of Issues and Recommendations July, 2014

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 the Environment 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, EPBC Act protected species or the ecosystem.</p>	<p>Recommendation 1: Operation of the fishery will be carried out in accordance with the management regime in force under the Tasmanian <i>Living Resources Management Act 1995</i>.</p> <p>Recommendation 2: The Department of Primary Industries, Parks, Water and Environment (DPIPWE) to inform the Department of the Environment (the Department) of any intended material changes to the Tasmanian Giant Crab Fishery management arrangements that may affect the assessment against which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are made.</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 declaration. Annual reports should follow Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i> and 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 EPBC Act protected species, impacts of the fishery on the ecosystem in which it operates and progress in implementing the Department's recommendations. Electronic copies of the guidelines are available from the Department's website at http://www.environment.gov.au/resource/guidelines-ecologically-sustainable-management-fisheries</p>	<p>Recommendation 3: DPIPWE to produce and present reports to the Department annually as per Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i>.</p>

Issue	Recommendation
<p><u>Cross Jurisdictional Management</u></p> <p>Giant crabs (<i>Pseudocarcinus gigas</i>) are endemic to the waters of southern Australia, extending from waters offshore of Perth in Western Australia to Victoria and the waters surrounding Tasmania. Cross jurisdictional communication between the management agencies responsible for the commercial harvest of these species is therefore important to identify and address sustainability issues for giant crab stocks.</p> <p>In particular, as the Tasmanian Giant Crab Fishery operates in Commonwealth waters and overlaps with the Commonwealth Trawl Sector of the Commonwealth Southern and Eastern Scalefish and Shark Fishery (SESSF), close cooperation with the Australian Fisheries Management Authority (AFMA) is important.</p> <p>In the 2009 assessment of the Tasmanian Giant Crab Fishery, the Department recommended that DPIPWE continue to work with the AFMA to address recommendations stemming from a 2009 Fisheries Research and Development Corporation (FRDC) shelf break habitat study. The study identified areas of sensitive habitat for the Tasmanian Giant Crab Fishery and recommended that spatial management arrangements be put in place to ensure that trawling impacts to those areas were appropriately managed. However, in the years following the 2009 assessment, trawl effort decreased and these spatial management arrangements were not pursued.</p> <p>In 2013, increases in trawl effort that overlapped with the west coast area of the Tasmanian Giant Crab Fishery were apparent, therefore spatial management arrangements are now under renewed consideration.</p> <p>DPIPWE has advised that funding has been sought from the FRDC to undertake a joint DPIPWE and Institute for Marine and Antarctic Studies (IMAS) project to investigate the level of interaction and overlap between the Tasmanian Giant Crab Fishery and the Commonwealth Trawl Sector of the SESSF and to quantify the level of mortality and bycatch taken by trawlers.</p> <p>The Department is supportive of this approach and recommends that DPIPWE continue to investigate options to pursue this research. In addition, DPIPWE should continue to work collaboratively with other jurisdictions and, in particular AFMA.</p>	<p>Recommendation 4: The Department of Primary Industries, Parks, Water and Environment to</p> <p>a) work collaboratively with AFMA to investigate the impacts of trawling on Giant Crab stock and if necessary, implement appropriate spatial management arrangements, and</p> <p>b) continue to work with relevant fishery management agencies in the management of the shared giant crab stocks.</p>

Issue	Recommendation
<p><u>Harvest strategy</u></p> <p>The Department notes that the Tasmanian Giant Crab fishery has recorded declining catch rates for a number of years. The impact of environmental factors (such as changes to benthic habitat and changes to ocean currents) on catch rates is unknown and the relationship between catch rates and spawning biomass is not clearly understood. In the 2009 assessment, the Department recommended that DPIPWE finalise new performance indicators and ensure that appropriate management responses were developed. In its 2014 submission to the Department, DPIPWE provided a draft harvest strategy containing performance indicators and management responses that have been developed. While this harvest strategy has not yet been formally adopted, DPIPWE has advised that it will be finalised following an assessment of the target and limit reference points currently being conducted by IMAS.</p> <p>In the draft harvest strategy, DPIPWE has estimated that the giant crab biomass is currently at 19% of pre fishing levels. The accepted standard level for crustacean fisheries is considered to be 30%. DPIPWE has subsequently set 30% as the long term target level for the fishery, with the expectation that a level of 25% of pre fished giant crab biomass would be reached within the life of the new management plan (10 years).</p> <p>As part of the assessment by IMAS, the Total Allowable Catch (TAC) will continue to be set at levels that will ensure an 80% probability of the 25% target being reached in the lifetime of the current management plan. IMAS will also report on the timeframe required to reach the long term target of 30%. DPIPWE has advised the Department that should catch rates continue to decline below current levels, the TAC will be reduced to a point that will, in high probability, allow the biomass to rebuild.</p> <p>The draft harvest strategy will be in place for the duration of the current management plan, with a review planned in five years to determine if the objectives are still appropriate. In addition biennial reviews of the harvest strategy will be undertaken by IMAS to determine if the objectives of the strategy are being met.</p> <p>The Department is supportive of DPIPWE's approach and recommends that DPIPWE ensures that the finalised harvest strategy is implemented as soon as possible and that appropriate management responses and actions are implemented accordingly.</p>	<p>Recommendation 5:</p> <p>The Department of Primary Industries, Parks, Water and Environment to finalise and implement the harvest strategy for the fishery.</p>

Issue	Recommendation
<p><u>Data Collection</u></p> <p>In its submission to the Department, DPIPWE advised that a voluntary length frequency data collection system was introduced into the fishery with limited success. The lack of this data has impeded DPIPWE's ability to analyse the causes of continuing decline in catch rates in the fishery. DPIPWE also noted that the current length-frequency data available for the fishery has all been provided by a single operator.</p> <p>Considering the potential importance of this data in helping understand the decrease of catch rates in the fishery, the Department recommends that DPIPWE continue to work with fishers to encourage increased data collection, and if necessary, consider mandatory data collection.</p>	<p>Recommendation 6:</p> <p>The Department of Primary Industries, Parks, Water and Environment to work with fishers to improve data collection in the fishery.</p>

