



**Australian Government**

---

**Department of Sustainability, Environment, Water, Population and Communities**

Assessment of the  
**Northern Territory Aquarium Fishery**

**DECEMBER, 2012**

© Commonwealth of Australia 2012

This work is copyright. Apart from any use as permitted under the Copyright Act 1968, no part may be reproduced by any process without prior written permission from the Commonwealth, available from the Department of Sustainability, Environment, Water, Population and Communities. Requests and inquiries concerning reproduction and rights should be addressed to:

Assistant Secretary  
Marine Biodiversity and Biosecurity Branch  
Department of Sustainability, Environment, Water, Population and Communities  
GPO Box 787  
Canberra ACT 2601

#### **Disclaimer**

This document is an assessment carried out by the Department of Sustainability, Environment, Water, Population and Communities of a commercial fishery against the Australian Government 'Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition'. It forms part of the advice provided to the Minister for Sustainability, Environment, Water, Population and Communities on the fishery in relation to decisions under 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 Sustainability, Environment, Water, Population and Communities or the Australian Government.

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

# Contents

<b>Table 1: Summary of the Northern Territory Aquarium Fishery .....</b>	<b>1</b>
--	----------

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

<b>Table 2: Progress in implementation of conditions and recommendations made in previous assessment of the Northern Territory Aquarium Fishery .....</b>	<b>7</b>
---	----------

Table 2 contains an update on the progress that has been made by the fishery's management agency in implementing the conditions and recommendations that formed part of the fishery's previous approved wildlife trade operation declaration.

<b>Table 3: The Department of Sustainability, Environment, Water, Population and Communities' assessment of the Northern Territory Aquarium Fishery against the requirements of the EPBC Act .....</b>	<b>11</b>
--	-----------

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

<b>The Department of Sustainability, Environment, Water, Population and Communities' final conditions and recommendations to the Northern Territory Department of Primary Industry and Fisheries for the Northern Territory Aquarium Fishery .....</b>	<b>30</b>
--	-----------

This section contains the department's assessment of the Northern Territory Aquarium Fishery performance against the Australian Government's 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition' and outlines the reasons the department recommends that the fishery be declared an approved wildlife trade operation.

<b>Table 4: Northern Territory Aquarium Fishery Assessment – Summary of Issues, Conditions and Recommendations December, 2012.....</b>	<b>33</b>
--	-----------

Table 4 contains a description of the issues identified by the department with the current management regime for the Northern Territory Aquarium Fishery and outlines the proposed conditions and recommendation that would form part of the delegate's decision to declare the fishery an approved wildlife trade operation.

<b>References.....</b>	<b>39</b>
------------------------	-----------

<b>Acronyms .....</b>	<b>39</b>
-----------------------	-----------



**Table 1: Summary of the Northern Territory Aquarium Fishery**

<b>Publicly available information relevant to the fishery</b>	<ul style="list-style-type: none"><li>• Northern Territory Fisheries Act 1988</li><li>• Northern Territory Fisheries Regulations</li><li>• Northern Territory Annual Fishery Status Reports 2010</li><li>• Northern Territory Annual Fishery Status Reports 2009</li><li>• Northern Territory Annual Fishery Status Reports 2008</li><li>• Northern Territory Aquarium Fishery Reassessment Report (2012)</li><li>• Marine bioregional plan for the North Marine Region (2012)</li></ul>
<b>Area</b>	<p>The area of the Northern Territory Aquarium Fishery encompasses Territory and Commonwealth waters off the Northern Territory coast. The fishery also includes all Northern Territory inland waters.</p> <p>Marine fishing effort is concentrated in coastal waters near the Vernon Islands and the greater Darwin area with a smaller amount occurring near Nhulunbuy. The majority of freshwater and estuarine species are collected from streams and creeks close to Darwin and from the Adelaide and Daly river systems.</p> <p>Harvesting is not permitted in a number of areas including:</p> <ul style="list-style-type: none"><li>• Doctor's Gully and East Point Aquatic Life Reserves in Darwin Harbour</li><li>• Aboriginal sacred sites</li><li>• aquaculture farm leases</li><li>• sanctuary zones.</li></ul> <p>Additionally, commercial collection of coral is not permitted in Darwin and Gove Harbour.</p> <p>No commercial fishing is allowed in Kakadu National Park under park management arrangements.</p> <p>Part of the fishery's operation occurs in Australia's North Marine Region (Department of Sustainability, Environment, Water, Population and Communities 2012). The fishery may also operate within the North Commonwealth Marine Reserves Network.</p>
<b>Target Species</b>	<p>The Northern Territory Aquarium Fishery harvests a wide variety of marine and fresh water species, including fish, plant and coral species, to sell live specimens to the aquarium trade (most product is sold interstate).</p> <p>The fishery targets invertebrates including hermit crabs, giant clams, hard and soft corals, shrimp and live rock and many finfish species including catfish, archerfish, grunters, gudgeon and rainbowfish. The most common invertebrates collected by the fishery are corals and hermit crabs.</p>

