



**Australian Government**

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**Department of the Environment, Water, Heritage and the Arts**

Assessment of the  
**Western Australia Northern Developmental Blue  
Swimmer Crab Fishery**

**July, 2009**

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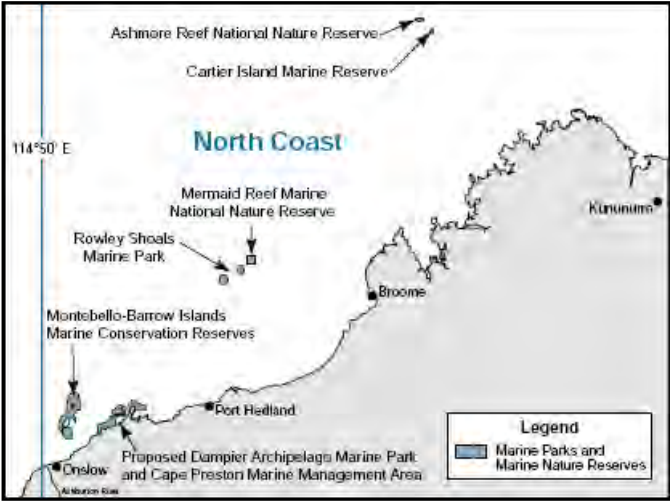

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#### **Disclaimer**

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 – 2<sup>nd</sup> 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 Western Australia (WA) Northern Developmental Blue Swimmer Crab Fishery (NDBSCF)**

<p><b>Publicly available information relevant to the fishery</b></p>	<ul style="list-style-type: none"> <li>• WA <i>Fish Resources Management Act 1994</i> (FRM Act)</li> <li>• WA <i>Fish Resources Management Regulations 1995</i> (FRM Regulations)</li> <li>• <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)</li> <li>• WA <i>State of the Fisheries Report</i> (SoFR), 2006/07, 2005/06 and 2004/05</li> <li>• Application to the Department of the Environment and Heritage (DEH) – NDBSCF, November 2005</li> <li>• DEH Assessment Report for the NDBSCF, January 2006</li> <li>• Application to the Department of the Environment, Water, Heritage and the Arts (DEWHA) – NDBSCF, December 2008</li> </ul>
<p><b>Area</b></p>	<p>The area of the NDBSCF encompasses the inshore waters off the northwest Western Australia coast from Onslow to Port Hedland. The majority of the recreational and commercial fishing effort is concentrated in and around the embayment of Nickol Bay.</p> 
<p><b>Fishery status</b></p>	<p>The 2006/07 SoFR for the NDBSCF notes that Catch-Per-Unit-Effort (CPUE) has been generally trending upwards since 2000/01. This report suggests that this is a reflection of improved understanding of the resident stocks and environmental influences, and improvements in fishing gear and vessels.</p>
<p><b>Target Species</b></p>	<p>Blue Swimmer Crab (<i>Portunus pelagicus</i>).</p>  <p>Information on the biology of these/this species can be found in the 2006 assessment of the fishery located on the DEWHA website at <a href="http://www.environment.gov.au/coasts/fisheries/wa/blue-swimmer-crab/report.html">http://www.environment.gov.au/coasts/fisheries/wa/blue-swimmer-crab/report.html</a>.</p>

<b>Byproduct Species</b>	<p>Coral crab (<i>Charybdis cruciata</i>) and sand crab (<i>Ovalipes australiensis</i>).</p> <p>Baseline data on the two byproduct species has been collected by Department of Fisheries WA (DFWA) officers during annual catch monitoring surveys between 2002 and 2008 (no surveys were conducted in 2003 and 2007). Overall, the numbers of byproduct species captured were very low. Advice from DFWA is that the survival rate of byproduct species returned to the sea is almost 100 per cent.</p> <p>Catch and Effort Statistics (CAES) returns also provide a record of commercial catches of byproduct species. These indicate that there have been no landings of the coral or sand crabs in this Fishery since 2000.</p>
<b>Gear</b>	<p>The dedicated blue swimmer crab fishers use a purpose-designed 'hourglass' trap. The Pilbara trawl fishers target prawn, but retain blue swimmer crabs as byproduct.</p> <p>Drop nets are typically used by the recreational fishers, with a small proportion using scoop nets or diving.</p>
<b>Season</b>	<p>While there is no formal closure of the fishery, the climatic conditions over summer restrict fishing to the cooler months between May and November.</p>
<b>Management arrangements</b>	<p>The NDBSCF fishery is managed under the legislative framework of the WA <i>Fish Resources Management Act 1994</i>. Commercial operations targeting blue swimmer crabs in the NDBSCF commenced in 2001.</p> <p><u>Commercial sector:</u></p> <ul style="list-style-type: none"> <li>- Pilbara Experimental Crab Trap Fishery: input control system, primarily through the regulation of vessel and trap numbers. Additional controls includes protection of all berried females, retainable species and associated minimum size limits (135mm carapace width [CW]), gear specifications and seasonal and daily time restrictions.</li> <li>- Pilbara Prawn Fleet: limited entry, seasonal and area closures, gear controls including bycatch reduction devices, and a total allowable effort where all boats have an equal allocation of headrope length for all areas.</li> </ul> <p>Recreational sector: minimum size limit (127mm CW), gear restrictions, bag limit (20/fisher/day), and localised spatial and temporal closures.</p>
<b>Commercial harvest</b>	<p>The combined commercial catch in 2005/06 was 55 tonnes (t), up from 34 t in 2004/05.</p> <p>In 2006 the catch rate was high to due to significantly more crabs being in the fishery (potentially due to high rainfall).</p> <p>Between 2000/01 and 2005/06, the annual catch of blue swimmer crab by the Pilbara prawn fleet remained below 10 t. For the same time period, the annual catch by the fishers using dedicated crab traps</p>

