



**Australian Government**

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

Assessment of the  
**Northern Territory Aquarium Fishery**

**June 2008**

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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 Northern Territory (NT) Aquarium Fishery**

<b>Publicly available information relevant to the fishery</b>	<ul style="list-style-type: none"> <li>• NT <i>Fisheries Regulations 1993</i></li> <li>• NT <i>Fisheries Act 1988</i></li> <li>• NT Annual Fishery Status Reports</li> <li>• The submission — <i>Northern Territory Aquarium Fishery Export Exemption Submission, Re-assessment Report March 2008</i> and <i>Ecological Risk Assessment of the Northern Territory Aquarium Fishery, December 2006</i></li> <li>• NT Strategic Plan — <i>fisheries research and development update for 2007–2011</i></li> <li>• Department of the Environment, Water, Heritage and the Arts (DEWHA, formerly the Department of the Environment and Heritage) Assessment Report of the <i>NT Aquarium Fishery, 2005</i>.</li> </ul>
<b>Area</b>	<p>All inland waters and waters seaward from the coastline to the outer boundary of the Australian Fishing Zone (Commonwealth and State waters), excluding certain designated protected areas.</p> <p>Most freshwater and estuarine fish and prawn species are collected in streams and creeks close to Darwin and the Adelaide and Daly river systems. Commercial harvesting of marine species is concentrated in coastal waters near Nhulunbuy, although some also occurs in the greater Darwin area.</p> <p>Coral and associated benthic species can be collected from all NT waters with the exception of Managed Areas, Marine Reserves, Darwin Harbour and Gove Harbour.</p>
<b>Fishery status</b>	<p>Unknown, however the current level of harvest is low and DPIFM state that the impact on the resource by a limited number of commercial fishers is considered to be minimal.</p>
<b>Target Species</b>	<p>The fishery targets numerous aquarium species including hermit crabs, shrimp, eel-tailed catfish, archerfish, red scat, rainbow fish, gudgeons, saratoga and clownfish.</p> <p>Target finfish species have been separated into two categories: Group A (average annual harvest &gt;2,000 individuals per year between 2003 and 2005) and Group B (average annual harvest &lt;2,000 individuals per year between 2003 and 2005).</p> <p>Group A finfish species include: silver scat, common archerfish, chequered rainbow fish, sail-fin perchlet, black banded rainbow fish, spotted scat and black catfish.</p> <p>The fishery also targets giant clams (<i>Tridacna</i> spp), hard coral and <i>Hippocampus</i> species (seahorses) that are listed on Appendix II under the Convention on International Trade of Endangered Species of Wild Flora and Fauna (CITES). Additionally, the whole Pristidae family (sawfish) are listed on Appendix I of CITES, with the exception of</p>

	<p><i>Pristis microdon</i> (freshwater sawfish), which is listed on Appendix II of CITES for the exclusive purpose of allowing international trade in live animals to appropriate and acceptable aquaria for primarily conservation purposes.</p> <p>A small number of EPBC Act listed species have also been harvested in the past in the fishery including syngnathids (listed marine species) and <i>Pristis</i> species (sawfish). <i>P. microdon</i> (freshwater sawfish) and <i>P. zijsron</i> (green sawfish) are listed as vulnerable under the EPBC Act.</p> <p>Following the 2004/05 review of the fishery, all of the 13 aquarium fish/display licence holders are now permitted to collect limited quantities of coral and associated benthic species. As noted above, hard coral are listed on CITES.</p> <p>The harvesting of Spanish Mackerel and mud crab is not permitted in the fishery without specific approval.</p>
<b>Byproduct Species</b>	No byproduct is taken in the fishery.
<b>Gear</b>	<p>Barrier, cast, scoop, drag and skimmer nets, hand pumps, freshwater pots and handheld instruments. The Licensee or an assistant must attend nets whenever they are in use.</p> <p>Recreational fishers may collect aquarium species using a cast or scoop net, hand pump or a freshwater pot.</p>
<b>Season</b>	Year round, although unfavourable weather conditions, especially during the wet season, can limit fishing activity.
<b>Commercial harvest 2006</b>	<p>Coral and anemone – 1,091 kg plus 2,349 individuals  Live rock – 539 kg  Hermit crabs – 24,770 individuals  Giant clams – 451 individuals  Eel-tailed catfish – 7,980 individuals  Blue eyes – 5,120 individuals  Archerfish – 4,524 individuals  Red scat – 4,357 individuals  Glassfish – 3,040 individuals  Rainbow fish – 2,473 individuals  Gudgeons – 2,391 individuals  Other fish species – 4,263 individuals.</p> <p>Hermit crabs continue to be the most popular aquarium animal harvested from the fishery.</p>
<b>Value of commercial harvest 2006</b>	The 2006 catch value for the Aquarium Fishery is not available however previous data indicates that the commercial value of the fishery is between \$600,000 - \$800,000.
<b>Take by other sectors</b>	The harvest by the recreational and indigenous sectors is unknown but believed to be low. Surveys of recreational fishers in 1995 and 2000 reported no aquarium fish being collected from NT waters.

