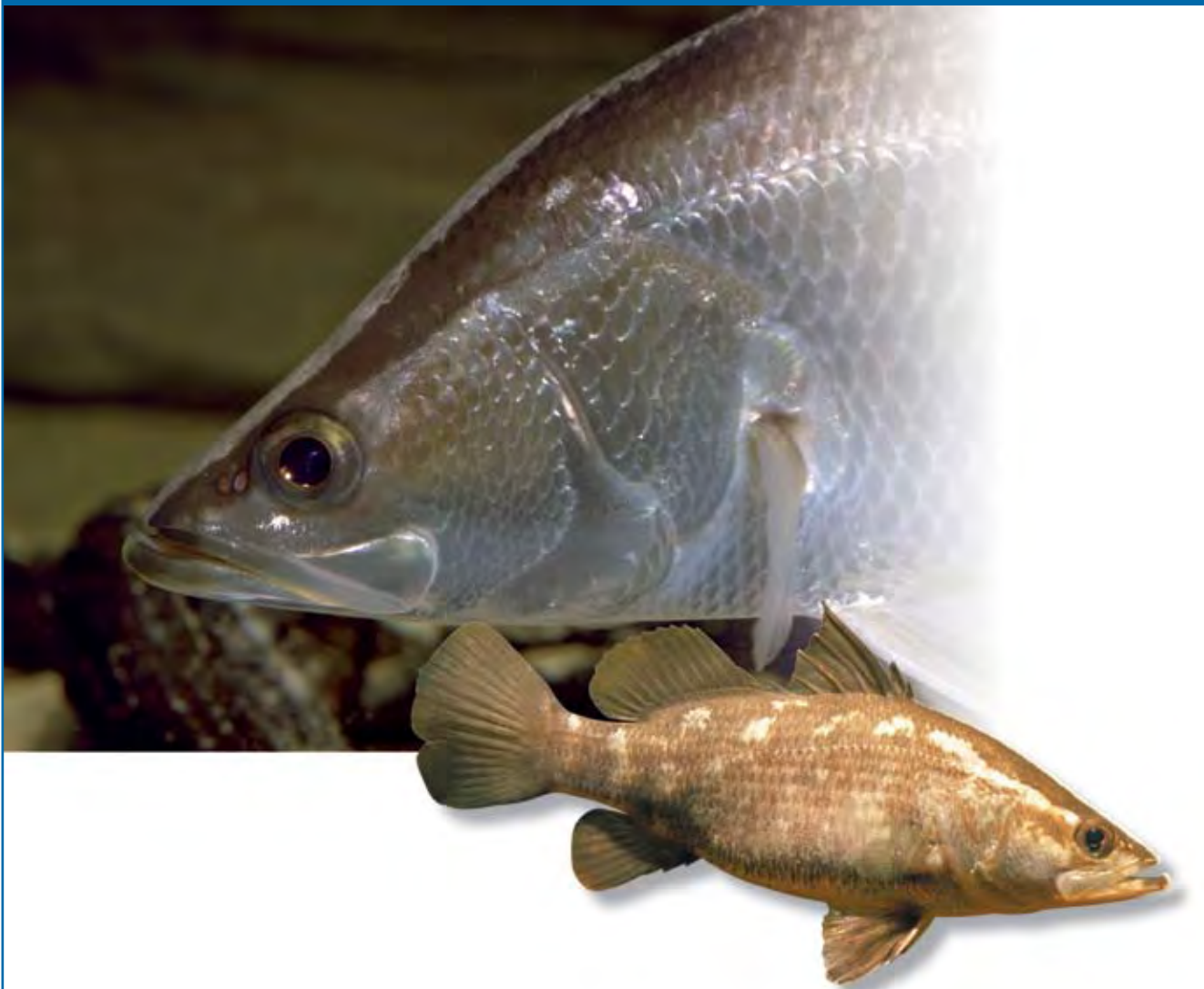


Annual status report

East Coast Inshore Finfish Fishery

November 2006



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Introduction -

The East Coast Inshore Finfish Fishery (ECIFF) is Queensland's third most valuable commercial fishery. A variety of different net fishing methods are used, with some species taken by hook and line. Commercial operations occur in inshore coastal and estuarine waters adjacent to Queensland's east coast.