	fluctuated, but with an overall increase in CPUE.
<b>Value of commercial harvest</b>	\$0.25 million, with average price of approximately \$4.50 - \$6.00/kg.
<b>Take by other sectors</b>	The SoFR reports that there is minimal indigenous effort in the Pilbara region. In 2000, a survey of recreational crabbing estimated a catch of 20t. No further surveys of recreational catch have been undertaken.
<b>Commercial licences issued</b>	Two commercial fishers are authorised to operate in the NDBSCF, with one 200-pot endorsement and one 400-pot endorsement.
<b>Export</b>	The principal markets for the blue swimmer crabs caught in this Fishery are local and domestic. The fishers are working to expand this market into Asia.
<b>Bycatch</b>	Considered to be low, due to the crab pots being purpose-designed to minimise the capture of non-target species. The amount of bycatch is unquantified.
<b>Interaction with Protected Species<sup>1</sup></b>	Considered low. The crab trap longline system used by the two dedicated crab fishers has a low possibility of interacting with protected species.
<b>Ecosystem Impacts</b>	As the majority of the catch is taken by the fishers using purpose-designed crab traps, impacts on the physical ecosystem are considered to be negligible. In addition, impacts on the foodweb are unlikely given that the take of the target species is a relatively small proportion of the species total biomass across the state.
<b>Impacts on CITES-listed</b>	No specimens listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) are permitted to be harvested in the fishery. Therefore no assessment of the NDBSCF's impact on specimens listed under CITES has been conducted.

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

**Table 2: Progress in implementation of recommendations made in initial assessment of the Northern Developmental Blue Swimmer Crab Fishery (NDBSCF)**

<b>Recommendation</b>	<b>Progress</b>	<b>Recommended Action</b>
<p>1. DFWA to advise DEH of any material change to the NDBSCF's legislated management regime that could affect the criteria on which EPBC decisions are based, within three months of that change being made.</p>	<p>DFWA has advised DEWHA that no significant changes have been made to the management arrangements since accreditation in 2006.</p> <p>Recommendation met.</p>	<p>DEWHA considers this recommendation to be met and ongoing (<b>Condition 2</b>, Table 4).</p> <p>DEWHA notes that a review of the performance, management arrangements and viability of the Fishery was undertaken in 2007. According to DEWHA, the outcomes of this review are yet to be provided to the WA Minister for Fisheries.</p> <p>DEWHA has recommended that the review of the Fishery be finalised and provided to the WA Minister for Fisheries, to determine the long term status and management of the fishery (<b>Recommendation 2</b>, Table 4).</p>
<p>2. The Ecologically Sustainable Development (ESD) Report, including all performance measures, responses and information requirements to be incorporated into the management regime and decision making process.</p>	<p>DFWA has not completed an ESD Report for the NDBSCF, largely due to competing priority works and resource limitations.</p>	<p>DEWHA understands that there are limited resources available to undertake a comprehensive ESD report and instead recommend DFWA focus its limited resources on completing an Ecological Risk Assessment of the Fishery, which is an important component of a complete ESD report. Implementing management responses to the identified risks, as appropriate, and providing transparency in this process are key parts of this recommendation (<b>Recommendation 1</b>, Table 4).</p>
<p>3. DFWA to ensure, where appropriate, that any relevant indigenous, conservation, and recreational interests in the fishery are considered through consultative mechanisms.</p>	<p>According to DFWA, conservation and recreational interests were consulted during the 2007 review of the Fishery. These stakeholders have also participated in the Developing Fisheries Assessment Committee.</p>	<p>DEWHA has recommended that DFWA finalise the review of the Fishery, and if appropriate, upgrade the Fishery's status to that of an interim managed fishery. DEWHA understands that stakeholder consultation is a requirement of this process (<b>Recommendation 2</b>, Table 4).</p>

