



**Australian Government**

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**Department of the Environment and Water Resources**

Assessment of the  
**Gulf of Carpentaria Inshore Finfish Fishery**

August, 2007

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#### **Disclaimer**

This document is an assessment carried out by the Department of the Environment and Water Resources of a commercial fishery against the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries*. It forms part of the advice provided to the Minister for the Environment and Water Resources 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 and Water Resources or the Australian Government.

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**Table 1: Summary of the Gulf of Carpentaria Inshore Finfish Fishery (GOCIFF)**

<p><b>Publicly available information relevant to the fishery</b></p>	<ul style="list-style-type: none"> <li>• <i>Fisheries (Gulf of Carpentaria Inshore Fin Fish) Management Plan 1999</i> (the Gulf Management Plan).</li> <li>• <i>Queensland (QLD) Fisheries Act 1994</i>.</li> <li>• <i>QLD Fisheries Regulation 1995</i>.</li> <li>• <i>QLD Marine Parks Act 2004</i>.</li> <li>• Annual Status Report 2005 – QLD Gulf of Carpentaria Inshore Finfish Fishery.</li> <li>• Annual Status Report – QLD Gulf of Carpentaria Inshore Finfish Fishery, 2006.</li> <li>• Annual Status Report – QLD Gulf of Carpentaria Inshore Finfish Fishery, 2007</li> <li>• Ecological Risk Assessment of Queensland-managed Fisheries in the Gulf of Carpentaria, 2006.</li> <li>• Assessment of the Gulf of Carpentaria Inshore Finfish Fishery, September 2004 (Department of the Environment and Heritage).</li> <li>• Ecological assessment of the Gulf of Carpentaria Inshore Finfish Fishery, 2004 (Queensland Fisheries Service).</li> </ul>
<p><b>Area</b></p>	<p>The GOCIFF extends from Slade Point near the tip of Cape York Peninsula westward to the Northern Territory (NT) border and operates in all tidal waterways out to the 25nm line. The N3 net fishery operates within estuaries and foreshores and out to 7nm from the coast while the N9 net fishery operates further offshore, between 7 and 25nm.</p> <p>In the N3 fishery, the largest catches of barramundi have been taken from the Norman, Mitchell and Kirke river areas. Catches of grey mackerel have also been concentrated around the Kirke and Mitchell rivers and just to the north of Weipa.</p>
<p><b>Fishery status</b></p>	<p>Target species are considered fully exploited.</p> <p>Sustainable yield estimates for key target species not available. Preliminary stock assessments were undertaken for barramundi and threadfin species in 2002. Stock assessments are planned for barramundi, grey mackerel, blacktip shark and king and blue threadfin between 2008 and 2011.</p>
<p><b>Target Species</b></p>	<p>The GOCIFF is a multi-species fishery. Targeted species include barramundi, king and blue threadfins and grunter in the N3 fishery and tropical shark and grey mackerel in the N9 net fishery. Except for tropical shark, recreational fishers target all these species as well as mangrove jack, black spot and gold spot cod, and red snappers. Indigenous fishers target a wide variety of species depending on the season.</p>
<p><b>Byproduct Species</b></p>	<p>Various across N9 and N3, includes Spanish mackerel, guitarfish, queenfish, pomfret, jewelfish, grunter, black jewfish, sawfish, sharks and rays.</p>
<p><b>Gear</b></p>	<p>Fishers in the N3 fishery use mesh nets set in estuaries, on foreshores and in offshore waters out to 7nm. Most fishers use mesh sizes that selectively catch fish of a size that meets market demand.</p>

	<p>The N9 fishery use set mesh nets with a maximum net length of 1200 m.</p> <p>The N6 (commercial bait) fishery also uses set mesh nets but of a small size (25-45 mm) and with restrictions on the length of the net.</p> <p>Recreational fishers mainly use hook and line to catch target species as well as cast and seine nets to catch baitfish species.</p> <p>Indigenous fishers use traditional subsistence fishing methods.</p>
<b>Season</b>	The open and closed seasons vary from species to species.
<b>Commercial harvest (2004-2006)</b>	<p>2004: 2277 t</p> <p>2005: 1748 t</p> <p>2006: 1782 t</p> <p>Catches of barramundi in 2006 were the highest (711 t) in recent years, this was attributed to flooding early in 2006. Other key species (by weight) in 2006 were grey mackerel (346 t), king threadfin (299 t) and sharks (192 t).</p>
<b>Commercial Gross Value of product 2006</b>	\$12.8 million.
<b>Take by other sectors</b>	As well as the commercial sector, the GOCIFF includes a recreational, indigenous and charter sector. In 2006, the charter sector harvested 46 t. The 2005 recreational harvest was estimated at 101 t. There is no recent estimate of the level of take by the Indigenous sector.
<b>Commercial licences issued 2006</b>	<p>87 N3 (inshore net fishery) licences, 90 N6 (commercial bait netting licences) and 5 N9 (offshore net fishery) licences. All N3 and N9 operators also hold an N6 symbol allowing them to fish for garfish and mullet as bait. In 2006 83 N3 and 4 N9 boats accessed the fishery.</p> <p>The total number of boats accessing the N3 and N9 net fisheries has been decreasing since 2001, partly due to the structural adjustment scheme introduced in 1999 as part of the implementation of the Gulf Management Plan (10 licences were bought out from the N3 net fishery).</p>
<b>Management arrangements</b>	<p>The GOCIFF is managed under the Gulf Management Plan, the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 1995</i>.</p> <p><u>Management controls</u></p> <ul style="list-style-type: none"> <li>• Limited entry (for the commercial fishery only).</li> <li>• Boat and gear restrictions.</li> <li>• Spatial and temporal closures.</li> <li>• Possession limits.</li> <li>• Fish size limits.</li> </ul>
<b>Export</b>	Product from the GOCIFF is mainly sold on the domestic Australian market except for shark fin which is exported to Asian markets.
<b>Bycatch</b>	Diverse, with 81 listed species. N3 bycatch dominated by catfish and bony bream. N9 bycatch dominated by tuna and trevally. In 2006 the discard rate was observed to be 38%.