<b>Fishery status</b>	<p>The 2010 Fishery Status Report concludes that the level of harvest for that year was low and the impact on the resource is insignificant. The report further concluded that harvest of all aquarium fishery species/groups were below their total harvest trigger reference points. However, it also advised that trigger reference points will continue to be reviewed.</p> <p>Since 2010, the harvest of many species has increased greatly, highlighting the need for ongoing monitoring of the impact of harvest and review of harvest trigger reference points for species taken in the fishery.</p>																																																															
<b>Byproduct Species</b>	Minimal, if any, byproduct is taken, due to the selective fishing methods used and licensing requirements which ensure all bycatch species are returned to the water as soon as possible.																																																															
<b>Gear</b>	Licence holders use barrier, cast, scoop, drag and skimmer nets, hand pumps, freshwater pots and hand-held instruments to collect aquarium species.																																																															
<b>Season</b>	<p>The Northern Territory Aquarium Fishery is open for commercial collection of species all year round. Harvesting is limited by wet season weather conditions for a large portion of the year.</p> <p>All licences are valid from 1 July to 30 June each year.</p>																																																															
<b>Commercial harvest (2010)</b>	<p>Invertebrate species/groups - commercial harvest rates for 2010.</p> <table><tr><th>Species</th><th>Harvest</th></tr><tr><td>Invertebrates</td><td></td></tr><tr><td>Acetes shrimp</td><td>145 kg</td></tr><tr><td>Anemones</td><td>2209 individuals</td></tr><tr><td>Cherabin (prawn)</td><td>212 individuals</td></tr><tr><td>Corallimorphs (special corals)</td><td>6371 individuals (350 kg)</td></tr><tr><td>Coral other</td><td>3934 individuals (89 kg)</td></tr><tr><td>Giant clams</td><td>93 individuals</td></tr><tr><td>Hermit crabs</td><td>22 104 individuals</td></tr><tr><td>Live rock</td><td>1265 kg</td></tr><tr><td>Red claw crayfish</td><td>466 individuals</td></tr><tr><td>Shrimp</td><td>1151 individuals</td></tr><tr><td>Fish</td><td></td></tr><tr><td>Anemone fish (all)</td><td>390 individuals</td></tr><tr><td>Archerfish (all)</td><td>4547 individuals</td></tr><tr><td>Catfish (other)</td><td>977 individuals</td></tr><tr><td>Eel-tailed catfish (all)</td><td>8106 individuals</td></tr><tr><td>Grunters (all)</td><td>2517 individuals</td></tr><tr><td>Gudgeons (all)</td><td>2147 individuals</td></tr><tr><td>Hardy heads (all)</td><td>1715 individuals</td></tr><tr><td>Mangrove jack</td><td>281 individuals</td></tr><tr><td>Mouth almighty</td><td>143 individuals</td></tr><tr><td>Mudskipper</td><td>209 individuals</td></tr><tr><td>Mullet (all)</td><td>315 individuals</td></tr><tr><td>Nursery fish</td><td>110 individuals</td></tr><tr><td>Puffer fish (all)</td><td>492 individuals</td></tr><tr><td>Rainbowfish (all)</td><td>2040 individuals</td></tr><tr><td>Saratoga</td><td>1038 individuals</td></tr><tr><td>Scats (all)</td><td>1434 individuals</td></tr><tr><td>Sole (all)</td><td>307 individuals</td></tr><tr><td>Spangled perch</td><td>352 individuals</td></tr></table>		Species	Harvest	Invertebrates		Acetes shrimp	145 kg	Anemones	2209 individuals	Cherabin (prawn)	212 individuals	Corallimorphs (special corals)	6371 individuals (350 kg)	Coral other	3934 individuals (89 kg)	Giant clams	93 individuals	Hermit crabs	22 104 individuals	Live rock	1265 kg	Red claw crayfish	466 individuals	Shrimp	1151 individuals	Fish		Anemone fish (all)	390 individuals	Archerfish (all)	4547 individuals	Catfish (other)	977 individuals	Eel-tailed catfish (all)	8106 individuals	Grunters (all)	2517 individuals	Gudgeons (all)	2147 individuals	Hardy heads (all)	1715 individuals	Mangrove jack	281 individuals	Mouth almighty	143 individuals	Mudskipper	209 individuals	Mullet (all)	315 individuals	Nursery fish	110 individuals	Puffer fish (all)	492 individuals	Rainbowfish (all)	2040 individuals	Saratoga	1038 individuals	Scats (all)	1434 individuals	Sole (all)	307 individuals	Spangled perch	352 individuals
Species	Harvest																																																															
Invertebrates																																																																
Acetes shrimp	145 kg																																																															
Anemones	2209 individuals																																																															
Cherabin (prawn)	212 individuals																																																															
Corallimorphs (special corals)	6371 individuals (350 kg)																																																															
Coral other	3934 individuals (89 kg)																																																															
Giant clams	93 individuals																																																															
Hermit crabs	22 104 individuals																																																															
Live rock	1265 kg																																																															
Red claw crayfish	466 individuals																																																															
Shrimp	1151 individuals																																																															
Fish																																																																
Anemone fish (all)	390 individuals																																																															
Archerfish (all)	4547 individuals																																																															
Catfish (other)	977 individuals																																																															
Eel-tailed catfish (all)	8106 individuals																																																															
Grunters (all)	2517 individuals																																																															
Gudgeons (all)	2147 individuals																																																															
Hardy heads (all)	1715 individuals																																																															
Mangrove jack	281 individuals																																																															
Mouth almighty	143 individuals																																																															
Mudskipper	209 individuals																																																															
Mullet (all)	315 individuals																																																															
Nursery fish	110 individuals																																																															
Puffer fish (all)	492 individuals																																																															
Rainbowfish (all)	2040 individuals																																																															
Saratoga	1038 individuals																																																															
Scats (all)	1434 individuals																																																															
Sole (all)	307 individuals																																																															
Spangled perch	352 individuals																																																															

	<table> <tr> <td>Tarpon</td><td>503 individuals</td></tr> <tr> <td>Other</td><td>475 individuals</td></tr> </table>	Tarpon	503 individuals	Other	475 individuals
Tarpon	503 individuals				
Other	475 individuals				
<b>Value of commercial harvest (2010)</b>	Estimated to be over \$350,000 in 2010.				
<b>Take by other sectors</b>	Catch by recreational and Indigenous fishers is unknown but is thought to be negligible. Recreational fishing surveys in 1995 and 2000-01 have indicated no take of aquarium fish. Recreational harvest of giant clams has been prohibited since 2010.				
<b>Commercial licences issued</b>	<p>The fishery consists of three licence categories:</p> <ul style="list-style-type: none"> <li>• Aquarium Fishing/Display licences allow the collection, sale and display of aquarium species</li> <li>• Aquarium Trader licences allow the sale and trade of aquarium species, and</li> <li>• Public Aquarium licences allow the display of live fish and aquatic life for profit.</li> </ul> <p>Out of the 12 Aquarium Fishing/Display licences permitted in the fishery in 2010, eight recorded fishing activity.</p> <p>There is no limit on the number of Aquarium Trader or Public Aquarium licences which can be issued, noting however that collection of aquarium species is not permitted under these licences.</p> <p>Nine new Aquarium Trader licences and two Public Aquarium licences were issued in 2010.</p>				
<b>Management arrangements</b>	<p>The Northern Territory Aquarium Fishery is managed under the Northern Territory <i>Fisheries Act 1988</i> and the Northern Territory Fisheries Regulations, by conditions specified on Aquarium Fishing/Display Fishery licences.</p> <p>A performance measurement system is in place for the fishery to ensure ecological sustainability. Management objectives, performance indicators, measures, trigger reference points and management actions have all been established and/or undergone refinement for the Northern Territory Aquarium Fishery.</p> <p>Management arrangements for the fishery include:</p> <ul style="list-style-type: none"> <li>• limited entry</li> <li>• gear restrictions</li> <li>• area closures</li> <li>• logbook reporting</li> <li>• management objectives, performance indicators, performance measures and trigger points for target species.</li> </ul> <p>Additional management arrangements to be implemented by March 2013 include species-specific harvest trigger reference points and management responses to gather sustainability information for species listed on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).</p>				
<b>Export</b>	The majority of the product harvested from the fishery is traded by airfreight interstate. Minor amounts are exported to overseas buyers.				

<b>Bycatch</b>	Due to the selective fishing methods employed in the fishery, the level of bycatch is considered negligible. A condition placed on aquarium licences also requires all non-target species to be immediately placed back into the water. Low bycatch has been verified by observers who accompanied licensees whilst harvesting in the past.
<b>Interaction with Protected Species<sup>1</sup></b>	<p>The risk of interactions with protected species is considered low due to the benign fishing methods employed in the fishery.</p> <p>Current management arrangements allow the harvest of syngnathids (seahorses and most pipefish) which are listed marine species under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act), in Northern Territory waters only. Take of these species is not permitted in Commonwealth waters. There has been no reported harvest of these species for at least the last 3 years.</p> <p>The 2010 status report states that an occasional sawfish is taken for display purposes. Sawfish of the genus <i>Pristis</i> are protected under Part 13 of the EPBC Act. The narrow sawfish (<i>Anoxypristis cuspidata</i>), which is not protected by Part 13 the EPBC Act, is the only sawfish permitted to be taken in the fishery.</p> <p>Under the approved wildlife trade operations declaration proposed to be in place from December 2012, harvest of <i>Hippocampus</i> species and narrow sawfish (<i>Anoxypristis cuspidata</i>) for export will not be permitted. This is because it has not been possible for Australia's CITES Scientific Authority for Marine Species to determine that any harvest for export would not be detrimental to the survival of these species.</p>
<b>Ecosystem Impacts</b>	<p>Selective fishing methods, limited entry to the fishery, no-take areas, gear restrictions, the difficulty of access to collection areas and restrictions on operations for a large part of the year due to monsoonal weather conditions may limit negative impacts on the ecosystem. However there is limited information available on the ecosystems impacted by the fishery. Hence, conditions requiring precautionary management arrangements have been proposed in relation to CITES-listed species, to reflect this uncertainty.</p> <p>The fishery operates partially in the North Marine Region. Key ecological features in the region include submerged coral reefs. It is considered unlikely that these features would be impacted by the fishery due to the current low levels of harvest. If the levels of harvest were to increase significantly, this could have potential impact.</p>
<b>Impacts on Convention on International Trade in Endangered Species of Wild Fauna and Flora species</b>	<p>This assessment considered the possible impacts on species harvested in the Northern Territory Aquarium Fishery which are listed under CITES (see Table 3).</p> <p>Export of CITES specimens may only occur where:</p> <ul style="list-style-type: none"> <li>• the CITES Scientific Authority of the country of export has found that the export will not be detrimental to the survival of the species (a non-detriment finding), and</li> <li>• a CITES export permit has been issued by the CITES Management Authority.</li> </ul>

<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.