	Recommendation met.	
4. By the end of 2006, DFWA to develop fishery specific performance measures for the target species (blue swimmer crab) and fishery specific objectives, performance indicators and measures, based on the best available information, for the two by-product species.	The 2005 DFWA assessment of the NDBSCF indicated that the risks to the target and byproduct species are minimal. The 2008 DFWA assessment states that specific performance indicators and measures have not been developed for either the target or byproduct species. DFWA claims that this is due to the relatively low catch and effort in the Fishery, and due to the seasonal nature of the fishing activity, the species' broad distribution, short life cycle and high fecundity.	DEWHA has recommended that as part of the process to upgrade the status of the Fishery to an interim managed fishery, DFWA will consider developing performance measures and indicators for the target, byproduct and bycatch species and the marine ecosystem in the NDBSCF ( <b>Recommendation 3</b> , Table 4).  In addition, DEWHA has recommended that DFWA develop a total acceptable catch range for blue swimmer crab in recognition of the increased time-series data available to DFWA and the potential for increased effort in the Fishery ( <b>Recommendation 4</b> , Table 4).
5. DFWA to incorporate into the management regime, an objective to minimise protected/listed species interactions, to minimise or maintain at sustainable levels the take of other non-retained species and to minimise impacts on the marine environment	The NDBSCF does not have its own dedicated management regime or plan. Rather, the Fishery is managed under the <i>Fisheries Resource Management Act 1994</i> and the Developing New Fisheries framework.  Neither the Act nor the framework contain objectives regarding protected/listed species interactions or the take of non-retained species. However, the objectives of the Act includes protection of the environment, and	DEWHA has recommended that DFWA prepare an Ecological Risk Assessment of the Fishery, and implement management responses for the identified risks. This should identify the risks that the Fishery poses to protected/listed species, non-retained species, and to the marine environment. This information will then be available for use in the potential revision of the Fishery's management arrangements, as part of a possible upgrade of the Fishery's status to that of an interim managed fishery. ( <b>Recommendation 1</b> , Table 4).

	<p>the framework is based on a precautionary approach.</p> <p>DFWA states in its 2008 application that due to the size, fishing method employed and developmental status, adverse impacts on the marine ecosystem are unlikely.</p> <p>Recommendation partially complete.</p>	
6. DFWA, in its Annual State of the Fisheries Report, to report on the performance of the NDBSCF against performance measures that relate to the sustainability of the fishery, once developed.	The only performance information available for the NDBSCF is catch and effort data. No additional performance measures have been developed for this Fishery.	DEWHA has recommended that DFWA develop performance measures and indicators for the target, byproduct and bycatch species in the NDBSCF ( <b>Recommendation 3</b> , Table 4). Reporting against these measures will then occur through DFWA's annual SoFR and the reporting requirements of <b>Condition 3</b> , Table 4.
7. DFWA to develop a research strategy for the fishery that: <ul style="list-style-type: none"> <li>identifies research information needs and priorities to meet the management information, stock assessment and performance measurement needs of the fishery; and</li> <li>investigates potential synergies with other blue swimmer crab research.</li> </ul>	A research strategy for the Fishery has not been completed. However, DFWA advises that the outcomes of other relevant research into blue swimmer and related crab species are monitored.	No further action is recommended at this time.
8. Noting the potential for fishing efficiency to increase and for the	In June 2007, the performance, management arrangements and	DEWHA has recommended that DFWA finalise the review of the Fishery, and consider progressing the management status of

<p>fishery to continue to evolve, DFWA, by the end of 2007, to review the management arrangements of the fishery to ensure that blue swimmer crab stocks continue to be fished within ecologically sustainable levels.</p>	<p>overall viability of the Fishery were reviewed in consultation with relevant stakeholders. The outcomes of this review, however, have not been finalised and the long-term status of the Fishery has not been determined.</p> <p>DFWA notes that there is the potential for a significant increase in effort across the fishery as geographic exploration continues and local knowledge improves. DFWA recommends monitoring effort in Nickol Bay, plus the monitoring of effort more broadly across the fishery.</p> <p>Recommendation partially complete.</p>	<p>the Fishery to an ‘interim managed fishery’ (<b>Recommendation 2</b>, Table 4).</p> <p>While the remote nature of the fishery has limited its growth, DFWA advises that it expects the catch and effort to increase as the fishers’ knowledge of the spatial distribution of resident stocks and localised environmental influences increase over time. DEWHA therefore recommends that the understanding of the stock status is improved, and that a long-term monitoring strategy is put in place (<b>Recommendation 5</b>, Table 4).</p>
<p>9. DFWA to implement an education program to ensure that industry has the capacity to make protected species reports at an appropriate level of accuracy.</p>	<p>DFWA advise that all fishers have been given identification booklets for protected species, and informed of the need to report interactions with protected species.</p> <p>Recommendation met.</p>	<p>No further action is recommended at this time.</p>

