



Australian Government

Department of the Environment, Water, Heritage and the Arts

Assessment of the
Tasmanian Giant Crab Fishery

July, 2009

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Disclaimer

This document is an assessment carried out by the Department of the Environment, Water, Heritage and the Arts 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, Heritage and the Arts 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, Heritage and the Arts or the Australian Government.

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Table 1: Summary of the Tasmanian Giant Crab Fishery (TGCF)

<p>Publicly available information relevant to the fishery</p>	<ul style="list-style-type: none"> • Tasmanian <i>Living Marine Resources Management Act 1995</i> • Tasmanian <i>Fisheries (Giant Crab) Rules 2006</i> (the Management Plan) • Tasmanian Aquaculture and Fisheries Institute's <i>Fishery Assessment Report: Tasmanian Giant Crab Fishery 2007/08</i> (TAFI's Fishery Assessment Report) • Application to the Department of the Environment, Water, Heritage and the Arts for the re-assessment of the Tasmanian Giant Crab Fishery 2009 (2009 Submission) • Department of the Environment and Heritage, Assessment of the Tasmanian Giant Crab Fishery 2006 (2006 Assessment) • Assessing the Ecological Sustainability of the Tasmanian Giant Crab Fishery (2006 Submission) • Draft Framework for assessing the Giant Crab Fishery (July 2007), Department of Primary Industries and Water • Department of the Environment and Heritage, Assessment of the, Tasmanian Giant Crab Fishery 2003 (2003 Assessment) • Assessing the Ecological Sustainability of the Tasmanian Giant Crab Fishery (2003 Submission)
<p>Area</p>	<div data-bbox="572 1010 1350 1697" data-label="Image"> <p>The image is a map of Tasmania, Australia, and its surrounding waters. The landmass of Tasmania is shown in light grey. The waters surrounding the island, including the Tasman Sea to the south and the Bass Strait to the west, are highlighted with a thick blue line. The map is overlaid with a light grey grid representing latitude and longitude.</p> </div> <p>Map of the TGCF (Source, 2009 Submission)</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. Part of the TCGF 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>Fishery status</p>	<p>Highlighted in the 2009 Submission, the Department of Primary</p>

	Industries and Water (DPIW) notes that Total Allowable Catch (TAC) has been in decline since the introduction of the fishery in the mid 1990's. In response to this decline the 2009/10 TAC was reduced from 62.1 tonnes (t) to 51.75t.
Target Species	<p>Giant Crab (<i>Pseudocarcinus gigas</i>) under quota management arrangements.</p> <p>Information on the biology of this species can be found in the 2003 Assessment located on the Department of Environment, Water, Heritage and the Arts (DEWHA) website.</p> <p>http://www.environment.gov.au/coasts/fisheries/tas/giant-crab/report/index.html</p>
Byproduct Species	<p>As of the 1 June 2007, giant crab byproduct has been reported in the Giant Crab Catch Record Book. This procedure has made for effective recording of byproduct as now fishers only have to fill in a single log book for their giant crab fishing operations. A recent audit of Giant Crab Catch returns (between June 2007 and December 2008) indicated that of 56 monthly returns from fishers who caught more than one tonne of giant crab, eight returns recorded retaining any byproduct.</p> <p>Species retained as byproduct in the TGCF include; Cod (<i>Pseudophycis barbata</i>), Conger eel (<i>Conger verreauxi</i>), Pink ling (<i>Genypterus blacodes</i>), and Morwong (<i>Nemadactylus Species</i>).</p>
Gear	The TGCF initially harvested giant crabs with modified rock lobster pots, however larger, heavier steel pots are now being 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. Each trap must have one or two escape gaps of defined minimum dimensions.
Season	The fishing season for male giant crabs is open all year round; a spawning closure for females applies between 15 November and 31 May inclusive.
Commercial harvest	The 2007/08 harvest of giant crab totalled 53.2t; this represented 84% of the 62.1t TAC, down 4.1t from the 2006/07 season. It is believed that the shortfall in TAC was because fishing became uneconomical after Christmas when beach prices fell rapidly and catch rates were too low. It is thought that a decrease in the TAC from 62.1t to 51.75t in the 2009/10 season will increase catch/effort productivity of the TGCF.
Value of commercial harvest	\$1.6 – 2 million (dependent on market prices)
Take by other sectors	<p>Due to the nature of the TGCF, operating in deep water off the continental shelf (120 – 250 metres), Indigenous and illegal fishing catch rates are considered low. Recreational fishers are permitted to a possession limit of one giant crab with a carapace length (CL) between 150-215 millimetres. According to TAFI, giant crab also form part of the byproduct of the Tasmanian Rock Lobster Fishery with an estimated 61 kilograms (kg) caught in 2006/07.</p> <p>Take of giant crab has also been reported by the Commonwealth South</p>