The species targeted vary between tropical and subtropical regions. Some of the commercially targeted species include mullet, shark, whiting, bream, tailor, small mackerel, threadfins and barramundi. Mullet roe, shark and small mackerel products are exported. A range of other tropical and temperate species are harvested as byproduct, including garfish, queenfish, flathead, trevally and dart.

Target species groups for recreational fishers in the ECIFF include whiting, bream, trevally, flathead, tailor, barramundi and small mackerels. Recreational fishers typically catch these species by hook and line.

Indigenous fishers seasonally target a wide variety of species for their palatability and nutritional value and for cultural purposes.

This report describes the ECIFF for the 2005 calendar year.

Fishery profile 2005 -

Commercial harvest: Approximately 5437 t

Recreational harvest: In 2002 approximately 3826 t harvested and 5838 t released

Indigenous harvest: No estimate available

Charter harvest: Approximately 150 t harvested and 119 t released

Commercial Gross Value of Production (GVP): Approximately \$23 million

Number of licences: 499 net fishery symbols, 1649 line fishery symbols (at 30 June 2005)

Commercial boats accessing the fishery: 452 net boats and 367 line boats (reporting catch of ECIFF species)

Fishery season: Annual seasonal closures apply to barramundi fishing between 1 November and 1 February. A general seasonal fishing closure applies off southern Queensland to nearshore waters between Indian Head and Waddy Point, Fraser Island, from 1 August to 30 September

Description of the fishery

Fishing methods

The ECIFF is a multi-species fishery with commercial operators targeting a range of finfish 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 size meeting market demand for fillet and whole product.

Recreational gear includes cast, small seine (bait) nets, and hook and line.

Indigenous fishers use traditional subsistence fishing methods for customary purposes to supply product solely for community use; they also use recreational fishing practices to catch ECIFF species. Traditional fishing methods include the use of spears, stone fish traps and nets.

Fishery area -

The ECIFF area includes all tidal waters along Queensland's east coast eastward of 142°09' E, near Crab Island (approximately 11° S), to the Queensland–New South Wales border (approximately 153°34' E, 28°10' S) (Figure 1). To operate legally in the ECIFF, commercial fishers must hold a primary commercial fishing vessel licence endorsed with the appropriate N or K (commercial net fishing) or L (commercial line fishing) fishery symbols (Figures 1, 2 and 3).¹

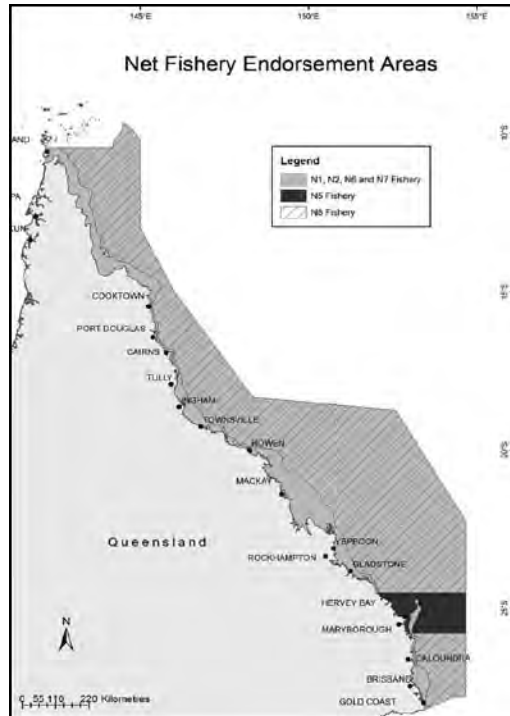


Figure 1: ECIFF net fishery areas.