**Table 3: The Department of the Environment, Water, Heritage and the Arts (DEWHA) assessment of NDBSCF 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**

<p><b>Division 1 Listed threatened species</b>  <b>Section 208A Minister may accredit plans or regimes</b></p>	<p><b>DEWHA assessment of the Northern Developmental Blue Swimmer Crab Fishery (NDBSCF)</b></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"> <li>i. made by a State or self-governing Territory; and</li> <li>ii. in force under a law of the State or self-governing Territory;</li> </ul> <p>if <b>satisfied</b> 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 <b>NDBSCF</b> will be managed under NDBSCF’s management regime made under the <i>WA Fish Resources Management Act 1994</i>.</p> <p>The Management regime for the NDBSCF was accredited in February 2006. The management arrangements for the NDBSCF have not significantly changed since this accreditation was granted. As such, the fishery will be reaccredited under Part 13.</p> <p>Currently, evidence suggests that within the NDBSCF, there is minimal possibility of interactions with listed threatened species. Therefore, DEWHA considers the current operation of the NDBSCF is not likely to adversely affect the survival or recovery in nature of any threatened species. As such, the NDBSCF will be reaccredited under Part 13 of the EPBC Act.</p>
<p><b>Division 2 Migratory species</b>  <b>Section 222A Minister may accredit plans or regimes</b></p>	<p><b>DEWHA assessment of the NDBSCF</b></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"> <li>i. made by a State or self-governing Territory; and</li> <li>ii. in force under a law of the State or self-governing Territory;</li> </ul> <p>if <b>satisfied</b> 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 <b>NDBSCF</b> will be managed under NDBSCF’s management regime made under the <i>WA Fish Resources Management Act 1994</i>.</p> <p>The Management regime for the NDBSCF was accredited in February 2006. The management arrangements for the NDBSCF have not significantly changed since this accreditation was granted. As such, the fishery will be reaccredited under Part 13.</p> <p>Currently, evidence suggests that within the NDBSCF, there is minimal possibility of interactions with migratory species. Therefore, DEWHA considers the current operation of the NDBSCF is not likely to adversely affect the survival or recovery in nature of any migratory species. As such, the NDBSCF will be reaccredited under Part 13 of the EPBC Act in relation to the protected species provisions.</p>
<p><b>Division 3 Whales and other cetaceans</b>  <b>Section 245 Minister may accredit plans or regimes</b></p>	<p><b>DEWHA assessment of the NDBSCF</b></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"> <li>i. made by a State or self-governing Territory; and</li> <li>ii. in force under a law of the State or self-governing Territory;</li> </ul>	<p>The <b>NDBSCF</b> will be managed under NDBSCF’s management regime made under the <i>WA Fish Resources Management Act 1994</i>.</p>

<p>if <b>satisfied</b> 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>(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>The Management regime for the NDBSCF was accredited in February 2006. The management arrangements for the NDBSCF have not significantly changed since this accreditation was granted. As such, the fishery will be reaccredited under Part 13.</p> <p>Currently, evidence suggests that within the NDBSCF, there is minimal possibility of interactions with whales and other cetaceans. Therefore, DEWHA considers the current operation of the NDBSCF is not likely to adversely affect the survival or recovery in nature of any whales and other cetaceans. As such, the NDBSCF will be reaccredited under Part 13 of the EPBC Act in relation to the protected species provisions.</p>
<p><b>Division 4 Listed marine species</b> <b>Section 265 Minister may accredit plans or regimes</b></p>	<p><b>DEWHA assessment of the NDBSCF</b></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> <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 <b>satisfied</b> 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</p>	<p>The <b>NDBSCF</b> will be managed under NDBSCF's management regime made under the <i>WA Fish Resources Management Act 1994</i>.</p> <p>The Management regime for the NDBSCF was accredited in February 2006. The management arrangements for the NDBSCF have not significantly changed since this accreditation was granted. As such, the fishery will be reaccredited under Part 13.</p> <p>Currently, evidence suggests that within the NDBSCF, there is minimal possibility of interactions with listed marine species.</p>

status of a listed marine species or a population of that species.	Therefore, DEWHA considers the current operation of the NDBSCF is not likely to adversely affect the survival or recovery in nature of listed marine species. As such, the NDBSCF will be recredited under Part 13 of the EPBC Act in relation to the protected species provisions.
<b>Section 303AA Conditions relating to accreditation of plans, regimes and policies</b>	<b>DEWHA assessment of NDBSCF</b>
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	DEWHA recommends that NDBSCF be recredited 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"> <li>(a) during a particular period; or</li> <li>(b) while certain circumstances exist; or</li> <li>(c) while a certain condition is complied with.</li> </ul> In such a case, the instrument of accreditation is to specify the period, circumstances or condition.	No condition has been imposed on NDBSCF 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