	East Trawl Fishery (SETF). Although figures provided to DPIW by the Australian Fisheries Management Authority (AFMA) are incomplete, is the available data suggests that the 2007 harvest was in the range of 4.9t and as high as 19.6t in the 2003/04 season.
Commercial licences issued	A total of 90 licences are issued in the TGCF and some fishers may hold more than one giant crab licence. In 2007/08, 22 giant crab licences recorded a catch of giant crab, with 68 licences not recording any harvest. The TGCF is a specialised fishery with only a small number of boats geared up to target giant crab. Whilst some vessels may hold giant crab licenses they may not necessarily target the species due to low market prices. Of the 22 boats that recorded landing giant crab, nine recorded taking more than 1000kg.
Management arrangements	<p>The TGCF is managed under the Tasmanian <i>Fisheries (Giant Crab) Rules 2006</i>, which obtains its authority from the Tasmanian <i>Living Marine Resources Management Act 1995</i>.</p> <p><u>Input Controls</u></p> <ul style="list-style-type: none"> • Limited entry; and • Pot restrictions <p><u>Output Controls</u></p> <ul style="list-style-type: none"> • Quota management including individual transferable quotas (ITQs) for giant crab. • Annually set TAC; • Minimum and maximum size limits; and • Catch limits for recreational fishers.
Export	Live giant crabs are marketed to both domestic and international (Asian) markets.
Bycatch	Low – bycatch in the TGCF is monitored through a disposable camera system. The cameras are used to take photos of the content of traps with each photo showing the content of a single trap. Bycatch in the TGCF is considered negligible with the most abundant species being Hermit Crab (<i>Trizopagarus strigimanus</i>), returned to the water alive, and Draughtboard Shark (<i>Cephaloscyllium laticeps</i>).
Interaction with Protected Species¹	<p>In the 2003 Assessment, the then Department of the Environment and Heritage (DEH) noted that the TGCF had no interactions with protected species. Since this time, reporting procedures have shifted slightly and now the TGCF records all protected species interactions directly in the giant crab logbook. No protected species interactions were reported by fishers targeting giant crab in 2007/08.</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 DEWHA.</p>
Ecosystem Impacts	The impact of TGCF on habitat is considered to be low. In a report

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.

	undertaken by TAFI (<i>Understanding Shelf Break Habitat for Sustainable Management of Fisheries Spatial Overlap</i>), findings suggested crab traps cause minimal impact on giant crab habitat.
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Table 2: Progress in implementation of recommendations made in the 2006 Assessment of the TGCF.

Condition	Progress	Recommended Action
<p>Operation of the TGCF will be carried out in accordance with the management regime in force under the Tasmanian <i>Living Marine Resources Management Act 1995</i>.</p>	<p>Ongoing</p> <p>Since the 2006 Assessment, operation of the TGCF has been carried out in accordance with the management regime in force under the Tasmanian <i>Living Marine Resources Management Act 1995</i>.</p>	<p>DEWHA considers this condition has been met; but as it is ongoing it will continue to apply under the new exemption for this fishery for the next five years in a revised form.</p> <p>Refer to Recommendation 1, Table 4</p>
<p>DPIW to advise the DEH of any material change to the TGCF management arrangements that could affect the criteria on which EPBC Act decisions are based, within three months of that change being made.</p>	<p>Ongoing</p> <p>Since the then DEH conducted the last assessment of the TGCF in 2006, no significant changes have been made to management arrangements. However the giant crab management plan (<i>the Fisheries (Giant Crab) Rules 2006</i>) will be reviewed in 2010 and is expected to be finalised in 2011.</p>	<p>DEWHA considers this condition has been met; but as it is ongoing it will continue to apply under the new exemption for this fishery for the next five years in a revised form.</p> <p>DEWHA reiterates the EPBC Act approvals are given for the TGCF management regime in place at the time of the decision and as such DEWHA must be advised of any intended management changes to ensure that EPBC Act accreditations remain valid.</p> <p>Refer to Recommendation 2, Table 4</p>
<p>Reports to be produced and presented to DEH annually, and to include:</p> <ul style="list-style-type: none"> Information sufficient to allow assessment of the progress of DPIW in implementing the recommendations made in the Assessment of the Tasmanian 	<p>Ongoing</p> <p>Since the last assessment of the TGCF, DPIW has reported annually on progress being made in implementing conditions and recommendations attached to the 2006 Assessment. DPIW has also provided catch and effort</p>	<p>DEWHA considers that this recommendation has been met and commends DPIW on its annual reporting. DEWHA considers the information provided by DPIW as crucial and will therefore continue to apply under the new exemption for this fishery for the next five years in a revised form.</p> <p>Refer Recommendation 3, Table 4.</p>

