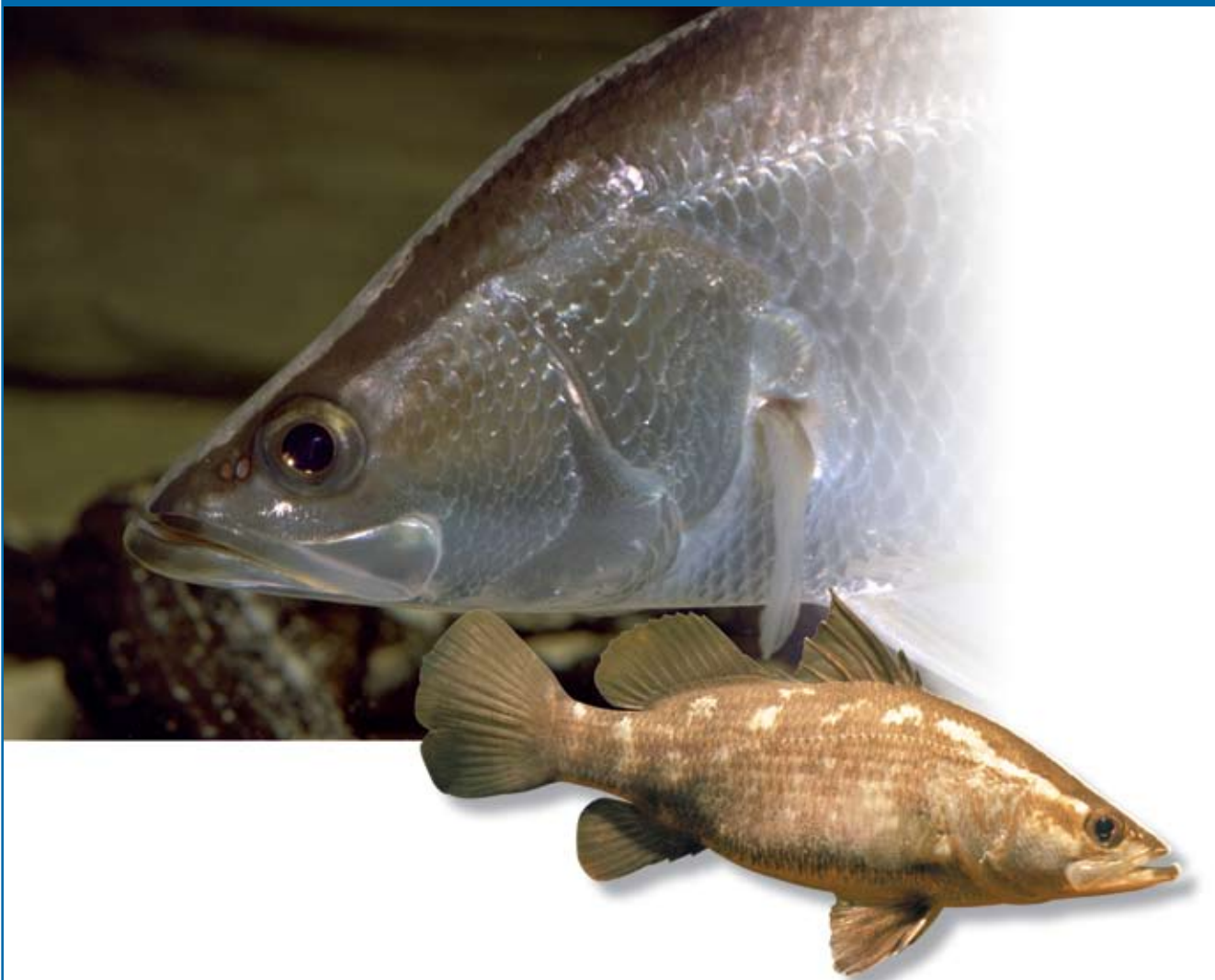


Annual status report 2008

East Coast Inshore Fin Fish Fishery



The Department of Primary Industries and Fisheries (DPI&F) seeks to maximise the economic potential of Queensland's primary industries on a sustainable basis.

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Introduction

The East Coast Inshore Fin Fish Fishery (ECIFFF) is Queensland's largest and most diverse fishery encompassing commercial, recreational, charter and indigenous fisheries. The commercial fishery is Queensland's third most valuable commercial fishery, targeting a number of fin fish species, using a variety of different net fishing methods. Some species are also taken by hook and line. Commercial operations occur in inshore coastal and estuarine waters adjacent to Queensland's east coast where species targeted vary between tropical and sub-tropical regions. Some of the commercially targeted species include: mullet, shark, whiting, bream, tailor, small mackerels, threadfins, barramundi and garfish with export markets for mullet roe, shark and small mackerel products. Other tropical and temperate species are harvested as by-product including queenfish, flathead, trevally and dart.

Target species groups for recreational fishers in the ECIFFF include: whiting, bream, trevally, flathead, tailor, barramundi and small mackerels. The ECIFFF also includes a number of pelagic species such as cobia and dolphinfish. Recreational fishers typically catch these species by hook and line.

A suite of new management arrangements have recently been approved by the Queensland Government and will commence on 1 March 2009. These measures have been developed in close consultation with stakeholders and the Australian Government over the last two years and will significantly improve sustainable management of the fishery.

This report describes the ECIFFF for the 2007 calendar year.

Fishery profile 2007

Commercial harvest for 2007: approximately 5400 t

Recreational harvest for 2007: no estimate; in 2005 approximately 3000 t harvested and 4400 t released

Indigenous harvest for 2007: No estimate available

Charter harvest for 2007: approximately 108 t harvested and 78 t released

Commercial Gross Value Production in 2007: approximately \$24 million

Number of licences: 507 net fishery symbols, 1648 line fishery symbols and 389 charter licences at 27 October 2008

Commercial boats accessing the fishery in 2007: 337 net boats, 331 line boats and 233 charter boats (reporting catch of ECIFFF species)

Fishery season: Annual seasonal closures apply to barramundi fishing between 1 Nov and 1 Feb. A general seasonal fishing closure applies to near shore waters between Indian Head and Waddy Point, Fraser Island, from 1 August to 30 September.

Source: DPI&F CFISH database, accessed 25 September 2008.

Description of the fishery

Fishing methods

The ECIFFF is a multi-species fishery with commercial operators targeting a range of fin fish species. Gear permitted in the commercial fishery includes mesh, haul (seine), tunnel and cast nets as well as hook and line. Most commercial fishers prefer to use net sizes that selectively catch fish of a certain size to meet market demand for fillet and whole product. Recreational gear includes cast, small seine (bait) nets and hook and line.

Indigenous communities use traditional subsistence fishing methods for traditional and customary purposes to supply product solely for community use, as well as recreational fishing practices to catch ECIFFF species. Traditional fishing methods include the use of spears and stone fish traps.

Fishing area

The area of the ECIFFF includes all tidal waters along Queensland's east coast eastward of 142°09'E Long. near Crab Island (approx. 11.0°S Lat.), to the New South Wales border (Figure 1). To operate in the ECIFFF commercial fishers must hold a primary commercial fishing vessel licence endorsed with the appropriate 'N', 'L' or 'K' fishery symbol to legally operate in the fishery. Different fishery symbols allow different gear to be used commercially in different areas: 'N' symbols allow the use of mesh nets in inshore and estuarine waters (Figure 1); 'K' symbols allow the use of seine nets on ocean beaches (Figure 2); and 'L' fishery symbols allow the use of line fishing gear throughout the fishery area (Figure 3).

The number of nets permitted to be used, mesh size and length is dependent on the species being targeted and whether the fisher is operating in near-shore or offshore waters. Permitted net and line fishing gears are currently prescribed under the *Fisheries Regulation 2008*.

New rules on use of nets in the fishery were recently approved that further strengthen these regulations.¹

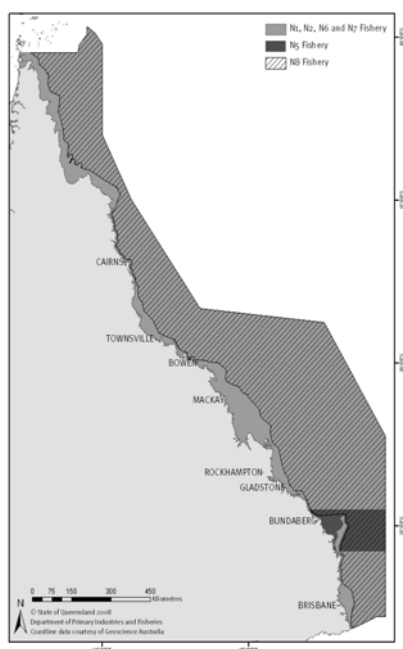


Figure 1: ECIFFF Net fishery areas. (Source: Queensland Fisheries Regulation 2008, 25 November 2008).

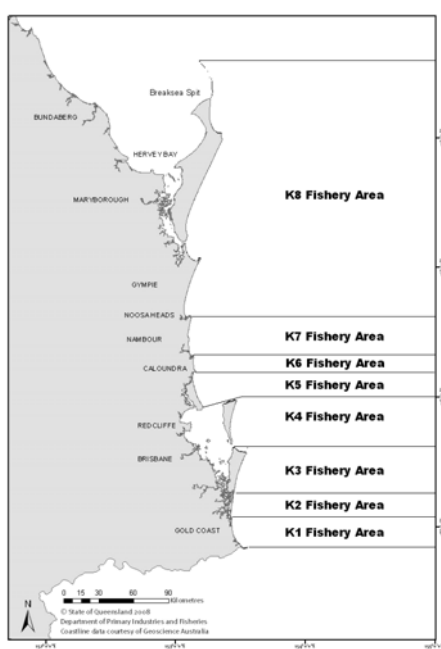


Figure 2: ECIFFF Ocean Beach fishery areas. (Source: Queensland Fisheries Regulation 2008, 25 November 2008).

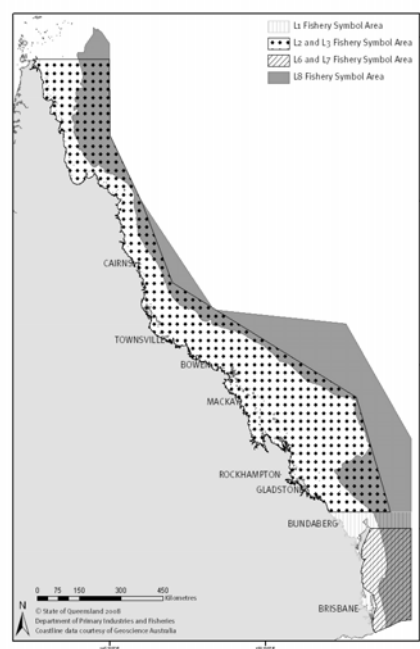


Figure 3: ECIFFF Line fishery areas. (Source: Queensland Fisheries Regulation 1995, 25 November 2008).

The ECIFFF extends along the entire Queensland east coast. The fishery comprises a number of types of fishing operations that differ fundamentally on the basis of the fishing gear used to target regionally important species.

These include:

- sea mullet catches from Bundaberg to the NSW border
- bream, whiting and flathead catches in the Fraser-Burnett region

¹ Proposed new management arrangements for the ECIFFF were outlined in the Regulatory Impact Statement and draft Public Benefit Test available on the DPI&F website at: www2.dpi.qld.gov.au/extra/pdf/fishweb. Public consultation occurred on the proposed changes during 2007 and 2008.