<b>Section 303DC Minister may amend list</b>	<b>DEWHA assessment of the NDBSCF</b>
(1) Minister may, by instrument in published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens – LENS) by: <ul style="list-style-type: none"> <li>(a) including items in the list;</li> <li>(b) deleting items from the list; or</li> <li>(c) imposing a condition or restriction to which the inclusion of a specimen in the list is subject; or</li> <li>(d) varying of revoking a condition or restriction to which the inclusion of a specimen in the list is subject; or</li> <li>(e) correcting an inaccuracy or updating the name of a species.</li> </ul>	
(3) Before amending the list referred to in section 303DB (list of	DEWHA considers that the consultation requirements have been met.

<p>(a) must consult such other Minister or Ministers as the Minister considers appropriate; and</p> <p>(b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and</p> <p>(c) may consult such other persons and organisations as the Minister considers appropriate.</p>	<p>The public comment period on the DFWA submission provided sufficient opportunity for consultation with other persons and organisations.</p> <p>A letter to the Hon Norman Moore MLC advises him of the intention to declare the fishery an approved Wildlife Trade Operation (WTO) under 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 NDBSCF made under sections 303DC will be gazetted and made available on the DEWHA website.</p>
<p><b>Section 303FN Approved wildlife trade operation</b></p>	<p><b>DEWHA assessment of the NDBSCF</b></p>
<p>(2) The Minister may, by instrument published in the <i>Gazette</i>, declare that a specified wildlife trade operation is an <b><i>approved wildlife trade operation</i></b> for the purposes of this section.</p>	
<p>(3) The Minister must not declare an operation as an approved wildlife trade operation unless the Minister is <b>satisfied</b> that:</p> <p>(a) the operation is consistent with the objects of Part 13A of the Act; and</p> <p>(b) the operation will not be detrimental to:</p> <p>i. the survival of a taxon to which the operation relates; or</p> <p>ii. the conservation status of a taxon to which the operation relates; and</p> <p>(ba) the operation will not be likely to threaten any relevant ecosystem including (but not limited to) any habitat or biodiversity;</p>	<p>The NDBSCF is consistent with objects of Part 13A (listed after this table) as:</p> <ul style="list-style-type: none"> <li>▪ the fishery will not harvest any CITES listed species;</li> <li>▪ there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1);</li> <li>▪ the operation of the NDBSCF is unlikely to be unsustainable and threaten biodiversity within the next 3 years; and</li> <li>▪ the EPBC Regulations 2000 do not specify fish as a class of animal in relation to the welfare of live specimens.</li> </ul> <p>DEWHA considers that the NDBSCF will not be detrimental to the survival or conservation status of a taxon to which it relates within the next 3 years, given the management measures currently in place, which include: limited entry, species and gear restrictions, protection of berried females and a conservative minimum size limit.</p> <p>DEWHA considers that the NDBSCF will not threaten any relevant ecosystem within the next 3 years, given the management measures</p>

<p>and</p> <p>(c) if the operation relates to the taking of live specimens that belong to a taxon specified in the regulations – the conditions that, under the regulations, are applicable to the welfare of the specimens are likely to be complied with; and</p> <p>(d) such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied.</p>	<p>currently in place, which include: limited entry, species and gear restrictions, protection of berried females and a conservative minimum size limit.</p> <p>The EPBC Regulations 2000 do not specify fish as a class of animal in relation to the welfare of live specimens.</p> <p>No other conditions are specified in relation to commercial fisheries in the EPBC Regulations 2000.</p>
<p>(4) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have <b>regard</b> to:</p> <p>(a) the significance of the impact of the operation on an ecosystem (for example, an impact on habitat or biodiversity); and</p> <p>(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).</p>	<p>DEWHA considers that the NDBSCF will not have a significant impact on any relevant ecosystem within the next 3 years, given the management measures currently in place, which include: limited entry, species and gear restrictions, protection of berried females and a conservative minimum size limit.</p> <p>The management arrangements that will be employed for the NDBSCF are likely to be effective.</p>
<p>(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have <b>regard</b> to:</p> <p>(a) whether legislation relating to the protection, conservation or management of the specimens to which the operation relates is in force in the State or Territory concerned; and</p> <p>(b) whether the legislation applies throughout the State or Territory concerned; and</p> <p>(c) whether, in the opinion of the Minister, the legislation is effective.</p>	<p>The <b>NDBSCF</b> will be managed under NDBSCF’s management regime made under the <i>WA Fish Resources Management Act 1994</i>.</p> <p>The Western Australian (WA) <i>Fish Resources Management Act 1994</i> applies throughout WA state waters.</p> <p>The management arrangements that will be employed for the NDBSCF are likely to be effective.</p>