	<p>The EPBC Act gives effect to Australia's obligations as a party to CITES. Under the EPBC Act, CITES export permits must not be issued unless the Minister administering the EPBC Act is satisfied that the export will not be detrimental to, or contribute to trade which is detrimental to:</p> <ul style="list-style-type: none"> <li>• the survival of any taxon to which the specimen belongs</li> <li>• the recovery in nature of any taxon to which the specimen belongs</li> <li>• any relevant ecosystem.</li> </ul> <p>As a party to CITES, Australia must apply all relevant provisions of the EPBC Act to CITES imports and exports as appropriate.</p> <p>The Northern Territory Aquarium Fishery has historically targeted various species listed in Appendix II of CITES. These are:</p> <ul style="list-style-type: none"> <li>• hard corals (e.g. stony corals and black corals)</li> <li>• fluted giant clams (<i>Tridacna squamosa</i>)</li> <li>• seahorses (<i>Hippocampus spp.</i>)</li> <li>• narrow sawfish (<i>Anoxypristis cuspidata</i>).</li> </ul> <p>Hard corals and fluted giant clams are actively harvested in the fishery.</p> <p>Australia's Scientific Authority for Marine Species for the Convention on International Trade in Endangered Species (Australia's CITES Scientific Authority for Marine Species) has made the following non-detriment findings (NDFs) relating to export of hard corals and giant clams:</p> <ul style="list-style-type: none"> <li>• <i>Non-Detriment Finding for the Export of CITES-Listed Coral Species Harvested from the Northern Territory Aquarium Fishery – December 2012</i> (2012 Coral NDF)</li> <li>• <i>Non-Detriment Finding for the Export of Fluted Giant Clams Harvested from the Northern Territory Aquarium Fishery – December 2012</i> (2012 Fluted Giant Clam NDF).</li> </ul> <p>These NDFs found that provided the Northern Territory Department of Primary Industry and Fisheries agree to adopt and implement measures to meet the recommendations within the conclusions of the NDFs, harvest of relevant CITES listed species from the Northern Territory Aquarium Fishery is considered non-detrimental to the species in question. This assessment is time limited, and is only considering the environmental impact of harvest for the next 18 months (the period of the recommended approved wildlife trade operation declaration for the fishery).</p> <p>Seahorses (<i>Hippocampus spp</i>) and narrow sawfish (<i>Anoxypristis cuspidata</i>) have been harvested in the fishery in the past, and harvest is still permitted under the management arrangements for the fishery. There has been no harvest reported for the past three years, and <i>Hippocampus spp</i> have not been reported harvested since 1997. Seahorses cannot be harvested in Commonwealth waters.</p>
--	---

	<p>Under the approved wildlife trade operation declaration proposed to be in place from December 2012, harvest of <i>Hippocampus</i> species and narrow sawfish (<i>Anoxypristis cuspidata</i>) for export will not be permitted. This is because it has not been possible for Australia's CITES Scientific Authority for Marine Species to determine that any harvest for export would not be detrimental to the survival of these species, and therefore they are not included within the list of CITES species covered by the approved wildlife trade operation declaration.</p>
<b>Impacts on World Heritage areas</b>	<p>The Kakadu National Park is listed as a world heritage area. This assessment considered the possible impacts of the Northern Territory Aquarium Fishery on the world heritage values of Kakadu National Park.</p> <p>No commercial fishing is permitted in Kakadu National Park. Given the highly selective harvesting methods and low harvest levels, the fishery is unlikely to have any impacts on Kakadu National Park. The fishery also does not have significant operations (if any) in the vicinity of Kakadu National Park.</p> <p>On this basis the department considers that an action taken by an individual fisher, acting in accordance with the Northern Territory <i>Fisheries Act 1988</i> and the Northern Territory Fisheries Regulations, would not be expected to have a significant impact on the Kakadu National Park or the world heritage values of the Kakadu World Heritage Area.</p>

**Table 2: Progress in implementation of conditions and recommendations made in previous assessment of the Northern Territory Aquarium Fishery**

Condition	Progress	Recommended Action
1. Operation of the fishery will be carried out in accordance with the Northern Territory Aquarium Fishery management regime made under the Northern Territory <i>Fisheries Act</i> and the Northern Territory <i>Fisheries Regulations</i> .	The Northern Territory Department of Primary Industry and Fisheries reports that the Northern Territory Aquarium Fishery continues to be managed in accordance with the management regime made under the Northern Territory <i>Fisheries Regulations</i> and Northern Territory <i>Fisheries Act</i> .	The Department of Sustainability, Environment, Water, Population and Communities considers that this condition has been met.  The department recommends that a new approved wildlife trade operation declaration for the Northern Territory Aquarium Fishery specify a similar condition (see <b>Condition 1, Table 4</b> ).
2. The Northern Territory Department of Resources to inform the Department of Sustainability, Environment, Water, Population and Communities of any intended amendments to the management arrangements that may affect the criteria on which EPBC Act decisions are based.	The Northern Territory Department of Primary Industry and Fisheries reported that no changes to management arrangements were made that negatively impacted on resource sustainability.	The department considers that this condition has been met.  The department recommends that a new approved wildlife trade operation declaration for the Northern Territory Aquarium Fishery specify a similar condition (see <b>Condition 2, Table 4</b> ).
3. The Northern Territory Department of Resources to produce and present reports to the Department of Sustainability, Environment, Water, Population and Communities annually as per Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2<sup>nd</sup> Edition</i> .	The 2012 application provided by the Northern Territory Department of Primary Industry and Fisheries fulfils this requirement as the last Australian Government assessment was completed in 2011.	The department considers that this condition has been met.  The department recommends that a new approved wildlife trade operation declaration for the Northern Territory Aquarium Fishery specify a similar condition (see <b>Condition 3, Table 4</b> ).