<b>Commercial licences issued</b>	<p>In 2006, 21 licences were issued for the fishery:</p> <ul style="list-style-type: none"> <li>• 8 aquarium trader licences to trade aquarium species but not to harvest species from the wild; and</li> <li>• 13 aquarium fish/display licences that permit the collection and sale of all aquatic life.</li> </ul> <p>Seven licences were active in 2006.</p>
<b>Management arrangements</b>	<p>The NT Aquarium Fishery is managed under conditions specified on Aquarium Fishing/Display licences, in force under the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</i>.</p> <p>Input and output controls, including limited entry, catch restrictions, area and gear restrictions.</p> <p>Management objectives, performance indicators, measures, trigger reference points and management actions have been finalised by DPIFM for the fishery, subject to consultation with DEWHA. This performance measurement system will be included in the 2007 annual NT status report for the fishery.</p> <p>A review of the fishery was completed in 2005. This resulted in changes to licence conditions for both the aquarium fishery/display licence and the aquarium trader licence (see Table 2).</p> <p>There are no specific regulations on collecting fish for personal aquaria other than recreational fishing rules and regulations on minimum size and possession limits.</p>
<b>Export</b>	Limited international export. Most of the aquarium harvest is exported interstate by air freight.
<b>Bycatch</b>	<p>There is minimal bycatch in the fishery primarily due to highly selective nature of harvest, the low number of operators and the condition placed on aquarium licences to immediately return all non-target species back to the water.</p> <p>Fishery observers accompanying harvesting activities in previous years have verified extremely low bycatch levels in the fishery.</p>
<b>Interaction with Protected Species<sup>1</sup></b>	<p>In 2005 and 2006, there were no recorded interactions with any protected species.</p> <p>DEWHA notes that some protected species have been harvested as targeted species in the fishery in the past. This has included one syngnathid and one sawfish in 1997 and an additional sawfish in 2001.</p> <p>The fishery now includes a specific objective of ensuring the continued protection of species and communities listed under Part 13 of the EPBC Act (excluding syngnathids taken in NT waters). No EPBC Act listed species may be taken in Commonwealth Waters under the fishery's management regime.</p>

<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.

	Under sections 199, 214, 232 and 256 of the EPBC Act, persons who interact with a protected species in Commonwealth Waters must report that interaction within seven days of the incident occurring to DEWHA.
<b>Ecosystem Impacts</b>	Due to the selective nature of harvest and the low number of operators, the fishery is unlikely to have a significant impact of the ecosystem.
<b>Impacts on CITES species</b>	<p>The assessment considered the possible impacts on species harvested in the NT Aquarium Fishery which are listed under CITES (see Table 3). 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>CITES species that are or are permitted to be harvested in the NT Aquarium Fishery include:</p> <ul style="list-style-type: none"> <li>• Seahorses (<i>Hippocampus</i> spp);</li> <li>• Hard coral (e.g. staghorn corals, stony corals, black corals); and</li> <li>• Giant fluted clams (<i>Tridacna squamosa</i>).</li> </ul> <p>As Part 13A of the EPBC Act incorporates the requirements of CITES, there are no changes to the criteria for export approval, aside from administrative changes to the permits issued. Specimens listed above taken from the wild still require a CITES export permit to be exported overseas.</p>
<b>Impacts on World Heritage property</b>	As the Kakadu National Park is listed as a World Heritage Area, commercial fishing activity is not permitted in the waterways of Kakadu National Park and gear restrictions and spatial closures exist for recreational fishers.

**Table 2: Progress in implementation of conditions and recommendations made in initial assessment of the NT Aquarium Fishery**

Condition	Progress	Recommended Action
1. Operation of the fishery will be carried out in accordance with the NT Aquarium Fishery management regime in force under the NT <i>Fisheries Act 1988</i> and the NT <i>Fisheries Regulations 1993</i> .	The fishery has operated in accordance with the legislated management regime in force under the NT <i>Fisheries Act 1988</i> and the NT <i>Fisheries Regulations 1993</i> over the course of the fishery's export approval.	As part of the new export declaration for this fishery, this condition remains in force for a further three years (see <b>Condition 1</b> , Table 4).
2. The NT Department of Business, Industry and Resource Development (DBIRD) <sup>2</sup> will advise the Department of the Environment and Heritage (DEH) <sup>3</sup> of any material change to the NT Aquarium Fishery's legislated management arrangements that could affect the criteria on which EPBC Act decisions are based, within three months of that change being made.	<p>There have been no changes to the management arrangements that may affect sustainability of the target species or negatively impact on bycatch, protected species or the ecosystem.</p> <p>DPIFM have recently advised that a review of the management arrangements for the fishery has been conducted at the request of industry. Specifically, the review focused on the fishery's licence conditions including licence transferability. This issue is under NT Government consideration.</p>	<p>DPIFM has kept DEWHA informed of intended amendments to the management regime for the fishery through direct liaison and publication of the annual Fishery Status Reports. Additionally, DPIFM will notify DEWHA of any changes made to the fishery's licence conditions (or other management changes resulting from the review) once determined.</p> <p>As part of the new export declaration for this fishery, this condition remains in force for a further three years (see <b>Condition 2</b>, Table 4).</p>
3. The declaration covers the NT Aquarium Fishery only to the extent that the NT Aquarium Fishery relates to specimens that: i. are not listed under Part 13 of	Since 2005, the NT Aquarium Fishery has not been permitted to export any species listed under Part 13 of the EPBC Act (excluding listed marine species taken in NT waters). No recorded export compliance breaches from the fishery have been reported to date.	Syngnathids, which are a target species in the fishery, are listed marine species under the EPBC Act. Seahorses ( <i>Hippocampus</i> species) are also listed under CITES.

<sup>2</sup> Now the NT Department of Primary Industry, Fisheries and Mines (DPIFM)

<sup>3</sup> Now the Department of the Environment, Water, Heritage and the Arts (DEWHA)