	<p>The recreational and charter sectors have a much higher level of bycatch because of the increased popularity of ‘catch and release’ practices. However, the survivability of released fish is believed to be high as long as they have not been unduly harmed during handling.</p>
<p><b>Interaction with Protected Species</b></p>	<p>Logbook data from the GOCIFF report a low level of interactions with protected species. 8 interactions were reported in 2005, with one fatality. 5 interactions were reported in 2006, with two fatalities. Species encountered include marine turtles, seasnakes and cormorants.</p> <p>Onboard observers in the N9 fishery recorded three interactions with protected species in 2005 – one Indo-Pacific humpback dolphin which was released dead and two seahorses which were released alive. In 2006 3 interactions were reported with one bottlenose dolphin (released dead) and two spartooth sharks (one returned alive).</p> <p>The 2007 annual status report indicates that the GOCIFF has caught less than 1 t of sawfish annually between 2003 and 2006. The freshwater sawfish (<i>Pristis microdon</i>) is listed under the EPBC Act as vulnerable. All other sawfish species are included on Appendix 1 of the Convention of Parties for the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).</p> <p>A new logbook, along with the Species of Conservation Interest (SOCI) logbook, was implemented in the GOCIFF for the 2007 season. The new logbooks for the N3 and N9 fishery will include a provision for recording protected species interactions.</p> <p>Industry has also initiated a Code of Conduct and an ‘Environmental Management Plan’ which improves the survivability of returned protected species by promoting the use of best practice methods for handling and release.</p>
<p><b>Ecosystem Impacts</b></p>	<p>The gear used in the GOCIFF and by recreational and Indigenous fishers is relatively benign and unlikely to cause any physical impacts on the ecosystem in which the fishery operates.</p> <p>While the commercial fishery targets high order predator fish, a study of tropical QLD estuaries found that the abundance of competing predator and prey species in areas closed to commercial fishing was similar to areas open to fishing. This result suggests that the GOCIFF is not having an impact on ecologically related, associated or dependent species.</p> <p>While there is evidence that the GOCIFF is not a significant contributor to the amount of derelict net in the Gulf of Carpentaria (GoC), ghostnets are considered a potential ecosystem threatening process. Effects of ghost fishing by nets is being mitigated by fishers adhering to their Code of Conduct to collect and dispose of their nets and any derelict net in such as way as to minimise ecosystem impact and by the Carpentaria Ghost Nets Program, which is developing a network of communities around the GoC focused on removing nets from priority ghost net aggregation areas within the GoC.</p>

**Table 2: Progress in implementation of recommendations and conditions made in initial assessment of the GOCIFF**

<b>Condition</b>	<b>Progress</b>	<b>Recommended Action</b>
Operation in accordance with the management regime.	The fishery has operated in accordance with the legislated management regime over the course of the current export approval.	This condition has been met and will continue to apply under the new Wildlife Trade Operation (WTO) declaration for this fishery for the next two years ( <b>WTO Condition 1</b> ).
<p>Annual reporting on the following:</p> <ul style="list-style-type: none"> <li>• Progress on implementation of the recommendations;</li> <li>• Annual catch and catch per unit effort (CPUE) trends and data;</li> <li>• Performance against objectives, performance measures and reference points; and</li> <li>• Research undertaken or completed relevant to the fishery.</li> </ul>	Annual status reports for the GOCIFF were prepared in 2005, 2006 and 2007. These reports are publicly available from the Department of Primary Industries and Fisheries (DPI&F) website. The reports contain information on progress in implementing recommendations, catch and effort trends and research undertaken or completed relevant to the fishery. DPI&F has developed a draft Performance Measurement System (PMS) for the Gulf of Carpentaria Finfish Fisheries that includes performances measures and reference points for key target species, bycatch and protected species. DPI&F will report on the performance of the GOCIFF against the performance measures in the annual status reports.	The Department of Environment and Water Resources (DEW) 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 two years ( <b>WTO Condition 3</b> ).
<b>Recommendation</b>	<b>Progress</b>	<b>Recommended Action</b>
DPI&F to inform the Department of the Environment and Heritage (DEH, now the Department of Environment and Water Resources) of any intended amendment to the management arrangements that may affect the sustainability of the target species or negatively impact on byproduct, bycatch, protected species or the ecosystem.	DPI&F report that there have been no changes to the management regime of the GOCIFF since the last assessment.	DEW expects that DPI&F will advise of any changes to the management regime in the future. This remains a condition in force under this new export approval ( <b>WTO Condition 2</b> ).