<p>(10) For the purposes of section 303FN, an operation is a wildlife trade operation if, and only if, the operation is an operation for the taking of specimens and:</p> <p>(d) the operation is a commercial fishery.</p>	<p>The NDBSCF is a commercial fishery.</p>
<p><b>Section 303FR Public consultation</b></p>	<p><b>DEWHA assessment of the NDBSCF</b></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>DEWHA considers that consultation requirements of the EPBC Act for declaring a WTO have been met. A public notice, which set out the proposal to declare the NDBSCF a WTO and included the submission, was released for public comment which closed on 26 February 2009.</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 declare the NDBSCF a WTO and included the submission was released for public comment on 29 January 2009 and closed on 26 February 2009.</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>
<p><b>Section 303FT Additional provisions relating to declarations</b></p>	<p><b>DEWHA assessment of the NDBSCF</b></p>
<p>(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.</p>	<p>A declaration for the NDBSCF will be made under section 303FN.</p>
<p>(4) The Minister may make a declaration about a plan or operation even though he or she considers that the plan or operation should be the subject of the declaration only:</p> <p>(a) during a particular period; or</p> <p>(b) while certain circumstances exist; or</p> <p>(c) while a certain condition is complied with.</p> <p>In such a case, the instrument of declaration is to specify the period,</p>	<p>The standard conditions applied to commercial fishery WTOs include:</p> <ul style="list-style-type: none"> <li>• operation in accordance with the management regime;</li> <li>• notifying DEWHA of changes to the management regime; and</li> <li>• annual reporting in accordance with the requirements of the Australian Government <i>Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition</i>.</li> </ul> <p>The WTO instrument for the NDBSCF specifies the standard conditions applied.</p>

circumstances or condition.	
(8) A condition may relate to reporting or monitoring.	One of the standard conditions relates to reporting.
(9) The Minister must, by instrument published in the <i>Gazette</i> , revoke a declaration if he or she is satisfied that a condition of the declaration has been contravened.	
(11) A copy of an instrument under section 303FN, or this section is to be made available for inspection on the Internet.	The instrument for the <b>NDBSCF</b> made under sections 303FN and the conditions under section 303FT will be gazetted and made available on the DEWHA website.

## Part 16

<b>Section 391 Minister must consider precautionary principle in making decisions</b>	<b>DEWHA assessment of the NDBSCF</b>
(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 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.

## **Conditions and Recommendations to Western Australia Department of Fisheries (DFWA) for the Northern Developmental Blue Swimmer Crab Fishery (NDBSCF)**

The material submitted by DFWA demonstrates that the management arrangements for the NDBSCF meet most of the requirements of the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries, 2<sup>nd</sup> edition*.

DEWHA recognises that the life history characteristics of the blue swimmer crab, plus the management strategies of limiting the number of commercial fishing operators, the selective type of fishing gear employed, defining zone areas where commercial fishing can occur, and the use of a conservative minimum legal size limit render it somewhat resilient to fishing. As such, DEWHA considers that overall the management regime aims to ensure that fishing is conducted in a manner that does not lead to over-fishing and for fishing operations to be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

While the fishery is relatively well managed, DEWHA has identified a number of risks and uncertainties that must be managed to ensure that impacts are minimised:

- Completion of an Ecological Risk Assessment (ERA) and implementation of management responses to mitigate identified risks;
- Finalisation of the review of the 'developmental fishery' status of the NDBSCF;
- Development of fishery objectives, performance measures and indicators should the fishery progress from a 'developmental' fishery status;
- Consideration as to developing a total acceptable catch range; and
- Development and implementation of a long term monitoring and stock assessment program.

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 short to medium term. Similarly, it is not likely to threaten any relevant ecosystem in the short to medium term.

To contain and minimise the risks in the longer term the conditions and recommendations in Table 4 have been made. The key challenges for this fishery will be the completion of an ERA, finalisation of the review of the management status of the Fishery, development of a total acceptable catch range, and implementation of a long term monitoring and stock assessment program. If the Fishery is transitioned from a Developmental Fishery to an Interim Managed Fishery, it will be critical to ensure that the new management arrangements are sufficient to manage this growth whilst limiting risks to the stock and broader marine environment. DEWHA considers that, until it can be demonstrated that these issues have been adequately dealt with, a three-year WTO declaration is appropriate.