- barramundi, threadfin salmon and trevally catches in the Cairns to Townsville and Fraser-Burnett regions
- shark catches northwards from Mackay and in the Fraser-Burnett and Moreton regions
- grey mackerel and spotted mackerel catches between Princess Charlotte Bay and Moreton Bay.

Main management methods used

A range of input and output controls are used to manage the ECIFFF including:

- limits on the type of net that can be used, its length and mesh size
- minimum legal size limits for many species and maximum size limits for some
- competitive Total Allowable Commercial Catches (TACs) for tailor and spotted mackerel
- commercial in-possession limits for some species (e.g. spotted mackerel)
- recreational bag limits for popular angling species
- permanent, seasonal and weekend closures that apply to commercial or recreational fishers.

Closures to various forms of fishing are also in place under Queensland and Commonwealth marine parks legislation.

A number of changes to the management of the fishery have recently been approved including new and amended bag and size limits, new netting arrangements and improvements to the management of shark resources. Refer to the section on 'Changes to management arrangements in the reporting year' and Appendix 1 for more information.

Approximate allocation between sectors

Given the breadth of the fishery and the wide variety of species caught, allocation between the sectors varies depending on the species. The ECIFFF commercial sector contributes the most to the total harvest of mullet and shark on the Queensland east coast, whereas the recreational sector substantially exceeds the commercial harvest of a number of species notably tailor, bream and trevally.

Fishery accreditation under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

The ECIFFF was granted a Wildlife Trade Operation (WTO) approval under Part 13 of the EPBC Act on the 30 November 2005. Declaration as a WTO demonstrates that the management arrangements for the ECIFFF meet, on-balance, the Australian Government's *Guidelines for the Ecologically Sustainable Management of Fisheries*. The WTO makes a number of recommendations for management of the fishery. The previous WTO approval expired on 30 November 2008, but export approval was extended until 28 February 2009 in order for the Commonwealth Department of Environment, Water, Heritage and the Arts (DEWHA) to re-assess the fishery based on new management arrangements that were approved in late 2008.

Catch statistics

Commercial

Commercial catch and effort information is provided to DPI&F by fishers through compulsory daily logbooks. Catch of the main species retained in individual sub-fisheries is presented (Table 1). Each sub-fishery accounts for a high proportion of the total ECIFFF catch of these species. Reporting by sub-fisheries provides for more precise commercial catch trend monitoring of the main retained species, taken by the main fishing methods used and in

the regional areas from which they are mostly harvested. This also serves to improve assessments of the performance of the fishery in relation to sustainability benchmarks. The collective sub-fisheries harvest estimate accounted for more than 90% of the total ECIFFF commercial harvest in 2007.

Approximately 5400 t of fin fish were retained by the commercial fishery in 2007, a slight (6%) decrease on 2006 landings (Figure 4). During the period 2002–07, annual commercial harvest estimates were variable for the main species (Table 1). The declining net effort trend from 2003 to 2005 has reversed with a slight increase from 2005 to 2007 while line effort has been stable over the 2005–07 period (Figure 4).

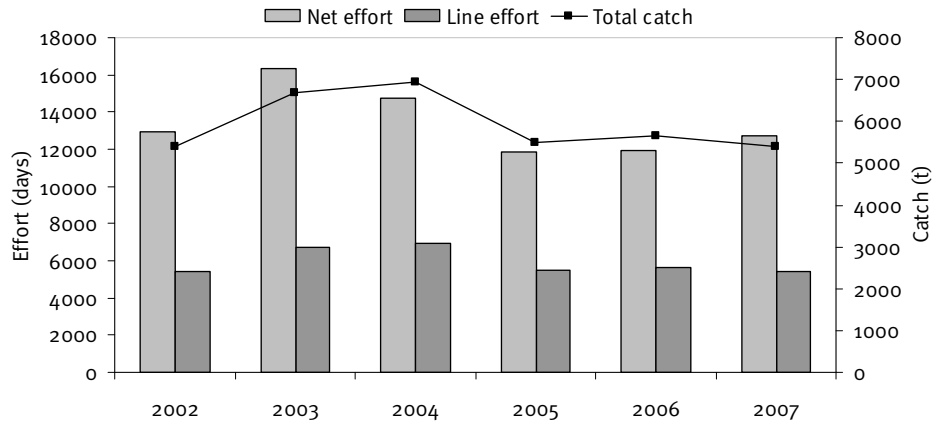


Figure 4: Total estimated commercial catch and effort for the ECIFFF 2002-07 (Source: DPI&F CFISH database 25 September 2008).

Mullet species harvested in the estuarine sub-fishery represent the largest component of the ECIFFF commercial catch. Smaller quantities of shark, ocean beach caught sea mullet, barramundi and threadfin also make up a significant part of the commercial catch (Figure 5). Spotted mackerel and other small mackerels, baitfish (mainly garfish) and a collection of minor species make up the remainder of the commercial catch.

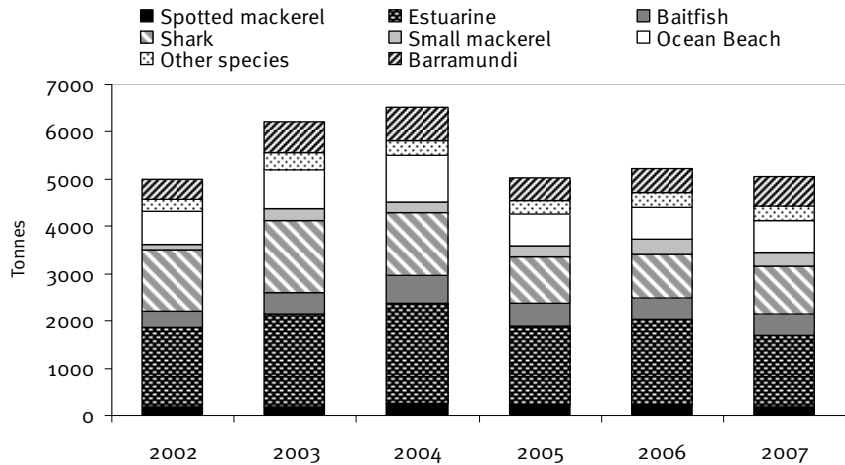


Figure 5: Sub-fishery contributions to annual commercial landings (t) from 2002–07 (Source: DPI&F CFISH database 25 October 2008).

Table 1: Species group composition of commercial harvest in the ECIFFF from 2002–07 (Source: DPI&F CFISH database 29 October 2008).

		Harvest (t)					
Sub-fishery	Species/species group	2002	2003	2004	2005	2006	2007
Ocean Beach	Mullet	656	773	871	622	675	595
	Tailor	40	47	82	54	31	39
	Dart	10	11	23	8	15	28
Shark	Australian blacktip	8	139	304	195	200	209
	Scalloped hammerhead	2	67	151	131	114	48
	Other shark species	1270	1298	830	636	628	664
	Rays	4	13	16	8	7	21
Barramundi	Barramundi	199	300	324	229	218	248
	King Threadfin	82	126	156	109	129	164
	Blue Threadfin	135	192	198	128	164	166
	Grunter	23	29	28	20	27	26
Estuarine	Mullet	1148	1378	1406	1022	1291	896
	Whiting	284	335	393	359	289	286
	Bream	152	169	226	222	175	258
	Flathead	56	58	98	76	75	71
Spotted mackerel	Spotted mackerel	82	60	114	95	55	56
	School mackerel	24	37	56	47	46	26
	Shark mackerel	46	61	37	34	41	39
	Trevally	62	53	65	65	82	72
Small mackerel	Grey mackerel	112	237	243	241	327	297
Baitfish	Baitfish	157	246	323	296	248	264
	Garfish	189	216	261	171	222	161
Other species	Mainly batfish, black trevally, queenfish, jewfish, luderick, bonito, catfish and scad	255	355	308	294	307	322
Total		4992	6192	6486	5018	5231	5043 ²

Recreational

Table 2 shows estimated weights in tonnes of ECIFFF species caught by recreational fishers based on the Recreational Fishing Information System (RFISH) diary surveys conducted in 1997, 1999, 2002 and 2005.³ This table also indicates the large numbers of fish that are released and not actually harvested by recreational fishers. Harvest and release weights are presented and have been converted from catch numbers to weight by using a conversion factor based on average charter weights.

² The 5043 t represents the harvest from the sub-fisheries—the total ECIFFF commercial harvest was approximately 5400 t, with minor species making up the remainder of the total harvest.

³ Data in Table 2 should be interpreted with care due to possible sampling errors that may accompany the estimates. Depending on the species, the actual harvest or release weight may vary around the estimate by up to 20% but for others may be as low as 6%.

Table 2: Species group harvest and release estimates (t) from the RFISH diary surveys (Source: DPI&F RFISH database 26 January 2007).

Species Group	1997		1999		2002		2005	
	Harvest	Release	Harvest	Release	Harvest	Release	Harvest	Release
Barramundi	186	599	320	840	171	543	136	372
Bream	530	994	517	780	412	839	367	626
Dart	n/a	n/a	160	162	122	160	120	179
Flathead	133	141	113	86	96	149	70	110
Grunter	n/a	n/a	n/a	n/a	131	269	127	350
Mackerel - Grey	*18	*4	10	3	3	1	20	5
Mackerel - School	*145	*110	120	56	74	51	203	164
Mackerel - Shark	*6	*3	2	0.2	7	2	6	3
Mackerel - Spotted	*485	*99	159	37	97	39	148	60
Mangrove Jack	n/a	n/a	116	121	107	137	77	96
Mullet	n/a	n/a	n/a	n/a	507	24	422	81
Shark and ray	n/a	n/a	n/a	n/a	212	1750	104	1345
Tailor	320	87	163	61	182	94	129	63
Threadfin	n/a	n/a	n/a	n/a	55	35	55	37
Trevally	**462	**692	513	505	378	511	362	519
Winter Whiting	*767	*303	400	93	206	46	255	58
Summer Whiting	*109	*189	109	74	92	128	95	85
Whiting Unspecified	n/a	n/a	325	261	447	376	267	233
Total	***3614	***3901	***3688	***3735	3826	5838	2963	4386

* Indicates numbers of fish have been estimated by allocating the reported “unspecified” catch of a species group such as “whiting” or “mackerel” into species based on the proportional composition of catch reported to species level.

** In 1997, the trevally figures include dart.

*** Total figures in 1997 and 1999 exclude species such as shark, mullet and threadfin which were not reported before 2002. Interpretation of trends for these species is therefore difficult.

Charter

Reported weight of fish harvested and released in the ECIFFF charter sector steadily increased following the introduction of logbooks in 1996. Since 2001, the total charter catch has increased by 15%, but has declined by about 30% since 2004. While the proportional difference in discards compared to fish harvested has varied between 20% and 40% since 2003 (Figure 6). Figure 7 indicates that barramundi, trevally and bream were the species groups most often caught by the charter sector in 2007.

Indigenous

There are no estimates available of inshore fin fish catches by indigenous fishers within the ECIFFF area for 2007. Limited information is available on past indigenous fish catches throughout the northern part of the fishery area from the National Recreational and Indigenous Fishing Survey conducted in 2000/2001 and released in 2003 (NRIFS) (Henry and Lyle 2003).