<p>Giant Crab Fishery 2006;</p> <ul style="list-style-type: none"> • A description of the status of the fishery and catch and effort information; • A statement of the performance of the fishery against objectives, performance indicators and measures once developed; and • Research undertaken or completed relevant to the fishery. 	<p>information through the independent TAFI stock assessment report, Fishery Assessment Report, <i>Tasmanian Giant Crab Fishery – 2007/08</i>.</p> <p>This report highlights progress against objectives and performance indicators, whilst also providing details on research being undertaken in the TGCF.</p>	
<p>DPIW, by the end of July 2007, to develop a strategy that provides for defining and monitoring robust target levels of sustainable yield and biomass for giant crab stocks in the TGCF. The strategy should include provisions to review and minimise the impacts of discarded giant crabs and review and address any requirements for additional giant crab assessment and monitoring data.</p>	<p>Complete</p> <p>In addressing this condition DPIW provided DEWHA with the ‘<i>Draft Framework for assessing the Giant Crab Fishery (July 2007)</i>’, which is now in place. The framework itself is divided into two primary objectives:</p> <ul style="list-style-type: none"> • Sustainability – the need to manage the risk of recruitment overfishing by maintaining the population of mature giant crabs across the whole fishery above defined reference points; and • Economic – the need to manage the legal biomass to 	<p>DEWHA considers this condition to be met.</p> <p>Whilst DEWHA commends the progress made by DPIW, in the development and implementation of the <i>Draft Framework for assessing the Giant Crab Fishery (July 2007)</i>, in which the development and review of performance indicators and reference points in the TGCF where addressed, DEWHA are concerned about the continual decline in catch rates and suggest further collaboration between the relevant jurisdictions and as such recommend that this work continues over the upcoming years.</p> <p>Therefore this issue will be addressed under Recommendation 4, Table 4.</p>

	<p>optimise the community benefit from the resource.</p> <p>Outlined within each objective are a series of strategies and performance indicators that outline steps to define and monitor robust target levels of sustainable yield and biomass for giant crab stocks in the TGCF. Strategies and performance indicators in the framework include; the limit of commercial catch through a TAC setting, seasonal closures on the take of berried females, giant crab bycatch to be less than 5% of the TAC across all sectors and monitoring legal size biomass.</p> <p>These reference points, along with additional performance indicators were recently trialled along side the existing performance indicators in DPIW's 2007/08 giant crab assessment. It is expected that both target and limit reference points identified will be further refined. It is DPIW's intention that these finalised measures be documented and completed prior to the review of the <i>Fisheries (Giant Crab) Rules 2006</i> in 2010.</p>	
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	<p>In reviewing the practice of giant crab discarding, DPIW noted that giant crab fishers continue to monitor and provide information on a number of undersized crabs that are released in the TGCF. It is understood by DEWHA that this information is supplied and reviewed by TAFI and provides data on undersized abundance and potential recruitment in the TGCF.</p> <p>Additionally, TAFI have noted that data obtained from the Fisheries Research and Development Corporation (FDRC) report, '<i>Understanding Shelf Break Habitat for Sustainable Management of Fisheries Spatial Overlap</i>' has identified a large abundance of undersized crab in the north west of the TGCF. DEWHA understands that DPIW will further investigate these findings.</p>	<p>Part two of the 2006 Condition stated that the strategy should include provisions to review and minimise the impacts of discarded giant crabs and review and address any requirements for additional giant crab assessment and monitoring data.</p> <p>DEWHA considers that this part of the condition has also been met.</p> <p>Whilst DPIW acknowledge that high grading occurs in the TGCF, according to fisheries research, survival rates of giant crab is high after being returned to the water.</p> <p>DEWHA notes that in TAFI's Fishery Assessment Report, <i>Tasmanian Giant Crab 2007/08</i>, high concentrations of undersized crab have been discovered in the north west of the fishery. DEWHA expect therefore that DPIW will continue to monitor the discarding of catch on giant crab stock and take appropriate management measures to ensure the protection of giant crab stock.</p> <p>Therefore this issue will be addressed as part of Recommendation 5, Table 4.</p>
Recommendation	Progress	Recommended Action
Within 18 months, DPIW to develop and implement a program for reporting byproduct species taken in the fishery and develop measures to periodically validate	<p>Complete</p> <p>Since 1 June 2007, giant crab fishers have been required to record any byproduct retained for</p>	DEWHA considers that this recommendation has been met.