Condition	Progress	Recommended Action
<p>4. In consultation with Australia's CITES<sup>2</sup> Scientific Authority for Marine Species (Department of Sustainability, Environment, Water, Population and Communities), the Northern Territory Department of Resources to review the management arrangements for all species listed on Appendix II of CITES, which are permitted to be retained in the Northern Territory Aquarium Fishery. The review should include, but not be limited to, a review of the process for setting performance measures and trigger reference points for each species with reference to CITES requirements.</p>	<p>Australia's CITES Scientific Authority for Marine Species has reviewed the management arrangements of the Northern Territory Aquarium Fishery relating to species listed on Appendix II of CITES. The review considered the performance measures and trigger reference points. Following that review, the Authority has made a number of recommendations, which now form conditions for the next wildlife trade operation declaration, and which the Northern Territory Department of Primary Industry and Fisheries has agreed to implement.</p>	<p>Following its review of the Northern Territory Aquarium Fishery's management arrangements, Australia's CITES Scientific Authority for Marine Species has made a number of recommendations, which are proposed as conditions for the next wildlife trade operation declaration (see <b>Conditions 4 - 8, Table 4</b>).</p>
<p>5. The Northern Territory Department of Resources to consult with the Department of Sustainability, Environment, Water, Population and Communities prior to any change to the management arrangements for a CITES-listed species being implemented in the Northern Territory Aquarium Fishery.</p>	<p>The department is satisfied that there have been no changes to the management arrangements for CITES listed species, or for EPBC Act listed species.</p>	<p>The department considers that this condition has been met.</p>

<sup>2</sup> Convention on International Trade in Endangered Species of Wild Fauna and Flora

Part 13 Condition	Progress	Recommended Action
<p>1. Persons fishing in accordance with the management regime for the Northern Territory Aquarium Fishery in force under the Northern Territory <i>Fisheries Act</i> and the Northern Territory <i>Fisheries Regulations</i> do not retain any species listed under Part 13 of the EPBC Act taken, killed or injured in Commonwealth waters as a result of fishing.</p>	<p>No species listed under Part 13 of the EPBC Act are permitted to be taken from Commonwealth waters. In addition, the newly revised Aquarium Fishery's Environmental Management System states that all licensees will release any non-commercial species, such as protected species, quickly and at the point of capture. The Northern Territory Department of Primary Industry and Fisheries advises that operators are aware of this requirement.</p>	<p>The Department considers that this condition has been met.</p> <p>The department recommends that a new Part 13 accreditation for the Northern Territory Aquarium Fishery specify this condition.</p>

Recommendation	Progress	Recommended Action
<p>1. Taking into account all available information, the Northern Territory Department of Resources to continue to refine species-specific management arrangements for coral and associated benthic species to ensure that levels of harvest are sustainable.</p>	<p>The department is not aware of any changes in the management of coral and associated benthic species over the lifetime of the June 2011 approved wildlife trade operation declaration to ensure sustainability of harvest.</p>	<p>The department considers the issues covered by this recommendation to be ongoing (see <b>Conditions 4 - 8</b>, and <b>Recommendation 1, Table 4</b>).</p>
<p>2. The Northern Territory Department of Resources to:</p> <ul style="list-style-type: none"> <li>• continue to actively monitor catch and effort data in the fishery; and</li> <li>• as necessary, review management arrangements and implement appropriate management measures to mitigate any risks identified, particularly in regard to the potential for localised and serial depletion of key target species.</li> </ul>	<p>The Northern Territory Department of Primary Industry and Fisheries provides annual reports on the fishery indicating that there is active monitoring of catch and effort data in the fishery. The department is not aware of any review of management arrangements.</p>	<p>The department considers the issues covered by this recommendation to be ongoing (see <b>Conditions 4 - 8</b>, and <b>Recommendation 1, Table 4</b>).</p>

**Table 3: The Department of Sustainability, Environment, Water, Population and Communities' assessment of the Northern Territory Aquarium Fishery against the requirements of the EPBC Act.**

**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 department's website.

**Part 13**

<b>Division 1 Listed threatened species</b> <b>Section 208A Minister may accredit plans or regimes</b>	<b>The department's assessment of the Northern Territory Aquarium Fishery</b>
<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 Northern Territory Aquarium Fishery will be managed under the Northern Territory <i>Fisheries Act 1988</i> and the Northern Territory Fisheries Regulations.</p> <p>The management regime for the Northern Territory Aquarium Fishery was most recently accredited in June 2011, subject to a condition requiring the Department of Primary Industry and Fisheries to ensure that species listed under Part 13 of the EPBC Act are not taken, killed or injured in a Commonwealth area. The department considers that the management regime for the Northern Territory Aquarium Fishery still requires operators to take all reasonable steps to ensure that members of listed threatened species are not killed or injured in Commonwealth waters as a result of the fishing.</p> <p>Due to the selective nature of the fishing method, the likelihood of interactions with listed threatened species in the Northern Territory Aquarium Fishery is very low. Therefore, the department considers the current operation of the Northern Territory Aquarium Fishery is not likely to adversely affect the survival or recovery in nature of any listed threatened species.</p>

**Part 13 (cont.)**

<b>Division 2 Migratory species</b> <b>Section 222A Minister may accredit plans or regimes</b>	<b>The department's assessment of the Northern Territory Aquarium Fishery</b>
<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 Northern Territory Aquarium Fishery will be managed under the Northern Territory <i>Fisheries Act 1988</i> and the Northern Territory Fisheries Regulations.</p> <p>The management regime for the Northern Territory Aquarium Fishery was most recently accredited in June 2011, subject to a condition requiring the Department of Primary Industry and Fisheries to ensure that species listed under Part 13 of the EPBC Act are not taken, killed or injured in a Commonwealth area. The department considers that the management regime for the Northern Territory Aquarium Fishery still requires operators to take all reasonable steps to ensure that members of listed migratory species are not killed or injured in Commonwealth waters as a result of the fishing.</p> <p>Due to the selective nature of the fishing method, the likelihood of interactions with listed migratory species in the Northern Territory Aquarium Fishery is very low. Therefore, the department considers the current operation of the Northern Territory Aquarium Fishery is not likely to adversely affect the survival or recovery in nature of any listed migratory species or a population of that species.</p>



**Part 13 (cont.)**

<b>Division 3 Whales and other cetaceans</b> <b>Section 245 Minister may accredit plans or regimes</b>	<b>The department's assessment of the Northern Territory Aquarium Fishery</b>
<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 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 Northern Territory Aquarium Fishery will be managed under the Northern Territory <i>Fisheries Act 1988</i> and the Northern Territory Fisheries Regulations.</p> <p>The management regime for the Northern Territory Aquarium Fishery was most recently accredited in June 2011, subject to a condition requiring the Department of Primary Industry and Fisheries to ensure that species listed under Part 13 of the EPBC Act are not taken, killed or injured in a Commonwealth area. The department considers that the management regime for the Northern Territory Aquarium Fishery still requires operators to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing.</p> <p>Due to the selective nature of the fishing method, the likelihood of interactions with cetaceans in the Northern Territory Aquarium Fishery is very low. Therefore, the department considers the current operation of the Northern Territory Aquarium Fishery is not likely to adversely affect the conservation status of a species of cetacean or a population of that species.</p>

**Part 13 (cont.)**

<b>Division 4 Listed marine species</b> <b>Section 265 Minister may accredit plans or regimes</b>	<b>The department's assessment of the Northern Territory Aquarium Fishery</b>
<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 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 Northern Territory Aquarium Fishery will be managed under the Northern Territory <i>Fisheries Act 1988</i> and the Northern Territory Fisheries Regulations.</p> <p>The management regime for the Northern Territory Aquarium Fishery was most recently accredited in June 2011, subject to a condition requiring the Department of Primary Industry and Fisheries to ensure that species listed under Part 13 of the EPBC Act are not taken, killed or injured in a Commonwealth area. The department considers that the management regime for the Northern Territory Aquarium Fishery still requires operators to take all reasonable steps to ensure that members of listed marine species are not killed or injured in Commonwealth waters as a result of the fishing.</p> <p>Syngnathids (seahorses and some pipefishes), which are listed marine species under the EPBC Act, may be harvested in Northern Territory waters only. Take of these species is not permitted in Commonwealth waters. Additionally, take of seahorses (<i>Hippocampus spp</i>) for export will not be permitted.</p> <p>Due to the selective nature of the fishing method, the likelihood of interactions with listed marine species in the Northern Territory Aquarium Fishery is very low. Therefore, the department considers the current operation of the Northern Territory Aquarium Fishery is not likely to adversely affect the conservation status of a listed marine species or a population of that species.</p>