<p>the EPBC Act, or</p> <p>ii. are listed marine species that are not taken in the Commonwealth marine area, or</p> <p>iii. are listed marine species that are taken in the Commonwealth marine area according to the specifications of a wildlife conservation plan negotiated between DBIRD and DEH.</p>		<p>A trigger reference point of 150 syngnathids (excluding <i>Hippocampus</i> species) and 50 <i>Hippocampus</i> species is in place to monitor their harvest however annual catches of syngnathids to date has been minimal.</p> <p>DEWHA considers that the managed harvest of these species from NT waters is not inconsistent with Part 13 accreditation and export should be allowed to continue, under export permits for non-CITES listed syngnathid species and CITES export permits for <i>Hippocampus</i> species. A second Wildlife Trade Operation (WTO) declaration will be made for the export of syngnathid species harvested from NT waters in accordance with the fishery's management regime. This separate export declaration applies to syngnathid species only.</p>
<p><b>4.</b> Reports to be produced and presented to DEH annually, and to include:</p> <p>a. information sufficient to allow assessment of the progress of DBIRD in implementing the recommendations made in the <i>Assessment of the Northern Territory Aquarium Fishery 2005</i>;</p> <p>b. a description of the status of the fishery and catch and effort information;</p>	<p>Fishery Status Reports for NT fisheries are prepared annually. The 2004, 2005 and 2006 reports are publicly available from the DPIFM website at: <a href="http://www.nt.gov.au/dpifm/Fisheries/">http://www.nt.gov.au/dpifm/Fisheries/</a>.</p> <p>The reports contain information on catch and effort trends and research relevant to the fishery. DPIFM will also commence reporting on the performance of the NT Aquarium Fishery against the performance indicators and trigger reference points in the 2007 annual Fishery Status Report.</p>	<p>DEWHA considers that this condition has been met and notes that, as part of the new WTO declaration for this fishery, this condition remains in force for a further three years (see <b>WTO Condition 3</b>, Table 4).</p>



c. a statement of the performance of the fishery against objectives, performance indicators and measures once developed; and d. research undertaken or completed relevant to the fishery.		
<b>Recommendation</b>	<b>Progress</b>	<b>Recommended Action</b>
<b>1.</b> DBIRD to advise DEH of any material change to the NT Aquarium Fishery's management arrangements that could affect the criteria on which EPBC Act decisions are based, within three months of that change being made.	As noted above, there have been no changes to the management arrangements that may affect sustainability of the target species or negatively impact on bycatch, protected species or the ecosystem.	As part of the new export declaration for this fishery, this recommendation remains in force as a condition for a further three years (see <b>Condition 2</b> , Table 4).
<b>2.</b> By 31 December 2006, DBIRD to develop fishery specific performance indicators and performance measures, linked to the existing objectives, for CITES listed species, EPBC Act listed species, Group A Finfish species and hermit crabs.	<p>DPIMF have developed objectives, performance indicators, trigger points in consultation with industry and relevant scientific experts. These fishery-specific indicators apply to the key target and bycatch species, and the impacts of the fishery on the ecosystem. In addition, the management objectives and indicators for the fishery include CITES and EPBC Act listed species.</p> <p>Results from the NT Aquarium Fishery Ecological Risk Assessment were utilised to ensure appropriate performance measures are in place with full industry consultation and support.</p> <p>The objectives, together with the performance indicators and trigger points are outlined in Table 1</p>	DEWHA considers that this recommendation has been met. However to further improve monitoring arrangements and ensure the ecologically sustainable management of the fishery, DEWHA has recommended that DPIFM investigate splitting the coral and associated benthic species and associated objectives, performance measures and trigger points into separate groups (see <b>Recommendation 3</b> , Table 4).

	<p>of DPIFM's submission which is available from the DEWHA website. It should be noted that while Table 1 is 'proposed', it will be finalised and incorporated into the 2007 annual Fishery Status Report once DEWHA has agreed to the proposed management framework.</p>	
<p><b>3. DBIRD</b> to incorporate the performance measures into existing management arrangements once developed. Within 3 months of becoming aware of a performance measure not being met, DBIRD to finalise a clear timetable for a review of management arrangements and the implementation of appropriate management responses.</p>	<p>Management objectives, performance measures, and trigger points have been incorporated into the existing arrangements and policies for the fishery. Appropriate management responses are required to be undertaken if trigger points are breached within the fishery. Advice, which will include options for management action and associated timeframes, must be provided to the NT Director of Fisheries within three months of notice of the event.</p>	<p>DEWHA is confident that should a performance measure not be met or a trigger point is breached, DPIFM will review and develop appropriate management responses to ensure the fishery is ecologically sustainable.</p>
<p><b>4. DBIRD</b> to implement finer spatial recording of catch and effort information, and recording of catch to a species level for key target species, CITES listed species and EPBC Act listed species in compulsory commercial logbooks.</p>	<p>DPIFM have revised logbooks to include the mandatory reporting of GPS coordinates (with seconds recorded to two decimal points) of fished areas to acquire more detailed information on the distribution of catch and effort in the fishery. These revised logbooks are to be introduced into the fishery in July 2008.</p> <p>Over the past 12 months, DPIFM have been developing two identification guides for operators to use: the finfish identification guide and the coral and associated benthic species identification guide. The finfish guide will be distributed to operators prior to the 2008/09 licence year, however the coral guide is yet to be finalised.</p>	<p>DEWHA commends DPIFM for revising logbooks and developing identification guides for fishers. However, to further improve monitoring and reporting arrangements in the fishery, recommendations have been made by DEWHA for DPIFM to continue to monitor catch and effort data, revise the finfish identification guide to include all sawfish species inhabiting NT waters and finalising and implementing the coral and associated benthic species identification guide (see Table 4).</p>

