



**Australian Government**

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

Assessment of the  
**East Coast Inshore Fin Fish Fishery**

**February 2012**

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#### **Disclaimer**

This document is an assessment carried out by the Department of Sustainability, Environment, Water, Population and Communities of a commercial fishery against the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries – 2<sup>nd</sup> Edition*. It forms part of the advice provided to the Minister for Sustainability, Environment, Water, Population and Communities on the fishery in relation to decisions under Part 13 and Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999*. The views expressed do not necessarily reflect those of the Minister for Sustainability, Environment, Water, Population and Communities or the Australian Government.

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**Table 1: Summary of the East Coast Inshore Fin Fish Fishery**

<b>Description of the fishery</b>	<p>The Queensland East Coast Inshore Fin Fish Fishery is a multi-species, multi-gear fishery. It is Queensland's largest and most diverse fishery, spanning over 5,300 kilometres of coastal foreshores and encompassing around 75 major river systems and numerous smaller waterways. The fishery operates in state and Commonwealth waters off the east coast of Queensland, including in the Great Barrier Reef Marine Park.</p> <p>A range of inshore fin fish and tropical shark species are targeted. Commercial fishers operating in the East Coast Inshore Fin Fish Fishery must hold a primary commercial fishing vessel licence endorsed with an 'N' (mesh net), 'L' (line fishing gear) or 'K' (ocean beach seine net) symbol. Different commercial fishery symbols allow different gear to be used commercially in different areas of the fishery. The fishery is primarily a net fishery but many operators hold multiple endorsements including endorsements for other Queensland fisheries such as the Mud Crab Fishery, Spanner Crab Fishery, East Coast Spanish Mackerel Fishery or Coral Reef Fin Fish Fishery. Fisheries Queensland estimates that approximately 500 commercial operators fish wholly or partly in the East Coast Inshore Fin Fish Fishery. A large number of endorsements are fished on a part time or casual basis.</p>
<b>Publicly available information relevant to the fishery</b>	<ul style="list-style-type: none"> <li>• Queensland <i>Fisheries Act 1994</i></li> <li>• Queensland <i>Fisheries Regulation 2008</i></li> <li>• Queensland <i>Marine Parks Act 1982</i></li> <li>• Queensland <i>Nature Conservation Act 1992</i></li> <li>• <i>Great Barrier Reef Marine Park Act 1975</i></li> <li>• <i>Great Barrier Reef Marine Park Regulations 1983</i></li> <li>• Guidelines for commercial operators in the East Coast Inshore Fin Fish Fishery. Queensland Government, 2009.</li> <li>• Performance Measurement System – East Coast Inshore Fin Fish Fishery (ECIFFF) – Version 1 June 2009</li> <li>• Annual Status Report – 2008 – East Coast Inshore Fin Fish Fishery</li> <li>• Annual Status Report – 2009 – East Coast Inshore Fin Fish Fishery</li> <li>• Progress against DEWHA<sup>1</sup> conditions and recommendations – East Coast Inshore Fin Fish Fishery – 2009</li> <li>• Progress against SEWPaC<sup>2</sup> conditions and recommendations – East Coast Inshore Fin Fish Fishery – 2010</li> <li>• Fisheries Queensland's 2011 application for ongoing export approval, comprising: <ul style="list-style-type: none"> <li>○ East Coast Inshore Fin Fish Fishery – Progress against SEWPaC conditions and recommendations 2011</li> <li>○ Annual Status Report 2010 – East Coast Inshore Fin Fish Fishery</li> <li>○ Review of management arrangements for the east coast Queensland shark fishery 2011 – Wildlife Trade Operation Condition 8</li> <li>○ Implementation and continued improvement of Queensland's harvest strategy for sharks – Wildlife Trade Operation Condition 9</li> <li>○ Assessment of the conservation benefits of net fishing closures north of Cooktown and in important habitats for dugong, inshore dolphins, sawfish and spartooth shark – Wildlife Trade Operation Condition 12</li> <li>○ Review of commercial fishing in the East Coast Inshore Fin Fish Fishery – Wildlife Trade Operation Condition 16</li> <li>○ Fishery observation in the East Coast Inshore Fin Fish Fishery – August 2011, and</li> <li>○ Plan for Assessment of Queensland East Coast Shark Resources 2009 - 2014.</li> </ul> </li> </ul>

<sup>1</sup> Department of the Environment, Water, Heritage and the Arts

<sup>2</sup> (Department of) Sustainability, Environment, Water, Population and Communities

<p><b>Area</b></p>	<p>The area of the East Coast Inshore Fin Fish Fishery encompasses tidal waters along Queensland’s east coast and extends eastward to the boundary of the Offshore Constitutional Settlement between the Australian Government and Queensland Government. The area of the fishery includes the Great Barrier Reef Marine Park and the Great Barrier Reef World Heritage Area and covers both state and Commonwealth waters. Under an Offshore Constitutional Settlement agreement between the Australian Government and the Queensland Government, the fishery is managed by Fisheries Queensland under Queensland legislation.</p> <p>Most of the harvest is taken from inshore waters, including from within rivers and creeks, however, some species such as sharks and grey mackerels are also taken in more offshore waters. It is uncommon for fishing to occur beyond 20 kilometres from the mainland.</p>
<p><b>Target species</b></p>	<p>Commercial operators frequently target:</p> <ul style="list-style-type: none"> <li>– barramundi</li> <li>– tailor</li> <li>– grey mackerel</li> <li>– bream species</li> <li>– blue threadfin</li> <li>– sand whiting</li> <li>– sea mullet</li> <li>– spotted mackerel</li> <li>– school mackerel</li> <li>– flathead</li> <li>– king threadfin</li> </ul> <p>– tropical sharks (primarily blacktip whaler complex and spot tail shark). Recent analysis by the Marine and Tropical Sciences Research Facility indicates that approximately 70 per cent of the total shark catch is represented by five shark species:</p> <ul style="list-style-type: none"> <li>○ Australian blacktip shark (<i>Carcharhinus tilstoni</i>)</li> <li>○ common blacktip shark (<i>Carcharhinus limbatus</i>)</li> <li>○ spot tail shark (<i>Carcharhinus sorrah</i>)</li> <li>○ scalloped hammerhead (<i>Sphyrna lewini</i>), and</li> <li>○ milk shark (<i>Rhizoprionodon acutus</i>).</li> </ul> <p>Some target species are regionally important:</p> <ul style="list-style-type: none"> <li>● Sea mullet are targeted in southern waters between Bundaberg and the New South Wales border.</li> <li>● Bream, whiting and flathead are targeted in the Fraser-Burnett region.</li> <li>● Barramundi, blue threadfin, king threadfin and trevally are targeted in the Fraser-Burnett region and between Cairns and Townsville.</li> <li>● Sharks are generally targeted north of Mackay as well as in the Fraser-Burnett and Moreton regions.</li> <li>● Grey and spotted mackerel are important between Princess Charlotte Bay and Moreton Bay.</li> </ul>
<p><b>Byproduct Species</b></p>	<p>Many secondary or byproduct species are taken in the fishery. Key secondary or byproduct species include:</p> <ul style="list-style-type: none"> <li>– garfish (various species)</li> <li>– queenfish</li> <li>– trevally (various species)</li> <li>– dart (various spp.)</li> <li>– bait fish species</li> <li>– mangrove jack</li> <li>– grunter (various species)</li> <li>– luderick</li> <li>– jewfish</li> </ul> <p>Many shark species are taken as incidental catch, including graceful shark (<i>Carcharhinus amblyrhynchos</i>), hammerhead sharks, spinner shark (<i>Carcharhinus brevipinna</i>), Australian sharpnose shark (<i>Rhizoprionodon taylori</i>) and hardnose shark (<i>Carcharhinus macloti</i>) (see <i>Review of Management Arrangements for the East Coast Inshore Fin Fish Fishery 2011 – Wildlife Trade Operation Condition 8</i>).</p>

<p><b>Stock status</b></p>	<p>The stock status of key target and byproduct species/species groups in Queensland fisheries is assessed annually by an expert panel. This assessment represents Fisheries Queensland's primary method for determining the sustainability status for all major species. Stock status is assessed by an expert panel against clearly defined sustainability criteria and includes estimates of total mortality from all fishery sources where available.<sup>3</sup></p> <p>The 2011 stock status of key species taken in the East Coast Fin Fish Fishery is listed below (Source: <i>Stock status of Queensland's fisheries resources 2011</i>).</p> <p><b>'Sustainably fished'</b> - harvest levels are at, or close to, optimum levels. Current fishing pressure is considered sustainable.</p> <ul style="list-style-type: none"> <li>- barramundi (<i>Lates calcarifer</i>)</li> <li>- yellowfin bream (<i>Acanthopagrus australis</i>)</li> <li>- dusky flathead (<i>Platycephalus fuscus</i>)</li> <li>- spotted mackerel (<i>Scomberomorus munroi</i>)</li> <li>- sea mullet (<i>Mugil cephalus</i>)</li> <li>- tailor (<i>Pomatomus saltatrix</i>)</li> <li>- blue threadfin (<i>Eleutheronema tetradactylum</i>)</li> <li>- sand whiting (<i>Sillago ciliata</i>)</li> </ul> <p><b>'Uncertain'</b> - there are inconsistent or contradictory signals in the information available that preclude determination of exploitation status with any degree of confidence.</p> <ul style="list-style-type: none"> <li>- shark mackerel (<i>Grammatorcynus bicarinatus</i>)</li> </ul> <p><b>'Undefined'</b> - some information is available but no reasonable attempt can be made to determine exploitation status at this time. This may be due to the need for additional information or analyses to adequately determine stock status.</p> <ul style="list-style-type: none"> <li>- javelin (<i>Pomadasys spp.</i>)</li> <li>- king threadfin (<i>Polydactylus macrochir</i>)</li> <li>- grey mackerel (<i>Scomberomorus semifasciatus</i>)</li> <li>- school mackerel (<i>Scomberomorus queenslandicus</i>)</li> <li>- sharks</li> <li>- trevally complex (<i>Carangidae spp.</i>)</li> </ul> <p><b>Species examined but not considered further in 2011</b> (Fisheries Queensland has advised that catch levels of these species/species groups will continue to be monitored each year and species added back into the stock status assessment process if catches increase above defined levels.)</p> <ul style="list-style-type: none"> <li>- bream complex other than yellowfin bream</li> <li>- flathead complex other than dusky flathead</li> <li>- whiting complex (<i>Sillago spp.</i> other than <i>S. robusta</i> and <i>S. ciliata</i>)</li> <li>- dart complex (<i>Trachinotus spp.</i>)</li> <li>- garfish complex (<i>Hemiramphidae</i>)</li> </ul>
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<sup>3</sup> Framework for Defining Stock Status – Fisheries Queensland Version 2 April 2011

<b>Gear</b>	<p>The commercial fishery comprises a number of types of shore based and boat based fishing operations which differ in the fishing gear used to target regionally important species.</p> <p>Several types of <b>mesh nets</b> are used in the East Coast Inshore Fin Fish Fishery. They range from small mesh (25 millimetres) nets to large offshore set nets that may be up to 1200 metres long and have a maximum mesh size of 165 millimetres. River and foreshore mesh nets are used to target barramundi, blue threadfin and king threadfin. Offshore mesh nets typically target tropical sharks and mackerels.</p> <p><b>Haul (seine) nets</b> are mainly used in the beach netting sub fishery in southern Queensland. This method is commonly used to target mullet, whiting, garfish and tailor. Also in southern Queensland, some operators use <b>tunnel nets</b> to target a variety of fin fish including whiting. The use of turtle excluder devices in tunnel nets became mandatory on 1 July 2009.</p> <p><b>Cast nets</b> may also be used by operators with an endorsement to fish for bait. These nets are used to target small inshore species such as herring, mullet and garfish.</p> <p><b>Hook and line</b> methods are also employed in the fishery to take a variety of fish species. In the Great Barrier Reef Marine Park, the number of hooks allowed to be used on line fishing apparatus is limited to six.</p> <p>Recreational fishing gear includes cast nets and small haul (seine) nets as well as hook and line, using boat or shore based methods.</p> <p>In addition to standard recreational fishing practices, Indigenous communities are permitted to use traditional subsistence fishing methods for traditional and customary purposes to supply product solely for community use.</p>
<b>Season</b>	<p>The fishing season for the shark subfishery runs from 1 July to 30 June. For the remainder of the fishery the fishing season is the calendar year.</p> <p>A seasonal closure for barramundi is in place from 1 November to 1 February. A tailor spawning closure applies to near shore waters between Indian Head and Waddy Point, Fraser Island from 1 August to 30 September.</p>
<b>Commercial harvest (2009-10)</b>	<p>Shark species - 453 tonnes.</p> <p>Non shark species - 4390 tonnes. Catch of key species/species groups included:</p> <ul style="list-style-type: none"> <li>- mullet species      1754 tonnes</li> <li>- whiting                339 tonnes</li> <li>- barramundi        234 tonnes</li> <li>- bream                 165 tonnes</li> <li>- blue threadfin      152 tonnes</li> <li>- school mackerel    136 tonnes</li> <li>- king threadfin      135 tonnes</li> </ul> <p>The remainder of the catch is typically made up of small amounts of a large number of species.</p> <p>Substantial decreases in the harvest of sharks and grey mackerel were recorded compared to previous years, as a result of the introduction of total allowable commercial catch limits for these species in 2009.</p>
<b>Value of commercial harvest (2009-10)</b>	<p>\$19.6 million.</p>