<p>From 2005, DPI&amp;F to report publicly on the status of the fishery on an annual basis, including explicitly reporting against each review event.</p>	<p>Annual status reports for the GOCIFF were prepared for 2005, 2006 and 2007. These reports are publicly available from that DPI&amp;F website. In addition, DPI&amp;F advise that performance measures have been developed as part of the draft PMS for the Gulf fisheries and the performance of the GOCIFF will be measured against these performance measures in the annual status reports.</p>	<p>DEW commends DPI&amp;F for their commitment to producing annual status reports on the GOCIFF and encourages DPI&amp;F to continue such reporting into the future. DEW expects that future annual status reports will include explicit reporting against the GOCIFF performance measures included in the PMS for Gulf fisheries.</p>
<p>As part of its review of management arrangements for the fishery, DPI&amp;F to develop and formalise a list of species permitted to be taken in the fishery, which clearly defines target and by-product species. DPI&amp;F to develop a clear process for the inclusion of any additional target species on the list.</p>	<p>DPI&amp;F report that a list of target and byproduct species that was developed as part of the <i>Ecological Risk Assessment (ERA) of Queensland-managed Fisheries in the Gulf of Carpentaria</i> (DPI&amp;F, 2006) has been adopted by management. It is intended that these lists be reflected in fisheries reporting such as the annual status reports and fisher logbooks.</p>	<p>DEW commends DPI&amp;F for formalising the list of species permitted to be targeted in the fishery. However, given there is no commitment to regularly reviewing the ERA, it does not appear that a clear process for including or removing target species on the list has been developed. DEW encourages DPI&amp;F to develop such a process as a priority.</p>
<p>Within 12 months, DPI&amp;F to collect data on shark catch by species or species groups.</p>	<p>New logbooks have been introduced in both the N3 and N9 sectors to improve the ability of fishers to accurately record shark harvest. In addition, at-sea observers have been used to validate logbook data with a focus on providing greater detail on shark species.</p>	<p>DEW considers that this recommendation has been met. DEW expects that DPI&amp;F would use the more accurate and reliable data to monitor trends in catch and respond to any risks if they arise. Consideration should be given to those shark species identified as being at potential risk (<b>Recommendation 3</b>).</p>
<p>Within 18 months, DPI&amp;F to undertake a risk assessment, in conjunction with other relevant jurisdictions where possible, to identify target, byproduct and bycatch species most at risk from the fishery and areas at risk from overfishing. Actions seeking to reduce risk should be</p>	<p>DPI&amp;F report that an ERA covering all Gulf of Carpentaria fisheries species has been completed in 2004 with the report published in May 2006 (DPI&amp;F, 2006).</p> <p>The ERA assigned a high risk to the sustainability of two retained species in the GOCIFF, guitarfish (N3) and grey mackerel (N9).</p>	<p>DEW considers that this recommendation has been met.</p> <p>Along with the proposed management actions, a research project is currently underway to determine stock structure in northern Australian grey mackerel stocks</p>

<p>implemented as appropriate within a further 12 months.</p>	<p>Proposed management actions for guitarfish include: reducing the taxonomic uncertainty of guitarfishes captured in Gulf net fisheries. Genetic sequencing of guitarfish was complement at part of a project examining Species Identification from Shark Fins Phase 1 (Australian Fisheries Management Authority R05/0538). This suggested separate stocks in north west Australia and the GoC. Further taxonomic work has not been undertaken.</p> <p>Proposed management actions for grey mackerel include: new management arrangements in the Queensland Fisheries Joint Authority fishery (outside of 25 nm); new entry criteria for target fishing; in-possession limits for non-authorized vessels; and development of an Operational Plan to coordinate research, compliance and progress complementary management of shared stocks.</p> <p>Several GOCIFF species/species groups were assigned a moderate risk, including sharks (several species), barramundi and king threadfin.</p> <p>Sawfish was given a low risk rating in both the N9 and N3 fisheries. The risk assessment committed to undertaking a further risk assessment of sawfish in 2006 based on new data. A Fisheries Research and Development Corporation (FRDC) funded project report published in 2007, <i>Northern Australian sharks and rays: the sustainability of target and bycatch species Phase 2</i> (Salini <i>et al.</i>, 2007) identified the freshwater sawfish and green sawfish as some of the 'least sustainable' species in the N3.</p>	<p>and a stock assessment is planned for this species in 2010 when the results of this research is available. In the interim, performance measures and reference points have been developed for grey mackerel to monitor the catch level and catch rate of this species.</p> <p>In relation to guitarfish, the draft PMS includes a performance measure related to decreasing the mortality of this species in the GOCIFF.</p> <p>DEW will review the progress in implementing management actions to reduce risk to the species identified in the next review of the GOCIFF in 2009.</p> <p>Given the recent listing of species from the Pristidae family on Appendix 1 of CITES, DEW considers it important that the management arrangements for all sawfish species are reviewed as part of the review of the Gulf Fisheries Management Plan, which is due by 2009 (<b>Recommendation 2</b>).</p> <p>In addition, DPI&amp;F should ensure that the harvest levels of other shark species, especially those identified as being at potential risk, are sustainable (<b>Recommendation 3</b>).</p>
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<p>Within three years, DPI&amp;F to have processes in place that provide reliable estimates of stock status for target species, on a risk priority basis.</p>	<p>The 2007 annual status report indicates that regular resource assessments for major target species are included in a rolling three year Fisheries Resource Assessment schedule implemented in 2006 and the ERA has assigned risk priority to harvested species.</p> <p>The ERA assigned a high risk to grey mackerel and guitarfish and a moderate risk to a number of shark species, barramundi and king threadfin.</p> <p>Barramundi is scheduled for assessment in 2007 and again in 2010. DPI&amp;F are currently involved in projects collecting more data for grey mackerel and king threadfin in order to undertake robust stock assessments. A collaborative QLD/NT/WA/ FRDC funded project (2005/010) is determining stock structure in northern Australian grey mackerel while a parallel project lead by DPI&amp;F for king and blue threadfin has commenced and will be completed in 2009/10. Acknowledged as a priority for the GOCIFF, DPI&amp;F are planning to undertake a stock assessment for grey mackerel, in order to provide a sustainable yield estimate, when the results of the above research are available in 2010. Stock assessments are also planned for king and blue threadfin in 2011. With respect to sharks, DPI&amp;F have scheduled a stock assessment for blacktip shark in 2010 and remain partners in the Northern Fisheries Managers stock assessment of northern shark species.</p>	<p>While the implementation of this recommendation is on-going DEW is satisfied that, over the 2 year term of this declaration, DPI&amp;F will make significant progress in determining sustainable yield estimates for key target species.</p> <p>In the interim, DEW is confident that the reference points which are included in the PMS for the GOCIFF, and reviewed annually, will alert DPI&amp;F to any emerging issues with stock status. DEW will review the progress made on stock assessments for key target species in the next review of the GOCIFF in 2009.</p>
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<p>Within 18 months, DPI&amp;F to develop a process to improve estimates of recreational and Indigenous take and factor these into stock assessments and management controls to ensure overall catch levels are sustainable.</p>	<p>The implementation of this recommendation is on-going. DPI&amp;F continue to assess methodologies and designs of pilot studies to collect Indigenous fisher data and improve the collection of recreational fishing information system (RFISH) data. With respect to Indigenous fishers, this process is being developed in collaboration with southern GoC communities.</p> <p>In 2007 DPI&amp;F released the report, <i>Experimental results from the third statewide Recreational Fishing Information System diary program (2002)</i> (DPI&amp;F, 2007) which provided estimates of catch and release numbers for recreationally caught species in Queensland.</p>	<p>DEW acknowledges the work DPI&amp;F is undertaking to improve the estimates of recreational and Indigenous take on a finer spatial scale, and supports this with a recommendation (<b>Recommendation 4</b>).</p>
<p>Currently, Review Events are imprecisely defined and may not be adequate to ensure sustainability. Within 18 months, DPI&amp;F to develop fishery specific objectives linked to performance indicators and Review Events for target, byproduct, bycatch, protected species and impacts on the ecosystem.</p>	<p>DPI&amp;F have developed a draft PMS for the Gulf of Carpentaria Finfish Fisheries that includes performance measures and reference points for key target species, bycatch and protected species. No performance measures are included for impacts on the ecosystem.</p> <p>For barramundi and king threadfin the reference point is greater than a 30% decline over a three year period.</p> <p>For grey mackerel, until a sustainable yield estimate is determined the limit reference points are <math>\pm 30\%</math> of the average annual commercial catch and average annual standardised commercial catch rate for the previous 5 years.</p> <p>For whaler and hammerhead shark the reference point is a decline in the commercial catch and standardised commercial catch rate of more than 30% over 3 years.</p>	<p>With the exception of objective and performance measures related to ecosystem impact, the PMS includes objectives and performance measures for target, byproduct, bycatch and protected species. DEW is encouraged to see that the PMS will be reviewed after the first year of reporting.</p> <p>DEW considers that the GOCIFF poses a low risk to the ecosystem. However, to improve the transparency and accountability of the GOCIFF, DEW recommends that DPI&amp;F develop an ecosystem related performance measure during the first year review of the PMS (<b>Recommendation 6</b>).</p>