<p>species taken in the TGCF.</p> <p>DPIW to also develop and implement preliminary performance measures for key byproduct species within two years.</p>	<p>commercial sale, personal use or retained for use as bait in the catch record book. Prior to the introduction of this system it was not possible to separate byproduct retained by giant crab fishers and rock lobster fishers in the DPIW Integrated Catch and Effort database. This data has been validated through monitoring by marine police.</p> <p>Byproduct data is now included in the in the annual Giant Crab Fishery Stock Assessment, with performance measures for byproduct currently being developed and trialled in the most recent giant crab fishery assessment.</p>	
<p>DPIW to implement, within 18 months, measure to monitor changes in the composition and quantity of bycatch species. The effectiveness of these measures should be periodically reviewed to ensure the validity of bycatch estimates.</p>	<p>Complete</p> <p>In addressing this recommendation, DPIW have introduced a disposable camera monitoring system whereby fishers are required to take photos of retrieved traps to measure and monitor composition and quantity of bycatch species.</p> <p>In an effort to periodically review</p>	<p>Whilst DEWHA acknowledges that this recommendation has been met, it also considers the continual gain of additional data invaluable to the monitoring of bycatch in the TGCF. DEWHA therefore encourages DPIW to continue to monitor bycatch and develop cross jurisdictional management of the giant crab.</p>

	<p>and ensure the validity of bycatch estimates, in the 2007/08 season TAFI began comparing data with observes in the Victorian Giant Crab Fishery. This comparison of data has allowed monitoring of shared stock through cross jurisdictional management of giant crab.</p> <p>Presently, giant crab fishers continue to use disposable cameras to record bycatch taken in giant crab traps and in the 2009/10 season, three cameras have been issued to six of the major crab fishers. Additional information has also been provided to camera operators on board vessels, instructing them to take photos of all retrieved pots, including empty ones to further validate recorded data.</p>	
<p>DPIW, in collaboration with industry, to continue to encourage and monitor the adoption of the environmental code of practice, the 'Clean Green Program', in particular those measures that minimise the impacts of trap loss and potential ghost fishing.</p>	<p>Ongoing</p> <p>DPIW continues to encourage participants to engage in the Southern Rock Lobster (SRL) Clean Green program. Of the 22 vessels who recorded landing of giant crab in 2008/09, seven have completed the SRL Clean Green</p>	<p>DEWHA commends DPIW on the range of work undertaken in an attempt to meet this recommendation.</p> <p>However DEWHA acknowledge that to date only seven out of a possible 22 fishers are enrolled in the SRL environmental code of practice, the 'Clean Green Program'.</p> <p>DEWHA considers that ongoing work is needed to continue improving participation rates of licence holders into the program</p>

	<p>program.</p> <p>In reference to monitoring the impacts of trap loss, industry members have reported that overall levels have been reduced since interactions with the SETF have declined.</p> <p>In an attempt to understand the effects of ghost fishing TAFI have recently deployed crab traps with surveillance cameras attached. The cameras take photos of the traps at periodic intervals and are analysed upon retrieval.</p> <p>Data from the experiment should become available in the next six months, with results expected to show that as soak time is increased giant crab catch will be reduced as the bait deteriorates and is consumed.</p>	<p>and to investigate boarder opportunities to support best practice in the TGCF.</p> <p>In relation to minimising the impacts of trap loss and potential ghost fishing, DEWHA expects DPIW to consider results of the TAFI study and share with relevant agencies involved in take of giant crab.</p> <p>DEWHA understands that giant crab is a shared stock with other states, in particular Victoria and South Australia and that only cross jurisdictional management with all relevant agencies will ensure the improvement of giant crab stock.</p> <p>DEWHA expects that DPIW will continue to collaborate with AFMA in regards to the impact of trawling on giant crab and habitat disturbance by the SETF. DEWHA acknowledge that the SETF is due for reassessment in 2009 (as part of the broader Southern and Eastern Scalefish and Shark Fishery Reassessment) and expects DPIW to work with AFMA on recommendations to come out of the assessment.</p> <p>Therefore this recommendation will continue in a revised form.</p> <p>Refer Recommendation 7, Table 4.</p>
DPIW to continue to collaborate with AFMA and implement measures to mitigate against impacts of harvest and incidental damage to giant crabs and their habitat by trawling activity in the TGCF. In particular, DPIW to consult further with AFMA to	<p>Ongoing</p> <p>Since the last assessment, DPIW has continued to collaborate with AFMA regarding the impacts of the SETF on the giant crab fishery. At a meeting between DPIW, AFMA and TAFI in September</p>	<p>DEWHA considers this recommendation to be ongoing as more progress is required, specifically in regard to addressing the recommendations of the TAFI report.</p> <p>As giant crab is a shared stock amongst three states (Tasmania, South Australia and Victoria) collaborative management is of high priority.</p> <p>It is expected that DPIW will act accordingly to information</p>