<p><b>Take by other sectors</b></p>	<p>Some species targeted in the East Coast Inshore Fin Fish Fishery are also taken in other Queensland fisheries and in fisheries managed by the New South Wales, Northern Territory and Australian governments. A number of inshore species targeted in southern Queensland share stocks with New South Wales. Fisheries Queensland works with the New South Wales Department of Primary Industries to take account of the New South Wales catch in Fisheries Queensland's stock status assessments for these species.</p> <p><b>Recreational</b> fishers frequently target barramundi, mangrove jack, whiting, bream, mullet, tailor, mackerel, trevally, and flathead. Size limits and recreational possession limits apply to many of the common recreational species.</p> <p>In 2005 the total recreational harvest (retained catch) was estimated at 3000 tonnes and a further 4400 tonnes was released (McInnes 2008). The most commonly harvested species were mullet (422 tonnes), bream (367 tonnes) and trevally (362 tonnes).</p> <p>In the 2010 annual status report for the East Coast Inshore Fin Fish Fishery, Fisheries Queensland estimates that for whiting species, tailor, bream, flathead and trevally, the recreational harvest is likely to substantially exceed the commercial harvest. Fisheries Queensland commenced a new state wide recreational fishing survey in 2010. The results of this survey will become available during 2012.</p> <p>Catch in the <b>charter</b> sector is reported in the charter sector logbooks. In 2009-10 the charter sector retained approximately 85 tonnes with approximately 100 tonnes released. Trevally, mackerel species, tuna and barramundi were the species most often caught and retained.</p> <p>There are no recent or reliable estimates of <b>Indigenous</b> catch of East Coast Inshore Fin Fish Fishery species. Based on the results of the National Recreational and Indigenous Fishing Survey conducted in 2000/2001 (Henry &amp; Lyle 2003), the Indigenous harvest of East Coast Inshore Fin Fish Fishery species is low relative to other sectors.</p>
<p><b>Commercial licences issued</b></p>	<p>485 licences with net fishery symbols and 1543 licences with line fishery symbols are eligible to fish in the East Coast Inshore Fin Fish Fishery. In 2010, 406 licences with net fishery symbols and 360 with line fishery symbols accessed the fishery.</p>
<p><b>Management arrangements</b></p>	<p>The East Coast Inshore Fin Fish Fishery is managed by Fisheries Queensland under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulations 2008</i>. New management arrangements were introduced into the fishery during 2009. Changes included new net fishing arrangements, changes to the management of shark resources and new and amended bag and size limits. A description of the management arrangements can be found in Fisheries Queensland's <i>Guidelines for commercial operators in the East Coast Inshore Fin Fish Fishery</i>. Key management arrangements for the fishery include:</p> <p><u>Input Controls:</u></p> <ul style="list-style-type: none"> <li>• limited entry</li> <li>• licensing symbols, each symbol allows different gear to be used commercially in different areas, hence differentiating each subfisheries' key species</li> <li>• allocation of a limited number of 'S' symbols to constrain the number of operations authorised to take sharks and rays above defined incidental catch limits</li> <li>• limits on types of nets, net lengths and mesh sizes for nearshore, inshore and offshore operations, with net attendance requirements</li> <li>• seasonal closures (see Season above) and area closures; and</li> <li>• gear limits for recreational fishers.</li> </ul>

<b>Management arrangements</b> <i>(cont.)</i>	<p><u>Output Controls:</u></p> <ul style="list-style-type: none"> <li>• total allowable commercial catch limits: <ul style="list-style-type: none"> <li>○ sharks and rays - 600 tonnes, divided into a 480 tonne northern component and a 120 tonne southern component</li> <li>○ grey mackerel - 250 tonnes</li> <li>○ spotted mackerel - 240 tonnes, and</li> <li>○ tailor - 120 tonnes</li> </ul> </li> <li>• possession limits (ten net caught sharks and four line caught sharks) and maximum size limit<sup>4</sup> (150 centimetres total length) for sharks to protect breeding females, for all fishers except those holding an ‘S’ symbol</li> <li>• restrictions on the form in which sharks can be retained and landed to prevent illegal finning</li> <li>• commercial possession limits for many species and maximum size limits for some species, for both commercial and recreational fishers</li> <li>• protection or restricted take of high risk species, and</li> <li>• recreational bag limits for some species.</li> </ul> <p>The <i>Performance Measurement System – East Coast Inshore Fin Fish Fishery (ECIFFF) – Version 1 June 2009</i> contains management objectives, performance indicators, performance measures and review reference points for the fishery. Fisheries Queensland reviews the performance of the fishery annually against the performance measures.</p>
<b>Export</b>	Mullet roe, shark and small mackerel products are exported.
<b>Bycatch</b>	<p>Bycatch in the East Coast Inshore Fin Fish Fishery has previously been estimated at less than 20 per cent for netting operations targeting mullet, whiting, small mackerels, barramundi and mixed estuary species; and at 28 per cent for operations targeting sand whiting (Halliday <i>et al</i> 2001).</p> <p>Bycatch mitigation methods currently employed include net type, length and mesh size restrictions for mesh nets, net attendance rules and the use of turtle excluder devices in tunnel nets.</p>

<sup>4</sup> The maximum size limit does not apply to net licences with an S symbol. The net mesh size regulations are designed to select sharks less than 150 centimetres.

<b>Interaction with Protected Species<sup>5</sup></b>	<p>Commercial fishers are required to complete an additional Species of Conservation Interest logbook, recording interactions with these species (including species protected under the <i>Environment Protection Biodiversity and Conservation Act 1999</i> (EPBC Act) and/or Queensland legislation).</p> <p>In the 2010 annual status report for the East Coast Inshore Fin Fish Fishery, Fisheries Queensland reports that Species of Conservation Interest logbooks showed interactions in 2009-2010 with:</p> <ul style="list-style-type: none"> <li>– green turtles (119 released alive and one dead)</li> <li>– loggerhead turtles (four released alive and one dead)</li> <li>– leatherback turtle (one released alive)</li> <li>– dugong (two released alive and three dead)</li> <li>– dolphins (one released alive)</li> <li>– narrow sawfish (six released alive and one dead), and</li> <li>– freshwater sawfish (two injured plus two dead).</li> </ul> <p>Fisheries Queensland has previously reported that many of the interactions with turtles recorded in the fishery were with tunnel nets. The use of approved turtle excluder devices, mandatory in tunnel nets since 2009, allows turtles to be released unharmed.</p> <p>The fishery’s performance measurement system includes a measure for interactions with protected species (total number in a category exceeds the maximum annual number of interactions recorded in 2005 and 2006). This performance measure was exceeded for dugong in 2009-2010.</p> <p>In July 2011, Fisheries Queensland established a Protected Species Working Group comprising government, industry and conservation representatives to recommend further options to minimise the impact of commercial net fishing on species of conservation interest (see Protected Species, Table 4).</p> <p>In December 2011, following extensive consultation with industry and Queensland government agencies, the Great Barrier Reef Marine Park Authority introduced additional netting restrictions (under the <i>Great Barrier Reef Marine Park Regulations 1983</i>) within an area of the marine park in Bowling Green Bay, near Townsville, to provide further protection for dugong in that area.</p> <p>Fisheries Queensland reports that preliminary trials aimed at improving gear selectivity (by using breakaway panels in nets as a mechanism to reduce the capture of large animals such as dugong) were conducted by a commercial fisher in Moreton Bay, with positive preliminary outcomes. Following these preliminary trials, a three year project funded by the Fisheries Research and Development Corporation to trial the gear more intensively commenced in July 2011 (Fisheries Research and Development Corporation project 2011/009 - <i>Assessment of novel gear designs to reduce interactions between species of conservation interest and commercial fishing nets</i>).</p> <p><u>Reporting of interactions with protected species in Commonwealth waters</u></p> <p>Under sections 199, 214, 232 and 256 of the EPBC Act, persons who interact with a protected species must report that interaction within seven days of the incident occurring to the Department of Sustainability, Environment, Water, Population and Communities. A memorandum of understanding between Fisheries Queensland and the department for the reporting of fisheries interactions with protected species is in place. The memorandum of understanding streamlines reporting requirements for interactions with protected species, assisting fishers in meeting their requirements under the EPBC Act. As such, the memorandum of understanding reduces the administrative reporting burden on individual fishers and provides for regular reporting of protected species interactions to the department.</p>
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<sup>5</sup> ‘Protected species’ means all species listed under Part 13 of the EPBC Act, including whales and other cetaceans and threatened, marine and migratory species.

<p><b>Ecosystem Impacts</b></p>	<p>The nature of the fishing gear used in the East Coast Inshore Fin Fish Fishery (net and line) means that limited interactions with the seabed and associated habitat occur. Impacts on seabed communities and ecosystem structures are likely to be negligible as net and line fishing methods have minimal impact on the physical environment.</p> <p>The net subfisheries generally target high order predator fish species and use highly selective fishing gear types that typically result in small amounts of bycatch. Fisheries Queensland considers that, due to the low levels of discards, there is limited potential to supplement additional food resources for other marine species through discarding, and that long term changes in relative abundance of these species as a result are unlikely.</p> <p>The impacts of removal of high order predators (including sharks, barramundi and mackerel) on food webs and species assemblages has not been quantified. Management of the fishery aims to ensure that sustainable populations of target species are maintained.</p>
<p><b>Impacts on World Heritage property/ Great Barrier Reef Marine Park</b></p>	<p>This assessment considered the possible impacts of the operation of the East Coast Inshore Fin Fish Fishery on the World Heritage values of the Great Barrier Reef World Heritage Area and on the Great Barrier Reef Marine Park. Much of the fishing effort in the East Coast Inshore Fin Fish Fishery occurs within the Great Barrier Reef World Heritage Area and the Great Barrier Reef Marine Park.</p> <p>The Great Barrier Reef Marine Park is subject to spatial zoning arrangements that are designed to protect the biodiversity and health of the marine park. Approximately 33 per cent of the marine park is closed to fishing. The net and line fishing methods used in the fishery have a limited impact on the physical ecosystem. Due to the implementation of area and seasonal closures, gear, size and harvest restrictions and the harvesting method used in the fishery, significant impacts on the Great Barrier Reef Marine Park or the World Heritage values of the Great Barrier Reef World Heritage Area are considered unlikely.</p> <p>On this basis the department considers that an action taken by an individual fisher, acting in accordance with the East Coast Inshore Fin Fish Fishery management arrangements in force under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>, would not be expected to have a significant impact on the Great Barrier Reef Marine Park or the World Heritage values of the Great Barrier Reef World Heritage Area.</p>
<p><b>Wetlands of International Importance</b></p>	<p>The assessment also considered the possible impacts of the operation of the East Coast Inshore Fin Fish Fishery on the ecological character of the Moreton Bay, Great Sandy Strait, Shoalwater and Corio Bays and Bowling Green Bay Ramsar Sites.</p> <p>The net and line fishing methods used in the fishery have a limited impact on the physical ecosystem. In addition, area closures to net fishing apply in some areas of Moreton Bay, Great Sandy Strait, Shoalwater and Corio Bays and Bowling Green Bay. Due to the implementation of area and seasonal closures, gear, size and harvest restrictions and the harvesting method used in the fishery, significant impacts on the ecological character of these sites are considered unlikely.</p> <p>On this basis the department considers that an action taken by an individual fisher, acting in accordance with the East Coast Inshore Fin Fish Fishery management regime in force under the Queensland <i>Fisheries Regulation 2008</i> and the Queensland <i>Fisheries Act 1994</i>, would not be expected to have a significant impact on the ecological character of a Wetland of International Importance.</p>

**Table 2: Progress in implementation of recommendations and conditions made in the 2009 assessment of the East Coast Inshore Fin Fish Fishery**

Condition	Progress	Recommended Action
<p>1. Operation of the fishery will be carried out in accordance with the ECIFFF management regime in force under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulations 2008</i>.</p>	<p>The East Coast Inshore Fin Fish Fishery has been managed in accordance with the management regime for the fishery under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulations 2008</i>.</p>	<p>The Department of Sustainability, Environment, Water, Population and Communities considers that this condition has been met.</p> <p>The department recommends that a new approved wildlife trade operation declaration for the East Coast Inshore Fin Fish Fishery specify a similar condition (see <b>Condition 1, Table 4</b>).</p>
<p>2. DPI&amp;F<sup>6</sup> to inform DEWHA<sup>7</sup> of any intended amendments to the ECIFFF management arrangements that may affect the assessment of the fishery against the criteria on which EPBC Act decisions are based.</p>	<p>Fisheries Queensland reports that the department has been informed of all changes to management arrangements that occurred since the 2009 assessment of the fishery.</p>	<p>The department considers that this condition has been met.</p> <p>The department recommends that a new approved wildlife trade operation declaration for the East Coast Inshore Fin Fish Fishery specify a similar condition (see <b>Condition 2, Table 4</b>).</p>
<p>3. DPI&amp;F to produce and present reports to DEWHA annually as per Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries – 2nd Edition</i>.</p>	<p>The department has received annual reports of progress against conditions and recommendations from the 2009 assessment along with copies of Fisheries Queensland’s annual status reports for the fishery. These documents have also been published on Fisheries Queensland’s website.</p>	<p>The department considers that this condition has been met.</p> <p>The department recommends that a new approved wildlife trade operation declaration for the East Coast Inshore Fin Fish Fishery specify a similar condition (see <b>Condition 3, Table 4</b>).</p>