	<p>DPIFM indicate that a formal review of the logbooks is undertaken annually in conjunction with relevant researchers and industry. The success of the identification guides in refining industry's reporting will be reviewed during this process. It is intended that these review outcomes will be incorporated in the logbooks to further enhance reporting, as appropriate.</p>	
<p><b>5.</b> By 31 December 2006, DBIRD to develop precautionary sustainable limits for hermit crabs, Group A finfish species, EPBC Act listed species and CITES listed species based on existing knowledge. DBIRD to pursue research into the stock status, biology and ecology of these species on an ongoing basis within resource constraints.</p>	<p>DPIFM have developed precautionary trigger points for the fishery in consultation with scientific experts and industry. The trigger points have been set for the Group A finfish species, coral and associated benthic species, clams, unlisted <i>Pristis</i> species (dwarf and narrow sawfish), Syngnathid and <i>Hippocampus</i> species and hermit crabs.</p> <p>Until further information regarding the stock status is made available and reporting through the logbook system is further refined, DPIFM will use these triggers to monitor the performance of the fishery.</p> <p>Research into the stock status, biology and ecology of target species is being undertaken in a number of different studies involving freshwater finfish, hermit crabs and corals and associated benthic species. Additionally, the <i>North Australia Marine Biodiversity Survey</i>, which commenced in 2004, has been focussing on mapping seagrass habitats and then describing associated marine communities. Results from this survey should be available by the end of 2008.</p>	<p>DEWHA considers that this recommendation has been met. Again, it should be noted that the trigger points will be finalised and incorporated into the 2007 annual Fishery Status Report once DEWHA has agreed to the proposed management framework.</p> <p>A recommendation has been made for DPIFM to continue to take account of and pursue priority research in the fishery to improve the ecologically sustainable management of the fishery (see <b>Recommendation 5</b>, Table 4).</p>

<p><b>6.</b> Within 2 years DBIRD to investigate the potential for localised and serial depletion of target species within the fishery and to implement management measures to mitigate any risks identified where necessary.</p>	<p>The Aquarium Fishery ecological risk assessment (ERA) as recommended by the then Department of the Environment and Heritage (see below), determined that there was negligible risk of localised and serial depletion of target species in NT waters.</p> <p>In addition to weather-induced seasonal closures and small scale of operation, the ERA indicated that the below factors combine to provide protection for localised and serial depletion of target species:</p> <ul style="list-style-type: none"> <li>• Group A Finfish – highly fecund and early maturation;</li> <li>• Group B Finfish – highly fecund with planktonic larvae dispersal and early age of maturity;</li> <li>• Hermit crabs – planktonic larvae, wide distribution and high densities;</li> <li>• Corallimorphs – ability to split, bud and regenerate; and</li> <li>• Clams - planktonic larvae recruitment, size limits and small harvest area relative to total distribution of species</li> </ul> <p>Additionally, DPIFM have revised logbooks to include finer spatial recording of catch and effort information. These log book modifications will provide valuable information on which to assess potential stock depletion within an area.</p>	<p>DPIFM indicate that the relatively high harvest of hermit crabs within the fishery and limited knowledge of the species could lead to localised or serial depletion of stock. A research project has therefore been proposed to determine the biological and harvest parameters of the terrestrial hermit crab species. A recommendation has been made for DPIFM to continue to take account of research conducted in the fishery (see <b>Recommendation 5</b>, Table 4).</p> <p>A recommendation has also been made for DPIFM to continue to monitor catch and effort data in the fishery, particularly in regard to localised and serial depletion (see <b>Recommendation 4</b>, Table 4).</p>
<p><b>7.</b> DBIRD to conduct an ecological risk assessment on the fishery by 31 December 2006 and</p>	<p>An ERA was conducted by DPIFM for the fishery in 2006. The ERA was completed in consultation with fishery stakeholders and was based upon outcomes of</p>	<p>DEWHA considers that this recommendation has been met. As further information is acquired and reporting refined, DPIFM have</p>

<p>to develop appropriate responses to any high risks identified.</p>	<p>a workshop held in December 2006. Participants in the ERA process included: DPIFM managers and researchers, NT Aquarium Licence Committee members and an Australia and New Guinea Fish Association member.</p> <p>The ERA concentrated on three major components based on the National Ecologically Sustainable Development (ESD) Reporting Framework developed by Fletcher <i>et al</i> (2002). The three components assessed under the ERA included:</p> <ul style="list-style-type: none"> <li>• retained species;</li> <li>• non-retained species (including protected species); and</li> <li>• the general ecosystem (including trophic level interactions, removal/damage to benthic biota, translocation of biological material, pollution by debris and terrestrial impacts).</li> </ul> <p>Noting the selective harvest of species and gear used in the fishery and the relatively small harvest quantities taken and small number of operators, the outcomes of the ERA determined that all aspects of the fishery were negligible to low risk.</p>	<p>stated that a review of the ERA for the fishery will be conducted.</p>
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**Table 3: DEWHA assessment of the NT Aquarium Fishery 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**