	<p>For guitarfish and shovelnose rays the performance measure is a decreasing trend in mortality during the most recent 3 year period as reported by observers and/or SOCI logbooks.</p> <p>The performance measures for bycatch relate to increases in the percentage weight of bycatch relative to total catch, a significant change in the number of bycatch species and the numerical abundance of a particular bycatch species or group, all compared to the average of the previous 5 years data.</p> <p>The performance measures for protected species relate to comparing the annual rate of interactions recorded in the SOCI logbooks with the maximum annual rate of interactions recorded by fisheries observers between 2000 and 2005. The PMS also includes a performance measure related to a change in the conservation status of a species under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act).</p> <p>Other key inclusions in the PMS include reporting on the performance of the GOCIFF against the performance measures in the annual status reports and a commitment to review the PMS after the first year of reporting.</p>	
<p>DPI&amp;F to monitor the status of the fishery in relation to the Review Events in the plan. Within three months of becoming aware that a Review Event has been triggered, DPI&amp;F to finalise a clear timetable for the implementation of appropriate management responses.</p>	<p>Performance of the GOCIFF against the Review Events included in the Gulf Management Plan has been monitored. None of the specified Review Events were triggered in 2004, 2005 and 2006.</p> <p>As required by a separate recommendation, DPI&amp;F have developed a draft PMS. The draft PMS requires that a timetable for any management change be identified within 3 months of becoming aware of the performance</p>	<p>None. DEW considers this recommendation has been implemented through the development of the PMS.</p>

	measure not being met and an analysis of the performance of the fishery against the performance measures is included in annual status reports.	
Within 12 months, DPI&F to amend its restrictions on shark finning to include rays (all chondrichthyans).	DPI&F advise that an amendment to the current Regulation that broadens the definition of shark to include all species in the Class Chondrichthyes (all cartilaginous fish, including rays) is expected to take effect from 1 September 2007 as part of the review of the <i>Fisheries Regulation 1995</i> .	None. DEW considers that DPI&F has met this recommendation.
Within 12 months, DPI&F to support the implementation of the Species of Conservation Interest logbooks, DPI&F to ensure that an education program for fishers, both recreational and commercial, is developed and implemented, to promote the importance of protected species protection and accurate incident reporting.	A comprehensive protected species education program was released in September 2005. This material was provided to all licensed commercial fishers and is available through the DPI&F Business Information Centre.	None. DEW considers that DPI&F has met this recommendation. The education program developed by DPI&F is comprehensive and aimed at both commercial and recreational fishers. It is considered likely that the program has helped to educate fishers about the importance of accurate reporting of protected species interactions.
Within 18 months, DPI&F to develop a mechanism to improve knowledge of the level of interactions with protected species. If interaction 'hot spots' are identified, additional mitigation measures are to be implemented.	A SOCI logbook was implemented in the GOCIFF at the beginning of the 2007 season and the observer program will continue in the N3 and N9 sectors in 2008. DPI&F provides quarterly reports on any reported interactions to DEW.	DEW considers that DPI&F has met this recommendation.  The reported level of interaction with protected species has been low, both through logbook reporting and as part of the results of the long term monitoring program (LTMP) and observer program. With the recent introduction of SOCI logbooks in both the N3 and N9 sectors and the continuation of the observer program in the N9 sector, DPI&F will gain a better understanding of the frequency and nature of protected species interactions in the GOCIFF. Prior to the next assessment of the GOCIFF, DEW