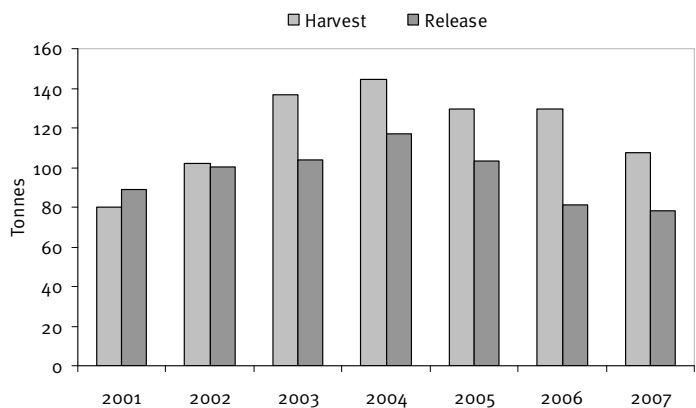


Figure 6: Charter harvest and release total estimates in the ECIFFF 1996–2007 (Source: DPI&F RFISH database 31 October 2007).

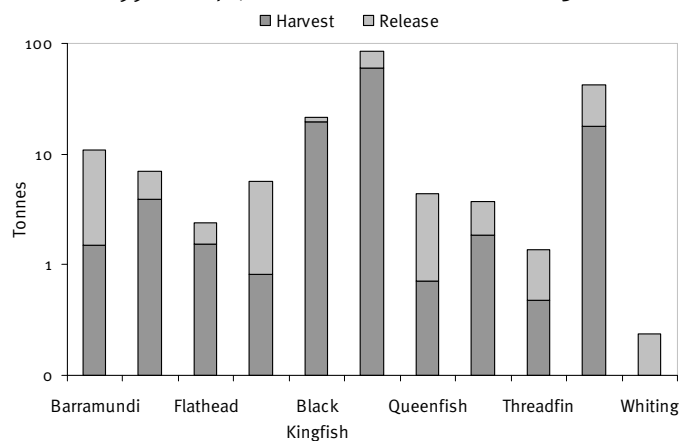


Figure 7: Estimated catch of popular ECIFFF species by charter fishers in 2007 (Source: DPI&F RFISH database 31 October 2008).

However these estimates are unlikely to be representative of the total indigenous harvest of ECIFFF species and cannot be used to indicate current indigenous catch levels with confidence.

Socio-economic characteristics and trends

Prior to 1994 the annual gross value of production (GVP) of the ECIFFF fluctuated around \$21 million (Figure 8). From 1994 GVP steadily increased to about \$36 million in 2001 before a decrease to \$32 million in 2002. GVP then increased again and peaked at \$37 million in 2003 before declining sharply in 2004. The 2004 decline coincided with closure of inshore waters to fishing as part of the rezoning of the Great Barrier Reef Marine Park (GBRMP). GVP declined further in 2005. Subsequent removal of 59 active net fishing licences under an industry Structural Adjustment Package has also made an impact on economic output from the fishery and this was sustained during 2006 and 2007.

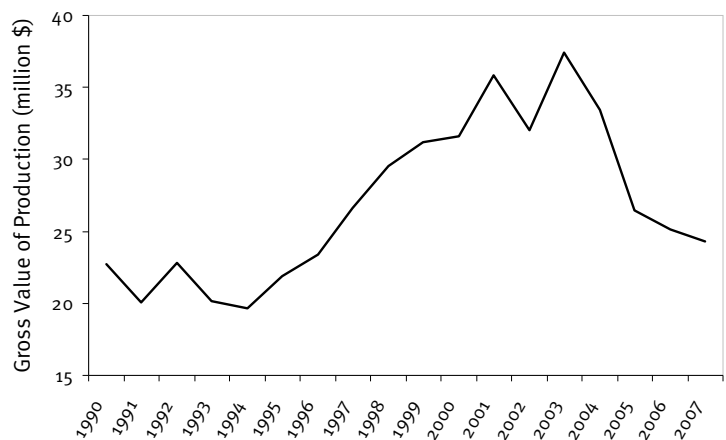


Figure 8: Annual gross value of production (GVP) figures (AUD \$) from 1990–2007 (Source: DPI&F CFISH database 29 October 2008).

Fishery Performance

Appraisal of fishery in regard to sustainability

The ECIFFF is managed using a variety of input and output controls and is regarded as having a management regime in place that does not adversely affect the survival or recovery of species listed under the *Environment Protection and Biodiversity Conservation Act 1999*.⁴ However, there are some concerns for the sustainability of certain species of sharks, which take a long time to mature, give birth to few young and have a relatively long life span compared with other fish. Increased catches over recent years resulted in the issue of an investment warning for fishers in 2002, advising against any further expansion of fishing effort towards shark.

New management arrangements developed for the ECIFFF were approved in late 2008 and will be implemented in early – mid 2009. These measures will significantly improve management of species that are a greater sustainability risk. External factors have also influenced management of the ECIFFF over recent years, including the re-zoning of the GBRMP in mid-2004 with significant areas closed to both commercial and recreational fishing, and complementary state Marine Park zoning. Further closures to commercial and recreational fishing have been introduced in the 2008 Zoning Plan for the Moreton Bay Marine Park.⁵

Changes to management arrangements

The Queensland Government has recently approved a number of changes to current management of the ECIFFF. The majority of the arrangements commence on 1 March 2009, with some other commercial arrangements commencing on 1 July 2009.

Changes to the fishery include:

⁴ <http://www.environment.gov.au/coasts/fisheries/qld/east-coast-finfish/index.html>

⁵ http://www.epa.qld.gov.au/parks_and_forests/marine_parks/moreton_bay_marine_park_zoning_plan_review/draft_zoning_plan/

- new and amended size and bag limits
- revised netting arrangements
- a package of arrangements for more precautionary shark management
- minor changes to closures to clarify boundaries.

DPI&F undertook a comprehensive consultation process with fishery stakeholders to develop the new management arrangements for the fishery. Public consultation on proposed management changes in the ECIFFF occurred in both 2007 and 2008, and included two rounds of public meetings along the east coast. For more information on the new management arrangements including size limits see Appendix 1 of this report or refer to the DPI&F website (www.dpi.qld.gov.au).

Given the importance of the fishery and the level of interest in future management, the Australian Government commissioned an independent review of the proposed management arrangements for the fishery, with a particular focus on protected species, shark management and commercial fishing effort. The results of the independent review were made publicly available in November 2008.⁶

Progress in implementing the Department of Environment, Water, Heritage and the Arts (DEWHA) recommendations

A number of recommendations were attached to the WTO approval to address any perceived risks or uncertainties regarding the operation of this fishery. Details of the progress DPI&F has made in implementing each of these recommendations is provided in Table 3.

Table 3: Progress with implementing DEWHA conditions and recommendations

Conditions/Recommendations	Progress
Condition 1: Operation of the fishery will be carried out in accordance with the management regime in force under the Queensland <i>Fisheries Act 1994</i> and the Fisheries Regulation 2008.	<i>Ongoing</i> The ECIFFF is currently being managed in accordance with the Queensland <i>Fisheries Act 1994</i> and the Fisheries Regulation 2008.
Condition 2: The Queensland Department of Primary Industries and Fisheries (DPI&F) to inform DEWHA of any intended amendments to the management regime or managerial commitments made in the submission that may affect sustainability of the target/byproduct species or have a negative impact on the status of bycatch, protected species or the ecosystem.	<i>Completed</i> The Queensland Government recently approved new management arrangements for the fishery, many of which will commence on 1 March 2009. In mid-2007 DEWHA was provided with a copy of the draft new management arrangements in an Inshore Regulatory Impact Statement (RIS) and advised of the public consultation process. DEWHA have also been advised of: <ul style="list-style-type: none"> • development status of a Performance Measurement System for the fishery • deferral of the proposed tailor stock assessment • deferral of the assessment of protected species interactions with fishing gear to allow consideration of the package of new management arrangements. DPI&F worked closely with DEWHA in developing the package of new management arrangements for the fishery to address sustainability concerns about shark, fishing effort and protected species.
Condition 3: QDPI&F to finalise the development of a formal management	<i>Completed</i>

⁶ <http://www.environment.gov.au/coasts/fisheries/qld/east-coast-finfish/pubs/east-coast-finfish-review.pdf>

Conditions/Recommendations	Progress
<p>regime, including fishery specific objectives, performance measures and criteria and management responses that addresses the ecological sustainability of target (including byproduct) and bycatch species (including protected species) taken in the Fishery.</p>	<p>The Queensland Government recently approved new management arrangements for the fishery, many of which will commence on 1 March 2009. A draft Performance Measurement System (PMS) has been developed for the fishery and with further refinement incorporating recommendations from the review of the proposed management arrangements by the independent panel of experts will be implemented in association with the new management arrangements.</p>
<p>Condition 4: QDPI&F to conduct a program of stock assessments for species taken in the fishery and based on priorities established through a risk assessment analysis.</p>	<p><i>Ongoing</i></p> <p>The sustainability status of higher priority species for detailed stock assessment is continuing to be addressed. Priorities will remain on assessments of the sustainability status of key target species.</p> <p>Recent changes to stock assessment priorities have occurred. In July 2008 an expertise based working group convened to review stock assessment priorities. The highest priority was a surplus production model for barramundi – now completed. Updating the age-structured stock assessment model for tailor is proposed for 2009. Stock assessments for sea mullet and spotted mackerel are considered a lower priority and will be revisited in 2011/12.</p> <p>Data provision for these stock assessments is supported by a suite of ongoing monitoring programs in the fishery (RFISH, LTMP and observers).</p>
<p>Condition 5: QDPI&F to report on progress in developing the formal management arrangements for the fishery and progress in conducting stock assessments for species considered at risk by 1 November 2008.</p>	<p>Completed</p> <p>See Condition 3 and Condition 4</p>
<p>DPI&F to inform DEWHA of any intended amendments to the management regime that may affect sustainability of the target or negatively impact on by-product, bycatch, protected species or the ecosystem.</p>	<p><i>Completed</i></p>
<p>From the end of 2007, DPI&F to report publicly on the status of the ECIFFF on an annual basis and to report explicitly against each performance measure specified in the management regime to be developed for the fishery.</p>	<p><i>Ongoing</i></p> <p>This annual status report is the third to be completed under the current WTO approval. Draft performance measures have been developed and will be finalised following implementation of the ECIFFF new management arrangements.</p> <p>Public reporting on the status of Queensland's fisheries is an important aspect of managing fisheries on behalf of the community. These reports provide an important summary of the status of each fishery, links to ecological assessments demonstrating to the community that fisheries meet sustainability guidelines, and the most up-to date catch and effort information on Queensland's fisheries.</p>
<p>In developing the management regime for the ECIFF, DPI&F to:</p> <ul style="list-style-type: none"> • develop fishery specific objectives for target, by-product, bycatch, protected species and impacts on the ecosystem and which are linked to performance indicators by which these objectives are to be attained and performance measures against which the indicators will be assessed; • develop and formalise management response processes and timelines to triggers being activated; and 	<p><i>In progress</i></p> <ul style="list-style-type: none"> • See Condition 3 • A management response process including a timeframe for action is an integral part of the draft ECIFFF PMS.