<p>ensure accurate reporting by Commonwealth trawl operators of giant crab catch from the area of the TGCF for inclusion in the stock assessment and TAC setting process.</p>	<p>2008 the results of the FRDC funded project '<i>Understanding Shelf Break Habitat for Sustainable Management of Fisheries Spatial Overlap</i>' looking at giant crab shelf break habitat were presented.</p> <p>The report highlighted large quantities of juvenile crabs in the far north west of the fishery and the potential for spatial closures to protect vital juvenile stock. This report is still to be released with FDRC requesting more time for further analysis.</p> <p>In the same meeting DPIW held talks with AFMA and TAFI regarding catch of giant crab by SETF operators. It was agreed that AFMA would provide TAFI with relevant data concerning catch of giant crab which would then be published every April. It was agreed that data would only be provided at a spatial level at eastern and western halves of the fishery.</p> <p>Methods used to better improve the reporting of giant crab catch by the SETF were also discussed,</p>	<p>provided in the FRDC report.</p> <p>Therefore, this Recommendation will continue in a revised form.</p> <p>Refer to Recommendation 7, Table 4.</p>
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	with DPIW to issue identification cards to better assist operators in recognising giant crab.	
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Table 3: DEWHA assessment of the TGCF against the requirements of the EPBC Act related to decisions made under Parts 13 and 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 13A. A complete version of the EPBC Act can be found on the DEWHA website.

Part 13

Division 1 Listed threatened species Section 208A Minister may accredit plans or regimes	DEWHA assessment of the TGCF
<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 threatened species (other than conservation dependent 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 survival or recovery in nature of the species.</p>	<p>The TGCF will be managed under the Tasmanian <i>Living Marine Resources Management Act 1995</i>.</p> <p>The management regime for the TGCF was accredited in 2003. The management arrangements for the TGCF have not significantly changed since this accreditation was granted.</p> <p>DEWHA considers that the TGCF still takes all reasonable steps to ensure that members of listed threatened species are not killed or injured. Currently evidence suggests that within the TGCF, there is minimal interaction with listed threatened species. Therefore, DEWHA considers the current operation of the TGCF is not likely to adversely affect the survival or recovery in nature of any listed threatened species. As such, the TGCF will be reaccredited under Part 13 of the EPBC Act.</p>
Division 2 Migratory species Section 222A Minister may accredit plans or regimes	DEWHA assessment of the TGCF
<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 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 TGCF will be managed under the Tasmanian <i>Living Marine Resources Management Act 1995</i>.</p> <p>The management regime for the TGCF was accredited in 2003. The management arrangements for the TGCF have not significantly changed since this accreditation was granted.</p> <p>DEWHA considers that the TGCF still takes all reasonable steps to ensure that listed migratory species are not killed or injured. Currently evidence suggests that within the TGCF, there is minimal possibility of interactions with listed migratory species. Therefore, DEWHA considers the current operation of the TGCF is not likely to adversely affect the conservation status of any listed migratory species or a population of that species. As such, the TGCF will be recredited under Part 13 of the EPBC Act.</p>
<p>Division 3 Whales and other cetaceans</p> <p>Section 245 Minister may accredit plans or regimes</p>	<p>DEWHA assessment of the TGCF</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 TGCF will be managed under the Tasmanian <i>Living Marine Resources Management Act 1995</i>.</p> <p>The management regime for the TGCF was accredited in 2006. The management arrangements for the TGCF have not significantly changed since this accreditation was granted.</p> <p>DEWHA considers that the TGCF still takes all reasonable steps to ensure that whales and other cetaceans are not killed or injured. Currently evidence suggests that within the TGCF, there is minimal possibility of interactions with whales or other cetaceans. Therefore,</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>DEWHA considers the current operation of the TGCF is not likely to adversely affect the conservation status of any species of cetacean or a population of that species. As such, the TGCF will be reaccredited under Part 13 of the EPBC Act.</p>
<p>Division 4 Listed marine species Section 265 Minister may accredit plans or regimes</p>	<p>DEWHA assessment of the TGCF</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>(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>The TGCF will be managed under the Tasmanian <i>Living Marine Resources Management Act 1995</i>.</p> <p>The management regime for the TGCF was accredited in 2003. The management arrangements for the TGCF have not significantly changed since this accreditation was granted.</p> <p>DEWHA considers that the TGCF still takes all reasonable steps to ensure that listed marine species are not killed or injured. Currently evidence suggests that within the TGCF, there is minimal possibility of interactions with listed marine species. Therefore, DEWHA considers the current operation of the TGCF is not likely to adversely affect the conservation status of any listed marine species or a population of that species. As such, the TGCF will be reaccredited under Part 13 of the EPBC Act.</p>