		<p>recommends that DPI&amp;F analyse the number, rate and type of protected species interactions recorded through the SOCI logbooks compared with available observer data and review whether the current information collection system is adequate (<b>Recommendation 5</b>).</p>
<p>Within three years, DPI&amp;F to undertake an enforcement risk analysis seeking to develop and implement a strategic enforcement and compliance program which includes measurable performance criteria. DPI&amp;F to ensure that the following issues are specifically addressed in the development of the compliance program for the fishery:</p> <ul style="list-style-type: none"> <li>• Catch and effort data reliability (target species, bycatch and by-product data).</li> <li>• Non-compliance with gear restrictions and size limits.</li> <li>• Reporting of protected species interaction.</li> <li>• Closed area restrictions.</li> </ul>	<p>A compliance risk assessment for the GOCIFF was completed in April 2006. Compliance with shark finning provisions was identified as the highest priority for enforcement and compliance.</p>	<p>DEW encourages DPI&amp;F to develop a compliance strategy to address the risks identified.</p>

**Table 3: The DEW assessment of the GOCIFF against the requirements of the EPBC Act related to decisions made under Parts 13 and 13A**

**Part 13**

Section 208A Minister may accredit plans, regimes or policies	DEW assessment of the GOCIFF
<p>Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <ul style="list-style-type: none"> <li>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:               <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> </li> </ul> <p>if the Minister is <b>satisfied</b> that:</p> <ul style="list-style-type: none"> <li>(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</li> <li>(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.</li> </ul>	<p>The GOCIFF will be managed under the Gulf Management Plan, the <i>QLD Fisheries Act 1994</i> and the <i>QLD Fisheries Regulation 1995</i>.</p> <p>The management regime for the GOCIFF was accredited in August 2004. The management arrangements for the GOCIFF have not significantly changed since this accreditation was granted. However, DEW has become aware that the management arrangements for the GOCIFF allow the retention of EPBC Act listed species, including spartooth shark and freshwater sawfish. In order to satisfy 208(A) (d), DEW considers a new Part 13 declaration with an associated <b>condition</b> is required. As DPI&amp;F have agreed to a two year export approval and a recommendation to prohibit the retention of any EPBC Act listed species, DEW considers the condition should reflect this recommendation, with DPI&amp;F to prohibit the retention of all EPBC Act listed Chondrichthyan species in the GOCIFF as a priority, but by no later than 31 July 2009.</p> <p>Currently, logbook and observer data suggests that the GOCIFF has minimal interactions with listed threatened species. Reported interactions were with marine turtles, spartooth sharks and freshwater sawfish a number of which were released alive. Therefore, DEW considers the current operation of the GOCIFF is not likely to</p>

	adversely affect the survival or recovery in nature of any threatened species.
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<b>Section 222A Minister may accredit plans, regimes or policies</b>	<b>DEW assessment of the GOCIFF</b>
<p>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 the Minister is <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 GOCIFF will be managed under the Gulf Management Plan, the <i>QLD Fisheries Act 1994</i> and the <i>QLD Fisheries Regulation 1995</i>.</p> <p>The management regime for the GOCIFF was accredited in August 2004. The management arrangements for the GOCIFF have not significantly changed since this accreditation was granted, therefore DEW considers the GOCIFF still takes all reasonable steps to ensure listed migratory species are not killed or injured.</p> <p>The report provided by DPI&amp;F indicates that there have been no interactions with migratory species in the GOCIFF. Therefore, DEW considers the current operation of the GOCIFF is not likely to adversely affect the conservation status of any listed migratory species or a population of that species.</p>

<b>Section 245 Minister may accredit plans, regimes or policies</b>	<b>DEW assessment of the GOCIFF</b>
<p>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>The GOCIFF will be managed under the Gulf Management Plan, the <i>QLD Fisheries Act 1994</i> and the <i>QLD Fisheries Regulation 1995</i>.</p>

<p>ii. in force under a law of the State or self-governing Territory;</p> <p>if the Minister is <b>satisfied</b> that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a species of cetacean or a population of that species.</p>	<p>The management regime for the GOCIFF was accredited in August 2004. The management arrangements for the GOCIFF have not significantly changed since this accreditation was granted, therefore DEW considers the GOCIFF still takes all reasonable steps to ensure that cetaceans are not killed or injured.</p> <p>The report provided by DPI&amp;F indicates that there has been one interaction with an Indo-Pacific Humpback dolphin. While the animal was released dead, interactions with this species are reportedly very rare in this fishery. Observers also reported the capture of a bottlenose dolphin which was also released dead. Given the low frequency of interactions with these species, DEW considers the current operation of the GOCIFF is not likely to adversely affect the conservation status of a species of cetacean or a population of that species.</p>
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<b>Section 265 Minister may accredit plans, regimes or policies</b>	<b>DEW assessment of the GOCIFF</b>
<p>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 the Minister is <b>satisfied</b> that:</p> <p>(f) the plan 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 GOCIFF will be managed under the Gulf Management Plan, the <i>QLD Fisheries Act 1994</i> and the <i>QLD Fisheries Regulation 1995</i>.</p> <p>The management regime for the GOCIFF was accredited in August 2004. The management arrangements for the GOCIFF have not significantly changed since this accreditation was granted, therefore DEW considers the GOCIFF still takes all reasonable steps to ensure</p>