Conditions/Recommendations	Progress
<ul style="list-style-type: none"> • develop and formalise a list of species permitted to be taken in the fishery, which clearly defines target and by-product species and a clear process for the inclusion of any additional target species on the list. 	<ul style="list-style-type: none"> • <i>Alternative action proposed</i> <p>It is proposed that the new management arrangements not stipulate the target species in the fishery. Rather, it is proposed that the management arrangements regulate key target species (e.g. through size limits, possession limits and other arrangements). Consequently, there will be no need for a process to include additional target species.</p>
<p>Within one year, DPI&F to develop a management regime for the ECIFFF, capable of controlling the level of take of target, by-product and bycatch species and of minimising interactions with protected species and impacts on the ecosystem and to implement the new management arrangements through legislation for the ECIFFF before the end of the declaration.</p>	<p><i>In progress</i></p> <p>The Queensland Government recently approved new management arrangements for the fishery, many of which will commence on 1 March 2009. These changes are designed to limit access to the fishery and protect the sustainability of key target species as well as more vulnerable or protected species.</p>
<p>DPI&F to undertake a review of latent effort in the fishery and incorporate into the management arrangements controls to ensure the activation of latent effort does not jeopardize the long term sustainability of the fishery.</p>	<p><i>Partially completed</i></p> <p>The <i>Policy for the Management of Excess Fishing Capacity in Queensland's East Coast Net Fisheries</i> removed approximately 40% of the fishery symbols from the fishery.</p> <p>As part of the new arrangements for the fishery, the potential for increased fishing in the net fishery is being minimised through a number of mechanisms. The N1 & N2 fishery symbols and N1 and the K fishery symbols will be amalgamated so that the N1 fishery symbols cannot be removed from a licence and placed on another licence. In addition N6 fishery symbols will only be maintained if the licence meets a specified historical performance criterion.</p> <p>A performance measure for the total number of net days will also be included in the PMS. It is also proposed that performance measures be set for each sub-fishery. Should the performance measure be triggered, DPI&F will give consideration to whether an unitisation system is necessary to constrain effort.</p>
<p>DPI&F to complete a compliance risk assessment for the ECIFFF and implement a risk-based compliance plan within three years taking into account risks of non-compliance associated with:</p> <ul style="list-style-type: none"> • catch, possession, size and gear restrictions (including net attendance requirements) and shark finning at sea • reporting of protected species interactions • area and fishery closures • black marketing of product by recreational fishers, including charter vessel operators. 	<p><i>Proposed</i></p> <p>It is proposed to undertake a compliance risk assessment in early 2009, within three months of new management arrangements being implemented for the ECIFFF.</p>
<p>DPI&F to implement a pilot observer program by the end of 2007 and a full observer program by the end of the declaration and to ensure that the observer program is capable of providing the required information at, where appropriate, a statistically robust level and provides for the collection of at least the following:</p> <ul style="list-style-type: none"> • validation of commercial catch information for use in stock assessments and management 	<p><i>In progress</i></p> <p>The Fisheries Observer Program was allocated observer coverage of 80 days in 2007. The Marine and Tropical Science Research Facility (MTSRF) at James Cook University assisted in reaching this target through placement of observers aboard commercial fishing vessels as part of the Inshore Biodiversity project currently underway.</p> <p>The current focus of the program is to identify the catch composition of sharks on the east coast of Queensland and to gather base line data on ECIFFF bycatch and interactions with protected species.</p> <p>These data will be used to validate fisher logbook catch data and provide information for ecological risk assessment in the fishery.</p>

Conditions/Recommendations	Progress
<ul style="list-style-type: none"> • accurate identification of retained species to ensure logbook accuracy • data on bycatch (including composition and abundance) • protected species interactions • ecosystem impacts of fishing operations (to the extent possible noting the nature of the fishing operations). 	<p>A synopsis of program activities and summary data from observer trips is contained in the <i>Monitoring programs and results</i> section of this report.</p>
<p>Should the pilot observer program identify species identification problems, DPI&F to review the logbook to ensure it provides for adequate reporting of catch on a species basis and to ensure that fishers are equipped to make accurate species identification by the end of the declaration.</p>	<p><i>In progress</i></p> <p>A shark identification guide for ECIFFF fishers was released in 2007. Provision of the guide to shark fishers and observers is assisting with enhanced species identification and more reliable catch data reporting.</p> <p>It is proposed to amend the current commercial fishing logbook following commencement of the new management arrangements for the ECIFFF to facilitate species level recording by fishers. A minimum of one year observer data collected in parallel to fisher use of an amended logbook would be required to assess whether there are species identification problems in the fishery.</p> <p>When available, commercial logbook shark catch data reported at a finer taxonomic level can be validated with observer data. This will allow logbook catch identification accuracy to be assessed, provide more detailed information for management and reduce uncertainties about harvesting levels of individual species.</p>
<p>DPI&F to review within 12 months from the date of the declaration, the current methods for estimating recreational catch, including from charter vessels, of ECIFF species and the basis for the conversion of numbers of fish taken in the recreational catch, including from charter vessels, to weights for incorporation into stock assessments and subsequently into management controls to ensure overall (commercial and recreational) catch levels are sustainable.</p>	<p><i>In progress</i></p> <ul style="list-style-type: none"> •RFISH: <p>The results of the 2005 RFISH survey were published in September 2008.</p> <p>A pilot regional-scale boat ramp survey of recreational fish catches in south east Queensland concluded in October 2008. Twelve months of data were captured covering over 200 species identified in the catches of 12 000 fishers.</p> <p>In addition, a revised diary program was initiated in 2007. Volunteers are invited to participate via the boat registration renewal notice sent out by the Queensland Department of Transport. By the specific targeting of a traditionally 'high-catch' population stratum (boat owners), this approach is providing accurate estimates of the catch.</p> <p>These techniques are also providing an additional source of data for validation of the Long Term Monitoring fish sample data currently used in stock assessments.</p> <ul style="list-style-type: none"> •Charter: <p>DPI&F has experienced delays in developing a policy for the management of the charter sector and requirements for data collection from the sector. It is proposed that consultation on future catch data reporting for the sector will be continued once the consultation processes for the Rocky Reef Fin Fish Fishery management review and the combined fisheries Regulatory Impact Statement have been completed.</p> <p>DPI&F determines the basis for conversion of numbers of fish caught to weight for incorporation into stock assessments on a species-by-species basis according to the most reliable data available. Rather than using catch weight estimates converted from estimates of numbers caught in RFISH surveys, stock assessments use length-weight relationships and catch length-frequency distributions from long-term monitoring data of recreational fish catches (e.g. tailor and barramundi). This approach gives more precise estimates on which base the level of recreational catch in the fishery.</p>

Conditions/Recommendations	Progress
<p>DPI&F to ensure that:</p> <ul style="list-style-type: none"> • a risk analysis is conducted within 18 months to identify those target and byproduct species, other than elasmobranchs, at most risk from the fishery • based on the risk analysis, develop and conduct scientifically robust stock assessments, commencing with those species considered at most risk (noting that where data on which to base stock assessments are of poor quality or does not exist, qualitative assessment methods will be employed); and • stock assessments for the principal and/or high risk species are conducted at least every three years and, consistent with this risk analysis and timetable, that the following assessment are considered as priorities: Barramundi 2007; Tailor 2007; Bream 2008 Flathead 2008 Whiting 2008 Sea Mullet 2008; Spotted mackerel 2009. 	<p><i>Ongoing</i></p> <ul style="list-style-type: none"> • A multi-criteria risk analysis of species retained in the ECIFFF was completed in March 2006. The results identified priority species for stock assessment in the period 2006 to 2009. A surplus production model for barramundi was conducted during late 2007 and completed in 2008. An update of the 2004 age-structured model for tailor is proposed for 2009. See Condition 4 for proposed changes to priority species for stock assessment. • Quantitative stock assessments for the main species caught in the ECIFFF monitors fish stocks with the best and most up-to-date information and scientific methods to ensure that harvesting remains at sustainable levels. • The DPI&F/FRDC-funded Sharks and Rays risk assessment (Salini <i>et al.</i> 2006) was also used when developing new arrangements for the fishery in relation to protecting more vulnerable species of shark. As a result green sawfish, dwarf sawfish, freshwater sawfish, speartooth shark and whale sharks were made no-take. In addition, possession limits were introduced for grey reef shark, white tip reef shark, guitarfish and narrow sawfish.
<p>DPI&F to continue to pursue collaborative management of shared stocks with New South Wales (for species such as tailor, mullet and mackerel) and NT Fisheries (tropical sharks).</p>	<p><i>Ongoing</i></p> <p>Inter-jurisdictional management processes are in place, such as the Australian Fisheries Managers Forum (AFMF), annual meetings with NSW Fisheries and collaboration with NSW and Northern Territory through the National Plan of Action – Sharks, that allow discussion of complementary management arrangements for shared stocks.</p> <p>Complementary size and bag limit rules are being introduced for a range of species and recent sustainability concerns about garfish and mulloway in NSW were taken into account when setting new size and bag limit for the species. These initiatives have been put forward to maximise the likelihood of consistently sustainable outcomes for shared stocks across their range.</p>
<p>DPI&F to ensure the commercial take of shark does not exceed the catch levels when the investment warning (8 April 2002) was issued, unless assessments for particular species demonstrate that catches at a particular level are sustainable.</p>	<p><i>In progress</i></p> <p>A total allowable catch limit for commercial harvest of shark has been proposed and is expected to be in legislation in time to commence on 1 July 2009. This is significantly lower than the catch at the time of the Investment Warning (around 1200 t).</p> <p>The new legislative arrangements for the ECIFFF contain a suite of measures that are designed to constrain total shark catch, protect more vulnerable species of shark and ray and collect better information on the species captured in the fishery.</p>
<p>Within six months of the completion of a tropical shark fishery situation report in 2009–10, and taking into account the results of any prior research undertaken, DPI&F to implement appropriately precautionary management responses for elasmobranch species taken in the ECIFFF, including consideration of banning all finning at sea for all elasmobranchs.</p>	<p><i>In progress</i></p> <p>Recently approved legislative arrangements for the ECIFFF are designed to constrain total shark catch, protect more vulnerable species of shark and ray, and collect better information on the species captured in the fishery.</p>

Conditions/Recommendations	Progress
DPI&F to include in the management regime a requirement that rebuilding strategies, including reference points (target and or limit) and timeframes be developed for species if assessments indicate that stocks are over fished.	<i>In progress</i> While there is no evidence that any ECIFFF stock is overfished or that overfishing of the stock is occurring, DPI&F will continue to monitor stock status of high priority species and take appropriate actions to ensure that harvesting is sustainable. The PMS when finalised will also be a key tool to monitor developed reference points and limits.
DPI&F to develop a Bycatch Action Plan for the fishery within 3 years.	<i>Alternative action complete</i> New management measures such as net attendance rules, additional closures and gear changes will further reduce potential impacts on bycatch. Given the comprehensive review of the fishery, DPI&F does not believe that it is necessary to prepare a formal Bycatch Action Plan. Bycatch performance indicators have also been developed for the ECIFFF PMS.
DPI&F to review use of the charter fishing logbook in the ECIFF and based on the findings, develop a strategy for continued catch reporting through the charter logbook including a requirement to provide information on interactions with endangered, threatened and protected species within 2 years.	<i>Progress proposed</i> When its design is finalised, the charter logbook will incorporate changes to accommodate data requirements for sustainable management of species interacting with the charter sector. While the charter sector is mainly line fishing based and likely to have negligible impact on east coast protected species populations, proposed expansion of the Species of Conservation Interest Logbook to all charter fishers will provide an opportunity for the sector to confirm this expectation. This is likely to occur following implementation of new management arrangements for the fishery in 2009.
Within two years of the date of the declaration, DPI&F to review the effectiveness of the range of closed areas to address take/ interaction of protected species (particularly dugong and marine turtle) and if warranted develop and implement additional/ alternative mitigation measures and include these in the bycatch action plan and/ or in the management regime as appropriate.	<i>Completed</i> Generally, the Dugong Protected Areas (DPAs) working group agreed that the network of DPAs had been effective at reducing interactions between nets and dugong. The State and Commonwealth Governments have both recently announced holistic review of dugong management; DPI&F will have a central role in these reviews.
DPI&F to analyse available information on the interactions of the various gear types used in the fishery with dugong, turtles, crocodiles, sea snakes and cetaceans within 12 months and implement appropriate mitigation measures to minimize interactions with these species.	<i>In progress</i> DPI&F reviewed interactions with protected species as part of development of performance measures for protected species interactions in the draft ecosystem PMS. Annual Status Reports present results of fishery performance monitoring for protected species interactions. Mitigation measures to reduce the risk of adverse interactions with protected species will be introduced in 2009.