**Part 13 (cont.)**

<b>Section 303AA Conditions relating to accreditation of plans, regimes and policies</b>	<b>The department's assessment of the Northern Territory Aquarium Fishery</b>
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	The department recommends that the management regime for the Northern Territory Aquarium Fishery be accredited under sections 208A, 222A, 245 and 265.
(2) The Minister may accredit a plan, regime or policy under that section even though he or she considers that the plan, regime or policy should be accredited only: (a) during a particular period; or (b) while certain circumstances exist; or (c) while a certain condition is complied with. In such a case, the instrument of accreditation is to specify the period, circumstances or condition.	<p>The department recommends that the Northern Territory Aquarium Fishery be accredited subject to a condition that requires the fishery not to retain any species listed under Part 13 of the EPBC Act taken in Commonwealth waters as a result of fishing in the Northern Territory Aquarium Fishery.</p> <p>The Part 13 instrument for the Northern Territory Aquarium Fishery specifies this condition.</p>
(7) The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.	

## Part 13A

### Section 303BA Objects of Part 13A

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

- (a) to ensure that Australia complies with its obligations under CITES<sup>3</sup> 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.

---

<sup>3</sup> Convention on International Trade in Endangered Species of Wild Fauna and Flora

**Part 13A**

<b>Section 303 CG Minister may issue permits (CITES species)</b>	<b>The department's assessment of the Northern Territory Aquarium Fishery</b>
<p>(3) The Minister must not issue a permit unless the Minister is satisfied that:</p> <ul style="list-style-type: none"><li>(a) the action or actions specified in the permit will not be detrimental to, or contribute to trade which is detrimental to:<ul style="list-style-type: none"><li>i. the survival of any taxon to which the specimen belongs; or</li><li>ii. the recovery in nature of any taxon to which the specimen belongs; or</li><li>iii. any relevant ecosystem (for example, detriment to habitat or biodiversity).</li></ul></li></ul>	<p>While very little is known about the status of CITES listed fluted giant clam and coral species in the Northern Territory, the management arrangements to be introduced by 1 March 2013, as required under the conditional accreditation of the fishery, will assist in ensuring ecologically sustainable harvest of CITES listed species over the short to medium term. These arrangements will include species-specific trigger reference points and revised management responses. Under these arrangements, harvest is to be constrained and further information should be gathered on harvested species before further harvest can occur.</p> <p>The department considers that the harvest of CITES listed specimens from the Northern Territory Aquarium Fishery until 30 May 2014 will not be detrimental to the survival of any taxon to which the CITES specimen belongs in the short to medium term, while subject to the conditions listed at Table 4.</p> <p>Recognising the selective nature of the fishing method, the gear used and the small scale of the fishery, the potential of the Northern Territory Aquarium Fishery to impact unacceptably and unsustainably on any relevant ecosystem generally is considered low.</p>

Section 303DC Minister may amend list	The department's assessment of the Northern Territory Aquarium Fishery
<p>(1) Minister may, by instrument published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by:</p> <ul style="list-style-type: none"> <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 or 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>	<p>The department recommends that specimens derived from species harvested in the Northern Territory Aquarium Fishery, other than CITES listed species or specimens that belong to species listed under Part 13 of the EPBC Act, be included in the list of exempt native specimens while the Northern Territory Aquarium Fishery is subject to a declaration as an approved wildlife trade operation.</p>
<p>(1A) In deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery, the Minister must rely primarily on the outcomes of any assessment in relation to the fishery carried out for the purposes of Division 1 or 2 of Part 10.</p>	<p>No assessment of the Northern Territory Aquarium Fishery has been carried out under Part 10 of the EPBC Act.</p>
<p>(1C) The above does not limit the matters that may be taken into account in deciding whether to amend the list referred to in section 303DB (list of exempt native specimens) to include a specimen derived from a commercial fishery.</p>	<p>It is not possible to list exhaustively the factors that you may take into account in amending the list of exempt native specimens. The objects of Part 13A, which are set out above this table, provide general guidance in determining factors that might be taken into account. A matter that is relevant to determining whether an amendment to the list is consistent with those objects is likely to be a relevant factor.</p> <p>The department considers that the amendment of the list of exempt native specimens to include product taken in the Northern Territory Aquarium Fishery wildlife trade operation, excluding CITES listed species and Part 13 listed species, would be consistent with the provisions of Part 13A (listed above) as:</p> <ul style="list-style-type: none"> <li>▪ The list of exempt native specimens cannot include specimens which are listed under CITES or the EPBC Act. Exporters will be required to apply for multiple use export permits for EPBC Act listed specimens or CITES export permits for CITES listed specimens</li> </ul>

	<ul style="list-style-type: none"> <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 Northern Territory Aquarium Fishery is unlikely to be unsustainable and threaten biodiversity within the next 18 months</li> <li>▪ the <i>Environment Protection and Biodiversity Conservation Regulations 2000</i> (EPBC Regulations) do not specify fish as a class of animal in relation to the welfare of live specimens</li> </ul>
<p>(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister:</p> <p>(a) must consult such other Minister or Ministers as the Minister considers appropriate; and</p> <p>(b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and</p> <p>(c) may consult such other persons and organisations as the Minister considers appropriate.</p>	<p>The department considers that the consultation requirements have been met. The application from the Northern Territory Department of Primary Industry and Fisheries was released for public comment from 18 September 2012 to 18 October 2012. The public comment period sought comment on:</p> <ul style="list-style-type: none"> <li>▪ the proposal to amend the list of exempt native specimens to include product derived from the Northern Territory Aquarium Fishery, and</li> <li>▪ the Northern Territory Department of Primary Industry and Fisheries application for the Northern Territory Aquarium Fishery.</li> </ul> <p>No comments were received.</p>
<p>(5) A copy of an instrument made under section 303DC is to be made available for inspection on the Internet.</p>	<p>The instrument for the Northern Territory Aquarium Fishery made under section 303DC will be gazetted and made available on the department's website.</p>