<p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed marine species or a population of that species.</p>	<p>listed marine species are not killed or injured.</p> <p>Currently, evidence suggests that the GOCIFF only has minimal interactions with listed marine species (including syngnathids). Therefore, DEW considers the current operation of the GOCIFF is not likely to adversely affect the conservation status of a listed marine species or a population of that species.</p>
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<b>Section 303AA Conditions relating to accreditation of plans, regimes and policies</b>	<b>DEW assessment of the GOCIFF</b>
<p>This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.</p>	<p>DEW recommends that the GOCIFF be accredited under sections 208A, 222A, 245 and 265.</p>
<p>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 section 208A we recommend that the GOCIFF be accredited under Part 13 subject to a condition that requires DPI&amp;F to prohibit the retention of all EPBC Act listed Chondrichthyan species in the GOCIFF as a priority, but by no later than 31 July 2009.</p> <p>The Part 13 instrument for the GOCIFF specifies this condition.</p>
<p>The Minister must, in writing, revoke an accreditation if he or she is satisfied that a condition of the accreditation has been contravened.</p>	

## Part 13A

Section 303DC Minister may amend list	DEW assessment of the GOCIFF
<p>The Minister may, by instrument in published in the Gazette, amend the list referred to in section 303DB (list of exempt native specimens) by:</p> <p>(a) including items in the list;</p>	<p>No amendment to the list of exempt native specimens (LENS) is required as product sourced from the GOCIFF approved wildlife trade operation is already included on the LENS.</p>
Section 303FN Approved wildlife trade operation	DEW assessment of the GOCIFF
<p>The Minister may, by instrument published in the <i>Gazette</i>, declare that a specified wildlife trade operation is an <i>approved wildlife trade operation</i> for the purposes of this section.</p>	
<p>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>The GOCIFF is consistent with objects of Part 13A (listed after this table) as:</p> <ul style="list-style-type: none"> <li>▪ the harvest of species listed under CITES is minimal (less than 1 t of sawfish annually for the past 4 fishing seasons) and DEW have recommended that DPI&amp;F review the management arrangements for all CITES listed species during the review of the Gulf Management Plan (<b>Recommendation 2</b>);</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 GOCIFF is unlikely to be unsustainable and threaten biodiversity within the next 2 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>(b) the operation will not be detrimental to:</p> <ul 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> </ul> <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>(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>DEW considers that the GOCIFF will not be detrimental to the survival or conservation status of a taxon to which it relates within the next <b>2 years</b>, given the management measures currently in place, which include a seasonal closure, gear restrictions, minimum and maximum size limits and observer coverage.</p> <p>DEW considers that the GOCIFF will not threaten any relevant ecosystem within the next <b>2 years</b>, given the management measures currently in place, which include a seasonal closure, gear restrictions, minimum and maximum size limits and observer coverage.</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>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) the significance of the impact of the operation on an ecosystem (for example, an impact on habitat or biodiversity); and</li> <li>(b) the effectiveness of the management arrangements for the operation (including monitoring procedures).</li> </ul>	<p>DEW considers that the GOCIFF will not have a significant impact on any relevant ecosystem within the next <b>2 years</b>, given the management measures currently in place, which include a seasonal closure, gear restrictions, minimum and maximum size limits and observer coverage.</p> <p>The management arrangements that will be employed for the GOCIFF are likely to be effective. Management arrangements for the GOCIFF are included in the Gulf Management Plan. Management arrangements include a seasonal closure, gear restrictions, minimum and maximum size limits and observer coverage. The performance of the GOCIFF is reviewed annually, against a series of objectives, performance measures and reference points for target, byproduct, bycatch and protected species.</p>

<p>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 GOCIFF will be managed under the Gulf Management Plan, the <i>QLD Fisheries Act 1994</i> and the <i>QLD Fisheries Regulation 1995</i>.</p> <p>The <i>QLD Fisheries Act 1994</i> and the <i>QLD Fisheries Regulation 1995</i> apply throughout QLD waters.</p> <p>The management arrangements that will be employed for the GOCIFF are likely to be effective. Management arrangements for the GOCIFF are included in the Gulf Management Plan. Management arrangements include a seasonal closure, gear restrictions, minimum and maximum size limits and observer coverage. The performance of the GOCIFF is reviewed annually, against a series of objectives, performance measures and reference points for target, byproduct, bycatch and protected species.</p>
<p>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 GOCIFF is a commercial fishery.</p>
<p>In deciding whether to declare that a commercial fishery is an approved wildlife trade operation for the purposes of this section, 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 GOCIFF has been carried out under Part 10 of the EPBC Act.</p>
<p>The above does not limit the matters that may be taken into account in deciding whether to declare that a fishery is an approved wildlife trade operation for the purposes of this section.</p>	

<b>Section 303FR Public consultation</b>	<b>DEW assessment of the GOCIFF</b>
<p>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>DEW 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 GOCIFF a WTO and included the annual reports, was released for public comment which closed on 27 July 2007 with 1 submission received.</p>
<p>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 GOCIFF a WTO and included the annual reports, was released for public comment on 22 June 2007 and closed on 27 July 2007, a total of 25 business days.</p>
<p>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>One public comment about the proposal was received.</p>

<b>Section 303FT Additional provisions relating to declarations</b>	<b>DEW assessment of the GOCIFF</b>
<p>This section applies to a declaration made under section 303FN, 303FO or 303FP.</p>	<p>A declaration for the GOCIFF will be made under section 303FN.</p>
<p>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>The standard conditions applied to commercial fishery WTOs include:</p> <ul style="list-style-type: none"> <li>• operation in accordance with the management regime; and</li> <li>• notifying DEW of changes to the management regime; and</li> <li>• annual reporting.</li> </ul> <p>It is recommended the standard conditions are applied to the GOCIFF WTO declaration.</p>
<p>In such a case, the instrument of declaration is to specify the period, circumstances or condition.</p>	<p>The WTO instrument for the GOCIFF specifies the conditions applied.</p>

A condition may relate to reporting or monitoring.	One of the standard conditions relates to reporting.
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.	
A copy of an instrument under section 303FN, 303FO or 303FP or this section is to be made available for inspection on the Internet.	The instrument for the GOCIFF made under sections 303FN and 303FT will be gazetted and made available on the DEW website.