Annual fishery performance review

During 2008, DPI&F in consultation with stakeholders further refined the draft performance measurement system (PMS) for the ECIFFF developed in 2007. The purpose of the ECIFFF PMS is to establish a set of reference levels in key fishery indicators (e.g. catch and catch rate) to provide a consistent basis for annual review of the fishery. The PMS identifies several sub-fisheries in the ECIFFF defined by the target species, fishing method or region of fishing operations, or a combination of these. The PMS includes preliminary criteria to monitor the sustainability of interactions with retained species, non-retained species (bycatch) and protected species within the fishery area. It also includes a process for reviewing and planning appropriate management action in response to performance of fishery indicators assessed against the criteria.

It is anticipated that the draft ecosystem PMS will be formalised in 2009 after new arrangements for the ECIFFF are implemented. Further development of robust socio-economic indicators and reference limits is in progress in a

collaborative DPI&F/FRDC funded research project led by James Cook University. Preliminary project results are expected by mid-2009.

Resource concerns

Concerns have been raised over recent harvesting trends for several species in the ECIFFF. DPI&F is ensuring that the management of these species is responsive to these concerns and is adequate for their sustainable use. The new management arrangements will address some specific concerns, particularly for grey mackerel, garfish and mulloway.

Given their biology, sharks are more vulnerable to overfishing than other more productive fin fish. The Queensland Government has recently approved a number of management measures to enhance sustainable outcomes for shark harvesting including protection of more vulnerable species such as sawfish, a maximum size limit to protect larger breeding sharks and restricted access to shark through a new licence. Greater certainty about the sustainability status of harvested shark species will be an outcome of the Marine and Tropical Sciences Research Facilities (MTSRF) tropical shark inshore research project. By 2010 it is expected that the project will build upon the results of an earlier shark risk assessment project (Salini *et al.* 2006) and provide information for ongoing sustainable management of shark stocks.

The most recent 2004 stock assessment for tailor indicated that the stock is heavily exploited. Following consultation with stakeholders, DPI&F has recommended an increased minimum legal length (MLL) to 35 cm at which tailor may be retained. Concerns for a number of other pelagic species have also been responded to through introducing or modifying the MLL and/or bag limit. Management responses to increasing grey mackerel and sea gar catches have also been accommodated in the new management arrangements for the fishery.

Quantitative assessments to monitor stock sustainability status are regularly undertaken for target species in the fishery. Barramundi, tailor, mullet and spotted mackerel assessments have been assessed over recent years. Tailor is proposed for assessment in 2009.

Ecosystem

Non-retained species / bycatch

Undersized species or species with no market value are discarded.⁷ The level of bycatch in the ECIFFF net fishery has been shown to be low when compared to the retained component of the catch, indicating the gear and methods used in net fishing are highly selective at harvesting the target species. Research by Halliday *et al.* (Halliday *et al.* 2001) found that bycatch in east coast commercial netting operations for mullet, whiting, small mackerels, barramundi and mixed estuary species is low relative to other commercial fisheries. Bycatch, as a percentage of the total number of fish caught, was less than 20% for netting operations targeting these species, except where sand whiting are targeted, where 28% of the total fish caught was bycatch.

⁷ The DPI&F Fisheries Observer Program started measuring bycatch weight and composition in the ECIFFF in early 2008. Preliminary bycatch data will be reported in the 2008 Annual Status Report.

Interactions with protected species

In 2003, a Species of Conservation Interest logbook (SOCIO1) was introduced to record interactions with all species that are of conservation concern. In the fishing days (net and line fishing) recorded in the ECIFFF in 2007, SOCI data indicates that interactions with turtle species occur more frequently than with other protected species (Table 4). Only two out of the 202 interactions reported indicated protected species mortality. The majority of turtle interactions occur in tunnel net operations where operators use turtle excluder devices to release the turtles unharmed.

Table 4: Reported interactions with species of conservation interest during 2007. (Source: DPI&F CFISH database 10 October 2008).

Species	Released alive	Dead
Green turtles	125	-
Loggerhead turtles	8	-
Marine turtles, unspecified	47	1
Cetaceans	16	-
Dugong	-	-
Sea snakes	2	-
Sea birds	2	1

Fishery impacts on the ecosystem

Commercial net fisheries target high order predator fish species and use highly selective fishing gear types and methods that catch only small amounts of bycatch species. Due to the low levels of discards, there is limited potential to supplement additional food resources for other marine species through discarding. It is likely that ECIFFF discards present only a minor ephemeral food source for opportunistic scavenging species. Long term changes in densities of these species as a result of discard provisioning are unlikely.

Other ecosystem impacts

Other ecosystem impacts in the ECIFFF are discussed in detail in the 2007 Annual Status report.

Research and monitoring

Recent research and implications

During late 2007, an updated assessment of the status of both the Gulf and East Coast barramundi stocks was conducted (Campbell and O'Neill 2008). Catch and effort information from the commercial (CFISH logbooks) and recreational (RFISH diaries) sources was split into six geographical regions with each having its own aggregated total commercial and recreational catch. Standardised catch rates were calculated to obtain an index of abundance and a surplus production model was fitted to the catch time series and catch rate data. The main conclusions to be drawn from the assessment are that:

- the absolute abundance of the Queensland barramundi stock is unknown
- there are major constraints to reliable estimation of stock biomass or management parameters such as maximum sustainable yield (MSY) with the available data.

Notwithstanding the poor fit of data to the model, the assessment tentatively concluded that:

- catch rate trends indicate that the relative barramundi abundance is increasing in four of the six geographic regions
- catch rate trends in the other two geographic regions (East Coast Cape York and the Central East Coast regions) are highly variable
- it is possible that absolute stock abundance is very low (in all regions) compared with unfished (virgin) biomass estimates.

Given that the findings are associated with a high level of uncertainty it is important to continue to seek improvements in commercial and recreational fisher data quality and to consider the constraints and caveats on the use of these data for future stock assessments. DPI&F's Long Term Monitoring Program is collecting high quality data to support more powerful age-based stock assessments.

Once better age and size selectivity data become available and the fidelity of the catch and effort data can be verified, the status of the Queensland east coast barramundi fishery will be reassessed. The next stock assessment for barramundi is scheduled to begin in mid-2010.

DPI&F, James Cook University and CSIRO Marine Research are collaborating on an evaluative study of the impacts from industry and community uses on inshore marine biodiversity adjacent to the Great Barrier Reef. The study commenced in early 2007 and is due for completion in 2010. Preliminary results from an observer program describe the species composition and length distribution of shark and fish species caught by commercial net fishers within the Great Barrier Reef World Heritage Area from Princess Charlotte Bay to Gladstone. To date, data from a total of 2635 fish from 49 species and 1056 sharks and rays from 22 species have been recorded in the catch of commercial net fishers.

Recreational boat ramp surveys on the impact of the 2004 Great Barrier Reef Marine Park Rezoning commenced in June 2007. Sample collection from commercial fishers and seafood processors for estimation of longevity, growth rates, mortality rates, fecundity size and age at first maturity and genetics of key species commenced in December 2007. Development of a risk assessment framework for inshore species was scheduled to begin in June 2008.

Research to determine the spatial management units for grey mackerel fisheries in coastal waters of Queensland, Northern Territory and Western Australia has concluded. The project was successful in determining the existence of a number of adult grey mackerel management units across northern Australia. In addition to three stocks from Western Australia to the Gulf of Carpentaria there are also two genetically distinct east coast stocks—a northern east coast stock distributed within the Port Douglas and Townsville regions and a southern east coast stock separated from the northern east coast stock between Townsville and Mackay (Welch 2008) The project has provided timely information to direct long term monitoring that will support a quantitative stock assessment of the species and ultimately assist development of a grey mackerel harvesting strategy.

Similar research is underway to identify the management units of king and blue threadfins across northern Australia. Although preliminary results suggest the likelihood of several different stocks for both species in northern Australia, it is still too early to determine their stock structure along the east coast. As part of this DPI&F/FRDC-funded work, biological research for king and blue threadfins is being undertaken to provide relevant estimates of longevity, growth, size-at-maturity and size-at-sex change. This research will conclude in 2010.

Further FRDC research is also currently determining the stock structure and biology of three commercially important shark species/groups on the east coast. These sharks are the milk shark (*Rhizoprionodon acutus*), scalloped hammerhead (*Sphyrna lewini*), and black tips (*Carcharhinus tilstoni* & *C. limbatus*). This research will conclude in 2010 and will also support stock assessment for sharks.

Monitoring programs and results

Compulsory Logbook Program

Commercial fishery catch and effort information for the ECIFFF continues to be monitored through the compulsory daily logbook program (CFISH). The development of a new net fishery logbook with the intention of improving species resolution of catch and effort recording in the ECIFFF is under consideration to meet increased needs for logbook data associated with the new management arrangements.

Long Term Monitoring Program

The DPI&F Fisheries Long Term Monitoring Program (LTMP) provides data to complement the information obtained from commercial logbooks and recreational fishing diaries for various Queensland fisheries. These data include length, sex and age composition of the catch used in stock assessments. Species monitored in the ECIFF include barramundi, tailor, mullet, spotted mackerel, yellowfin bream, whiting (sand, golden-lined and winter) and dusky flathead.

The barramundi monitoring program commenced in 2000 and initially sampled the commercial catch from two rivers on the Queensland east coast. The program has been expanded and now collects from all rivers within the mid-north east coast region, from Cooktown to Ayr and the south east coast region, from Rockhampton to Hervey Bay. The expanded program provides biological data, length and age information from the commercial and recreational barramundi fisheries. This will provide more reliable data for an age structured assessment of east coast barramundi stocks that should increase confidence in future sustainability estimates for this species.