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 arrangements were accredited under Part 13 of the EPBC Act in February 2006. As there have been no changes to the management arrangements since the initial assessment of the fishery and the level of reported interactions with protected species in the fishery remains very low, DEWHA considers that the fishery should be reaccredited under Part 13.

Unless a specific time frame is provided in the conditions and recommendation, each condition and recommendation must be addressed within the life of the declaration (three years). Note that a standard condition of a WTO is an annual reporting requirement, the details of which are provided in Table 4.

**Table 4: Northern Developmental Blue Swimmer Crab Fishery (NDBSCF) Assessment – Summary of Issues, Conditions and Recommendations, July 2009**

	<b>Issue</b>	<b>Conditions and Recommendations</b>
1	<p><b><u>General Management</u></b></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, the Department of the Environment, Water, Heritage and the Arts (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 by-product, bycatch, protected species or the ecosystem.</p>	<p><b>Condition 1:</b></p> <p>Operation of the Northern Developmental Blue Swimmer Crab Fishery (NDBSCF) will be carried out in accordance with the management regime in force under the Western Australian <i>Fish Resources Management Act 1994</i>.</p> <p><b>Condition 2:</b></p> <p>The Western Australia Department of Fisheries (DFWA) to inform DEWHA of any intended amendments to the management arrangements that may affect the assessment against the criteria on which the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) decisions are based.</p>
2	<p><b><u>Annual Reporting</u></b></p> <p>Reports must 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><b>Condition 3:</b></p> <p>DFWA to produce and present reports to DEWHA annually as per Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries</i> -</p>

	<p>Annual reports should follow Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition</i> (the Guidelines) 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 protected species, impacts of the fishery on the ecosystem in which it operates and progress in implementing DEWHA conditions and recommendations.</p> <p>DFWA's annual <i>State of the Fisheries Report</i> meets the reporting requirements for most of Appendix B, except for progress in implementing conditions and recommendations of the current export approval. DFWA have agreed to provide this component of the annual reporting requirements as a separate document.</p> <p>Electronic copies of the Guidelines are available from the DEWHA website at: <a href="http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html">http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html</a></p>	<p><i>2nd Edition.</i></p>
3	<p><b><u>Ecological Risk Assessment (ERA)</u></b></p> <p>In the 2008 submission, DFWA indicated that the Ecologically Sustainable Development (ESD) report for the fishery is yet to be completed. As part of the ongoing development and refinement of the management arrangements for the fishery and with a focus on sustainable management of target stocks and the marine ecosystem, the ESD report is an important component of the overall management of the fishery. DEWHA understands from DFWA, however, that there are limited resources available to undertake a comprehensive ESD report at this time.</p> <p>In order to begin work towards the compilation of an ESD report, DEWHA recommends that DFWA undertake and finalise an ERA for the NDBSCF, and that it implement subsequent management responses, as appropriate, to the identified risks.</p> <p>ERAs assess the potential impact, both direct and indirect, that a fishery's activities may have on all aspects of the marine ecosystem and should form a large part of an agency's</p>	<p><b>Recommendation 1:</b></p> <p>DFWA to:</p> <ul style="list-style-type: none"> <li>a) finalise an Ecological Risk Assessment (ERA) for the NDBSCF;</li> <li>b) finalise and implement management responses, as appropriate, to the identified risks; and</li> <li>c) ensure the ERA and the management responses are available to the public.</li> </ul>

	<p>approach to fisheries management. This is a cost and time efficient way of screening activities and identifying key ecological priorities for the management of a fishery. Impacts posed by a fishery are assessed against key ecological components, including: retained species, non-retained species and the general ecosystem.</p> <p>As part of the preparation of the ERA, all current management measures must be taken into account to avoid an over-estimation of the actual risks and to ascertain if further management measures are required. The management arrangements in place, or proposed, to respond to the identified risks should be detailed in the report.</p> <p>DEWHA considers the management of ecological risks critical to the ongoing sustainable management of this fishery and it is crucial that priority is given to this work. DEWHA recommends the report specify a comprehensive review period no greater than five years, with more regular reviews of key management components as appropriate and general reviews of information as it becomes available.</p> <p>DEWHA expects that the ERA report with a management response, when completed, will be publicly available, thereby allowing for the clear articulation and justification of management arrangements in place for the fishery.</p>	
4	<p><u>Future development of the fishery</u></p> <p>The NDBSCF has been in operation since 2001. It is considered to be an experimental fishery, and in the eight years of operation its status has not progressed beyond the ‘developing fishery’ stage.</p> <p>The management arrangements for the NDBSCF are described in the DFWA 2005 submission <i>Draft Application to the Australian Government Department of the Environment and Heritage on the Northern Developmental Blue Swimmer Crab Fishery</i>.</p> <p>DFWA advises that a review of the performance, management arrangements and overall viability of the Fishery was undertaken in June 2007. However, the outcomes of this review</p>	<p><b>Recommendation 2:</b></p> <p>DFWA to finalise the review into the long term status of the fishery and provide the outcomes of the review to the WA Minister for Fisheries, to consider progressing the management arrangements of the NDBSCF from a ‘developmental fishery’ to an ‘interim managed fishery’.</p>