Section 303AA Conditions relating to accreditation of plans, regimes and policies	DEWHA assessment of TGCF
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	DEWHA recommends that TGCF 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: <ul style="list-style-type: none"> (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.	No condition has been imposed on the TGCF 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 303DC Minister may amend list	DEWHA assessment of the TGCF
(1) Minister may, by instrument in published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by: <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. 	
(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister: <ul style="list-style-type: none"> (a) must consult such other Minister or Ministers as the 	The public comment period on the 2009 Submission sought comment on the 2009 Submission for the TGCF and provided sufficient opportunity for consultation with other persons and organisations.

<p>(b) Minister considers appropriate; and 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>A letter to the Hon David Llewellyn MP, Tasmanian Minister for Primary Industries and Water 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 TGCF made under sections 303DC will be gazetted and made available on the DEWHA website.</p>
<p>Section 303FR Public consultation</p>	<p>DEWHA assessment of the TGCF</p>
<p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <p>(a) setting out the proposal to make the declaration; and</p> <p>(b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and</p> <p>(c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal.</p>	<p>Under the EPBC Act, a decision to amend the list of exempt native specimens (LENS) does not require a public consultation period. However, a public notice, which set out the proposal to grant export approval to the TGCF and included the submission for the TGCF, was released for public comment which closed on 3 June 2009 with no public comments received.</p>
<p>(2) A period specified in the notice must not be shorter than 20 business days after the date on which the notice was published on the Internet.</p>	<p>A public notice, which set out the proposal to grant export approval to the TGCF and included the 2009 Submission was released for public comment on 1 May 2009 and closed on 3 June 2009, a total of 24 business days.</p>
<p>(3) In making a decision about whether to make a declaration under section 303FN, the Minister must consider any comments about the proposal to make the declaration that were given in response to the invitation in the notice.</p>	<p>No public comments about the proposal were received.</p>

Part 16

Section 391 Minister must consider precautionary principle in making decisions	DEWHA assessment of the TGCF
(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.	The precautionary principle has been considered when making a decision to include specimens on the LENS.
(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.	

Objects of Part 13A

- (a) to ensure that Australia complies with its obligations under Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) 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.

Final recommendations to DPIW for the TGCF

The material submitted by DPIW indicates that the TGCF operates in accordance with the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries, 2nd Edition* (the Guidelines). DEWHA considers that the fishery is well managed and unlikely to have an unacceptable or unsustainable impact on the environment in the short to mid term.

Overall, DEWHA recognises that current management arrangements which include: protection of berried female crabs; a TAC limit managed through an ITQ system; minimum and maximum CL for both males and females of the targeted species; and a relatively selective fishing method, are sufficient to suggest that the TGCF is being managed in an ecologically sustainable way.

In making its assessment, DEWHA considers that the range of management measures are 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. Taking into account the seasonal spawning closure on the take of females, close monitoring of take by individual fishers through the logbook system and the relatively benign fishing methods employed, DEWHA considers that fishing operations are managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

DEWHA is satisfied that the fishery will not be detrimental to the survival or conservation status of the taxon to which it relates in the medium term. Similarly, it is not likely to threaten any relevant ecosystem in the medium term. To contain and minimise the risks in the longer term the recommendations listed below have been made. DEWHA believes that product taken in the fishery should be exempt from the export controls of Part 13A of the EPBC Act, with that exemption to be reviewed in five years.

DEWHA considers that the operation of the fishery 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. DEWHA also considers that under the management plan operators are required to take all reasonable steps to avoid the killing or injuring of protected species, and the level of interaction under current fishing operations is low.

For these reasons, the management regime in force under the Tasmanian *Living Marine Resources Management Act 1995* was accredited under Part 13 of the EPBC Act in July 2006. Since there have been no changes to the management arrangements since the initial assessment of the TGCF and the level of reported interactions with protected species in the fishery remain very low, DEWHA considers that the fishery should be reaccredited under Part 13 of the EPBC Act.

Recommendations are provided below with a brief explanation of the related issue/intent. Unless a specific time frame is provided in the recommendation each recommendation must be addressed within the life of the declaration five years.