Collection of commercial barramundi catch samples is progressing with the

cooperation of commercial fishers and seafood processors. In 2007 more than 1122 fish were measured and 761 otoliths (ear bones used to age the fish) were taken from 177 individual catches of barramundi (Table 5). The number of otoliths collected and

catches sampled in the mid-north east coast region was limited due to a large proportion of the product being packed whole for southern fresh fish markets. Alternative collection methods are now being used to obtain adequate numbers of barramundi otoliths for age analysis.

Sampling of the recreational barramundi catch in the mid-north east coast region has been achieved using a range of strategies. Most fish were measured in boat ramp surveys and fishing competitions. Anglers donating fish frames began in 2007 with the numbers expected to increase throughout 2008. Also during 2008 CAP Reef, a community organisation, was contracted by DPI&F to collect recreationally caught barramundi frames in the south east coast region.

In 2008, the DPI&F also began monitoring grey mackerel (*Scomberomorus semifasciatus*) on the east coast of Queensland to collect biological information required for an age-structured stock assessment. This program collects length, sex and otoliths from harvested fish from the commercial, charter and recreational fisheries for stock assessment purposes to ensure sustainability of the fishery. The monitoring is focused around regions of highest landings (Princess Charlotte Bay, Cairns, Townsville, Mackay, Keppel and Curtis Coasts and Hervey Bay). Commercially caught samples are being collected from fish processors and from commercial net and line fishers. The monitoring team is also collecting samples from the recreational line fishery through boat ramp surveys and the DPI&F Keen Angler Program.

The collection of tailor and sea mullet data (collected since 1999)⁸ continued in 2008. During 2007, sampling effort increased to encompass estuarine and ocean beach components of the commercial fishery for mullet and to increase the amount of data from the commercial tailor catch. Sampling in the recreational tailor fishery also now extends into areas other than Fraser Island. The expanded monitoring of these species has improved

Table 5: Sample collection for the 2007 Long Term Monitoring Program barramundi sampling.

Region	Number of otoliths collected	Sector	Number of lengths measured	Number of catches sampled
Mid north east coast	166	Commercial	315	51
		Recreational	31	26
South east coast	595	Commercial	773	99
		Recreational	3	1

⁸ http://www.dpi.qld.gov.au/cps/rde/dpi/hs.xsl/28_10738_ENA_HTML.htm

representativeness of the data collected from the respective fisheries and will reduce some uncertainty about the quality of data sourced in future stock assessments.

In 2007 LTMP surveys continued for yellowfin bream, whiting and dusky flathead fishery-dependent data from recreational, charter and commercial sectors. Results to date indicate that the length distributions of the commercial and recreational catches are similar but the gender balance of the dusky flathead catch is heavily skewed towards female fish. Data collection continued through 2007 and 2008 providing reliable data for the proposed age-structured stock assessments of the south east Queensland populations of these species.

Fishery Observer Program

The primary objectives of the Fisheries Observer Program (FOP) in the ECIFFF are to collect fishery dependent information to:

- Validate the accuracy of catch and effort data detailed within logbooks
- Detail the composition and fate of species of conservation interest (SOCl), and validate data supplied through SOCl logbooks
- Determine composition of bycatch for the fishery
- Investigate shark interactions and catch composition.

These objectives are achieved by collecting information on:

- Total catch numbers, size and form of product retained (target and by-product species)
- Catch per unit effort
- Total species catch compositions (target, by-product and bycatch)
- Vessel and gear information (number and lengths of nets, net mesh size, net set types)
- Interactions with SOCl.

There was limited coverage in the ECIFFF for the 2007 fishing year, with only 24 observer sea days conducted on seven individual trips. The ECIFFF encompasses a variety of netting operations targeting a diverse range of species: mullet, whiting, flathead, bream, tailor, sharks, barramundi, threadfin, queenfish, trevally and small mackerels. Observer surveys were focused where substantial shark catches have been reported (e.g. the small mackerel and barramundi sub-fisheries). The data collected will allow regular assessment of the shark catch in the ECIFFF.

In 2007 ECIFFF observers recorded about 61 different fin fish species. In terms of numbers of fish, 82.5% was retained as target product, 7.9% was discarded as unwanted target product, 0.3% was discarded SOCl, and 9.3% was discarded bycatch. The most common species groups captured and their representation in the total catch were: whaler sharks, 23%; grey mackerel, 22%; and hammerheads, 13%.

SOCl interactions observed in 2007 from 320 observed net sets, involved two turtles, two dolphins and three green sawfish. The FOP ensures fishers are educated and kept up to date on best practice handling and release techniques for SOCl to maximise their post-capture survival and fisher safety.

Fisher participation in the FOP is voluntary. Vessel operators are contacted and encouraged to join the program. A target of 60 observer days was set for 2008, continuing the strong focus on shark monitoring in the ECIFFF.

Collaborative research

Collaborative research among fishery agencies in Queensland, Northern Territory and Western Australia and commercial fishers began in July 2005 to distinguish the structure of northern Australian grey mackerel stocks. The project used genetic, microchemistry and parasitological analyses. Results have identified the spatial arrangement of stocks for consideration in future grey mackerel fishery assessments.

Researchers from the Fishing and Fisheries Research Centre, James Cook University (JCU) are also collaborating with DPI&F in assessing the impacts of inshore fisheries on marine biodiversity in the Great Barrier Reef region. The research focuses on better understanding the biological and ecological traits of important target species

including numerous inshore shark species, threadfins, grunter, queenfish, fingermark bream, garfish, grey mackerel and other less common species in the east coast inshore net and line fisheries. Once the biology and ecology of these species is better understood, researchers will then conduct a 'whole-of-fisher' ecological assessment that will include information on the effectiveness of inshore marine parks. When completed in 2010, project results will be used in future sustainability assessments of these species.

Further research collaboration with JCU has collected socio-economic data for Queensland east coast inshore recreational, charter and commercial fishers as well as Queensland seafood consumers. These data will be used as a baseline with which to compare similar information following implementation of the new ECIFFF management arrangements, and to assist in developing long term socio-economic indicators for this fishery. Results will be available in mid-2009.

Scientific collaboration between DPI&F and New South Wales researchers continues with quantitative assessment of the shared east coast tailor stocks scheduled for 2009.

Fishery management

Compliance report

During 2007, 17 100 units, including 96 commercial line fishing vessels and 269 commercial net fishing vessels, were inspected in the East Coast Inshore Fin Fish Fishery, with an associated compliance rate of approximately 99% on units inspected. The majority of inspections were of recreational fishers whose numbers far exceed those of commercial fishers.

Offences in Table 6 are reported as either a Fisheries Infringement Notice (FIN); Caution (FIN Caution or official caution issued by Legal); or Prosecution (to proceed by complaint summons). The majority of offences were for taking or possession of regulated (e.g. undersized) fish. Fishing during seasonal closures or in closed waters or being in possession of or use of a prohibited apparatus (e.g. a net not prescribed for recreational use under the legislation) were the other main types of offences recorded.

The majority of prosecutions recorded in Table 6 are still pending. Furthermore, the majority of cautions issued were for minor regulated fish offences such as take/possession of one fish regulated by size. In addition to the above offences 90 unlawful nets and one drum line were seized during the period for which no owner could be identified.

A compliance risk assessment will be completed for this fishery in 2009 in order to determine compliance priorities and allow the most effective use of QBFP resources.

Consultation with stakeholders in the fishery mainly occurs through Inshore Management Advisory committee (MAC), with meetings generally held twice a year. The Inshore MAC provides advice to DPI&F on management issues in fishery. Promotion of regulations applying to commercial, recreational and charter fishers in the ECIFFF is an ongoing role of DPI&F. For example, fishery observers ensure commercial fishers are made aware of catch recording requirements. They also educate fishers about best practice handling and release techniques to maximise SOCI post-capture survival.

Table 6: Offences recorded in the East Coast Inshore Fin Fish Fishery in 2007.

Offence	FIN	Prosecution	Caution
Take/possess/sell regulated fish	122	3	55
Recreational fisher possess fin fish on a boat with skin removed	3		
Contravened a closed waters or closed season declaration	16	2	8
Use more than the prescribed number of apparatus (recreational fisher)	2		
Use more than the prescribed number of apparatus (commercial fisher)		1	
Use/possess prohibited fishing apparatus (e.g. net). (recreational fisher)	15		
Take fish for trade/commerce with fishing apparatus not marked in the prescribed way			1
Boat mark not placed correctly	3		1
Taking fish in a prohibited way		2	
Use/possess commercial fishing apparatus without an authority		1	
Contravened a condition of an authority		2	
Contravened a fishery provision		1	
Obstructed an inspector			1
Did an act that may only be done by the holder of an authority		4	
Authority holder failed to ensure the Act was complied with		1	
Buyer failed to have a docket available for inspection		1	
Fail to have a document required to be available for immediate inspection	3		
Failed to comply with a requirement to keep or give stated records, documents or other information in the approved form		1	1
TOTAL	164	19	67

Consultation/communication/education

Complementary management

Queensland continues to work with NSW fisheries management officers on complementary arrangements for shared stocks. In particular, the two management agencies have discussed complementary size and bag limits for species caught in both jurisdictions. The fishery agencies have also agreed to seek mutual beneficial approaches to meeting recommendations for management under DEWHA approvals. DPI&F and NSW Fisheries have also discussed management of shark stocks on the east coast.

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Image

Barramundi (*Lates calcarifer*)

Appendix 1: Summary of amendments to the ECIFFF management arrangements made to the *Queensland Fisheries Act 1994* and Fisheries Regulation 2008 in December 2008 (gazetted 12 December 2008)

#	Current situation	Amendment	Rationale
General			
1.	The current fishery boundaries do not match up and therefore there is repetition about what species can be targeted in the 60 km zone in between.	Change the boundary between the east coast and Gulf of Carpentaria netting arrangements to align with the Offshore Constitutional Settlement.	Simplifies the definition of the fishery and what species may be taken.
Recreational fishing changes			
2.	There are currently no prohibitions on spearing at night or spearing from a boat. There are concerns about spear fishers targeting barramundi at night from boats just before the spawning period when the fish are docile and not easily caught by line.	Amend regulations pertaining to recreational spearfishing to prohibit the take of barramundi from 6 p.m. to 6 a.m.	Prevents spearing of barramundi from boats at night with spot lights when the size of the fish is indeterminable.
3.	There are currently a small number of fish that have an extended bag limit for charter trips. Charter operators were unaware of this provision and do not use it currently.	Remove the extended bag limit for charter trips that applies to some inshore finfish.	Removes inconsistency. The provisions were a left over from the reef line management plan and were unknown to charter operators.
4.	There is a range of existing size and bag limits in place, but have not been reviewed since they were introduced in the 1980's.	Amend a range of size and in-possession limits for inshore finfish in east coast waters. All limits are to apply from 1 March 2009. (see Appendix 2 for new size and bag limits) A twelve month phase in period will apply for bream and tailor.	Size limits will help ensure that most fish species have an opportunity to spawn prior to being harvested. Bag limits will promote responsible fishing, ensure a more equitable share of the resource between fishers and help protect the stock from overfishing. A phase in period will help reduce the impact on net fishers and allow them to purchase new nets.
Shark fishery			
5.	Currently, any licenced commercial fisher on the east coast (except for trawl fishers) can retain unlimited quantities of shark. This is around 1500 licence holders.	Establish a new shark (S) fishery symbol. Fishers will need to demonstrate a minimum catch history to be eligible for the symbol.	The shark symbol will significantly reduce the number of fishers that can target shark from 1500 to around 175.
6.	Currently, any licenced commercial fisher on the east coast (except for trawl fishers) can retain unlimited quantities of shark. This is around 1500 licence	Introduce a possession limit for net and line fishers that do not hold an S symbol.	Reduces the potential for non-S symbol holders to target sharks whilst allowing a reasonable bycatch limit to reduce wastage.