<b>Division 1 Listed threatened species</b> <b>Section 208A Minister may accredit plans or regimes</b>	<b>DEWHA assessment of the NT 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>The management regime for the NT Aquarium Fishery will be managed under the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</i>.</p> <p>Accreditation under Part 13 of the EPBC Act in relation to protected species interactions was not granted in 2005. The fishery was in a developmental stage and DEWHA was not satisfied that persons engaged in fishing under the NT Aquarium Fishery’s management regime took all reasonable steps to ensure that species listed under Part 13 of the EPBC Act were not killed or injured as a result of the fishing.</p> <p>DPIFM has made substantial progress in improving management arrangements since the previous assessment in 2005, including developing a management objective to ensure the continued protection of species listed under Part 13 of the EPBC Act. The management regime for the fishery also states that no EPBC Act listed species may</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>be taken in Commonwealth waters. We consider that the management regime for the fishery in force under the NT <i>Fisheries Act 1988</i> and the NT <i>Fisheries Regulations 1993</i> is appropriately precautionary and is unlikely to represent a significant impact on protected species noting management arrangements in place and the existing low rate of interaction with listed threatened species. In addition, DPIFM has implemented a finfish and developed a coral identification guide and revised logbooks since the last assessment, which will enable them to gather more reliable information in the fishery.</p> <p>Given the management regime in force for the fishery under the NT <i>Fisheries Act 1988</i> and the NT <i>Fisheries Regulations 1993</i>, DEWHA considers that all reasonable steps are being taken to prevent the killing or injuring of listed threatened species and any interaction with threatened species would be incidental to and not the purpose of the operation of the NT Aquarium Fishery.</p> <p>Currently, evidence suggests that the NT Aquarium Fishery only has minimal interactions with listed threatened species (including listed sawfish species). Therefore, DEWHA considers the current operation of the NT Aquarium Fishery is not likely to adversely affect the survival or recovery in nature of any listed threatened species.</p>
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<b>Division 2 Migratory species</b> <b>Section 222A Minister may accredit plans or regimes</b>	<b>DEWHA assessment of the NT 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>The management regime for the NT Aquarium Fishery will be managed under the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</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 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>DPIFM has made substantial progress in improving management arrangements since the previous assessment in 2005, including developing a management objective to ensure the continued protection of species listed under Part 13 of the EPBC Act. The management regime for the fishery also states that no EPBC Act listed species may be taken in Commonwealth waters. We consider that the management regime for the fishery in force under the NT <i>Fisheries Act 1988</i> and the NT <i>Fisheries Regulations 1993</i> is appropriately precautionary and is unlikely to represent a significant impact on protected species noting management arrangements in place and the existing low rate of interaction with listed migratory species. In addition, DPIFM has implemented a finfish and developed a coral identification guide and revised logbooks since the last assessment, which will enable them to gather more reliable information in the fishery.</p> <p>Given the management regime in force for the fishery under the NT <i>Fisheries Act 1988</i> and the NT <i>Fisheries Regulations 1993</i>, DEWHA considers that all reasonable steps are being taken to prevent the killing or injuring of listed migratory species and any interaction with migratory species would be incidental to and not the purpose of the operation of the NT Aquarium Fishery.</p> <p>Currently, evidence suggests that the NT Aquarium Fishery only has minimal interactions with listed migratory species. Therefore, DEWHA considers the current operation of the NT Aquarium Fishery is not likely to adversely affect the survival or recovery in nature of any listed migratory species.</p>
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<b>Division 3 Whales and other cetaceans</b> <b>Section 245 Minister may accredit plans or regimes</b>	<b>DEWHA assessment of the NT 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> <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 cetaceans are not killed or injured as a result of the fishing; and</p>	<p>The management regime for the NT Aquarium Fishery will be managed under the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</i>.</p> <p>DPIFM has made substantial progress in improving management arrangements since the previous assessment in 2005, including developing a management objective to ensure the continued protection of species listed under Part 13 of the EPBC Act. The management regime for the fishery also states that no EPBC Act listed species may be taken in Commonwealth waters. We consider that the management regime for the fishery in force under the NT <i>Fisheries Act 1988</i> and the NT <i>Fisheries Regulations 1993</i> is appropriately precautionary and is unlikely to represent a significant impact on protected species noting management arrangements in place and the existing low rate of interaction with whales and other cetaceans. In addition, DPIFM has implemented a finfish and developed a coral identification guide and revised logbooks since the last assessment, which will enable them to gather more reliable information in the fishery.</p> <p>Given the management regime in force for the fishery under the NT <i>Fisheries Act 1988</i> and the NT <i>Fisheries Regulations 1993</i>, DEWHA considers that all reasonable steps are being taken to prevent the killing or injuring of whales and other cetaceans and any interaction with these species would be incidental to and not the purpose of the operation of the NT Aquarium Fishery.</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>Currently, evidence suggests that the NT Aquarium Fishery only has minimal interactions with whales and other cetaceans. Therefore, DEWHA considers the current operation of the NT Aquarium Fishery is not likely to adversely affect the survival or recovery in nature of any whales and other cetaceans.</p>
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<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 NT Aquarium Fishery</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 marine species are not killed or injured as a result of the fishing; and</p>	<p>The management regime for the NT Aquarium Fishery will be managed under the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</i>.</p> <p>DPIFM has made substantial progress in improving management arrangements since the previous assessment in 2005, including developing a management objective to ensure the continued protection of species listed under Part 13 of the EPBC Act. The management regime for the fishery also states that no EPBC Act listed species may be taken in Commonwealth waters. We consider that the management regime for the fishery in force under the NT <i>Fisheries Act 1988</i> and the NT <i>Fisheries Regulations 1993</i> is appropriately precautionary and is unlikely to represent a significant impact on protected species noting management arrangements in place and the existing low rate of interaction with listed marine species. In addition, DPIFM has implemented a finfish and developed a coral identification guide and revised logbooks since the last assessment, which will enable them to gather more reliable information in the fishery.</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>Given the management regime in force for the fishery under the NT <i>Fisheries Act 1988</i> and the NT <i>Fisheries Regulations 1993</i>, DEWHA considers that all reasonable steps are being taken to prevent the killing or injuring of listed marine species in Commonwealth waters and any interaction with these species would be incidental to and not the purpose of the operation of the NT Aquarium Fishery.</p> <p>Currently, evidence suggests that the NT Aquarium Fishery only has minimal interactions with listed marine species (including syngnathids). Therefore, DEWHA considers the current operation of the NT Aquarium Fishery is not likely to adversely affect the survival or recovery in nature of any listed marine species.</p>
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<b>Section 303AA Conditions relating to accreditation of plans, regimes and policies</b>	<b>DEWHA assessment of NT Aquarium Fishery</b>
(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.	DEWHA recommends that NT Aquarium Fishery be accredited under sections 208A, 222A, 245 and 265.
<p>(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:</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 accreditation is to specify the period, circumstances or condition.</p>	<p>To satisfy the requirements of sections 208A, 222A, 245 and 265 we recommend that the NT Aquarium Fishery be accredited under Part 13 subject to a condition that requires the fishery not to retain any species listed under Part 13 of the EPBC Act killed or injured in Commonwealth waters as a result of aquarium fishing.</p> <p>The Part 13 instrument for NT 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 303 CG Minister may issue permits (CITES species)	DEWHA assessment of the NT Aquarium Fishery
<p>(3) The Minister must not issue a permit unless the Minister is satisfied that:</p> <p>(a) the action or actions specified in the permit will not be detrimental to, or contribute to trade which is detrimental to:</p> <p>i. the survival of any taxon to which the specimen belongs; or</p> <p>ii. the recovery in nature of any taxon to which the specimen belongs; or</p>	<p>Given the:</p> <ul style="list-style-type: none"> <li>management objectives, performance indicators, performance measures and precautionary trigger points for CITES specimens (hard corals, giant fluted clams and <i>Hippocampus</i> species) that have been implemented by DPIFM;</li> <li>introduction of species identification guides;</li> <li>amended logbooks to collect finer spatial catch and effort information; and</li> <li>extremely low number of syngnathids taken in the fishery in the past,</li> </ul> <p>DEWHA considers that the harvest of these species from the fishery will not be detrimental to the survival of the taxon to which the CITES specimen belongs in the medium term.</p> <p>Conditions on the WTO declaration for the fishery includes annual reporting requirements, which will allow DEWHA to monitor the status of CITES specimens harvested in the fishery and the need for DPIFM to advise DEWHA of any additional CITES species being, likely to be, or able to be harvested in the fishery to ensure that EPBC Act requirements are met in relation to CITES-listed species.</p> <p>The CITES specimens harvested from the fishery are not considered to be over fished in the NT. Managements arrangements in place including limited entry, catch and gear restrictions, area closures and specific objectives and performance indicators/trigger points for CITES species assist in ensuring their ecologically sustainable harvest. Should stocks fall below defined reference points, the fishery is conducted such that there is a high degree of probability the stock would recover to</p>