<sup>6</sup> Department of Primary Industries and Fisheries, now Fisheries Queensland, a service of the Queensland Department of Employment, Economic Development and Innovation

<sup>7</sup> Department of the Environment, Water, Heritage and the Arts, now the Department of Sustainability, Environment, Water, Population and Communities

Condition	Progress	Recommended Action
<p>4. DPI&amp;F to introduce a logbook for ‘S’ symbol holders by 1 July 2009, that will provide information on all catches, better recording of effort and species-specific data on chondrichthyan catch (linked to the new Shark Identification Guide for Queensland Fishers), including as a minimum:</p> <ul style="list-style-type: none"> <li>• blacktip (<i>Carcharhinus tilstoni</i> and <i>C. limbatus</i>);</li> <li>• spot-tail (<i>C. sorrah</i>);</li> <li>• milk and Australian sharpnose (<i>Rhizoprionodon acutus</i> and <i>R. taylori</i>); and</li> <li>• hammerhead (<i>Sphyrna</i> spp), and where necessary the product form of retained catch.</li> </ul>	<p>A new shark and ray (‘S’ symbol) logbook for fishers holding ‘S’ symbols was introduced on 1 July 2009. These compulsory daily fisher logbooks included species-specific reporting for 17 species/species groups. The logbooks include information on:</p> <ul style="list-style-type: none"> <li>• shark catch by weight and numbers by major species/species groups. Species listed in Condition 4 are included at species level</li> <li>• soak time (the length of time that the net is in the water), and</li> <li>• net length, drop and mesh size.</li> </ul>	<p>The department considers that this condition has been met.</p>

Condition	Progress	Recommended Action
<p>5. By July 1 2009, DPI&amp;F to implement a statistically robust observer program for 'S' symbol holders.</p>	<p>Fisheries Queensland commenced its Shark Observer Program for symbol holders on 1 July 2009.</p> <p>The program was developed in consultation with the department. In 2009, prior to finalisation of the program, the department commissioned the Commonwealth Scientific and Industrial Research Organisation (CSIRO) to provide advice on what information would be required to ensure that the shark observer program would be statistically robust. Fisheries Queensland incorporated CSIRO's advice into the final program design which was endorsed by Fisheries Queensland's Shark Panel.<sup>8</sup></p> <p>The report, <i>Fishery observation in the East Coast Inshore Fin Fish Fishery – August 2011</i>, which forms part of Fisheries Queensland's 2011 application for further export approval for the East Coast Inshore Fin Fish Fishery under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act), provides:</p> <ul style="list-style-type: none"> <li>• an overview of the Shark Observer Program</li> <li>• the results from the first two years' observations, and</li> <li>• outlines future directions for Fisheries Queensland's fisheries observer program for the fishery post 2011-2012.</li> </ul>	<p>The department considers that this condition has been met.</p>
<p>6. a) By 30 March 2010, DPI&amp;F is to investigate and report to DEWHA on an appropriate catch validation system, with monitoring to provide confidence in these data, to verify sales against landings and to cross check logbook data with catch landing data.</p> <p>b) By 1 July 2011, DPI&amp;F is to implement the outcomes of the investigation in Condition 6a).</p>	<p>On 30 March 2010, Fisheries Queensland provided the department with a report analysing the options available to validate the commercial catch recorded in logbooks.</p> <p>Fisheries Queensland reported that a number of enhancements in cross checking of logbook data against landings had been implemented. The report discussed a number of other options investigated by Fisheries Queensland and concluded that no additional measures were required.</p>	<p>The department considers that this condition has been met.</p>

<sup>8</sup> The Shark Panel includes representation from Fisheries Queensland, fishery managers from other relevant jurisdictions, the Department of Sustainability, Environment, Water, Population and Communities, the Great Barrier Reef Marine Park Authority, WWF-Australia, industry and research bodies.

Condition	Progress	Recommended Action
7. By 1 July 2009, DPI&F to set a total allowable commercial catch (TAC) of no more than 600 tonnes for chondrichthyans.	A legislated 600 tonne total allowable commercial catch commenced on 1 July 2009.	The department considers that this condition has been met.
8. a) DPI&F to conduct annual reviews of the management arrangements for the shark fishery, including the TAC, and report to DEWHA by 1 December each year. Reports will include at a minimum: <ul style="list-style-type: none"> <li>• analysis of catch composition;</li> <li>• analysis of spatial distribution of catch by species;</li> <li>• update of risk assessments for individual species; and</li> <li>• once sufficient data is available, stock assessments for species caught in the fishery.</li> </ul> b) DPI&F to revise management arrangements as appropriate following annual reviews.	<p><u>2009 annual review</u></p> <p>Species-specific reporting for shark was introduced in the East Coast Inshore Fin Fish Fishery on 1 July 2009.</p> <p>In November 2009, Fisheries Queensland provided the department with a report containing a comprehensive analysis of the shark catch composition and the spatial distribution of catch by species for the months between July 2009 and September 2009. This data was compared with catches from 2006, 2007 and 2008.</p> <p>Fisheries Queensland advised that an updated risk assessment, undertaken by researchers at James Cook University as part of a Marine and Tropical Sciences Research Facility project, was scheduled for early 2010.</p> <p><u>2010 annual review</u></p> <p>In November 2010, Fisheries Queensland provided the department with an updated analysis of the shark catch composition and spatial distribution of catch by species between 1 July 2009 and 30 June 2010. This data was compared with catches from 2006, 2007, 2008 and 2009.</p> <p>Fisheries Queensland advised that the risk assessment project had concluded. At that time, Fisheries Queensland was in the process of reviewing the draft findings and their management implications.</p> <p><u>2011 annual review</u></p> <p>In September 2011, Fisheries Queensland provided the report - <i>Review of management arrangements for the East Coast Inshore Fin Fish Fishery 2011 - Wildlife Trade Operation Condition 8</i> - as part of its 2011 application for further export approval for the East Coast Inshore Fin Fish Fishery under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act). This report considered additional catch statistics up to and including March 2011. Fisheries Queensland concluded that no immediate changes to the fishery's management arrangements were required.</p>	<p>The department considers that this condition has been met.</p> <p>The department recommends that a new approved wildlife trade operation declaration for the East Coast Inshore Fin Fish Fishery specify a similar condition (see <b>Condition 7, Table 4</b>).</p>



Condition	Progress	Recommended Action
	<p>Timeframes and options for assessment of key species taken in the shark component of the East Coast Inshore Fin Fish Fishery are outlined in the <i>Draft Plan for Assessment of Queensland East Coast Shark Resources 2009-2012</i> provided as part of Fisheries Queensland's application. Species at greatest risk of overexploitation have been identified and priority species for future quantitative stock assessments determined.</p> <p>The draft plan indicates that standardised catch rate information is expected to become available in 2011-12. Standardised catch rate provides a proxy for species abundance. This will allow Fisheries Queensland to assess trends in species abundance since July 2009 (when management changes came into effect).</p> <p>The draft plan indicates that a review of data from both fishery dependent sources and research projects will be undertaken in 2012, to determine appropriate stock models for utilisation in future stock assessments.</p>	

Condition	Progress	Recommended Action
<p>9. By 1 December 2010, Fisheries Queensland to report to DEWHA on the implementation and continued improvement of the harvest strategy for sharks, including progress towards species-based management.</p>	<p>On 30 November 2010, the department received a report entitled <i>Implementation and continued improvement of Queensland's harvest strategy for sharks</i><sup>9</sup> from Fisheries Queensland. The report describes:</p> <ul style="list-style-type: none"> <li>- the management arrangements for sharks implemented in the East Coast Inshore Fin Fish Fishery on 1 July 2009;</li> <li>- an outline of initiatives and activities to improve Queensland's harvest strategy for sharks, including: <ul style="list-style-type: none"> <li>• actions implemented to date; and</li> <li>• planned activities from 2011 to 2015.</li> </ul> </li> </ul> <p>Fisheries Queensland updated the report and provided the - <i>Implementation and continued improvement of Queensland's harvest strategy for shark - Wildlife Trade Operation Condition 9</i> - as part of its 2011 application for further export approval. The report indicates that preliminary stock assessment outputs for key shark species are expected to be available in 2012, with a review of the performance measurement system for the fishery to adjust shark measures and indicators, if applicable, in 2013. Fisheries Queensland expects that by the end of 2013 a sustainable harvest strategy for sharks, based on species-specific data for key shark species, will have been developed.</p>	<p>The department considers that this condition has been met.</p> <p>The department considers it essential that development, and subsequent implementation, of an updated harvest strategy continues (see <b>Condition 6, Table 4</b>).</p>
<p>10. By 1 July 2009, DPI&amp;F to close Bizant, Normanby and Kennedy Rivers to netting.</p>	<p>To prevent impacts from fishing on protected species habitat, Fisheries Queensland introduced legislated closures of the Bizant, Normanby and Kennedy Rivers to net fishing on 1 July 2009.</p>	<p>The department considers that this condition has been met.</p>
<p>11. By 1 July 2009, DPI&amp;F to introduce a requirement for high risk chondrichthyan species which are permitted to be retained, to be landed with the fins naturally attached. High risk species include: white spotted guitar fish (<i>Rhynchobatus</i> spp), whitetip reef sharks (<i>Triaenodon obesus</i>) and grey reef sharks (<i>C. amblyrhynchos</i>).</p>	<p>Legislation requiring fishers to keep fins attached to the high risk species listed in Condition 11 commenced on 1 July 2009.</p>	<p>The department considers that this condition has been met.</p>

<sup>9</sup> 'harvest strategy for sharks' refers to the full suite of management arrangements that specifically relate to these species.

Condition	Progress	Recommended Action
<p>12. By 1 December 2009, DPI&amp;F to examine and report on the significance of conservation benefits of spatial closures in:</p> <p>a) areas where fishing effort overlaps with important habitats for speartooth shark, sawfish, dugong and inshore dolphins; and</p> <p>b) waters north of Cooktown to mesh net fishing to provide additional protection to these species.</p>	<p>On 30 November 2009, Fisheries Queensland provided the department with a report on activities undertaken by the technical working group set up to advise and assist Fisheries Queensland in meeting Condition 12.</p> <p>The working group identified a number of sites where historical net fishing effort had occurred in habitats where speartooth shark, sawfish, dugong and inshore dolphins were known to occur. The working group recommended that some sites be monitored under the new management arrangements for the East Coast Inshore Fin Fish Fishery to identify any increases in net fishing effort in important habitats for the studied species.</p> <p>The working group appreciated that the management changes implemented in 2009 could significantly alter historical fishing patterns and hence that any assessment made on historical effort data may have reduced validity. The working group considered it premature to recommend potential net fishing closures before reviewing at least a full year of net fishing data post the management changes to the fishery introduced on 1 July 2009. The working group's conclusions were presented to Fisheries Queensland's 'Shark Panel' at its meeting on 13 November 2009. The 'Shark Panel' supported this approach and assessment.</p> <p>Fisheries Queensland undertook to reassess all sites identified by the working group after a full year of operation of the net fishery under the new management arrangements in place since 1 July 2009, in recognition that fishing effort may be significantly altered by the new arrangements. Fisheries Queensland provided the - <i>Assessment of the conservation benefits of net fishing closures north of Cooktown and in important habitats for dugong, inshore dolphins, sawfish and speartooth shark – Wildlife Trade Operation Condition 12</i> – as part of the 2011 application for further export approval. Given current and foreseeable effort levels, no further spatial closures were recommended. This report did recommend further attention be paid to the potential for interrelations with protected species in the Townsville and Gladstone areas. The department understands that these recommendations are being addressed by the Queensland Government's Protected Species Working Group (<i>see Protected species, Table 4</i>).</p>	<p>The department considers that this condition has been met.</p>

Condition	Progress	Recommended Action
13. By 1 July 2009, DPI&F to finalise and implement the performance measurement system for the ECIFFF.	The <i>Performance Measurement System – East Coast Inshore Fin Fish Fishery (ECIFFF) – Version 1 June 2009</i> was implemented on 1 July 2009.	The department considers that this condition has been met.
14. By 1 July 2009, DPI&F to review and lower the proposed trigger for effort from 34,000 net days to more closely reflect the average level of effort in the fishery over the last two years.	The effort trigger in the <i>Performance Measurement System – East Coast Inshore Fin Fish Fishery (ECIFFF) – Version 1 June 2009</i> , implemented on 1 July 2009, was set at 28,150 net fishing days. This represented the average annual effort over the previous five years. The department agreed that this value better reflected the average level of effort in the fishery over the preceding two years (24,343 fishing days) compared to the initial proposed trigger in the draft performance measurement system of 34,000 net days.	The department considers that this condition has been met.
15. By 1 July 2009, DPI&F to determine an appropriate management response to be implemented if the effort trigger as identified by Condition 14 is reached.	An effort response paper, acknowledging the variability in responses appropriate for different scenarios, was produced and was formalised as an appendix to the performance measurement system implemented on 1 July 2009.	The department considers that this condition has been met.