<b>Section 391 Minister must consider precautionary principle in making decisions</b>	<b>DEW assessment of the GOCIFF</b>
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.	You must consider the precautionary principle when making a decision to include specimens on the LENS.
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 recommendations to DPI&F for the GOCIFF**

The material submitted by DPI&F demonstrates that the management arrangements for the GOCIFF meet most of the requirements of the Australian Government Guidelines for the ecologically sustainable management of fisheries. Management arrangements include a seasonal closure, gear restrictions, limited entry, minimum and maximum size limits and protection of nursery habitats. As such, DEW considers that overall the management regime aims to ensure that fishing is conducted in a manner that does not lead to over-fishing and for fishing operations to be managed to minimise their impact on the structure, productivity, function and biological diversity of the ecosystem.

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

- prohibiting the retention of EPBC Act listed Chondrichthyan species;
- reviewing management arrangements for CITES listed species, especially those of the Pristidae family;
- monitoring the harvest levels of a number of non-listed shark species that have been identified as 'least sustainable';
- roll-out of the Fisheries Resource Assessment schedule, which plans stock assessments for grey mackerel, blacktip shark, king and blue threadfin between 2008 and 2011.

DEW 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 term. Similarly, it is not likely to threaten any relevant ecosystem in the short term. To contain and minimise the risks in the longer term the recommendations listed below have been made. The key challenges for this fishery will be improving protection for EPBC Act and CITES listed species and obtaining sustainable yield estimates for a number of the key target species. DEW considers that, until it can be demonstrated that these issues have been adequately dealt with, a 2-year WTO declaration is appropriate.

Given the low level of protected species interactions under current fishing operations, DEW 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. Given DPI&F's commitment to prohibiting the retention of EPBC Act listed DEW considers a new Part 13 accreditation should be granted, with a condition requiring DPI&F to prohibit the retention of all EPBC Act listed Chondrichthyan species in the GOCIFF as a priority, but by no later than 31 July 2009.

Unless a specific time frame is provided in the recommendation each recommendation must be addressed within the life of the declaration (2 years). Note that a standard condition of a WTO is an annual reporting requirement, the details of which are provided in Table 4.

**Table 4: Queensland Gulf of Carpentaria Inshore Finfish Fishery Assessment - Issues, Conditions and Recommendations**

	<b>Issue</b>	<b>DEW Part 13 Condition</b>
1	A number of byproduct species captured by the GOCIFF are listed under the EPBC Act. Speartooth shark ( <i>Glyphis</i> sp. A) is critically endangered and freshwater sawfish ( <i>Pristis microdon</i> ) is listed as vulnerable. In addition, green sawfish ( <i>P. zijsron</i> ) is currently under consideration for listing. A requirement of section 208A of the EPBC Act is that all reasonable steps need to be taken to avoid killing or injuring listed species. To satisfy this requirement, DEW has recommended that DPI&F prohibit the retention of EPBC Act listed species ( <b>Recommendation 1</b> ). DEW considers that the implementation of this recommendation is necessary to meet the requirements of section 208A of the EPBC Act and therefore recommends that this be included as a condition to this accreditation.	<b>Condition 1:</b> DPI&F to prohibit the retention of all EPBC Act listed Chondrichthyan species in the GOCIFF as a priority, but by no later than 31 July 2009.
	<b>Issue</b>	<b>DEW WTO Condition</b>
2	<u>General Management</u> Export decisions relate to the arrangements in force at the time of the decision. In order to ensure that these decisions remain valid, DEW 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.	<b>Condition 1:</b> Operation of the fishery will be carried out in accordance with the Queensland <i>Fisheries Regulation 1995</i> and the Queensland <i>Fisheries (Gulf of Carpentaria Inshore Fin Fish) Management Plan 1999</i> in force under the Queensland <i>Fisheries Act 1994</i> .  <b>Condition 2:</b> DPI&F to inform DEW of any intended amendments to the management arrangements that may affect the criteria on which EPBC Act decisions are based.

3	<p><u>Annual Reporting</u></p> <p>It is important that reports be produced and presented to DEW 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 (2 years). Annual reports should include a description of the fishery, management arrangements in place, 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, progress in implementing DEW recommendations and research and monitoring outcomes.</p>	<p><b>Condition 3:</b> DPI&amp;F to continue to produce and present reports to DEW annually. Reports to include:</p> <ul style="list-style-type: none"> <li>i. Information sufficient to allow assessment of the progress of DPI&amp;F in implementing the recommendations made in the Assessment of the QLD Gulf of Carpentaria Inshore Finfish Fishery 2007; and</li> <li>ii. A description of the fishery, management arrangements in place, recent catch data for all sectors of the fishery, status of target stock including performance of the fishery against objectives, performance indicators and measures, interactions with protected species, impacts of the fishery on the ecosystem in which it operates and research and monitoring outcomes.</li> </ul> <p>Information should only be provided on those aspects which are relevant to the fishery and that articulate ‘changes’ since the last annual report.</p>
	<b>Issue</b>	<b>DEW Recommendation</b>
4	<p><u>Sharks</u></p> <p>The ERA identified several shark species as being at ‘moderate’ risk from the GOCIFF. More recently, an FRDC project, <i>Northern Australian sharks and rays: the sustainability of target and bycatch species Phase 2</i> identified 20 species in the N3 to be least likely to be sustainable and 8 species in the N9 to be least likely to be sustainable.</p>	<p><b>Recommendation 1:</b> DPI&amp;F to prohibit the retention of all EPBC Act listed Chondrichthyan species in the GOCIFF.</p>

N3 least sustainable species included the pigeye shark, bull shark, blacktip shark, speartooth shark, freshwater sawfish, green sawfish and great hammerhead shark.