iii. any relevant ecosystem (for example, detriment to habitat or biodiversity).	<p>ecologically viable stock levels within nominated timeframes.</p> <p>Recognising the nature of harvest and gear used in the fishery, the potential for the NT Aquarium Fishery to impact unacceptably and unsustainably on any relevant ecosystem generally is considered quite low. DEWHA is satisfied that the fishery is conducted in a manner that minimises the impact of fishing operations on the ecosystem generally.</p>
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<b>Section 303DC Minister may amend list</b>	<b>DEWHA assessment of the NT Aquarium Fishery</b>
<p>(1) Minister may, by instrument in 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 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>	
<p>(3) Before amending the list referred to in section 303DB (list of exempt native specimens), the Minister:</p> <ul style="list-style-type: none"> <li>(a) must consult such other Minister or Ministers as the Minister considers appropriate; and</li> <li>(b) must consult such other Minister or Ministers of each State and self-governing Territory as the Minister considers appropriate; and</li> <li>(c) may consult such other persons and organisations as the Minister considers appropriate.</li> </ul>	<p>DEWHA considers that the consultation requirements have been met. The public comment period on the DPIFM submission sought comment on the submission for the NT Aquarium Fishery and provided sufficient opportunity for consultation with other persons and organisations.</p> <p>A letter to the Hon Chris Natt MLA advises him of the intention to declare the fishery an approved 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 NT Aquarium Fishery made under sections 303DC will be gazetted and made available on the DEWHA website.</p>

Section 303FN Approved wildlife trade operation	DEWHA assessment of the NT 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> <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; and</p>	<p>The NT Aquarium Fishery is consistent with objects of Part 13A (listed after this table) as:</p> <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>▪ there are management arrangements in place to ensure that the harvest of CITES species from the fishery will not be detrimental to the survival of the taxon to which the specimen belongs in the medium term;</li> <li>▪ the operation of the NT Aquarium Fishery is unlikely to be unsustainable and threaten biodiversity within the next three 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 NT Aquarium Fishery will not be detrimental to the survival or conservation status of a taxon to which it relates within the next three years, given the management measures currently in place, which include limited entry, catch and gear restrictions and area closures.</p> <p>DEWHA considers that the NT Aquarium Fishery will not threaten any relevant ecosystem within the next three years, given the management measures currently in place, which include limited entry, catch 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>gear restrictions and area closures.</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 NT Aquarium Fishery will not have a significant impact on any relevant ecosystem within the next three years, given the management measures currently in place, which include limited entry, catch and gear restrictions and area closures.</p> <p>The management arrangements that will be employed for the NT Aquarium Fishery are likely to be effective. Management arrangements for the fishery are included in the management regime, in force under the NT <i>Fisheries Regulations</i> and the NT <i>Fisheries Act 1988</i>. Management arrangements include limited entry, catch and gear restrictions and area closures. The performance of the fishery will be reviewed annually, against a series of management objectives, performance indicators and trigger reference points for key target, CITES and protected species.</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>The NT Aquarium Fishery will be managed under the management regime in force under the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</i>.</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 NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</i> applies throughout NT waters.</p> <p>The management arrangements that will be employed for the NT Aquarium Fishery are likely to be effective. Management arrangements for the fishery are included in the management regime, in force under the NT <i>Fisheries Regulations</i> and the NT <i>Fisheries Act 1988</i>. Management arrangements include limited entry, catch and gear restrictions and area closures. The performance of the fishery will be reviewed annually, against a series of management objectives, performance indicators and trigger reference points for key target, CITES and protected species.</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 NT Aquarium Fishery is a commercial fishery.</p>

<b>Section 303FR Public consultation</b>	<b>DEWHA assessment of the NT Aquarium Fishery</b>
<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 NT Aquarium Fishery a WTO and included the submission <i>Northern Territory Aquarium Fishery Export Exemption Submission, Re-assessment Report March 2008</i>, was released for public comment which closed on 28 April 2008 with one submission received.</p>
<p>(2) A period specified in the notice must not be shorter than 20 business days after the date on which the notice was published on the Internet.</p>	<p>A public notice, which set out the proposal to declare the NT Aquarium Fishery a WTO and included the submission <i>Northern Territory Aquarium Fishery Export Exemption Submission, Re-</i></p>



	<i>assessment Report March 2008</i> was released for public comment on 31 March 2008 and closed on 28 April 2008, a total of 20 business days.
(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.	The DEWHA assessment has considered the public comment received on the submission.