Condition	Progress	Recommended Action
<p>16. By 1 December 2010, Fisheries Queensland to review management arrangements for the ECIFFF and investigate additional management measures to control catch and effort, including consideration of regional management.</p>	<p>On 30 November 2010, the department received a report entitled <i>Review of commercial fishing in the East Coast Inshore Fin Fish Fishery</i> from Fisheries Queensland. The report provides a summary of:</p> <ul style="list-style-type: none"> <li>• new management arrangements for net fishing introduced into the fishery in 2009</li> <li>• catch and effort levels in the fishery in comparison to historical catch and effort, illustrating a substantial decline in catch and effort since 2008-09. This reduction was attributed to the introduction in 2009 of total allowable commercial catches for sharks and for grey mackerel</li> <li>• the fishery’s performance measurement system, which includes reference points that, if exceeded, would trigger reviews of the spatial, temporal and gear-related management measures for the fishery</li> <li>• potential management response options should the effort trigger be exceeded, and</li> <li>• the Fisheries Research and Development Corporation funded research project <i>Whose fish is it anyway</i>, investigating locally developed management approaches (‘regional management’) for dealing with catch sharing issues.</li> </ul> <p>The report concluded that at the current level of effort in the fishery, it is not necessary to impose additional restrictions on effort in the fishery and/or its sub-components.</p> <p>Fisheries Queensland updated the review in August 2011 and the <i>Review of commercial fishing in the East Coast Inshore Fin Fish Fishery – Wildlife Trade Operation Condition 16</i> was submitted as part of the 2011 application for further export approval. The Queensland Government’s <i>Queensland Fisheries Strategy 2009-14</i> commits Fisheries Queensland to developing ‘models of co-management and regional management’<sup>10</sup> to share the responsibility of resource management with both users and the wider community.</p> <p>Fisheries Queensland has indicated that further consideration of options for regional management will follow the completion of current research.</p>	<p>The department considers that this condition has been met.</p>

<sup>10</sup> regional management is defined under the strategy as ‘local communities involved in making agreements or undertaking functions (facilitated by government) in relation to fisheries matters in the local area’.

Condition	Progress	Recommended Action
17. By 21 December 2011, DPI&F to implement the outcomes of the review described in Condition 16.	The conclusion to the review described in Condition 16 (above) indicated that there were no further management interventions required to control catch and effort in the East Coast Inshore Fin Fish Fishery. Fisheries Queensland indicated that it will continue to monitor the levels of effort within each subfishery through the performance measurement system to identify issues should they arise.	The department acknowledges the conclusions of the review conducted in response to Condition 16 and that no actions were recommended (see Condition 16 above).
18. By 1 July 2009, DPI&F to set a precautionary commercial TAC for grey mackerel ( <i>Scomberomorus semifasciatus</i> ), taking into account all sources of mortality.	A legislated total allowable commercial catch of 250 tonnes commenced on 1 July 2009.	The department considers that this condition has been met.

Recommendation	Progress	Recommended Action
1. DPI&F to monitor the proportion of chondrichthyan catch taken by 'S' symbol holders compared to the catch taken by those operators who do not hold an 'S' symbol.	The reports provided by Fisheries Queensland each year in response to Condition 8 a) included analysis of the take of sharks by 'S' symbol holders and other fishers. These reports indicate that the ratio of total landings by 'S' symbol holders and non 'S' symbol holders is consistently around 10:1.	The Department of Sustainability, Environment, Water, Population and Communities considers that this recommendation has been met.
2. Fisheries Queensland to make completion of commercial logbooks prior to completion of unloading mandatory for all sectors, and completion of logbooks at sea mandatory for those boats or sub-fisheries where it is possible.	Commercial fishers operating in any of Queensland's net and line fisheries are required to complete daily catch and effort logbooks.  Fisheries Queensland advised that a mandatory requirement to complete logbooks prior to completion of unloading was included in the fishing rules applying to the new shark and ray 'S' symbol introduced on 1 July 2009.	The department considers that this recommendation has been met.
3. Fisheries Queensland to obtain estimates of all sources of mortality for ECIFFF target species including catch in other Queensland fisheries and by recreational, charter and Indigenous fishers, with a particular focus on chondrichthyans. Estimates of total mortality should be considered when determining stock sustainability; included in the Annual Status Reports; and improved through time to be species specific for all sectors.	The stock status of key target and byproduct species/species groups in Queensland fisheries is assessed by an expert panel and reported annually. This assessment takes account of available estimates of total mortality from all fishery sources (see <i>Framework for Defining Stock Status – Fisheries Queensland Version 2 April 2011</i> ).  Fisheries Queensland implemented species-specific logbook reporting for chondrichthyans (sharks and rays) in conjunction with a shark specific fishery symbol and new management arrangements for sharks in July 2009. Fisheries Queensland also implemented a new Shark Observer Program to monitor the effect of the changes (see <i>Fishery observation in the East Coast Inshore Fin Fish Fishery – August 2011</i> ).  Fisheries Queensland undertook a state wide survey of recreational fishing during 2010. Results will be available for inclusion in Fisheries Queensland's 2012 stock status assessments.	The Department of Sustainability, Environment, Water, Population and Communities considers that this recommendation has been met.
4. Fisheries Queensland to implement a risk based observer program for the ECIFFF with particular focus on those sub-fisheries that are likely to interact with protected species.	Fisheries Queensland implemented an adaptive observer program in the East Coast Inshore Fin Fish Fishery in July 2009 with a focus on 'S' symbol holders, including 'N4' symbol holders able to use longer offshore nets and so may therefore be at greater risk of interaction with protected species. Details are provided in <i>Fishery observation in the East Coast Inshore Fin Fish Fishery - August 2011</i> .	The department considers that this recommendation has been met and is ongoing (see <b>Condition 10</b> and <b>Recommendation 6, Table 4</b> ).

Recommendation	Progress	Recommended Action
<p>5. Fisheries Queensland to work with other relevant jurisdictions to progress the development and implementation of stock assessment models for blacktip (<i>Carcharhinus tilstoni</i> and <i>C. limbatus</i>), spot-tail (<i>C. sorrah</i>), milk and Australian sharpnose (<i>Rhizoprionodon acutus</i> and <i>R. taylori</i>) and hammerhead sharks (<i>Sphyrna</i> spp.).</p>	<p>Fisheries Queensland reports that scientists and fishery managers from the Queensland Department of Employment, Economic Development and Innovation worked with scientists from the Bureau of Rural Sciences<sup>11</sup>, the Northern Territory Department of Resources and the Department of Fisheries Western Australia to develop an action plan for shark research across northern Australia. The plan was finalised in 2008 and a project to develop new stock monitoring and assessment protocols, together with a coordinated stock modelling program, was implemented.</p> <p>In 2009, Fisheries Queensland formed a Shark Assessment Working Group, including scientists from Agri Science Queensland<sup>12</sup>, the Northern Territory Department of Resources and James Cook University together with Fisheries Queensland officers. The working group developed the <i>Plan for Assessment of Queensland East Coast Shark Resources 2009-14</i>. The plan sets out the priority species for assessment, the information to be collected through fisher logbooks, observer trips and further research to allow future quantitative stock assessment.</p> <p>The plan foreshadows that preliminary analysis of standardised catch rate trends for priority species is planned for 2012, using three full years of fishery data since the 2009 changes to management arrangements for sharks. A more comprehensive stock assessment of priority species is to be undertaken in 2014 when a total of five years worth of data has been collected.</p>	<p>The department acknowledges the progress made to date towards the development of stock assessment models for sharks in the East Coast Inshore Fin Fish Fishery.</p> <p>The department considers it essential that this work continue to ensure that harvest of shark species in the fishery is ecologically sustainable. The department recommends that a new approved wildlife trade operation declaration for the East Coast Inshore Fin Fish Fishery specify a condition requiring Fisheries Queensland to continue to progress the development and implementation of stock assessment models for shark species identified as priority species (see <b>Condition 5, Table 4</b>).</p>

<sup>11</sup> now the Australian Bureau of Agricultural and Resource Economics and Sciences

<sup>12</sup> part of the Department of Employment, Economic Development and Innovation



Recommendation	Progress	Recommended Action
<p>6. Fisheries Queensland to investigate further compliance measures to detect illegal finning at sea.</p>	<p>Fisheries Queensland reports that the take/possession of regulated fish, including shark fin, is recognised as one of the highest priority compliance issues in the East Coast Inshore Fin Fish Fishery.</p> <p>Fisheries Queensland reports that shark identification workshops were provided in 2009 and again in 2010 to officers of the Queensland Boating and Fisheries Patrol, the agency responsible for compliance in Queensland’s fisheries, to enable use of the latest identification methods for detecting shark related offences relating to finning.</p> <p>Fisheries Queensland noted that new identification methods, which include looking at the shape of dorsal fins of sharks, and genetic techniques, are also becoming more readily available and cost effective. Fisheries Queensland is aware of these advanced tools but they have yet to be put into regular use for compliance purposes.</p>	<p>The department considers that this recommendation has been met and is ongoing (see <b>Recommendation 6, Table 4</b>).</p>
<p>7. Fisheries Queensland to implement an appropriate research plan to pursue and support research on chondrichthyan species in the ECIFFF, in particular to address the following areas:</p> <ul style="list-style-type: none"> <li>• determine harvest rates for all commonly caught chondrichthyan species, including tagging studies as appropriate;</li> <li>• update demographic parameters and risk assessments;</li> <li>• standardise catch rates of the main target species;</li> <li>• determine spatial heterogeneity of chondrichthyan species taken in the ECIFFF, particularly inshore protected and high risk species; and</li> <li>• determine post release survival of hook and net caught chondrichthyans from recreational and commercial sectors.</li> </ul>	<p>The <i>Plan for Assessment of Queensland East Coast Shark Resources 2009-14</i> developed by Fisheries Queensland’s Shark Assessment Working Group (see Recommendation 5 above) describes the research necessary to support the development of quantitative stock assessment models for high priority shark species.</p> <p>The <i>Annual Status Report 2010 - East Coast Inshore Fin Fish Fishery</i> and the <i>Plan for Assessment of Queensland East Coast Shark Resources 2009-14</i> provide details of recently completed and current research, including:</p> <ul style="list-style-type: none"> <li>• the James Cook University project <i>Evaluation of the impacts from industry and community uses on inshore biodiversity</i>, completed in 2010, which provides shark biological data, some distribution data and an updated risk assessment for sharks, and</li> <li>• a three year Fisheries Research and Development Corporation funded tagging study that commenced in 2010, led by James Cook University, to provide estimates of fishing mortality of shark species. Fisheries Queensland’s Fishery Observer Program is assisting the with tagging of sharks for the study.</li> </ul>	<p>The department considers that this recommendation has been met and is ongoing (see <b>Recommendation 2, Table 4</b>).</p>

Recommendation	Progress	Recommended Action
<p>8. Fisheries Queensland to include in the annual reporting on the ECIFFF, estimates of interactions and mortality of protected species based on the SOCI logbook, the observer program and surveillance and compliance information.</p>	<p>Fisheries Queensland's published annual status reports for all commercial fisheries include:</p> <ul style="list-style-type: none"> <li>• logbook and observer reports of interactions with protected species for the reporting year, including life status when released, and</li> <li>• and a summary of compliance information..</li> </ul> <p>The annual reports for the East Coast Inshore Fin Fish Fishery included this information.</p>	<p>The department considers that this recommendation has been met.</p>
<p>9. In cooperation with relevant agencies, Fisheries Queensland to implement appropriate management measures to address risks and issues identified in the report required by Condition 12 by 1 December 2010.</p>	<p>Fisheries Queensland has not identified any additional management measures for implementation in the fishery (see Condition 12 above).</p> <p>The department notes the program being undertaken by Fisheries Queensland's Protected Species Working Group and recommends that Fisheries Queensland continue to identify and implement appropriate management measures to ensure that risks to species of conservation interest in the East Coast Inshore Fin Fish Fishery are minimised (see <b>Recommendation 7</b> and <b>Recommendation 8, Table 4</b>).</p>	<p>The department supports Fisheries Queensland's approach to Condition 12 and Recommendation 9.</p>
<p>10. Fisheries Queensland to work with industry to identify and implement appropriate gear selectivity improvements that minimise capture of protected species and large chondrichthyans.</p>	<p>Fisheries Queensland reports that preliminary trials aimed at improving gear selectivity by using breakaway panels in nets as a mechanism to reduce the capture of large animals such as dugong were conducted by a commercial fisher in Moreton Bay. Following these trials the Fisheries Research and Development Corporation has funded a three year project to trial the gear more intensively. This project commenced in July 2011.</p> <p>Also in July 2011, Fisheries Queensland established a Protected Species Working Group comprising representatives of relevant Queensland Government agencies, the Great Barrier Reef Marine Park Authority and with industry and conservation representatives. The group's objective is to recommend further options to minimise the impact of commercial net fishing on species of conservation interest.</p>	<p>The department acknowledges the initiatives in progress to reduce the likelihood of capture of large animals and considers that the work of the Protected Species Working Group presents opportunities to further reduce the potential for fishing related mortalities of protected species in the East Coast Inshore Fin Fish Fishery.</p> <p>The department considers that this recommendation has been met and is ongoing (see <b>Recommendation 7</b> and <b>Recommendation 8, Table 4</b>).</p>