Table 4: TGCF Assessment– Summary of Issues and Recommendations - July, 2009

	Issue	Recommendation
1	<p><u>General Management</u></p> <p>Export decisions relate to the arrangements in force at the time of the decision. In order to ensure that these decisions remain valid and export approval continues uninterrupted, DEWHA 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>DEWHA reminds DPIW that as soon as the new management plan is implemented all current EPBC Act accreditations become invalid. Therefore it is critical that DEWHA is kept well informed of this process as a reassessment of the new plan will need to occur prior to the management plan coming into force to ensure current EPBC Act approvals remain valid (Recommendation 2).</p>	<p>Recommendation 1:</p> <p>Operation of the fishery will be carried out in accordance with the management regime for the TGCF in force under the Tasmanian <i>Living Marine Resources Management Act 1995</i>.</p> <p>Recommendation 2:</p> <p>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.</p>
2	<p><u>Annual Reporting</u></p> <p>It is important that reports be produced and presented to DEWHA annually in order for the performance of the fishery and progress in implementing the conditions and recommendations in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration.</p> <p>Annual reports should include: a description of the fishery; management arrangements in place; research and monitoring outcomes; recent catch data for all sections of the fishery; status of target stock; interactions of protected species; impacts of the fishery on the ecosystem in which it operates; and information outlining the progress in implementing conditions and recommendations resulting from the previous</p>	<p>Recommendation 3:</p> <p>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>.</p>

	<p>accreditation of the fishery (for a complete description of annual reporting requirements, see Appendix B of the Guidelines available from the DEWHA website at http://www.environment.gov.au/coasts/fisheries/publications/guidlines.html)</p>	
3	<p><u>Performance indicators:</u></p> <p>The 2006 DEWHA assessment placed a condition on the Wildlife Trade Operation (WTO) for the TGCF which required the development of a strategy that provides for defining and monitoring robust target levels of sustainable yields and biomass for giant crab stocks in the TGCF by the end of 2007. It was recommended that this strategy include the provision to review and minimise the impacts of discarded giant crabs as well as the capacity to review and address requirements for additional giant crab assessment and monitoring data. This had originally been recommended in the 2003 Assessment of the fishery.</p> <p>In meeting the first part of this condition DPIW provided the <i>Draft Framework for assessing the Giant Crab Fishery (July 2007)</i>. The Framework outlined a range of strategies to manage the risk of recruitment overfishing by maintaining a mature population above a defined limit reference point. Management strategies included size limits for both male and female giant crabs, the application of a TAC, seasonal closures and prohibition on the retention of berried females. Performance indicators included limit reference points, such as egg production to be greater than 25% of virgin egg production, giant crab bycatch from all sectors to be less than 5% of the TAC and harvest rate in 2012 is no greater than historical rate. Additional indicators were also outlined in the Framework.</p> <p>DEWHA notes that this is a long term strategy and that only recently has there been sufficient data to estimate the productivity of the fishery. DPIW has advised that in consultation with the Crustacean Fishery Advisory Committee and TAFI, new target levels have been developed for biomass, egg production, and abundance of under size crabs. The new target reference points were trialled in 2007/08 and both target and limit reference points will be further refined. DEWHA understands that it is DPIW's</p>	<p>Recommendation 4:</p> <p>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>intention that the finalised measures will be documented in a new policy document to be completed prior to the review of the <i>Fisheries (Giant Crab) Rules 2006</i> in 2010.</p> <p>DEWHA notes that of the original performance indicators outlined in TAFI's Fishery Assessment Report, three were exceeded, including the yearly catch of < 90% of the TAC for the second year running, and that in response to this DPIW has reduced the TAC for 2009/10 from 62.1t to 51.8t.</p> <p>DEWHA commends DPIW on the progress made in the development and review of indicators and reference points, however given the continued decline in catch rates of giant crabs, DEWHA considers that DPIW needs to define more clearly the strategies that will be implemented to ensure the long term sustainability of the fishery. As such DEWHA recommends that as part of the 2010 review of the management plan DPIW finalises new performance indicators and management responses for the TGCF.</p> <p>The second part of the 2006 WTO Condition stated that the strategy should also include provision to review and minimise the impacts of discarded giant crabs and review and address requirements for additional giant crab assessment and monitoring data. As such, DPIW have advised that while there is no doubt that high grading occurs in the TGCF, as larger crabs are returned to the water as they fetch a lower price, research reported in Fisheries Biology of the giant crab demonstrated that giant crabs survive being returned to the water.</p> <p>The TAFI Fishery Assessment Report, indicated that undersize abundance is concentrated in the north west of the fishery. DEWHA expects that DPIW will monitor the impact of discarding of undersize crabs on the giant crab stock.</p>	<p>Recommendation 5:</p> <p>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>
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4	<p><u>Data</u></p> <p>DEWHA is concerned by the trend of continued decline in catch rates and that an abundance of small crabs are now being recorded in various areas of the catch zone. The TAFI Fishery Assessment Report, noted that the state wide exploitable biomass declined from 1601t in the early 1990s to about 291t in 2007/08. DEWHA therefore considers it is important to gain an understanding of the stock status, and that a long-term research strategy is put in place to ensure the sustainability of the fishery.</p> <p>Specific risks have been identified in the TAFI Fishery Assessment Report. The report noted that the risk assessment projections were less positive than in the last assessment. The report concluded that unless atypically strong recruitment occurs, any stock recovery is predicted to be slow, even under reduced catch levels, due to the slow growth of giant crab. In response to this data DPIW reduced the male size limits from 150millimetres (mm) to 140mm in order to shift some of the catch of females to the smaller more valuable male crabs. Modelling shows that the lower harvest rate for females will increase egg production and in conjunction with the reduced TAC it is anticipated that there will be an increase in biomass.</p> <p>The TAFI report also noted that length frequency data from the east coast of Tasmania is urgently required to reduce uncertainty in the stock assessment. DPIW has identified improvements in the data for the east coast of the fishery as a priority.</p> <p>As such DEWHA recommends that DPIW implements an appropriate research plan to pursue and support research to address these concerns to ensure that the giant crab stocks are managed at a sustainable level.</p>	<p>Recommendation 6:</p> <p>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.
5	<p><u>Cross Jurisdictional Management</u></p> <p>The FRDC funded project ‘<i>Understanding Shelf Break Habitat for Sustainable Management of Fisheries Spatial Overlap</i>’ has identified distinctive spatial patterns with a concentration of undersized crabs observed along the northwest region of</p>	<p>Recommendation 7:</p> <p>DPIW to</p> <p>a) work collaboratively with AFMA to address</p>