#	Current situation	Amendment	Rationale
	holders.		
7.	Currently any east coast net fisher with an N1 fishery symbol (around 400) can use up to 1200m of net in waters deeper than 20 m.	Create a new N4 symbol to restrict the use of 1200m long offshore nets in waters greater than 20m deep. The number of N4's will be capped to 15–25. Require the surrender of two other net symbols (N1 or N2) to receive an N4. Increase the maximum boat size limit to 16 m. N4 symbol holders will be required to have a Vessel Monitoring System.	The new symbol will significantly reduce the number of fishers who can use 1200m nets to target shark and grey mackerel (from 450 to 15–25). Limits the number of fishers that will apply for the symbol Allows for greater safety and comfort in offshore waters. Provides fine scale spatial information on where shark is being caught.
8.	There is no limit on the size of shark that can be taken.	Introduce a maximum size limit of 1.5 m for all sharks.	Protects large breeding sharks which have been demonstrated to be an appropriate management tool for other shark fisheries.
9.	There are no restrictions on what species of shark can be taken (apart from grey nurse and white shark which are currently no-take).	Introduce no-take limits on the following shark species for all fishers in all Qld waters: whale shark; dwarf, green, freshwater and narrow sawfish; and speartooth shark.	Protects highly vulnerable species of shark and provides consistency with protection that is afforded to these species in Commonwealth waters.
10.	There are no restrictions on what species of shark can be taken (apart from grey nurse and white shark which are currently no-take).	Introduce a commercial in-possession limit of 5 white spotted guitar and a possession limit of 1 for grey and white-tip reef shark	Protects other vulnerable species of shark but still allows retention of a small number of incidentally caught sharks.
11.	Fishers can process at sea (i.e. remove the fins from the body), but must have the same number of fins to match up with the trunks.	Require fishers that do not hold a shark symbol to keep shark whole.	Better facilitates the enforcement of the anti-finning regulations.
12.	Fishers in the Gulf of Carpentaria	Apply maximum size limit and protected species to Gulf of Carpentaria.	Apply consistency to other shark fisheries in Queensland waters.
Changes to commercial netting under the N1 symbol			
13.	The current arrangements include a complex array of descriptions of how certain nets can be used in the fishery. This makes enforcement difficult and stifles innovation by fishers who wish to make their operations more selective.	Introduce the concept of a “general purpose” (GP) net.	Reduces complexity in how netting arrangements are described and provides greater flexibility in how nets can be used.
14.	There is currently no maximum mesh size for GP nets.	Introduce a maximum mesh size of 165 mm for GP nets. A	Protects larger breeding sharks.

#	Current situation	Amendment	Rationale
		minimum mesh size of 50mm will continue to apply.	
15.	Fishers are generally not permitted to fix two ends of a GP net.	Allow a GP net to be set for 2 hours.	Allows fishers to work effectively in areas of strong tidal run.
16.	The current maximum mesh size for offshore nets is 245 mm.	Introduce a very restrictive mesh size range of 160–165 mm for offshore nets.	Protects larger breeding sharks and also improves selectivity of grey mackerel in line with the increased minimum size limit.
17.	The mesh size south of Baffle Creek is currently 88 mm–245 mm.	Allow the use of a mesh size range of 100–165 mm for offshore nets south of Baffle Creek.	Still protects larger breeding sharks but recognises that less grey mackerel is caught in the south. Allows fishers to target school mackerel.
18.	There are currently attendance rules in place for some types of nets, but not for offshore set nets. Fishers can leave their nets and return to port. This can potentially create hazards for protected species such as whales.	Introduce a 200 m attendance rule for offshore set nets.	Promotes responsible fishing practices and meets a Great Barrier Reef Ministerial Council commitment.
19.	Currently N1 fishers can use some N2 nets, but are not allowed to retain barramundi.	Remove provisions allowing the use of foreshore set nets under an N1 between Burnett River and Baffle Creek.	Reduces duplication with the barramundi fishery. Fishers will still be able to use a GP net in this area.
20.	Currently N1 fishers can use some N2 nets, but are not allowed to retain barramundi.	Clarify the use of set mesh nets in rivers and creeks under an N1.	Removes uncertainty.
Changes to commercial netting under the N2 symbol (barramundi)			
21.	Currently, barramundi fishers can split their licences and sell their under-utilised N1 symbols.	Allow barramundi fishers to use N1 and N2 nets under the one symbol (N2) and then remove the N1 symbols from the relevant licence.	Reduces duplication and reduces the potential for increases in netting effort.
22.	Barramundi fishers are permitted to use some N1 nets under their N2. Given the two symbols are being combined, this is no longer necessary.	Remove provisions allowing the use of offshore set and drift nets under an N2.	Reduces duplication. Fishers will be able to use these types of nets when the N1 provisions are combined with the N2.
23.	Fishers cannot currently use a smaller mesh net. This net was permitted many years ago and was used to target threadfin outside of the barramundi season.	Allow the use of one 125mm mesh river set net to target threadfin in winter (1 May – 31 August).	Provides barramundi fishers with greater flexibility and promotes profitability at a time when few barramundi are caught.
24.	Currently, fishers have to have one-third of a net below low water. This is impractical in areas of high tidal range (e.g. Mackay) and is difficult to enforce.	Replace the requirement for one-third of a foreshore set net to extend below low water with the requirement that one end remains in water less than 2 m deep at all times.	Removes uncertainty in current regulations and provides a simpler approach.

#	Current situation	Amendment	Rationale
Rationalising other commercial fishery symbols			
25.	Currently, all N1 symbol holders can use tunnel net apparatus (around 450 fishers).	Create a new symbol to provide for the use of tunnel nets in Moreton Bay and Tin Can Bay. Require the surrender of an N1 netting symbol to obtain the new symbol. Require tunnel net fishers to have a Bycatch Reduction Device installed in the net.	The new symbol will significantly reduce the number of fishers who can use tunnel net apparatus. Prevents tunnel netters from splitting the N1 off and selling it. Promotes responsible fishing practices. Many tunnel netters already voluntarily use Turtle Excluder Devices to ensure turtles escape the net.
26.	Ocean beach fishers with a K symbol, also have an N1 symbols that are generally under-utilised. These can now be split and sold to other operators who can apply significantly more effort.	Allow ocean beach fishers to use N1 and K nets under the one symbol (K) and then remove the N1 symbols from the relevant licence.	Reduces duplication and reduces the potential for increases in netting effort.
27.	There are currently four N5 symbols and four N7 symbols. These allow very similar netting to the N2 and N1 symbols respectively.	Remove the N5 and N7 symbols and issue current holders with an N2 and N1 respectively.	Reduces duplication.
28.	There are no N8 symbols in operation.	Remove the N8 fishery symbol	There are no N8 symbols remaining.
Commercial bait netting			
29.	Currently there are 1600 N6 fishery symbols, giving access to the commercial sale of bait. The N6 was originally intended to allow commercial fishers to collect bait for their own purposes. It has since been used to target fish for sale, resulting in significantly more effort being applied to some species such as gar, for which there are sustainability concerns.	Remove the ability for fishers to harvest fish for sale under the N6 unless they can demonstrate a minimum catch history.	Significantly reduces the number of fishers who can commercially fish for bait (from 1600 to around 500), helping to protect the sustainability of bait fish such as gar.
30.		Allow all crab and line symbol holders to use N6 type nets to take fish for their own use only, and not for sale.	Allows commercial fishers to take a quantity of bait for their personal use, which has historically been considered a right as part of their broader commercial fishing licence.
General changes to commercial netting			
31.	There is currently no N10, N4 or S symbols. However, all of the activities can be undertaken under the N1 symbol which is \$215 per year. The N6 symbol is currently free.	Implement the following fees: N10 Tunnel net - \$850 N4 Offshore net – \$2,200 S Shark - \$580 N6 - \$150	Ensures the new fishery symbols adhere to the new licensing and fees structure which is based on exclusivity of access and value and volume of the product.

#	Current situation	Amendment	Rationale
32.	Currently, waters are split into “foreshore” and “offshore”. There is currently a gap in between the two areas where there is uncertainty about what is permitted.	Change the specifications for nets used in “foreshore” waters to apply to “near-shore waters” throughout all Queensland commercial net fisheries.	The definition of foreshore waters is currently ambiguous and difficult to enforce. This will simplify the rules.
33.	Fishers are not currently allowed to pull the net into the boat with fish in it. This makes it difficult to sort the catch in rough seas.	Remove prohibition on having non-regulated fish in fishing apparatus out of water.	Reduces regulations about how fishers deal with fish that they can legally retain.
34.	Currently there are different distances from wharfs for the N1 and N2 symbols.	Improve consistency of requirements for the use of certain nets in relation to distances from wharfs.	Provides consistency.
35.	Currently marking requirements are very prescriptive, meaning fishers cannot add additional floats / lights that improve safety.	Ensure marking specifications for nets are <i>minimum</i> requirements.	Provides greater flexibility for fishers to ensure their nets are visible.
36.	There is some ambiguity currently about whether more than one net can be used at a time. The original intent of the legislation was to ensure only one symbol is used at the same time.	Clarify that only one net can be used at a time under any net symbol (other than near-shore and river set nets under the N2), and that nets cannot be used under more than one symbol at a time.	Removes uncertainty.
37.	Currently, fishers are not permitted to use bycatch reduction devices, as they are not “prescribed apparatus”. This stifles innovation.	Allow for the use of a recognised bycatch reduction device in any commercial fishing net.	Promotes responsible fishing practices and encourages development of innovative fishing technologies that reduce bycatch.
Protected species (Dugong Protection Areas–DPAs)			
38.	The only place that a GP can’t be drifted is offshore. The original intent of the DPAs was to restrict higher risk nets such as drift nets.	Clarify that a general purpose mesh net that can be used in DPA zones cannot be allowed to drift freely.	Removes uncertainty. Provides protection for dugong from drift nets.
Closures			
39.	The current closure is unclear.	Clarify the closure to recreational netting in Rodds Harbour.	Removes uncertainty.
40.	The current closure is unclear and the area is subject to significant sand movement.	Clarify the commercial netting closure in Burdekin River.	Removes uncertainty.
Quota managed species			
41.	A 150 fish limit is currently in place for commercial line fishers. It was originally introduced to help flatten the	Remove the 150 fish in-possession limit for spotted mackerel line fishers	Removes unnecessary restrictions and allows the TAC to be more fully utilised.