Section 303FN Approved wildlife trade operation	The department's assessment of the Northern Territory Aquarium Fishery
(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>(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> <ol style="list-style-type: none"> <li>i. the survival of a taxon to which the operation relates; or</li> <li>ii. the conservation status of a taxon to which the operation relates; and</li> </ol> <p>(ba) the operation will not be likely to threaten any relevant ecosystem including (but not limited to) any habitat or biodiversity; and</p>	<p>The department considers that the operation of the Northern Territory Aquarium Fishery is consistent with objects of Part 13A as:</p> <ul style="list-style-type: none"> <li>▪ the fishery accreditation is subject to conditions which must be met by March 2013 to ensure harvest will not be detrimental to the survival of CITES-listed species over the short to medium term.</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 Northern Territory Aquarium Fishery is unlikely to be unsustainable and threaten biodiversity within the next 18 months</li> <li>▪ the EPBC Regulations do not specify fish as a class of animal in relation to the welfare of live specimens.</li> </ul> <p>The department considers that the Northern Territory Aquarium Fishery will not be detrimental to the survival or conservation status of a taxon to which it relates within the next 18 months until May 2014, given the management measures currently in place and the additional measures to be implemented by March 2013, which include:</p> <ul style="list-style-type: none"> <li>• gear restrictions</li> <li>• area closures</li> <li>• limited entry</li> <li>• species-specific harvest trigger reference points and management responses to gather sustainability information for CITES species.</li> </ul> <p>Recognising the management arrangements, nature of harvest, gear used and the small scale of the fishery, the potential of the Northern Territory Aquarium Fishery to impact unacceptably and unsustainably on any relevant ecosystem is considered low.</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>The EPBC Regulations 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.</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>Recognising the management arrangements, nature of harvest, gear used and the small scale of the fishery, the potential of the Northern Territory Aquarium Fishery to impact unacceptably and unsustainably on any relevant ecosystem is considered low.</p> <p>The management arrangements that will be employed for the Northern Territory Aquarium Fishery are likely to be effective. By 1 March 2013, the Northern Territory Department of Primary Industry and Fisheries is to have introduced a suite of new management arrangements to ensure effective management of CITES-listed species, including:</p> <ul style="list-style-type: none"> <li>▪ a trigger reference point of 200 for giant fluted clams</li> <li>▪ individual species specific trigger reference points for coral species of concern and live rock (as identified in the non-detriment finding assessment), such that their harvest is limited to the previous two and a half-year average</li> <li>▪ individual species specific trigger reference points for coral species of concern and live rock should their harvest increase or decrease by 30% from the previous three-year average</li> <li>▪ a species-specific (or genus specific where identification is not possible to species-level) trigger reference point not exceeding 40 kg per year for all other coral species harvested within the fishery that have not been identified as being of potential concern in the non-detriment finding assessment</li> <li>▪ management responses for all trigger reference points which stipulate that harvest will cease until there is information/evidence illustrating that ongoing harvest would not be detrimental to the taxon, and, this information/evidence should be provided to the Australian CITES Scientific Authority for Marine Species before harvest may resume.</li> </ul>
--	--

<p>(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have <b>regard</b> to:</p> <ul style="list-style-type: none"> <li>(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</li> <li>(b) whether the legislation applies throughout the State or Territory concerned; and</li> <li>(c) whether, in the opinion of the Minister, the legislation is effective.</li> </ul>	<p>The Northern Territory Aquarium Fishery will be managed under the Northern Territory <i>Fisheries Act</i> 1988 and the Northern Territory Fisheries Regulations.</p> <p>The Northern Territory <i>Fisheries Act</i> 1988 and the Northern Territory Fisheries Regulations applies throughout Northern Territory waters.</p> <p>The legislation is 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> <ul style="list-style-type: none"> <li>(d) the operation is a commercial fishery.</li> </ul>	<p>The Northern Territory Aquarium Fishery is a commercial fishery.</p>

Section 303FR Public consultation	The department's assessment of the Northern Territory Aquarium Fishery
<p>(1) Before making a declaration under section 303FN, the Minister must cause to be published on the Internet a notice:</p> <ul style="list-style-type: none"> <li>(a) setting out the proposal to make the declaration; and</li> <li>(b) setting out sufficient information to enable persons and organisations to consider adequately the merits of the proposal; and</li> <li>(c) inviting persons and organisations to give the Minister, within the period specified in the notice, written comments about the proposal.</li> </ul>	<p>The department considers that the consultation requirements of the EPBC Act for declaring an approved wildlife trade operation have been met. A public notice was published on the department's website, which:</p> <ul style="list-style-type: none"> <li>▪ set out the proposal to declare the Northern Territory Aquarium Fishery an approved wildlife trade operation</li> <li>▪ included the Northern Territory Department of Primary Industry and Fisheries' application, and</li> <li>▪ invited persons and organisations to give written comments about the proposal within the period 18 September 2012 to 18 October 2012.</li> </ul>
<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>The period specified in the notice included a total of 21 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>

Section 303FT Additional provisions relating to declarations	The department's assessment of the Northern Territory Aquarium Fishery
(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.	A declaration for the Northern Territory Aquarium Fishery will be made under section 303FN.
<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> <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> <p>In such a case, the instrument of declaration is to specify the period, circumstances or condition.</p>	<p>The standard conditions applied to commercial fishery wildlife trade operations include:</p> <ul style="list-style-type: none"> <li>▪ operation in accordance with the management regime</li> <li>▪ notifying the department 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 wildlife trade operation declaration instrument for the Northern Territory Aquarium Fishery specifies the standard and any additional conditions applied.</p> <p>Additional conditions that must be complied with include that by 1 March 2013, the Northern Territory Department of Primary Industry and Fisheries is to have introduced a suite of new management arrangements to ensure effective management of CITES-listed species, including:</p> <ul style="list-style-type: none"> <li>▪ a trigger reference point of 200 for giant fluted clams</li> <li>▪ individual species specific trigger reference points for coral species of concern and live rock (as identified in the non-detriment finding assessment), such that their harvest is limited to the previous two and a half-year average</li> <li>▪ individual species specific trigger reference points for coral species of concern and live rock should their harvest increase or decrease by 30% from the previous three-year average</li> <li>▪ a species-specific (or genus specific where identification is not possible to species-level) trigger reference point not exceeding 40 kg per year for all other coral species harvested within the fishery that have not been identified as being of potential concern in the non-detriment finding assessment</li> </ul>

	<ul style="list-style-type: none"> <li>management responses for all trigger reference points which stipulate that harvest will cease until there is information/evidence illustrating that ongoing harvest would not be detrimental to the taxon, and, this information/evidence be provided to the Australian CITES Scientific Authority for Marine Species before harvest may resume.</li> </ul>
(8) A condition may relate to reporting or monitoring.	One of the standard conditions relates to reporting. Additionally, Condition 8 also requires information/evidence to be provided to the Australian CITES Scientific Authority for Marine Species should a trigger reference point be reached, so as to show that continued harvest would be non-detrimental to the species, before it may resume.
(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 Northern Territory Aquarium Fishery made under section 303FN and the conditions under section 303FT will be gazetted and made available on the department's website.

## Part 16

<b>Section 391 Minister must consider precautionary principle in making decisions</b>	<b>The department's assessment of the Northern Territory Aquarium Fishery</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.	Having regard to the management measures in place in this fishery, summarised in Table 1, and those which are to be implemented by March 2013, the department considers that the precautionary principle has been accounted for in the preparation of advice in relation to a decision under section 303DC and section 303FN.
(2) The precautionary principle is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.	