<b>Section 303FT Additional provisions relating to declarations</b>	<b>DEWHA assessment of the NT Aquarium Fishery</b>
(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.	A declaration for the NT 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> <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, circumstances or condition.</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 NT Aquarium Fishery specifies the standard and any additional conditions applied.</p>
(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 NT Aquarium Fishery 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 NT 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.	The precautionary principle must be considered when making a decision to include specimens on the List of Exempt Native Specimens (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.

## Final conditions and recommendations to DPIFM for the NT Aquarium Fishery

The material submitted by DPIFM indicates that the management arrangements for the NT Aquarium Fishery meet most of the requirements of the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries – 2<sup>nd</sup> Edition*. While the fishery is relatively well managed and has seen substantial progress in improving management arrangements, DEWHA has identified a number of risks and uncertainties that must be managed to ensure that their impacts are minimised, including, but not limited to:

- ensuring fishers have the capacity to accurately distinguish Part 13-listed from unlisted sawfish species;
- the need to record catch at species level for coral and associated benthic species in logbooks;
- potential localised and serial depletion of target species;
- limited knowledge on the stock status, biology and ecology of key target species in the fishery and the need to pursue priority research; and
- the need to pursue further measures to validate logbook data in the fishery within resource constraints.

On balance 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. However, to further contain and minimise the risks in the longer term, the conditions and recommendations listed below have been made. DEWHA believes that the fishery should be declared a WTO for a period of three years. Such a declaration would enable DPIFM to address some of the uncertainties in the fishery, incorporate any new information into the management arrangements and allow DEWHA to review progress of the fishery through DPIFM reporting on progress with the conditions and recommendations on an annual basis. The WTO declaration would also allow exporters to seek CITES export permits to export CITES species (hard corals, *Hippocampus* species and giant fluted clams) harvested from the fishery.

DPIFM has made substantial progress in improving management arrangements since the previous assessment in 2005, including developing an objective to ensure the continued protection of species listed under the EPBC Act. DEWHA now 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 regime operators are required to take all reasonable steps to avoid the killing or injuring of protected species in Commonwealth waters, and the level of interaction under current fishing operations is low.

Conditions and recommendations are provided below with a brief explanation of the related issue/intent. Unless a specific time frame is provided in the recommendation, each recommendation must be addressed within the life of the declaration (3 years). Note that a standard condition of a WTO is an annual reporting requirement, the details of which are provided in Condition 3.

**Table 4: NT Aquarium Fishery Assessment– Summary of Issues, Conditions and Recommendations, June 2008**

	Issue	WTO Condition
1	<p><u>General Management</u></p> <p>Export decisions relate to the arrangements in force at the time of the decision. In order to ensure that these decisions remain valid and export approval continues uninterrupted, DEWHA needs to be advised of any changes that are made to the management regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision.</p> <p>DEWHA notes that future assessment needs for the NT Aquarium Fishery are made available through the annual NT Fishery Status Reports, which outlines potential intended changes to the fishery's management arrangements. DEWHA supports the continued reporting of future assessment needs for the fishery, but reinforces the need for DPIFM to advise DEWHA of any intended change to the NT Aquarium Fishery management arrangements, including 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> Operation of the NT Aquarium Fishery will be carried out in accordance with the management regime in force under the NT <i>Fisheries Regulations 1993</i> and the NT <i>Fisheries Act 1988</i>.</p> <p><b>Condition 2:</b> DPIFM to advise DEWHA of any intended change to the NT Aquarium Fishery management arrangements that could affect the assessment of the fishery against the criteria on which EPBC Act decisions are based.</p>
2	<p><u>Annual Reporting</u></p> <p>It is important that reports be produced and presented to DEWHA annually in order for the performance of the fishery and progress in implementing the recommendations in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration. Annual reports should provide information that satisfies 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 recommendations. 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>DEWHA notes that a new public aquarium licence has recently been introduced into the NT.</p>	<p><b>Condition 3:</b> DPIFM to produce and present reports to DEWHA annually as per Appendix B to the 'Guidelines for the Ecologically Sustainable Management of Fisheries - 2nd Edition'.</p>

	<p>This licence allows for limited collection of species solely for the purpose of public display. Sale of product is prohibited under this licence and there are a number of conditions that ensure that only appropriate public aquariums qualify for the licence.</p> <p>DPIFM will continue to include details of any species listed under Part 13 of the EPBC Act harvested in the fishery in the annual NT Fishery Status Reports.</p>	
3	<p><u>CITES listed species</u></p> <p>This assessment considered the possible impacts on species harvested in the NT Aquarium Fishery which are listed 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>DEWHA has assessed the possible impacts on the following CITES species that have been identified by DPIFM to be harvested (and possibly exported) in the fishery:</p> <ul style="list-style-type: none"> <li>• hard corals (e.g. staghorn corals, stony corals, black corals);</li> <li>• seahorses (<i>Hippocampus</i> species); and</li> <li>• giant fluted clams (<i>Tridacna squamosa</i>).</li> </ul> <p>To ensure that EPBC Act requirements are met in relation to CITES-listed species, DPIFM will continue to advise DEWHA of any additional CITES species being, likely to be, or able to be harvested in a fishery, including the level of harvest.</p> <p>All CITES specimens listed above still require a CITES export permit to export the specimens.</p>	<p><b>Condition 4:</b> DPIFM to consult with DEWHA prior to a change to the management arrangements for a CITES species being implemented.</p>
	<b>Issue</b>	<b>Part 13 Condition</b>
1	<p>To satisfy the requirement of sections 208A, 222A, 245 and 265 of the EPBC Act, DEWHA has recommended that DPIFM prohibit the retention of EPBC Act listed species in Commonwealth waters. DEWHA considers that the implementation of this condition is necessary to meet the requirements of Part 13 of the EPBC Act and therefore recommends that this be included as a condition to this accreditation.</p>	<p><b>Condition 1:</b> Persons fishing in accordance with the management regime for the NT Aquarium Fishery in force under the NT <i>Fisheries Act 1988</i> and the NT <i>Fisheries Regulations 1993</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>