Recommendation	Progress	Recommended Action
<p>11. Fisheries Queensland to conduct a review, considering recent research, and seeking broad public and scientific input to:</p> <ul style="list-style-type: none"> <li>a) identify species and areas at risk of localised depletion; and</li> <li>b) implement management measures to address identified risks.</li> </ul> <p>The review may be conducted as a component of the review management arrangements described in Condition 16.</p>	<p>On 30 November 2010, the department received a report entitled <i>Review of commercial fishing in the East Coast Inshore Fin Fish Fishery</i> from Fisheries Queensland in response to Condition 16. An update of the review was included as part of Fisheries Queensland's 2011 application for further export approval (see Condition 16 above).</p> <p>Fisheries Queensland has established processes for identifying species and areas that are at risk of unsustainable harvest through the East Coast Inshore Fin Fish Fishery Performance Measurement System as well the stock status assessment program for Queensland's key commercial and recreational species.</p>	<p>The department considers that this recommendation has been met.</p>
<p>12. By March 2010, Fisheries Queensland to update the age-structured stock assessment for tailor (<i>Pomatomus saltatrix</i>) to ensure the current level of harvest is sustainable.</p>	<p>Fisheries Queensland updated the Queensland - New South Wales stock assessment for tailor in 2010. On 30 March 2010, Fisheries Queensland provided the department with a draft report on the updated stock assessment.</p> <p>The updated stock assessment included the use of age-length frequency data collected from Fisheries Queensland's long term monitoring program. Based on the preliminary results of the updated stock assessment, Fisheries Queensland's <i>Stock status of Queensland's fisheries resources 2009-10</i> concluded that the combined Queensland/New South Wales total harvest of tailor was below the estimated maximum sustainable yield and that the combined stock was 'sustainably fished'.</p>	<p>The department considers that this recommendation has been met.</p>
<p>13. Fisheries Queensland to continue education programs across all sectors on species identification, safe handling and release procedures and conservation.</p>	<p>Fisheries Queensland's annual status reports for the East Coast Inshore Fin Fish Fishery and reports on progress against the 2009 conditions and recommendations contain details of Fisheries Queensland's education of fishers through Fisheries Queensland's Fishery Observer Program and educational programs relating to protected species and safe handling and release procedures.</p>	<p>The department considers that this recommendation has been met.</p> <p>The department recommends that education on species identification, safe handling and release procedures and conservation continues (see <b>Recommendation 11, Table 4</b>).</p>

<b>Recommendation</b>	<b>Progress</b>	<b>Recommended Action</b>
14. Fisheries Queensland to continue to pursue collaborative management of shared ECIFFF stocks with relevant fisheries management agencies.	Fisheries Queensland's annual status reports for the East Coast Inshore Fin Fish Fishery and reports on progress against the 2009 conditions and recommendations outlines management collaboration, in particular with the New South Wales Department of Primary Industries, as stocks of a number of East Coast Inshore Fin Fish Fishery key species extend into New South Wales.	The department considers that this recommendation has been met and is ongoing (see <b>Recommendation 10, Table 4</b> ).

**Table 3: The Department of Sustainability, Environment, Water, Population and Communities assessment of the East Coast Inshore Fin Fish Fishery against the requirements of the EPBC Act related to decisions made under Part 13 and Part 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 Part 13 and Part 13A. A complete version of the EPBC Act can be found at <http://www.comlaw.gov.au/>.

**Part 13**

<p><b>Division 1 Listed threatened species</b>  <b>Section 208A Minister may accredit plans or regimes</b></p>	<p><b>The department’s assessment of the East Coast Inshore Fin Fish 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> <ol 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> </ol> <p>if <b>satisfied</b> that:</p> <p>f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed threatened species (other than conservation dependent species) are not killed or injured as a result of the fishing; and</p> <p>g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the survival or recovery in nature of the species.</p>	<p>The East Coast Inshore Fin Fish Fishery will be managed under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>.</p> <p>The management regime for the East Coast Inshore Fin Fish Fishery was first accredited in November 2006 and reaccredited in February 2009 to take account of new management arrangements. The department considers that the management regime still requires persons engaged in fishing to take all reasonable steps to ensure that members of listed threatened species are not killed or injured.</p> <p>Given the management measures in place in the fishery, including:</p> <ul style="list-style-type: none"> <li>• gear restrictions (net type, net length and mesh size)</li> <li>• net attendance rules, and</li> <li>• areas closed to fishing,</li> </ul> <p>the department considers that the current operation of the fishery is not likely to adversely affect the survival or recovery in nature of listed threatened species.</p> <p>To ensure that this continues to be the case, the department recommends that the management regime be accredited under section 208A subject to conditions requiring Fisheries Queensland to work with industry to identify and implement measures to ensure that mortalities of listed threatened species are minimised (see “Protected species”, Table 4).</p>

**Part 13 (cont.)**

<p><b>Division 2 Migratory species</b>  <b>Section 222A Minister may accredit plans or regimes</b></p>	<p><b>The department’s assessment of the East Coast Inshore Fin Fish 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> <ol 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> </ol> <p>if <b>satisfied</b> that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed migratory species are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed migratory species or a population of that species.</p>	<p>The East Coast Inshore Fin Fish Fishery will be managed under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>.</p> <p>The management regime for the East Coast Inshore Fin Fish Fishery was first accredited in November 2006 and reaccredited in February 2009 to take account of new management arrangements. The department considers that the management regime still requires persons engaged in fishing to take all reasonable steps to ensure that members of listed migratory species are not killed or injured.</p> <p>Given the management measures in place in the fishery, including:</p> <ul style="list-style-type: none"> <li>• gear restrictions (net type, net length and mesh size);</li> <li>• net attendance rules; and</li> <li>• areas closed to fishing,</li> </ul> <p>the department considers that the current operation of the fishery is not likely to adversely affect the conservation status of a listed migratory species or a population of that species.</p> <p>To ensure that this continues to be the case, the department recommends that the management regime be accredited under section 222A subject to conditions requiring Fisheries Queensland to work with industry to identify and implement measures to ensure that mortalities of listed migratory species are minimised (see “Protected species”, Table 4).</p>

**Part 13 (cont.)**

<b>Division 3 Whales and other cetaceans</b> <b>Section 245 Minister may accredit plans or regimes</b>	<b>The department's assessment of the East Coast Inshore Fin Fish Fishery</b>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"><li>i. made by a State or self-governing Territory; and</li><li>ii. in force under a law of the State or self-governing Territory;</li></ul> <p>if <b>satisfied</b> that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that cetaceans are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a species of cetacean or a population of that species.</p>	<p>The East Coast Inshore Fin Fish Fishery will be managed under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>.</p> <p>The management regime for the East Coast Inshore Fin Fish Fishery was first accredited in November 2006 and reaccredited in February 2009 to take account of new management arrangements. The department considers that the management regime still requires persons engaged in fishing to take all reasonable steps to ensure that cetaceans are not killed or injured.</p> <p>Given the management measures in place in the fishery, including:</p> <ul style="list-style-type: none"><li>• gear restrictions (net type, net length and mesh size);</li><li>• net attendance rules; and</li><li>• areas closed to fishing,</li></ul> <p>the department considers that the current operation of the fishery is not likely to adversely affect the conservation status of a species of cetacean or a population of that species.</p>

**Part 13 (cont.)**

<b>Division 4 Listed marine species Section 265 Minister may accredit plans or regimes</b>	<b>The department's assessment of the East Coast Inshore Fin Fish Fishery</b>
<p>(1) Minister may, by instrument in writing, accredit for the purposes of this Division:</p> <p>(c) a plan of management, or a policy, regime or any other arrangement, for a fishery that is:</p> <ul style="list-style-type: none"><li>i. made by a State or self-governing Territory; and</li><li>ii. in force under a law of the State or self-governing Territory;</li></ul> <p>if <b>satisfied</b> that:</p> <p>(f) the plan, regime or policy requires persons engaged in fishing under the plan, regime or policy to take all reasonable steps to ensure that members of listed marine species are not killed or injured as a result of the fishing; and</p> <p>(g) the fishery to which the plan, regime or policy relates does not, or is not likely to, adversely affect the conservation status of a listed marine species or a population of that species.</p>	<p>The East Coast Inshore Fin Fish Fishery will be managed under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>.</p> <p>The management regime for the East Coast Inshore Fin Fish Fishery was first accredited in November 2006 and reaccredited in February 2009 to take account of new management arrangements. The department considers that the management regime still requires persons engaged in fishing to take all reasonable steps to ensure that members of listed marine species are not killed or injured.</p> <p>Given the management measures in place in the fishery, including:</p> <ul style="list-style-type: none"><li>• gear restrictions (net type, net length and mesh size);</li><li>• net attendance rules; and</li><li>• areas closed to fishing,</li></ul> <p>the department considers that the current operation of the fishery is not likely to adversely affect the conservation status of a listed marine species or a population of that species.</p>



**Part 13 (cont.)**

Section 303AA Conditions relating to accreditation of plans, regimes and policies	The department's assessment of the East Coast Inshore Fin Fish Fishery
<p>(1) This section applies to an accreditation of a plan, regime or policy under section 208A, 222A, 245 or 265.</p>	<p>The department recommends that the management regime for the East Coast Inshore Fin Fish Fishery be accredited under sections 208A, 222A, 245 and 265.</p>
<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>The department recommends accreditation under section 208A and Section 222A be subject to conditions that require:</p> <ol style="list-style-type: none"> <li>1. Fisheries Queensland to: <ul style="list-style-type: none"> <li>• continue to improve knowledge of the number and rate of interactions with species of conservation interest in the East Coast Inshore Fin Fish Fishery, including the recognition of important habitats and identification of locations, areas or regions with higher risk of interactions and/or mortalities occurring;</li> <li>• support relevant research into methods to reduce fishing related mortalities of species of conservation interest;</li> <li>• continue to work with industry and all relevant stakeholders to identify and implement appropriate gear selectivity and operational improvements and/or other management measures that minimise capture and mortality of species of conservation interest; and</li> <li>• in conjunction with relevant stakeholders develop a framework to enable implementation of measures to avoid interactions and/or reduce mortalities at an appropriate spatial scale; and</li> </ul> </li> <li>2. Fisheries Queensland to implement appropriate management measures identified in Condition 1 (above) to ensure that risks to species of conservation interest in the East Coast Inshore Fin Fish Fishery are minimised.</li> </ol> <p>The Part 13 instrument for the East Coast Inshore Fin Fish Fishery specifies these conditions.</p>
<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.</p>	

## Part 13A

### Section 303BA Objects of Part 13A

- (1) The objects of this Part are as follows:
- (a) to ensure that Australia complies with its obligations under CITES<sup>13</sup> and the Biodiversity Convention;
  - (b) to protect wildlife that may be adversely affected by trade;
  - (c) to promote the conservation of biodiversity in Australia and other countries;
  - (d) to ensure that any commercial utilisation of Australian native wildlife for the purposes of export is managed in an ecologically sustainable way;
  - (e) to promote the humane treatment of wildlife;
  - (f) to ensure ethical conduct during any research associated with the utilisation of wildlife; and
  - (h) to ensure the precautionary principle is taken into account in making decisions relating to the utilisation of wildlife.

Section 303FN Approved wildlife trade operation	The department's assessment of the East Coast Inshore Fin Fish 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.	
(3) The Minister must not declare an operation as an approved wildlife trade operation unless the Minister is <b>satisfied</b> that: <ul style="list-style-type: none"> <li>(a) the operation is consistent with the objects of Part 13A of the Act; and</li> </ul>	<p>The department considers that the operation of the East Coast Inshore Fin Fish Fishery is consistent with the objects of Part 13A (listed above) as:</p> <ul style="list-style-type: none"> <li>▪ the fishery will not harvest any CITES listed species</li> <li>▪ there are management arrangements in place to ensure that the resource is being managed in an ecologically sustainable way (see Table 1). Completion of <b>Condition 4, Condition 7, Condition 9 and Condition 19</b> (see Table 4) are important factors in meeting this requirement</li> <li>▪ the operation of the fishery during the period of the recommended declaration as an approved wildlife trade operation is unlikely to be unsustainable and threaten biodiversity. Completion of <b>Condition 4, Condition 7, Condition 9 and Condition 19</b> are important factors in meeting this requirement, and</li> <li>▪ the <i>Environment Protection and Biodiversity Conservation Regulations 2000</i> do not specify fish as a class of animal in relation to the welfare of live specimens.</li> </ul>

<sup>13</sup> Convention on International Trade in Endangered Species of Wild Fauna and Flora

Section 303FN Approved wildlife trade operation	The department's assessment of the East Coast Inshore Fin Fish Fishery
<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>The department considers that the operation of the East Coast Inshore Fin Fish Fishery during the period of the recommended declaration as an approved wildlife trade operation will not be detrimental to the survival or conservation status of a taxon to which it relates, given the management measures currently in place, which include:</p> <ul style="list-style-type: none"> <li>▪ gear restrictions (limits on types of nets, lengths and mesh sizes)</li> <li>▪ area closures</li> <li>▪ total allowable commercial catch limits for some species</li> <li>▪ species-specific minimum size limits based on size at reproductive maturity, for many species, and maximum size limits for some species, for both commercial and recreational fishers</li> <li>▪ seasonal closures to fishing for some species to protect spawning stock</li> <li>▪ commercial possession limits for some species</li> <li>▪ recreational gear limits and bag limits for some species, and</li> <li>▪ annual reviews of the performance of the fishery against indicators and performance measures in the fishery's performance measurement system.</li> </ul> <p>The department considers that the operation of the fishery during the period of the recommended declaration as an approved wildlife trade operation will not threaten any relevant ecosystem, given the management measures currently in place, which include:</p> <ul style="list-style-type: none"> <li>▪ gear restrictions (limits on types of nets, lengths and mesh sizes) and the requirement to be in attendance when net fishing,</li> <li>▪ area closures,</li> <li>▪ total allowable commercial catch limits for some species,</li> <li>▪ species-specific minimum and maximum size limits,</li> <li>▪ seasonal closures to fishing for some species to protect spawning stocks,</li> <li>▪ commercial possession limits for some species,</li> <li>▪ recreational gear limits and bag limits for some species, and</li> <li>▪ annual reviews of the performance of the fishery.</li> </ul> <p>The <i>Environment Protection and Biodiversity Conservation Regulations 2000</i> do not specify fish as a class of animal in relation to the welfare of live specimens.</p>