#	Current situation	Amendment	Rationale
	catch and ensure the Total Allowable Catch (TAC) was not reached. The TAC has never been reached since it was introduced.		
42.	Commercial ring netting for spotted mackerel was banned in 2002. Since then, net fishers have been restricted to 15 fish in possession. Given the TAC has never been reached, and fishers sometimes have to discard dead fish, it is proposed that this be increased.	Increase the net caught incidental limit for spotted mackerel to 50 and introduce a trigger point at 100 t, at which point the possession limit would revert back to 15 fish.	Allows for net fishers to retain slightly more spotted mackerel <i>when taken incidentally</i> . The prohibition on ring netting for spotted mackerel will be maintained and the integrity of the TAC will not be compromised.
43.	If a fisher catches over 100kg of tailor it must be reported against the quota. Few fishers catch more than this, so most of the catch is considered “incidental”, making it hard to properly monitor the TAC.	Tailor incidental limit to be reduced from 100kg to 30 kg	Ensures that the TAC can be monitored properly. Does not impact on fishers (reporting change only).

Appendix 2: New rec recreational size and bag limits for species caught in the ECIFFF, to commence 1 March 2009.

Species	Current size limit	Current bag limit	Final size limit	Sector size limit applies to	Final bag limit	Region taken	Comments
Amberjack	no limit	no limit	75 cm	Rec / Comm	Combined bag limit of 2 for amberjack and samsonfish	SEQ	No limit currently. Will bring it up to size at maturity.
Barramundi	58-120 cm	5	58-120 cm	Rec / Comm	5	NQ	No change. Consideration was given to increasing to 60 cm to bring in line with the Gulf, but there was little biological need, and east coats fishers indicated they are satisfied with the current limit.
Barred javelin (spotted grunter)	30 cm	no limit	40 cm	Rec	10	NQ	Matures between 40 and 45 cm. The increased size limit will protect the sustainability of this key northern recreational species. A reasonable bag limit will prevent black marketing which is an issue with this species.
Black jewfish	45 cm	10	75 cm	Rec / Comm	2	NQ	Current limit is significant below size at maturity (approx 85 cm). Bag limit of 2 is consistent with other large fish.
Blackspotted rockcod (estuary cod)	35-120 cm	no limit	38-120 cm	Rec / Comm	5	NQ	A 38 cm minimum size limit will be consistent with all other cods and will bring it closer to size at maturity (40 cm).
Blue threadfin (salmon)	40 cm	no limit	40 cm	Comm / Rec	10	NQ	Threadfins change sex, similar to barramundi. The current size limit protects mature males, which then become female at around 60 cm.
Cobia (black kingfish)	75 cm	10	75 cm	Rec	2	SEQ	The bag limit of 2 is consistent with other large fish.
Diamondscale mullet	no limit	no limit	30 cm	Rec	20	All	A 30 cm size limit is equivalent to size at maturity. The bag limit prevents excessive catches for bait.

Species	Current size limit	Current bag limit	Final size limit	Sector size limit applies to	Final bag limit	Region taken	Comments
Dusky flathead (mud flathead)	40-70 cm	5	40-75 cm	Rec / Comm	5	SEQ	The increase in the maximum size limit will have a positive impact on fishers, and recognises the positive impacts the slot size limit has had on the stock since it was introduced in 2003.
Flathead (apart from dusky flathead)	30 cm	no limit	30 cm	Rec / Comm	5	SEQ	Sand and bar tailed flathead are smaller than dusky and mature at a smaller size. The two species have been grouped to avoid identification problems.
Garfish	no limit	no limit	no limit	Rec / Comm	50	All	There are concerns about the sustainability of garfish and the excessive catches taken for bait. The bag limit will help address this issue. The commercial sector is being limited through licensing changes for bait netting.
Giant queenfish	no limit	no limit	50 cm	Rec	5	NQ	A number of species of queenfish are taken in the fishery and mature at different sizes. The giant queenfish is an important recreational target species and matures at around 70cm. The 50cm limit will prevent significant catches of juveniles.
Golden snapper (fingermark)	35 cm	10	35 cm	Rec	5	NQ	Fingermark are part of a suite of species that live in rivers and creeks and then migrate offshore to spawn (when they reach 65cm). A 65cm limit would prevent most fishing for the species. A research project is currently being developed to investigate the best management strategy for these types of species. In the meantime, a smaller bag limit is being applied.
Goldenline whiting	23 cm	no limit	23 cm	Rec / Comm	combined bag limit of 30 for all whiting except winter	All	Goldenline whiting mature at around 20-21cm. There is no biological need to increase the size limit, but a reasonable bag limit of 30 is being introduced to limit excessive catches.

Species	Current size limit	Current bag limit	Final size limit	Sector size limit applies to	Final bag limit	Region taken	Comments
Goldspotted rockcod (estuary cod)	35-120 cm	no limit	38-120cm	Rec / Comm	5	NQ	A 38 cm minimum size limit will be consistent with all other cods and will bring it closer to size at maturity (40 cm).
Grass emperor (grass sweetlip)	30 cm	no limit	30 cm	Rec	10	SEQ	The size limit is currently above size at maturity. The bag limit of 10 is consistent with other sweetlips in the reef fishery.
Grey mackerel	50 cm	10	60 cm	Comm	5	NQ	Males mature at around 65 cm and females 75 cm. A 60 cm limit will bring it closer to maturity. A mesh size change is being made in the net fishery to support this.
King threadfin (salmon)	60 cm	10	60 cm	Comm / Rec	5	NQ	The 60 cm size limit allows males to mature, and also gives males an opportunity to change sex. A smaller bag limit is consistent with barramundi which is biologically quite similar.
Luderick	23 cm	no limit	30 cm	Rec / Comm	10	SEQ	A size limit of 30 cm will allow fish to reach maturity before being caught. A bag limit of ten will reduce excessive catches and localised depletion.
Mahi mahi (dolphin fish)	45 cm	no limit	60 cm	Rec	5	SEQ	Mahi mahi mature at around 45-50 cm, however, this is based on overseas information. A 60 cm limit will be consistent with NSW and will ensure better quality fish for recreational fishers.
Mangrove jack	35 cm	5	35 cm	Rec	5	All	Mangrove jack are part of a suite of species that live in rivers and creeks and then migrate offshore to spawn (at around 65 cm). Research is currently underway into the best management strategy for these species.
Mulloway	45 cm	10	75 cm	Rec / Comm	2	SEQ	Mulloway mature at around 75 cm. There are concerns about overfishing in NSW, and mulloway in Qld are likely to be part of the same stock.

Species	Current size limit	Current bag limit	Final size limit	Sector size limit applies to	Final bag limit	Region taken	Comments
Northern whiting	no limit	no limit	23 cm	Rec	combined bag limit of 30 for all whiting except winter	NQ	Northern whiting mature at around 20-21 cm. There is no biological need to increase the size limit, but a reasonable bag limit of 30 is being introduced to limit excessive catches.
Pikey bream	23 cm	no limit	25 cm	Rec	Combined bag limit of 30 for yellowfin and pikey	SEQ	Yellowfin, pikey bream and tarwhine limits will be combined for identification purposes. No information is available on pikey bream maturity, but it is likely to be around 25 cm.
Samsonfish	no limit	no limit	75 cm	Rec / Comm	Combined bag limit of 2 for amberjack and samsonfish	SEQ	No maturity information available, but thought to be similar to amberjack (75 cm).
Sand whiting	23 cm	no limit	23 cm	Rec / Comm	combined bag limit of 30 for all whiting except winter	SEQ	Consideration was given to increasing to 25 cm. Research suggests that this would increase rec and commercial yields in the longer term. However, industry could not accept the short term impacts. Most fish already have an opportunity to spawn prior to capture at 23 cm.
School mackerel	50 cm	30	50 cm	Comm / Rec	10	All	School mackerel mature at 51 cm so there is no need to amend the size limit. The new bag limit is more consistent with other similar sized fish.
Sea mullet	30 cm	no limit	30 cm	Comm / Rec	20	SEQ	The current size limit is set at the size at maturity. A bag limit of 20 will reduce excessive catches for bait.
Shark mackerel	50 cm	no limit	50 cm	Comm / Rec	10	All	Thought to have similar biological characteristics to school mackerel. Bag limit of 10 will prevent excessive catches for bait.

Species	Current size limit	Current bag limit	Final size limit	Sector size limit applies to	Final bag limit	Region taken	Comments
Sharks and rays	no limit	no limit	1.5 m max	Comm / Rec	1	All	There is significant concern about shark sustainability. To address this, a package of measures is being introduced. One of the key measures is to protect larger breeding sharks that contribute significantly to the population. A 1.5 m maximum size limit will be applied to the recreational and commercial sector. A restrictive bag limit of 1 will reduce the significant recreational catch.
Silver javelin (small spotted grunter)	30 cm	no limit	30 cm	Rec	10	NQ	The current size limit is set around the size at maturity. A bag limit of 10 will help prevent black-marketing, which is an issue for this species.
Spotted mackerel	60 cm	5	60 cm	Comm / Rec	5	Central and SEQ	The size limit is set above the size at maturity (58 cm). The bag limit was amended in 2003 and remains appropriate.
Swallowtail dart	no limit	no limit	30 cm	Rec / Comm	30	SEQ	Size at maturity is 35cm. However applying this size limit would potentially lead to significant bycatch in the ocean beach fishery. A 30cm limit helps protect most juveniles, but reduces the number of discards. A bag limit of 30 will prevent excessive catches.
Tailor	30 cm	20 (extended limit for Fraser)	35 cm	Rec / Comm	20	SEQ	A recent stock assessment for tailor indicated that the fishery is reliant on 1 and 2 year old fish and recommended a 40 cm size limit. The size limit is proposed to be 35 cm as this would protect at least half the 1 year olds and will reduce amount of bycatch in the commercial fishery.
Tarwhine	23 cm	no limit	25 cm	Rec / Comm	30	SEQ	Yellowfin, pikey bream and tarwhine limits will be combined for identification purposes. No information is available on tarwhine maturity, but it is likely to be around 25 cm.

Species	Current size limit	Current bag limit	Final size limit	Sector size limit applies to	Final bag limit	Region taken	Comments
Trevally	no limit	no limit	no limit	Rec / Comm	20	All	There are a wide range of trevallies taken by fishers, with varying size limits. A single size limit was not considered appropriate, so instead, a reasonable bag limit is being applied.
Trumpeter whiting (winter whiting)	no limit	no limit	no limit	Rec	50	SEQ	Winter whiting mature at 20 cm. A size limit is not considered necessary. A bag limit of 50 will reduce excessive catches taken in some areas.
Wahoo	75 cm	10	75 cm	Rec / Comm	2	All	Wahoo mature at around 100 cm. To be consistent with the similar looking Spanish mackerel, the 75 cm limit is being maintained. A smaller bag limit of 2 is consistent with other large pelagic species.
Yellowfin bream	23 cm	no limit	25 cm	Rec / Comm	Combined bag limit of 30 for yellowfin and pikey	SEQ	A proportion of yellowfin bream change to females part way through their life. The current 23 cm limit does not provide adequate protection for female fish. A 25 cm will be consistent with NSW. A phase in period will be applied to the commercial sector to allow for adjustment to the new limit.
Yellowtail kingfish	50 cm	no limit	60 cm	Rec / Comm	2	SEQ	The change in size limit will bring it in line with size at maturity (60-65 cm). The bag limit is consistent with other large pelagic species.
Wolf herring	no limit	no limit	no limit	Rec / Comm	10	NQ	Wolf herring is a highly prized bait fish for Spanish mackerel. The bag limit will prevent black-marketing for this species.