	Issue	Recommendation
1	<p><u>Identification of sawfish species</u></p> <p>The 2005 DPIFM Review of the Aquarium Fishery recommended the development of identification guides to ensure the correct identification and recording of those species harvested. In the 2005 assessment of the fishery, DEWHA therefore made a recommendation for DPIFM to implement measures to record species-specific catch information for target species in the fishery. DPIFM have been developing two identification guides for operators to assist in recording species – specific catch information: the coral and associated benthic species identification guide and the finfish species identification guide.</p> <p>DEWHA recognises that the guides include all species that have been previously recorded in fishery logbooks. Specifically, while the finfish guide includes cartilaginous fish (sharks and rays), it does not differentiate between freshwater, green, narrow and dwarf sawfish.</p> <p>To ensure that fishers have the capacity to accurately distinguish listed from unlisted sawfish species, DEWHA recommends that the finfish species identification guide include all sawfish species inhabiting NT waters, noting that all sawfish are listed on CITES and some species are listed under the EPBC Act and the <i>Territory Parks and Wildlife Conservation Act</i>.</p> <p>It is important that DPIFM continue to review logbook records annually and ensure fishers are utilising the identification guides and reporting at an appropriate level of detail and accuracy.</p>	<p><b>Recommendation 1:</b> Within two years, DPIFM to improve identification and reporting of all species of sawfish inhabiting NT waters.</p>
2	<p><u>Coral and associated benthic species</u></p> <p>As noted above, in the 2005 assessment of the fishery DEWHA made a recommendation for DPIFM to implement measures to record species-specific catch information for target species in the fishery. DPIFM have developed identification guides to assist operators reporting to a species level, however while the finfish guide will be distributed to operators prior to the 2008/09 licence year, the coral guide will be distributed at a later date once completed.</p> <p>DEWHA recognises that the coral and associated benthic species identification guide (noting species listed under CITES) will be finalised and released to operators in the fishery. This guide will assist fishers to accurately identify coral and benthic species and, where practical, provide</p>	<p><b>Recommendation 2:</b> Within 12 months, DPIFM to implement recording of catch to a species level for coral and associated benthic species in commercial logbooks.</p> <p><b>Recommendation 3:</b> DPIFM to investigate splitting the coral and associated benthic species and associated objectives, performance measures and trigger points into separate groups, as appropriate to ensure sustainable species harvest.</p>

	<p>this to species level.</p> <p>DPIFM have committed to establishing separate trigger points for different coral and benthic species. Splitting the coral and associated benthic species group will improve monitoring arrangements and further ensure the ecologically sustainable management of the fishery.</p>	
3	<p><u>Spatial Analysis</u></p> <p>DPIFM have recently revised logbooks to include the mandatory reporting of GPS coordinates of fished areas to acquire more detailed information on the distribution of catch and effort in the fishery. These revised logbooks are to be introduced into the fishery in July 2008.</p> <p>DEWHA commends DPIFM for introducing this new measure, however to assist with reducing any potential for localised and serial depletion of target species, the logbook data needs to be monitored to detect any shift towards stock depletion within a fishing area. DEWHA notes that the Ecological Risk Assessment on the fishery conducted by DPIFM determined that there is negligible-low risk of localised and serial depletion of target species. However should performance measures or trigger points be breached then appropriate management measures need to be implemented by DPIFM to mitigate any risks identified, including localised and serial depletion.</p>	<p><b>Recommendation 4:</b> DPIFM to continue to actively monitor catch and effort data in the fishery implement appropriate management measures to mitigate any risks identified, particularly in regard to localised and serial depletion.</p>
4	<p><u>Research / Data Validation</u></p> <p>DEWHA commends DPIFM for pursuing research into the stock status, biology and ecology of target species in the fishery within resource constraints. While research is occurring through a number of different studies, there is still limited knowledge across a range of target species, however further information should become available once relevant research studies have been completed.</p> <p>DEWHA recommends DPIFM continue to ensure that priority research is undertaken where feasible to improve the ecologically sustainable management of the fishery, particularly research strategies which focus on:</p> <ul style="list-style-type: none"> <li>• the stock status of key target species; and</li> <li>• the level of recreational take of coral and associated benthic species for personal</li> </ul>	<p><b>Recommendation 5:</b> DPIFM to continue to take account of and actively pursue, where appropriate:</p> <ul style="list-style-type: none"> <li>~ priority research; and</li> <li>~ measures to validate logbook data.</li> </ul>

	<p>aquaria.</p> <p>In the interim, logbook records are used by DPIFM as the primary tool for observing fishing trends and managing the fishery generally. Understanding the relatively low value of the fishery but noting the lack of a formalised observer program, DEWHA recommends DPIFM pursue further measures to validate logbook data and continue to promote and take account of independent research projects which monitor or assess aquarium fisher's activities. Such research or data validation measures should be included in the annual NT Fishery Status Reports.</p>	
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## References

Fletcher, W.J., Chesson, J., Fisher, M., Sainsbury, K.J., Hundloe, T., Smith, A.D.M. and Whitworth, B. 2002. *National ESD Reporting Framework for Australian Fisheries: The “How To” Guide for Wild Capture Fisheries*. FRDC Project 2000/145, Canberra, Australia.

## Acronyms

CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DEWHA	Department of the Environment, Water, Heritage and the Arts
DPIFM	Northern Territory Department of Primary Industry, Fisheries and Mines
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ERA	Ecological Risk Assessment
ESD	Ecologically Sustainable Development
GPS	Global Positioning System
LENS	List of Exempt Native Specimens
NT	Northern Territory
WTO	Wildlife Trade Operation