<p>Tasmania. The project recommended that the area be considered for specific spatial management. DPIW advised that this has been highlighted in discussions AFMA and that feedback will be sought from the trawl industry association once the project's final report has been released.</p> <p>DPIW has advised that it considers that the area should be subject to specific management to ensure trawling impacts on this important habitat are appropriately managed. DEWHA recommends that DPIW continues to work with AFMA to reduce the impact of trawling on giant crab stocks.</p> <p>Additionally, the 2008 Rock Lobster and Giant Crab TAC Forum and Management Workshop noted that the giant crab resource is a shared between Tasmania, Victoria and South Australia, and that tagging studies show that movement of giant crabs is generally in a north westerly direction along the continental shelf break. DEWHA therefore encourages DPIW to work with relevant jurisdictions in determining the broader impact of management arrangements for the TGCF.</p> <p>The 2006 Assessment recommended that DPIW, in collaboration with industry continue to encourage and monitor the adoption of the environmental code of practice, the 'Clean Green Program', in particular those measures that minimises the impacts of trap loss and potential ghost fishing. As part of the <i>Draft Framework for assessing the Giant Crab Fishery (July 2007)</i> DPIW proposed that the promotion of the 'Clean Green Program' managed by the Rock Lobster Fishing Industry Association would support improved fishing practices. The initiative contains standards of best practise covering environmental practise, seafood safety and quality and occupational health and safety. DPIW has advised that while it provides in kind support for this project it is primarily a market driven initiative. To date seven of the 22 fishers operating in the TGCF have participated in this program. DEWHA encourages DPIW to investigate broader opportunities to support best practice in the TGCF.</p> <p>DPIW has advised that trap loss has reduced as interactions with the Commonwealth trawl sector has declined and that a TAFI study is currently underway assessing the</p>	<p>the recommendations of the FDRC 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>
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<p>potential of giant crab pots to ghost fish. Data from this work is expected to be available by the end of 2009. DEWHA expects that DPIW will consider the recommendations from this project in the management of the TGCF and work across the appropriate fisheries management agencies to ensure broad awareness of the project outcomes.</p> <p>As outlined above there are a wide range of issues to be addressed in consultation with relevant fishery management agencies in order to ensure the long term sustainable management of giant crab stocks. As such DEWHA recommend DPIW work collaboratively with AFMA to address the recommendations of the TAFI report and continue to work with relevant fishery management agencies in the management of the shared giant crab stocks.</p>	
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Acronyms

AFMA	Australian Fisheries Management Authority
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CL	Carapace Length
DEH	Department of Environment and Heritage
DEWHA	Department of Environment, Water, heritage and the Arts
DPIW	Department of Primary Industries and Water
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
FRDC	Fisheries Research and Development Corporation
ITQ	Individual Transferable Quota
kg	kilograms
LENS	List of Exempt Native Specimens
mm	millimetres
SETF	South East Trawl Fishery
SRL	Southern Rock Lobster
t	tonnes
TAC	Total Allowable Catch
TAFI	Tasmanian Aquaculture and Fisheries Institute
TGCF	Tasmanian Giant Crab Fishery
OCS	Offshore Constitutional Settlement
WTO	Wildlife Trade Operation