## Part 12

Section 176 Bioregional Plans	The department's assessment of the Northern Territory Aquarium Fishery
<p>(5) Subject to this Act, the Minister must have regard to a bioregional plan in making any decision under this Act to which the plan is relevant.</p>	<p>The marine bioregional plan for the North Marine Region has been considered in the preparation of advice in relation to decisions under section 303DC and section 303FN.</p> <p>Key ecological features in the region include submerged coral reefs. It is considered unlikely that these features would be impacted by the fishery due to the current low levels of harvest. If the levels of harvest were to increase significantly, this could have potential impact. Current management arrangements and conditions and recommendation to be placed on the fishery ensure that this key ecological feature would not be impacted for the next 18 months.</p> <p>Sawfish have been identified as a conservation value of regional priority. However, the only sawfish species able to be targeted in the fishery is the narrow sawfish (<i>Anoxypristis cuspidata</i>), and this species is not listed as a conservation value of regional priority in the marine bioregional plan.</p> <p>Under the approved wildlife trade operation declaration to be in place from December 2012, harvest of narrow sawfish (<i>Anoxypristis cuspidata</i>) for export will not be permitted. This is because it has not been possible for Australia's CITES Scientific Authority for Marine Species to determine that any harvest for export would not be detrimental to the survival of the species, and therefore it is not included within the list of CITES species covered by the approved wildlife trade operation declaration.</p>

**The Department of Sustainability, Environment, Water, Population  
and Communities' final conditions and recommendation to the Northern Territory  
Department of Primary Industry and Fisheries for the Northern Territory  
Aquarium Fishery**

The material submitted by the Northern Territory (NT) Department of Primary Industry and Fisheries demonstrates that the management arrangements for the NT Aquarium Fishery continue to meet most of the requirements of the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition*. The management arrangements for the fishery are summarised in Table 1 of this report.

### **Stock Status**

The department considers that overall, the management regime for the NT Aquarium Fishery aims to ensure that fishing is conducted in a manner that does not lead to overfishing. Management arrangements currently in place for the fishery and those which are to be implemented by 1st March 2013 under conditions include:

- limited entry
- gear restrictions
- area closures
- log book reporting, and
- management objectives, performance indicators, performance measures and precautionary trigger points for target species.

### **Ecosystem Impacts**

Taking into account the management measures described above, the department considers that the management regime for the Northern Territory Aquarium Fishery provides for fishing operations to be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

### **Ongoing Issues**

While the fishery is relatively well managed, the department has identified a number of risks and uncertainties that must be managed to ensure that impacts are minimised and to enable ongoing CITES non detriment findings to be made.

The key priority for this fishery will be putting in place a management system that ensures that requirements governing international trade in CITES specimens continue to be met.

The department considers there is a need for the Northern Territory Department of Primary Industry and Fisheries to:

- consult with the Australian CITES Scientific Authority for Marine Species prior to a change to the management arrangements for a CITES or *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) listed species being implemented
- implement a trigger reference point of 200 for giant fluted clams (*Tridacna squamosa*) by 1 March 2013
- implement individual species specific trigger reference points for coral species of concern and live rock by 1 March 2013

- in consultation with the Australian CITES Scientific Authority for Marine Species, implement a precautionary, species-specific (or genus specific where identification is not possible to species-level) trigger reference point not exceeding 40 kg per year for all other coral species harvested within the fishery that have not been identified as being of potential concern by 1 March 2013, and
- develop management responses for all trigger reference points stipulating that harvest will cease until information illustrates that ongoing harvest will not be detrimental to the taxon.

The department considers that declaration of the harvest operations of the Northern Territory Aquarium Fishery as an approved wildlife trade operation for 18 months, until 30 May 2014, is appropriate. The department considers that the declaration should be subject to the conditions and recommendation listed in Table 4.

Unless a specific time frame is provided, each condition and recommendation must be addressed within the period of the declaration.



**Table 4: Northern Territory Aquarium Fishery Assessment – Summary of Issues, Conditions and Recommendations December 2012**

**Part 13A Conditions and recommendation**

	<b>Issue</b>	<b>Condition</b>
1	<p><u>General management</u></p> <p>Export decisions relate to the arrangements in force at the time of the decision. To ensure that these decisions remain valid and export approval continues uninterrupted, the Department of Sustainability, Environment, Water, Population and Communities 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><b>Condition 1:</b> Operation of the fishery will be carried out in accordance with the management regime under the Northern Territory <i>Fisheries Act 1988</i> and the Northern Territory Fisheries Regulations 1993.</p> <p><b>Condition 2:</b> The Northern Territory Department of Primary Industry and Fisheries to advise the Department of Sustainability, Environment, Water, Population and Communities of any intended material change to the Northern Territory Aquarium Fishery's management arrangements that could affect the criteria on which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are based.</p>
2	<p><u>Annual reporting</u></p> <p>It is important that reports be produced and presented to the Department of Sustainability, Environment, Water, Population and Communities annually in order for the performance of the fishery and progress in implementing the conditions 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 sectors of the fishery, status of target stock, interactions with protected species, impacts of the fishery on the ecosystem in which it operates and information outlining progress in implementing conditions resulting from the previous accreditation of the fishery (for a complete description of annual reporting requirements, see Appendix B of the 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition' available from the department's website at <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><b>Condition 3:</b> The Northern Territory Department of Primary Industry and Fisheries to produce and present reports to the Department of Sustainability, Environment, Water, Population and Communities annually as per Appendix B of the 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition'.</p>

3	<p><b><u>Monitoring of catch and effort and review of management arrangements</u></b></p> <p>It is expected that the Department of Primary Industry and Fisheries will continue to actively monitor catch and effort data in the fishery; and as necessary, review management arrangements and implement appropriate management measures to mitigate any risks identified, particularly in regard to the potential for localised and serial depletion of key target species.</p> <p><b><u>CITES listed species</u></b></p> <p>An objective of Part 13A of the EPBC Act is to ensure that Australia complies with its obligations under CITES. As a party to the Convention, Australia must apply all CITES provisions of the EPBC Act to CITES imports and exports as appropriate.</p> <p>Prior to permitting export of CITES-listed species, Australia's CITES Scientific Authority for Marine Species must establish that allowing export will not be detrimental to the species' survival. This is known as a 'non-detriment finding'.</p> <p>All CITES specimens harvested from the fishery will still require a CITES export permit to allow export of the specimens.</p> <p>The Department of Primary Industry and Fisheries has advised of the following groups of species, listed on Appendix II of CITES, which are currently permitted to be harvested in the Northern Territory Aquarium Fishery and for which harvest from the fishery has been recorded:</p> <ul style="list-style-type: none"> <li>• hard corals (class Anthozoa)</li> <li>• giant fluted clam (<i>Tridacna squamosa</i>)</li> <li>• seahorses (<i>Hippocampus</i> spp)</li> <li>• narrow sawfish (<i>Anoxypristis cuspidata</i>).</li> </ul>	<p><b>Condition 4:</b> The Northern Territory Department of Primary Industry and Fisheries to consult with the Australian CITES Scientific Authority for Marine Species prior to a change to the management arrangements for a CITES or <i>Environment Protection and Biodiversity Conservation Act 1999</i> listed species being implemented.</p> <p><b>Condition 5:</b> By 1 March 2013, the Northern Territory Department of Primary Industry and Fisheries to implement a trigger reference point of 200 for giant fluted clams (<i>Tridacna squamosa</i>).</p> <p><b>Condition 6:</b> By 1 March 2013, the Northern Territory Department of Primary Industry and Fisheries to have implemented individual species specific trigger reference points for coral species of concern and live rock (listed in Tables 1 and 2 of the December 2012 Non-Detriment Finding for the Export of CITES-Listed Coral Species Harvested from the Northern Territory Aquarium Fishery):</p> <ul style="list-style-type: none"> <li>a) to limit their harvest to the previous two and a half-year average (that is, 2010 to May 2012), and</li> <li>b) should harvest increase or decrease by 30% from the previous three-year average.</li> </ul> <p>To allow accurate application of trigger reference points, coral pieces of greater than 500g should be weighed individually.</p>
---	---	--