Section 303FN Approved wildlife trade operation	The department's assessment of the East Coast Inshore Fin Fish Fishery
(d) such other conditions (if any) as are specified in the regulations have been, or are likely to be, satisfied.	No other conditions are specified in relation to commercial fisheries in the <i>Environment Protection and Biodiversity Conservation Regulations 2000</i> .
<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>The department considers that the operation of the East Coast Inshore Fin Fish Fishery during the period of the recommended declaration as an approved wildlife trade operation is unlikely have a significant impact on any relevant ecosystem, given the management measures currently in place, which include:</p> <ul style="list-style-type: none"> <li>▪ gear restrictions (limits on types of nets, lengths and mesh sizes)</li> <li>▪ area closures</li> <li>▪ total allowable commercial catch limits for some species</li> <li>▪ commercial possession limits for some species</li> <li>▪ species-specific minimum size limits based on size at reproductive maturity, for many species, and maximum size limits for some species, for both commercial and recreational fishers</li> <li>▪ seasonal closures for some species to protect spawning stocks</li> <li>▪ recreational gear limits and bag limits for some species, and</li> <li>▪ annual reviews of the performance of the fishery against indicators and performance measures in the fishery's performance measurement system.</li> </ul> <p>The department considers that Fisheries Queensland's management arrangements for the fishery are likely to be effective. Management measures include:</p> <ul style="list-style-type: none"> <li>▪ gear restrictions (limits on types of nets, lengths and mesh sizes)</li> <li>▪ area closures</li> <li>▪ total allowable commercial catch limits for some species</li> <li>▪ commercial possession limits for some species</li> <li>▪ species-specific minimum and maximum size limits</li> <li>▪ seasonal closures for some species to protect spawning stocks, and</li> <li>▪ recreational gear limits and bag limits for some species.</li> </ul> <p>The fishery is monitored through compulsory fisher logbooks, Fisheries Queensland's Fishery Observer Program (described in <i>Fishery observation in the East Coast Inshore Fin Fish Fishery – August 2011</i>). Fisheries Queensland reviews the performance of the fishery annually against a series of objectives, measures and reference points in the performance measurement system.</p>

Section 303FN Approved wildlife trade operation	The department's assessment of the East Coast Inshore Fin Fish Fishery
<p>(5) In deciding whether to declare an operation as an approved wildlife trade operation the Minister must have <b>regard</b> to:</p> <p>(a) whether legislation relating to the protection, conservation or management of the specimens to which the operation relates is in force in the State or Territory concerned; and</p> <p>(b) whether the legislation applies throughout the State or Territory concerned; and</p> <p>(c) whether, in the opinion of the Minister, the legislation is effective.</p>	<p>The East Coast Inshore Fin Fish Fishery will be managed under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>.</p> <p>The Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i> applies throughout Queensland waters.</p> <p>The legislation is likely to be effective.</p>
<p>(10) For the purposes of section 303FN, an operation is a wildlife trade operation if, and only if, the operation is an operation for the taking of specimens and:</p> <p>(d) the operation is a commercial fishery.</p>	<p>The East Coast Inshore Fin Fish Fishery is a commercial fishery.</p>

Section 303FR Public consultation	The department's assessment of the East Coast Inshore Fin Fish Fishery
<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>A public notice, which:</p> <ul style="list-style-type: none"> <li>▪ set out the proposal to declare the East Coast Inshore Fin Fish Fishery an approved wildlife trade operation</li> <li>▪ included Fisheries Queensland's application, and</li> <li>▪ invited persons and organisations to give written comments about the proposal within the period 2 September 2011 to 21 October 2011</li> </ul> <p>was published on the department's website.</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>The period specified in the notice included a total of <b>30</b> business days.</p>
<p>(3) In making a decision about whether to make a declaration under section 303FN, the Minister must consider any comments about the proposal to make the declaration that were given in response to the invitation in the notice.</p>	<p>2575 comments were received during the public comment period. The department's assessment has considered the comments received.</p>

**Part 13A (cont.)**

<b>Section 303FT Additional provisions relating to declarations</b>	<b>The department's assessment of the East Coast Inshore Fin Fish Fishery</b>
(1) This section applies to a declaration made under section 303FN, 303FO or 303FP.	The department recommends that the East Coast Inshore Fin Fish Fishery be declared an approved wildlife trade operation 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 department considers that the East Coast Inshore Fin Fish Fishery should be the subject of a declaration under section 303FN only if the conditions described in Table 4 are complied with.</p> <p>The instrument of declaration for the East Coast Inshore Fin Fish Fishery specifies the conditions.</p>
(8) A condition may relate to reporting or monitoring.	<b>Condition 3</b> and <b>Condition 8</b> relate 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, 303FO or 303FP or this section is to be made available for inspection on the Internet.	The instrument for the East Coast Inshore Fin Fish Fishery made under section 303FN and the conditions under section 303FT will be gazetted and made available on the department's website.

<b>Section 391 Minister must consider precautionary principle in making decisions</b>	<b>The department's assessment of the East Coast Inshore Fin Fish 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 has been considered in preparing the department's advice about a decision to declare the East Coast Inshore Fin Fish Fishery an approved wildlife trade operation under section 303FN.
(2) The precautionary principle is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.	

## **The Department of Sustainability, Environment, Water, Population and Communities' conditions and recommendations to Fisheries Queensland for the East Coast Inshore Fin Fish Fishery**

The material submitted by Fisheries Queensland demonstrates that the management arrangements for the East Coast Inshore Fin Fish Fishery continue to meet most of the requirements of the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries - 2<sup>nd</sup> edition*.

### **Stock Status and Recovery**

The department considers that overall the management regime for the East Coast Inshore Fin Fish Fishery aims to ensure that fishing is conducted in a manner that does not lead to overfishing. Fisheries Queensland's stock status assessment program does not consider any key target or byproduct species taken in the fishery to be overfished. While the stock status of a number of key species taken in the fishery is uncertain, undefined or not assessed, the department is satisfied that that Fisheries Queensland's stock status assessment program, monitoring and research, and the fishery's performance measurement system currently provide a means to:

- a) identify species at risk of overfishing, and
- b) reduce the level of uncertainty in stock status of key species.

Management measures in place in the fishery include:

- limited entry
- gear restrictions - limits on types of nets, lengths and mesh sizes
- precautionary competitive total allowable catch limits for some species
- commercial in possession limits for some species
- species-specific minimum size limits based on size at reproductive maturity, for many species, and maximum size limits for some species, for both commercial and recreational fishers
- recreational gear limits and bag limits for some species
- seasonal closures for some species to protect spawning stocks, and
- annual reviews of the performance of the fishery against indicators and performance measures in the performance measurement system.

### **Ecosystem Impacts**

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

Notwithstanding the progress made by Fisheries Queensland to address the outstanding risks associated with this fishery (refer to Table 2), the department has identified a number of risks and uncertainties that must be managed to ensure that impacts are minimised, including:

- the lack of stock assessment models for key target species
- the need for an improved harvest strategy for chondrichthyans, which takes account of recent data and research, moving towards individual species-based management
- the need to review the fishery's performance measurement system and include regionally appropriate indicators and performance measures, and
- a need to review the impacts of the 2009 changes to management arrangements on catch and effort in the various subsectors of the fishery and consider options to manage catch and effort at spatially appropriate scales.

The key challenges for this fishery will be:

- developing and implementing species based management of sharks, and
- ensuring that management arrangements for all key target species are sustainable, including at a regional level.

The department considers that, until it can be demonstrated that these issues have been adequately addressed, declaration of the harvest operations of the East Coast Inshore Fin Fish Fishery as an approved wildlife trade operation for three years, until 27 February 2015, is appropriate. The department considers that the declaration should be subject to the conditions listed in Table 4. To contain and minimise the risks in the longer term the recommendations outlined in Table 4 have been made.

Unless a specific time frame is provided, each condition and recommendation must be addressed within the period of the declaration of the fishery as an approved wildlife trade operation.



**Table 4: East Coast Inshore Fin Fish Fishery Assessment – Summary of Issues, Conditions and Recommendations – January 2012**

Issue	Condition/Recommendation
<p><b><u>General Management</u></b>                      Export decisions relate to the arrangements in force at the time of the decision. To ensure that these decisions remain valid and export approval continues uninterrupted, the Department of Sustainability, Environment, Water, Population and Communities (the department) needs to be advised of any changes that are made to the management regime and make an assessment that the new arrangements are equivalent or better, in terms of ecological sustainability, than those in place at the time of the original decision. This includes operational and legislated amendments that may affect sustainability of the target species or negatively impact on byproduct, bycatch, protected species or the ecosystem.</p>	<p><b>Condition 1:</b>                      Operation of the East Coast Inshore Fin Fish Fishery will be carried out in accordance with the management regime for the fishery in force under the Queensland <i>Fisheries Act 1994</i> and the Queensland <i>Fisheries Regulation 2008</i>.</p> <p><b>Condition 2:</b>                      Fisheries Queensland to inform the Department of Sustainability, Environment, Water, Population and Communities of any intended amendments to the management arrangements for the East Coast Inshore Fin Fish Fishery that may affect the criteria on which <i>Environment Protection and Biodiversity Conservation Act 1999</i> decisions are based.</p>
<p><b><u>Annual Reporting</u></b>                      It is important that reports be produced and presented to the department annually in order for the performance of the fishery and progress in implementing the conditions and recommendations in this report and other managerial commitments to be monitored and assessed throughout the life of the declaration.                      Annual reports should include: a description of the fishery; management arrangements in place; research and monitoring outcomes; recent catch data for all sectors of the fishery; status of target stock; interactions with protected species; impacts of the fishery on the ecosystem in which it operates; and information outlining progress in implementing conditions and recommendations resulting from the previous assessment of the fishery (for a complete description of annual reporting requirements, see Appendix B of the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2<sup>nd</sup> Edition</i> available from the department’s website at <a href="http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html">http://www.environment.gov.au/coasts/fisheries/publications/guidelines.html</a>).</p>	<p><b>Condition 3</b>                      Fisheries Queensland to produce and present reports for the East Coast Inshore Fin Fish Fishery to the department annually as per Appendix B to the <i>Guidelines for the Ecologically Sustainable Management of Fisheries - 2<sup>nd</sup> Edition</i>.</p>

Issue	Condition/Recommendation
<p><b><u>Target and by-product species – teleosts</u></b></p> <p>In 2009, Fisheries Queensland commenced annual stock status assessments of key Queensland fisheries resources as outlined in Fisheries Queensland's framework for defining stock status<sup>14</sup>. The framework provides criteria used to determine which stocks are assessed. Where necessary, the process identifies the information needs of priority stocks to reduce uncertainty in the determination of their status. The stock status of two key commercial species, grey mackerel and king threadfin, were classified as uncertain in 2010 and undefined (meaning that some information is available but additional information or analyses is required and exploitation status cannot be determined at this time) in 2011.<sup>15</sup></p> <p>New management arrangements for the East Coast Inshore Fin Fish Fishery were implemented during 2009, including new netting arrangements, new and amended size and possession limits for a number of species and the introduction of a total allowable commercial catch for grey mackerel. Fisheries Queensland also implemented the <i>Performance Measurement System East Coast Inshore Fin Fish Fishery (ECIFFF) – Version 1 June 2009</i>, including management objectives, performance indicators, performance measures, and management responses for retained (target and byproduct species) by subfishery.</p> <p><i>Grey mackerel</i></p> <p>In response to concerns about the stock status and the potential for overfishing of grey mackerel, in 2009 Fisheries Queensland implemented a total allowable commercial catch of 250 tonnes per annum, which Fisheries Queensland advise that they consider is conservative. Fisheries Queensland's Long Term Monitoring Program began collecting biological data for grey mackerel in 2008-09 and Fisheries Queensland advise that quantitative population modelling is scheduled to commence in 2012.</p> <p><i>King threadfin</i></p> <p>The report - <i>Stock status of Queensland's fisheries resources 2011</i> - makes several recommendations to improve stock status certainty for king threadfin, including:</p> <ul style="list-style-type: none"> <li>• incorporation of regional recreational catch estimates from the recent state wide recreational fishing survey; and</li> <li>• development of performance measures at a regional scale to provide early detection of unsustainable localised fishing pressures.</li> </ul> <p>The department considers it important that Fisheries Queensland continue to reduce the uncertainty in stock status for key commercial species in the East Coast Inshore Fin Fish Fishery (<b>Condition 4</b>). As the performance measurement system is a key management tool for the fishery, the department considers it essential that the performance measurement system be reviewed and updated to ensure that it is capable of identifying when a management response is needed to maintain the ecological sustainability of the fishery (see <b>Condition 9</b>).</p>	<p><b>Condition 4:</b></p> <p>Fisheries Queensland to continue to improve knowledge of stock for those fish resources where the stock status process determines that further information is required and progress appropriate stock assessments for key species in the East Coast Inshore Fin Fish Fishery which have not yet had stock assessments completed.</p>