	<p>and the long term status of the Fishery are still under consideration.</p> <p>DEWHA understands that there is some interest and support to move the Fishery from its 'developing fishery' stage to the 'interim managed fishery' stage. This would improve certainty for the Fishery's stakeholders, and provide a more formal management framework to manage the likely increases in fishing efficiency and effort.</p> <p>DEWHA therefore recommends that DFWA finalises the review and provides the outcomes to the WA Minister for Fisheries to make a decision on the future of the fishery. If appropriate, DEWHA recommends that DFWA commences the process in the next three years to progress the Fishery to an interim managed fishery.</p> <p>DEWHA considers that an upgrade to interim managed fishery status would be an appropriate time to develop and articulate the operational objectives of the NDBSCF, and the performance measures and indicators used to manage the performance of the Fishery. This would then enable the annual DFWA <i>State of the Fisheries Report</i> prepared by DFWA to provide an evaluation of the performance of this fishery against these objectives/performance measures, and appropriately detailed justifications for the levels of risk chosen for each component of the fishery and the methods used.</p>	<p><b>Recommendation 3:</b></p> <p>DFWA to develop fishery objectives, performance measures and indicators for target, byproduct and bycatch species (including protected species), and the marine ecosystem, as appropriate, particularly should the fishery progress from a 'developmental fishery'.</p>
5	<p><u>Setting an acceptable catch range, performance measures and indicators</u></p> <p>In the 2005 DFWA submission, DFWA indicated that acceptable catch ranges were yet to be determined for the Fishery as there was insufficient time series data for the commercial fishery to allow ranges to be set, and as a developmental fishery some increase in catch rates were expected. DFWA indicated that sufficient information should be available within the next five years for acceptable catch ranges to be developed.</p> <p>With eight years of data now available from 2001, and in light of the potential for increased effort in the fishery, DEWHA recommends that DFWA develops an acceptable catch range for the Fishery, plus appropriate performance measures and indicators to ensure any</p>	<p><b>Recommendation 4:</b></p> <p>In the absence or delay of progression from a 'developmental fishery', DFWA to consider the time series catch data available, with a view to developing a total acceptable catch range for blue swimmer crab in the NDBSCF.</p>

	<p>increase is managed accordingly.</p> <p>The completion of Recommendation 3 may meet the requirements of this Recommendation and ideally each will occur in conjunction with the other. However, DEWHA consider the development of a total acceptable catch range (or equivalent performance measure) for blue swimmer crab as a priority for the NDBSCF regardless of whether the fishery's management status moves from a 'developing fishery' to an 'interim managed fishery'.</p>	
4	<p><u>Improved monitoring of stock, and catch and effort</u></p> <p>DEWHA commends DFWA for its precautionary approach to managing the Fishery, notably through current low effort levels, and the size at capture being significantly above size at maturity.</p> <p>While the remote nature of the fishery has limited its growth, DFWA advises that it expects the catch and effort to increase as the fishers' knowledge of the spatial distribution of resident stocks and localised environmental influences increase over time. DEWHA therefore considers that it is important that understanding of the stock status is improved, and that a long-term monitoring strategy is put in place. DEWHA understands that there are limited resources available to conduct this work, but expects that should it become possible, the work should be undertaken as a matter of priority.</p>	<p><b>Recommendation 5:</b></p> <p>DFWA to seek to develop and implement a long term monitoring and stock assessment program for the target species, appropriate to the level of activity and catch in the fishery, that ensures the ongoing sustainability of the fishery's blue swimmer crab stocks.</p>

## Acronyms

CAES	Catch and Effort Statistics
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CPUE	Catch-Per-Unit-Effort
DEH	Department of Environment and Heritage
DEWHA	Department of Environment, Water, Heritage and the Arts
DFWA	Department of Fisheries Western Australia
ESD	Ecologically Sustainable Development
ERA	Ecological Risk Assessment
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
LENS	List of Exempt Native Specimens
NDBSCF	Northern Developmental Blue Swimmer Crab Fishery
SoFR	<i>State of the Fisheries Report</i>
WA	Western Australia
WTO	Wildlife Trade Operation