<p>To ensure that EPBC Act requirements continue to be met in relation to CITES-listed species, the department considers it important that the Department of Primary Industry and Fisheries restrict the harvest of CITES species to those included in Schedule 1 of the wildlife trade operation declaration instrument, as these represent the species considered in arriving at non-detriment findings for the ongoing export of CITES species from the fishery. The non-detriment findings were for continued export of hard corals and fluted giant clams are made on the basis of existing management arrangements, and additional management arrangements to be introduced as required under time-bound conditions on the accreditation of the fishery (Conditions 5, 6, 7 and 8). As such, should the Department of Primary Industry and Fisheries intend to change any aspect of the management arrangements, including arrangements introduced by these conditions, this is to be done in consultation with the Australian CITES Scientific Authority for Marine Species.</p> <p>Note that a non-detriment finding has not been made for seahorses (<i>Hippocampus</i> spp) or narrow sawfish (<i>Anoxypristis cuspidata</i>) due to insufficient data. Therefore, harvest of these species for export will not be permitted.</p> <p>Hard coral and fluted giant clam specimens will still require CITES export permits to allow export.</p> <p><u>CITES species management arrangements</u></p> <p>Given there is very little information regarding the status and trends of populations of CITES species harvested within the Northern Territory Aquarium Fishery, the Australian CITES Scientific Authority for Marine Species considers that the ongoing harvest of CITES listed species may only be considered non-detrimental over the short to medium term with the implementation of the management changes outlined in Conditions 5, 6, 7 and 8 within the specified time frame.</p>	<p><b>Condition 7:</b> By 1 March 2013, the Northern Territory Department of Primary Industry and Fisheries, in consultation with the Australian CITES Scientific Authority for Marine Species, to have implemented a precautionary, species-specific (or genus specific where identification is not possible to species-level) trigger reference point not exceeding 40 kg per year for all other coral species harvested within the fishery that have not been identified as being of potential concern (that is, those species not listed in Table 1 or Table 2 of the December 2012 Non-Detriment Finding for the Export of CITES-Listed Coral Species Harvested from the Northern Territory Aquarium Fishery).</p> <p><b>Condition 8:</b> By 1 March 2013, the Northern Territory Department of Primary Industry and Fisheries to develop management responses for all trigger reference points which stipulate that harvest will cease until there is information/evidence illustrating that ongoing harvest would not be detrimental to the taxon, and, this information/evidence should be provided to the Australian CITES Scientific Authority for Marine Species before harvest may resume.</p>
---	--

#### Giant fluted clams

The harvest of fluted giant clams has historically occurred within a relatively small area of the fishery and there has been no population surveying conducted in this region to assess the impact of this harvest. As such, the trigger reference point for the Northern Territory Aquarium Fishery of 2000 individuals annually, which has been in place in recent years and is substantially above any recorded harvest in the fishery, is seen as inadequate to reduce the risk of over exploitation. However the actual harvest of fluted giant clams has been relatively stable over the last six years, both in terms of spatial distribution and volumes harvested (approximately 200 specimens annually). As such, Australia's CITES Scientific Authority for Marine Species considers a continuation of this average level of harvest is unlikely to be detrimental to the species.

#### Coral species of concern and live rock

The non-detriment finding assessment for the fishery identified a number of coral species being harvested that are of potential concern due to level of harvest, conservation status and/or rapid increases or decreases in harvest. The harvest of live rock was also identified as potentially concerning due to highly localised and increasing harvest.

In the absence of further information on the distribution and abundance of these species there must be precautionary trigger reference points in place to mitigate the potential for localised and serial depletion. As such, the harvest of these species should not exceed historic average harvest, as determined based on species-specific harvest which has been recorded since 2010.

Large increases or decreases in harvest may indicate an unsustainable escalation of harvest effort or depletion of a population in the harvest area and as such should trigger a review to establish that ongoing harvest will not lead to localised or serial depletion.



	<p>In recent years, the harvest of coral in the Northern Territory Aquarium Fishery has been measured in pieces which are divided into three size classes based on weight categories (1-100g, 101-500g and &gt;500g). Trigger reference points are based on weight so the total weight of harvest is calculated from estimating the number of pieces in each size class. While the smaller two size classes use the median weight of the size class, pieces &gt;500g are assigned the weight 501g. This may lead to a substantial underestimate of the weight of coral harvested. As such, the actual weight of pieces in this size category should be recorded to allow accurate application of trigger reference points.</p> <p><u>Other coral species</u></p> <p>The Australian CITES Scientific Authority for Marine Species considers that the current trigger reference point of 60 tonnes divided between three bioregions for coral and associated benthic species that has been in place in recent years is not adequately precautionary to prevent unsustainable harvest. For coral species which are not identified in the non-detriment finding assessment as species of potential concern, a trigger reference point of 40kg is considered unlikely to be detrimental to any given species over the coming 18 months.</p> <p>Given the lack of information on the population status and trends for these species, this trigger reference point may need to be reviewed in 18 months time. Additional information on the status and trends in populations of these species would help inform future accreditation decisions and should be collected.</p> <p><u>Management responses</u></p> <p>Conditions 5, 6 and 7 are only considered appropriate on the basis that they are underpinned by an appropriate management response. A management response should be designed to gather additional information on harvested populations or appropriately assess the sustainability of harvest levels.</p>	
--	---	--

	<p><b>Spatial management</b></p> <p>The Australian CITES Scientific Authority for Marine Species considers that there remains a limited risk of localised and serial depletion for some species. The harvest of some species of concern and live rock in particular is highly concentrated. Targeted surveying to establish the extent to which harvesting impacts upon any given species could provide a basis for less precautionary trigger reference points in the future.</p>	<p><b>Recommendation 1:</b> For species of concern and live rock (listed in Tables 1 and 2 of the December 2012 Non-Detriment Finding for the Export of CITES-Listed Coral Species Harvested from the Northern Territory Aquarium Fishery), should 70% of trigger reference point a) identified in Condition 6 come from any one of the three bioregions, areas of highly concentrated harvest within that bioregion should be a priority for abundance surveying for that species.</p>
--	--	---

### Part 13 Condition

	Issue	Condition
	<p>Syngnathids (pipefishes and seahorses), which are listed marine species under Part 13 of the EPBC Act, may be harvested from the Northern Territory Aquarium Fishery within Northern Territory waters. The department considers that, to meet the requirements of the EPBC Act that species listed under Part 13 of the Act are not taken, killed or injured in a Commonwealth area, it is necessary that the Department of Resources continue to prohibit operators in the Northern Territory Aquarium Fishery from harvesting species listed under the EPBC Act from Commonwealth waters.</p>	<p>Persons fishing in accordance with the management regime for the Northern Territory Aquarium Fishery (being the Aquarium Fishing /Display Fishery as defined in the Northern Territory Fisheries Regulations) in force under the Northern Territory <i>Fisheries Act 1988</i> do not retain any species listed under Part 13 of the <i>Environment Protection and Biodiversity Act 1999</i> taken, killed or injured in Commonwealth waters as a result of fishing.</p>

## References

Department of Sustainability, Environment, Water, Population and Communities (2012) *Marine bioregional plan for the North Marine Region*, Canberra, Australia.

Northern Territory Government (2011) *Fishery Status Reports 2010*. Fishery Report No. 106, Darwin, Australia.

## Acronyms

CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPBC Regulations	Environment Protection and Biodiversity Conservation Regulations 2000