<sup>14</sup> Framework for Defining Stock Status - Version 2 - April 2011

<sup>15</sup> Stock status of Queensland's fisheries resources 2011

Issue	Condition/Recommendation
<p>In addition, a number of recreationally important species remained either uncertain or undefined following the 2011 stock status assessment due to the lack of recent estimates of recreational catch. A state wide recreational fishing survey was completed by Fisheries Queensland in 2010-11. The Department of Sustainability, Environment, Water, Population and Communities expects that as the survey results become available, the stock status determination for recreationally important East Coast Inshore Fin Fish Fishery species will be refined, as described in Fisheries Queensland's <i>Framework for Defining Stock Status - Version 2 - April 2011</i>.</p>	<p><b>Recommendation 1:</b> Fisheries Queensland to include additional recreationally important East Coast Inshore Fin Fish Fishery species in the annual stock status assessment program if indicated by the results of the recreational fishing survey.</p>
<p><b><u>Target and byproduct species – chondrichthyans</u></b> (<i>sharks and rays</i>) <u>Shark species stock status</u></p> <p>The stock status of sharks harvested in the East Coast Inshore Fin Fish Fishery remains undefined.<sup>16</sup> The fishery takes a wide range of shark species, with considerable variation in terms of species productivity and susceptibility to fishing.</p> <p>Fisheries Queensland's Shark Assessment Working Group has developed the <i>Plan for Assessment of Queensland East Coast Shark Resources 2009-14</i>, which documents data requirements, data collection programs, relevant research, priority species for assessment, assessment approaches and a timetable for developing stock assessments for key shark species taken in the East Coast Inshore Fin Fish Fishery. The Shark Assessment Working Group finalised the priority species list in May 2011 (listed in order of priority for stock assessment below):</p> <ul style="list-style-type: none"> <li>– blacktip shark complex (<i>Carcharhinus tilstoni</i> and <i>Carcharhinus limbatus</i>)</li> <li>– spot-tail shark (<i>Carcharhinus. sorrah</i>)</li> <li>– scalloped hammerhead shark (<i>Sphyrna lewini</i>)</li> <li>– milk shark (<i>Rhizoprionodon acutus</i>)</li> <li>– Australian sharp nose shark (<i>Rhizoprionodon taylori</i>), and</li> <li>– spinner shark (<i>Carcharhinus brevipinna</i>).</li> </ul> <p>The shark stock assessment program is currently focussed on species-specific data collection and research. Fisheries Queensland anticipates that the development of population models for the first four species in the priority list will commence in 2012 with assessments completed in 2014. Assessments of Australian sharp nose and spinner sharks are due to be undertaken at later dates when sufficient information has been gathered for these species. Fisheries Queensland has advised that a joint assessment with New South Wales may be appropriate for spinner sharks. The department considers that the completion of this work is critical to the long term sustainable management of shark species in the fishery. The department also considers it necessary that the <i>Plan for Assessment of Queensland East Coast Shark Resources 2009-14</i> be updated as further information becomes available and stock assessments of priority species are completed.</p>	<p><b>Condition 5:</b> Fisheries Queensland to progress the development and implementation of stock assessment models for shark species identified as priority species in the <i>Plan for Assessment of Queensland East Coast Shark Resources 2009-14</i>.</p> <p><b>Recommendation 2:</b> Fisheries Queensland to maintain the <i>Plan for Assessment of Queensland East Coast Shark Resources 2009-14</i> and update it as appropriate to deliver species-based management of sharks in the East Coast Inshore Fin Fish Fishery.</p>

<sup>16</sup> *Stock status of Queensland's fisheries resources 2011*

Issue	Condition/Recommendation
<p><u>Harvest strategy for sharks</u></p> <p>In 2008, Fisheries Queensland developed an interim harvest strategy for sharks, based on the approach outlined in the <i>Commonwealth Fisheries Harvest Strategy Policy</i> for data poor fisheries. The 2009 assessment of the East Coast Inshore Fin Fish Fishery under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) concluded that at that time the harvest strategy was insufficient to adequately manage the shark subfishery and that the harvest strategy should be reviewed frequently, with a view to moving towards species-based management.</p> <p>In response to Condition 9 of the 2009 approved wildlife trade operation declaration for the fishery, Fisheries Queensland provided the department with a report on the implementation and continued improvement of Queensland's harvest strategy for sharks. Fisheries Queensland expects that by the end of 2013 it will have developed a sustainable and comprehensive harvest strategy for sharks.</p> <p>The department considers it necessary for Fisheries Queensland to continue to improve the harvest strategy as more information becomes available on which to base management decisions.</p> <p>In 2009, Fisheries Queensland established the Shark Panel, an independent group of relevant experts and stakeholders, to oversee implementation of the new management arrangements for the East Coast Inshore Fin Fish Fishery which came into effect on 1 July 2009. Fisheries Queensland has committed to continuing an advisory group beyond the expiry of the 2009 ECIFFF approved wildlife trade operation declaration. The department recommends that, in the absence of a species based harvest strategy for sharks in the fishery, Fisheries Queensland maintain the Shark Panel, or a comparable advisory body contributing relevant expertise. This group should provide input to the development of the longer term harvest strategy and interim management arrangements for sharks to ensure that the harvest of sharks in the East Coast Inshore Fin Fish Fishery is sustainable.</p>	<p><b>Condition 6:</b> Fisheries Queensland to develop and implement an updated harvest strategy for sharks focussed on species-based management of high risk species and/or species groups.</p> <p><b>Recommendation 3:</b> In the absence of a species-based harvest strategy for sharks in the East Coast Inshore Fin Fish Fishery, Fisheries Queensland to facilitate an advisory group comprising relevant experts to provide input to the interim management arrangements and the development of the longer term harvest strategy for sharks in the fishery to ensure that harvest of sharks is sustainable.</p> <p><b>Recommendation 4:</b> Fisheries Queensland to report annually on the progress in development of the shark harvest strategy to the advisory group established under Recommendation 3.</p>
<p><u>Interim management arrangements for sharks</u></p> <p>In 2008 the independent review of the then proposed management arrangements for the East Coast Inshore Fin Fish Fishery (Gunn <i>et al</i> 2008) recommended a significant lowering of the historical catch level of sharks until data collection and research could provide evidence of a sustainable fishing threshold. The review concluded that the lower the total allowable catch (and the lower the total catch of sharks), the lower the risk to the target, byproduct, bycatch and protected species. The review recommended decreasing the catch level to less than 700 tonnes.</p> <p>In response to the outcomes of the review and with agreement between the Australian and Queensland governments, Fisheries Queensland implemented a total allowable commercial catch of 600 tonnes for sharks, with management mechanisms for slowing and stopping targeted shark fishing in advance of the total allowable catch being reached. Since the implementation of the total allowable catch, annual catch of all sharks has not exceeded 500 tonnes.</p>	<p><b>Condition 7:</b> In the absence of a species based harvest strategy for sharks in the East Coast Inshore Fin Fish Fishery, Fisheries Queensland to:</p> <ol style="list-style-type: none"> <li>a) conduct annual reviews of the management arrangements for sharks, including the total allowable commercial catch, and</li> <li>b) revise management arrangements as appropriate following annual reviews.</li> </ol>

Issue	Condition/Recommendation
<p style="text-align: right;"><i>/cont.</i></p> <p>Due to the need to collect additional species-specific biological and catch data, stock assessments and a comprehensive harvest strategy for key East Coast Inshore Fin Fish Fishery shark species will not become available for up to three years. The fishery's performance measurement system contains indicators and performance measures designed to detect increases in shark harvest. The department considers that the indicators and performance measures should be reviewed and updated to improve the ability of the performance measurement system to ensure that the harvest of sharks is sustainable (see <b>Condition 9</b>).</p> <p>In the absence of a species based harvest strategy for sharks in the fishery, to ensure the total allowable commercial catch is not set at a higher than sustainable level, the department considers that annual reviews of the management arrangements for chondrichthyans, including the total allowable commercial catch, are required, with the revision of management arrangements as appropriate following each review.</p> <p>Reviews should consider catch composition and spatial distribution of catch, and should be used to update risk assessments and, where appropriate, stock assessments for individual species. The department considers that the results of the reviews should be provided to relevant stakeholders and recommends that these results be reported to the advisory group referred to in Recommendation 3 above.</p>	<p><b>Recommendation 5:</b> Fisheries Queensland to report the results of the reviews to the advisory group established under Recommendation 3. The reports should include at a minimum:</p> <ul style="list-style-type: none"> <li>• analysis of catch composition</li> <li>• analysis of spatial distribution of catch by species</li> <li>• update of risk assessments for individual species, and</li> <li>• once sufficient data is available, appropriate stock assessments for key shark species caught in the ECIFFF.</li> </ul>
<p><u>Anti-finning</u></p> <p>The 'finning' of sharks (the practice of removing the fins at sea and dumping the carcasses or 'trunks') has been identified as a threat to sharks globally. This practice is illegal in Queensland, and trunks of all sharks and rays caught must be landed.</p> <p>The Queensland Boating and Fisheries Patrol is responsible for compliance in Queensland's fisheries. In 2011, the patrol (formerly under the Department of Employment, Economic Development and Innovation) became part of Maritime Safety Queensland, a division of the Department of Transport and Main Roads.</p> <p>Fisheries Queensland has advised that the compliance risk assessment process conducted by the patrol identified possession of shark fin as a high priority compliance issue for the East Coast Inshore Fin Fish Fishery. The department notes the compliance effort directed towards detecting illegal finning at sea and that Fisheries Queensland is aware of advanced tools that may assist in managing compliance with anti-finning regulations.</p> <p>Given the high value of fins and the identified compliance risks, the department recommends that Fisheries Queensland continue to investigate further compliance measures to detect illegal finning at sea and implement measures as appropriate.</p>	<p><b>Recommendation 6:</b> Taking into account all available information and in collaboration with other relevant jurisdictions, Fisheries Queensland to work with Maritime Safety Queensland on compliance measures to deter illegal finning of sharks in the East Coast Inshore Fin Fish Fishery.</p>

Issue	Condition/Recommendation
<p><b><u>Protected Species</u></b><sup>17</sup></p> <p>There is potential for the net subfisheries within the East Coast Inshore Fin Fish Fishery to interact with a number of protected species, including dugongs, dolphins (particularly inshore dolphins), whales, marine turtles, green and freshwater sawfish, spartooth sharks, grey nurse sharks, whale sharks, white sharks and crocodiles. Interactions with sawfish, turtles and dugongs have been reported by fishers and/or recorded by Fisheries Queensland's Fisheries Observer Program during 2008-09 and 2009-10. While all but one of the turtles was released alive, some sawfish and dugong mortality did occur. Although the rate of interactions relative to fishing effort remains low, green and freshwater sawfish are listed as threatened species under the EPBC Act. A recovery plan under the EPBC Act for Sawfish and <i>Glyphis</i> is currently being developed by the Australian Government with input from a range of government and non-government stakeholders. Also, given the range of pressures on dugong populations, it is important that actions are taken to minimise all sources of mortality of dugongs.</p> <p>Closure of the Normanby, Bizant and Kennedy Rivers to netting was implemented in July 2009 to provide protection to inshore species including green and freshwater sawfish, spartooth sharks, and potentially dugongs, inshore dolphins, turtles and crocodiles. the department considers that mandatory net attendance requirements and other net restrictions introduced in July 2009 are also likely to assist in reducing impacts on protected species. The department encourages Fisheries Queensland to actively participate in the Australian Government's process for developing a recovery plan for sawfish and <i>Glyphis</i> under the EPBC Act and ensure that relevant recovery actions for sawfish and <i>Glyphis</i> identified through that process are implemented in the fishery.</p> <p>Some interactions with protected species may be avoided through changes to fishing practices. In July 2011, Fisheries Queensland established a Protected Species Working Group comprising representatives of relevant Queensland Government agencies, the Great Barrier Reef Marine Park Authority, industry and conservation sectors. The group's objective is to recommend further options to minimise the impact of commercial net fishing species of conservation interest, by:</p> <ul style="list-style-type: none"> <li>• <i>identifying regions (or areas within regions) in Queensland where there is, or is likely to be, interaction between commercial fishing nets and protected species</i></li> <li>• <i>developing a framework agreed to by the Queensland and Australian governments that can be used for determining within each region the different management approaches to commercial net fishing that could be adopted to reduce the impact on protected species, and</i></li> <li>• <i>implementing the agreed framework in each region to develop possible solutions to be considered by the Queensland and Australian governments.</i></li> </ul> <p>The department supports this initiative by Fisheries Queensland and considers that the work of the Protected Species Working Group presents opportunities to further reduce the potential for fishing relating mortalities of protected species in the East Coast Inshore Fin Fish Fishery.</p>	<p><b>Recommendation 7:</b> Fisheries Queensland to:</p> <ul style="list-style-type: none"> <li>• continue to improve knowledge of the number and rate of interactions with species of conservation interest in the East Coast Inshore Fin Fish Fishery, including the recognition of important habitats and identification of locations, areas or regions with higher risk of interactions and/or mortalities occurring</li> <li>• support relevant research into methods to reduce fishing related mortalities of species of conservation interest</li> <li>• continue to work with industry and all relevant stakeholders to identify and implement appropriate gear selectivity and operational improvements and/or other management measures that minimise capture and mortality of species of conservation interest, and</li> <li>• in conjunction with relevant stakeholders develop a framework to enable implementation of measures to avoid interactions and/or reduce mortalities at an appropriate spatial scale.</li> </ul> <p><b>Recommendation 8:</b> Fisheries Queensland to implement appropriate management measures identified in Recommendation 7 to ensure that risks to species of conservation interest in the East Coast Inshore Fin Fish Fishery are minimised.</p>

<sup>17</sup> Recommendation 7 and Recommendation 8 are also to be conditions on the EPBC Act Part 13 accreditation of the management regime for the East Coast Inshore Fin Fish Fishery.