N9 least sustainable species included two species of blacktip shark, fossil shark and great hammerhead shark.

A number of byproduct species captured by the GOCIFF are also listed under the EPBC Act. Speartooth shark (*Glyphis* sp. A) is critically endangered and freshwater sawfish (*Pristis microdon*) is listed as vulnerable. In addition, green sawfish (*P. zijsron*) is currently under consideration for listing.

In addition, the recent Convention of Parties for CITES added all species of Pristidae to Appendix I. One exception was made with the addition of freshwater sawfish to Appendix II for the exclusive purpose of allowing international trade in live animals for primarily conservation purposes.

DEW commends DPI&F on current research underway on habitat preferences, movement patterns and residency of sawfish and speartooth sharks in the Mapoon area and considers this will assist in mitigating the impacts of the GOCIFF on these species. DEW also acknowledges the work being conducted by the Northern Australian Fisheries Management (NAFM) workshops with regard to the harvest and sustainability of northern shark species.

However, a requirement of the EPBC Act is that all reasonable steps need to be taken to avoid killing or injuring listed species. To satisfy this requirement, DEW recommends that DPI&F prohibit the retention of EPBC Act listed species. Given Australia's CITES obligations, DEW recommends that DPI&F specifically consider the management of CITES species, in particular species of the Pristidae family, as a part of the upcoming review of the Gulf Management Plan. In addition, DPI&F should ensure that the harvest levels of other shark species, especially those identified

**Recommendation 2:** As a part of the review of the *Fisheries (Gulf of Carpentaria Inshore Fin Fish) Management Plan 1999*, DPI&F to specifically consider the management of CITES listed species, in particular members of the Pristidae family.

**Recommendation 3:** DPI&F to monitor annual catch and catch rate trends (validated by observers) of those non-listed shark species identified as 'least sustainable' in the Northern Australian Sharks and Rays Phase II project (FRDC Project number 2002/064) to ensure that risks to the sustainability of these species are identified.

	<p>as being at potential risk, are sustainable.</p> <p>It should also be noted that products derived from EPBC Act listed species are not permitted to be exported under the current approvals for the GOCIFF and export of species listed under Appendix I of CITES for commercial purposes is prohibited.</p>	
5	<p><u>Accounting for all removals in stock assessments</u></p> <p>DPI&amp;F recognise that illegal, unregulated and unreported (IUU) fishing in GoC waters represents a serious threat to the sustainability of northern Australian fisheries and that a greater understanding of such activities is needed to ensure the future sustainability of northern Australian fish stocks. DEW recommends that precautionary management of the GOCIFF should take into account estimates of the level of take from this source. DPI&amp;F has been collaborating with the Commonwealth and Northern Territory and Western Australian governments on this issue and DEW commends DPI&amp;F for being proactive. Once estimates of the level of take from IUU fishing are available, these should be taken into account in stock assessments for the fishery and in management of the fishery.</p> <p>DEW commends DPI&amp;F for the work undertaken to date on obtaining recreational fishing data. DEW recommends that DPI&amp;F should continue work on improving the RFISH data and on gathering Indigenous catch estimates.</p>	<p><b>Recommendation 4:</b> DPI&amp;F to continue to improve estimates of recreational and Indigenous harvest. Once available, DPI&amp;F to take estimates of IUU fishing, recreational and Indigenous harvests into account in stock assessments and to introduce management arrangements to mitigate any risks identified.</p>
6	<p><u>Protected species</u></p> <p>Logbook and observer data suggest relatively low rates of non-fish protected species interactions. With the recent introduction of SOCI logbooks in both the N3 and N9 sectors and the continuation of the observer program in the N9 sector, DPI&amp;F will gain a better understanding of the frequency and nature of protected species interactions in the GOCIFF. Prior to the next assessment of the GOCIFF, DEW recommends that DPI&amp;F analyse the number, rate and type of protected species interactions recorded through the SOCI logbooks compared with available observer data and review whether the current information collection system is adequate.</p>	<p><b>Recommendation 5:</b> Within 2 years, DPI&amp;F to analyse the number, rate and type of protected species interactions of the SOCI data compared to the observer data available and review the adequacy of the protected species interactions information collection system. DPI&amp;F to implement further measures to mitigate interactions, if necessary.</p>

7	<p><u>Ecosystem Performance Measures</u></p> <p>A recommendation was made in the 2004 EPBC Act assessment of the GOCIFF regarding development of a range of objectives and performance measures for target, byproduct, bycatch, protected species and impacts on the ecosystem. The PMS has largely met this recommendation, however, it does not include objectives and performance measures for impacts on the ecosystem.</p>	<p><b>Recommendation 6:</b> As a part of the review of the Performance Measurement System, DPI&amp;F to include an objective and performance measure related to GOCIFF impacts on the ecosystem.</p>
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## Acronyms

CPUE	Catch per unit effort
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEH	Department of the Environment and Heritage
DEW	Department of the Environment and Water Resources
DPI&F	Department of Primary Industries and Fisheries
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ERA	Ecological Risk Assessment
FRDC	Fisheries Research and Development Corporation
GoC	Gulf of Carpentaria
GOCIFF	Gulf of Carpentaria Inshore Finfish Fishery
IUU	Illegal, unregulated and unreported fishing
LTMP	Long term monitoring program
NAFM	Northern Australian Fisheries Management workshop
NT	Northern Territory
PMS	Performance Measurement System
QLD	Queensland
RFISH	Recreational Fishing Information System
SOCI	Species of Conservation Interest
WA	Western Australia
WTO	Wildlife Trade Operation