Issue	Condition/Recommendation
<p><b><u>Catch and effort management</u></b></p> <p>The East Coast Inshore Fin Fish Fishery is managed via a complex system of input and output controls. There is a considerable amount of latent net effort in the fishery. The fishery is also characterised by many operators who fish part time, while also accessing other Queensland fisheries or land based employment. There is considerable scope for operators in this fishery to increase effective effort over current levels through activation of previously unused or seldom used licence symbols (although the department recognises that economic conditions make the activation of large amounts of latent effort unlikely in the short to medium term). Nonetheless, increases in fishing effort could result in increased catches of target, byproduct and bycatch species including protected species, which could threaten the ecological sustainability of some subcomponents of the fishery.</p> <p>The net effort review reference point in the performance measurement system for the East Coast Inshore Fin Fish Fishery has been set at 28,150 net days, reflecting the average level of effort in the fishery over the five years prior to its implementation. Condition 15 of the 2009 approved wildlife trade operation declaration for the fishery required Fisheries Queensland to determine an appropriate management response to be implemented if the effort trigger is reached. In response to this condition, a management response was included in the performance measurement system whereby if the revised review reference point of 28,150 net days is reached, Fisheries Queensland will review management arrangements for net effort in consultation with stakeholders through a Technical Advisory Group.</p> <p>In November 2010 Fisheries Queensland provided the department with a report entitled <i>Review of commercial fishing in the East Coast Inshore Fin Fish Fishery</i>, in response to Condition 16 of the 2009 approved wildlife trade operation declaration for the fishery (see Table 2). The report concluded that at the current level of effort in the fishery, it was not necessary to impose additional restrictions on effort in the fishery or any of its subcomponents.</p> <p>Of more concern than overall increases in effort is the potential for concentration of effort in certain areas. Fishing activity tends to be focussed around regional centres along the Queensland east coast. In addition, the closure of certain areas to fishing tends to localise fishing effort in remaining open areas. There is therefore potential for local concentration of fishing effort to adversely impact some fin fish species taken in the East Coast Inshore Fin Fish Fishery, particularly those which form seasonal spawning aggregations or which exhibit local residency.</p> <p>Fisheries Queensland has few mechanisms by which to reduce total effort or to partition effort across the different target species and/or areas of the fishery if required for ecological sustainability purposes. The department recognises the complexity of the fishery, where individual operators may hold endorsements in multiple subcomponents of the fishery and fish under one or more of these endorsements according to season, weather and market conditions. The department acknowledges that such a fishery structure requires a considerable amount of flexibility and responsiveness in management arrangements.</p>	<p><b>Condition 8:</b></p> <p>By 1 September 2014, Fisheries Queensland to review and report to the Department of Sustainability, Environment, Water, Population and Communities on:</p> <ol style="list-style-type: none"> <li>a) the distribution of catch and effort in the East Coast Inshore Fin Fish Fishery since the 2009 management changes, and</li> <li>b) progress in developing and implementing finer scale management arrangements for the East Coast Inshore Fin Fish Fishery which ensure that the impact of fishing to target, byproduct and bycatch species, including species of conservation interest, is ecologically sustainable.</li> </ol>

Issue	Condition/Recommendation
<p>However, given:</p> <ul style="list-style-type: none"> <li>• the large geographical size of the East Coast Inshore Fin Fish Fishery and, hence, that the risks to protected species vary across the fishery according to variations in fishing effort and species habitat</li> <li>• the lack of current restrictions on effort movement within the fishery</li> <li>• the potential for localised depletion of some target species, and</li> <li>• the emergence of protected species 'hotspots',</li> </ul> <p>the department considers it important that Fisheries Queensland continue to monitor and analyse spatial patterns in catch and effort and explore the potential for finer scale spatial management in the East Coast Inshore Fin Fish Fishery.</p> <p>Finer scale spatial management may also present opportunities to reduce mortalities of protected species (see <b>Recommendation 6</b>).</p> <p>Fisheries Queensland's 2011 stock status assessment process recommended the development of regionally appropriate performance indicators for key target and byproduct species. The department considers this an important first step towards managing key species within the fishery at an appropriate spatial scale (see <b>Condition 10</b>).</p>	



Issue	Condition/Recommendation
<p><b><u>Management co-ordination</u></b>  <b><u>Performance Measurement System</u></b>  In 2009 Fisheries Queensland implemented the <i>Performance Measurement System East Coast Inshore Fin Fish Fishery (ECIFFF) – Version 1 June 2009</i>, which includes objectives, performance indicators, performance measures and management responses for the fishery. In its 2011 submission, Fisheries Queensland foreshadowed that the performance measurement system would undergo a major review in 2011. However, Fisheries Queensland has since advised that the review will be delayed until 2012 to allow the development of economic and social objectives and measures.</p> <p>While acknowledging the value of including these new indicators, the department notes that the performance measurement system is a key management tool for the ECIFFF. The responsiveness of the performance measurement system is particularly important in the absence of stock assessments and species-specific harvest strategies for key species.</p> <p>The department considers a major review of the existing indicators and performance measures to be essential for the performance measurement system to remain capable of monitoring the performance of the fishery and identifying when a management response is needed to maintain the ecological sustainability of the fishery.</p> <p>The department recommends that, where performance measures for the fishery are triggered, Fisheries Queensland continue to report in the annual status report on the management responses implemented, including the rationale for any nil management response.</p>	<p><b>Condition 9:</b>  Fisheries Queensland to review the performance measurement system for the East Coast Inshore Fin Fish Fishery in consultation with relevant stakeholders to incorporate the most up to date information and ensure that it is capable of identifying when a management response is needed to maintain the ecological sustainability of the fishery, including its subcomponents.</p> <p><b>Recommendation 9:</b>  In reviewing the performance measures for the East Coast Inshore Fin Fish Fishery, Fisheries Queensland to give consideration to:</p> <ul style="list-style-type: none"> <li>a) refining the performance measures for all high risk species</li> <li>b) including spatially appropriate indicators and performance measures, and</li> <li>c) incorporating timeframes and predetermined management actions, where appropriate, for responding to review events.</li> </ul>

Issue	Condition/Recommendation
<p><b>Monitoring and Data Collection</b></p> <p>Given the uncertainty in the stock status of a number of key East Coast Inshore Fin Fish Fishery species and the suite of new management arrangements introduced in the fishery in 2009, there is an ongoing need for Fisheries Queensland to acquire information to support the ecological sustainable management of the fishery. The department acknowledges the considerable body of information collected by Fisheries Queensland's Fisheries Observer Program in the fishery to understand the operation of the fishery post the 2009 management changes.</p> <p>The department notes Fisheries Queensland's state wide Long Term Monitoring Program and Fisheries Observer Program and Fisheries Queensland's commitments in the 2011 submission to continue to collect information from the shark fishery<sup>18</sup>. The department considers it essential that Fisheries Queensland maintain a monitoring regime for the East Coast Inshore Fin Fish Fishery to collect data which will allow:</p> <ul style="list-style-type: none"> <li>• completion of stock assessments for key target species</li> <li>• identification of risks at the regional level to target, byproduct and bycatch species, including protected species, and</li> <li>• evaluation of the effectiveness of the fishery's management measures.</li> </ul> <p>The program, as a minimum, should:</p> <ul style="list-style-type: none"> <li>• provide data that is independent of and complementary to fisher logbook data;</li> <li>• be risk based;</li> <li>• be designed in conjunction with relevant experts; and</li> <li>• focus on those subfisheries: <ul style="list-style-type: none"> <li>○ where stock status of key target species is undefined or uncertain; and/or</li> <li>○ that are likely to interact with protected species.</li> </ul> </li> </ul> <p>Data should continue to be analysed and reported publicly, such as through the annual status reports for the fishery.</p> <p>The department is aware that a variety of new and existing technologies, such as on-board video cameras and vessel monitoring systems, are available and may have the potential to reduce some of the challenges associated with monitoring a large and diverse fishery. While recognising that the nature of the East Coast Inshore Fin Fish Fishery, with large numbers of very small boats, does not readily lend itself to the use of such technology, the department considers that Fisheries Queensland should collaborate with other relevant jurisdictions to ensure that opportunities to utilise new monitoring techniques are recognised and implemented as appropriate. This may be particularly relevant to the 'N4' sector of the fishery where longer net lengths are permitted, larger fishing vessels are typically used and fishing is conducted over a wider area than in most other subfisheries.</p>	<p><b>Condition 10:</b></p> <p>Fisheries Queensland to, as a minimum, maintain a risk based fishery monitoring regime for the East Coast Inshore Fin Fish Fishery, designed in conjunction with relevant experts, to collect data sufficient to allow:</p> <ul style="list-style-type: none"> <li>• completion of stock assessments for key target species;</li> <li>• identification of risks at the regional level to target, byproduct and bycatch species, including protected species; and</li> <li>• evaluation of the effectiveness of the East Coast Inshore Fin Fish Fishery management measures.</li> </ul>

<sup>18</sup> Implementation and continued improvement of Queensland's harvest strategy for sharks

Issue	Condition/Recommendation
<p><u>Cross-jurisdictional and complementary management</u></p> <p>The spatial distribution of a number of key East Coast Inshore Fin Fish Fishery species extends into New South Wales and Northern Territory waters, where significant commercial and recreational harvest also takes place. Consequently, recommendations were made at the time of previous EPBC Act assessments of the fishery for Fisheries Queensland to pursue collaborative management of shared stocks with adjacent fisheries management agencies.</p> <p>The department is aware that Queensland size and bag limits for a number of species are set taking into account sustainability concerns for these species in New South Wales and that, where shared stocks exist, Fisheries Queensland's stock status assessment program takes account of harvest in New South Wales. The department understands that Fisheries Queensland and the New South Wales Department of Primary Industries meet annually regarding monitoring and management of shared stocks and Fisheries Queensland collaborates closely with the Northern Territory on management of northern Australian shark and grey mackerel stocks.</p> <p>The department continues to consider this collaboration a priority, particularly in light of the need for further information on stock status for many East Coast Inshore Fin Fish Fishery species, and the differences in management arrangements for some species between Queensland, New South Wales and the Northern Territory. As such, the department recommends that Fisheries Queensland continues to pursue collaborative research and management, particularly with New South Wales (for species such as mullet, tailor, garfish, mulloway and mackerel) and the Northern Territory (for tropical sharks, grey mackerel and king threadfin).</p>	<p><b>Recommendation 10:</b></p> <p>Fisheries Queensland to continue to pursue and report on collaborative and complementary management of shared East Coast Inshore Fin Fish Fishery stocks with relevant fisheries management agencies.</p>
<p><u>Industry education</u></p> <p>The department considers that it continues to be important that fishers in the East Coast Inshore Fin Fish Fishery are equipped to:</p> <ul style="list-style-type: none"> <li>• make accurate identifications of retained and bycatch species, including protected species</li> <li>• continually improve the quality of logbook data, and</li> <li>• be competent in safe handling and release procedures across the fishery.</li> </ul> <p>The department supports Fisheries Queensland continuing to adapt and deliver its fisher education programs.</p>	<p><b>Recommendation 11:</b></p> <p>Fisheries Queensland to continue education programs across all sectors of the East Coast Inshore Fin Fish Fishery on species identification and recording, safe handling and release procedures and conservation.</p>

## References

Gunn J, Meere F and Stevens J (2008) *Independent Review Proposed Management Arrangements for Queensland's East Coast Inshore Fin Fish Fishery*. Review Commissioned by the Hon Peter Garrett MP, Minister for the Environment, Heritage and the Arts.

Halliday I, Ley J, Tobin A, Garrett R, Gribble, N. and Mayer D (2001) *The effects of net fishing: addressing biodiversity and bycatch issues in Queensland inshore waters*. FRDC project No. 97/206. Fisheries Research and Development Corporation.

Henry GW and Lyle JM (2003) (eds.) *The National Recreational and Indigenous Fishing Project*. FRDC Project No. 99/158. Australian Government Department of Agriculture, Fisheries and Forestry, Canberra.

McInnes K (2008) *Experimental results from the fourth Queensland recreational fishing diary program (2005)*. Queensland Department of Employment, Economic Development and Innovation, Brisbane.

## Acronyms

CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DEWHA	Department of the Environment, Water, Heritage and the Arts
DPI&F	Department of Primary Industries and Fisheries
ECIFFF	East Coast Inshore Fin Fish Fishery
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
FRDC	Fisheries Research and Development Corporation
SEWPaC	(Department of) Sustainability, Environment, Water, Population and Communities.
SOCI	species of conservation interest
t	tonnes
TAC	total allowable catch