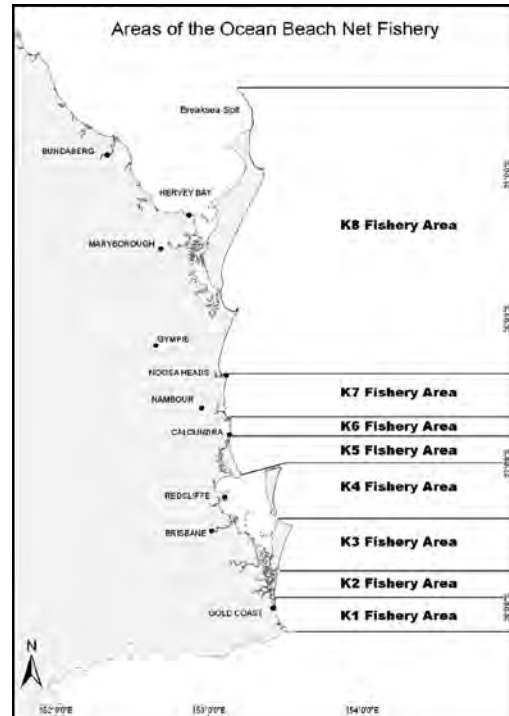


Figure 2: ECIFF ocean beach fishery areas.

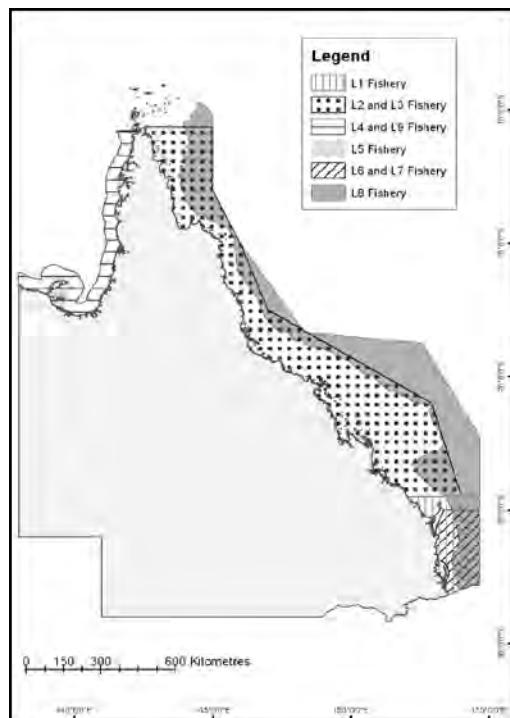


Figure 3: ECIFF line fishery areas.

¹K licence symbols allow commercial netting along southern Queensland ocean beaches in areas specified under the Queensland Fisheries Regulation 1995.

The number of nets permitted, and their mesh size and length, varies according to the species being targeted and whether the fisher is operating in nearshore or offshore waters. Permitted line fishing gear is also prescribed under the Fisheries Regulation.

Main management methods used

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

- limits on the type of nets that can be used, their length and mesh size
- minimum legal size limits for many species and maximum size limits for some
- competitive commercial Total Allowable Catch for tailor and spotted mackerel
- commercial daily quota for spotted mackerel
- recreational bag limits for popular angling species
- permanent and seasonal closures.

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

Approximate allocation between sectors

The ECIFF includes many species of recreational significance. For several species the estimated annual recreational catch is greater than the commercial catch.

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

A short-term Wildlife Trade Operation (WTO) approval (6 months) was granted for the ECIFF under the Commonwealth EPBC Act on 1 May 2006. Another approval from the Department of the Environment and Heritage (DEH) will be required if product from the fishery is to be exported after this WTO expires on 30 November 2006.

Catch statistics

Commercial

Commercial catch and effort information is provided to DPI&F by fishers through compulsory daily logbooks.

The 2005 harvest estimates for species catch groups decreased compared to the estimates for 2004 (Table 1). Comparatively, effort also declined (Figure 4). The closure of additional inshore waters to fishing as part of the rezoning of the Great Barrier Reef Marine Park in July 2004 and the subsequent buyout of 59 active net fishing licences under the structural adjustment package is likely to have impacted on the catch and fishing effort.

Table 1: Species group composition in the ECIFF, 1990–2005.

Year	Harvest (t)					
	Barramundi, threadfin salmon and trevally	Bream, whiting and flathead	Mullet	Shark	Other	Total
1990	537	1427	2260	313	1099	5637
1991	668	613	1764	301	914	4260
1992	578	544	2577	367	1152	5217
1993	657	496	1432	519	1329	4433
1994	661	413	1734	491	959	4259
1995	606	505	2307	565	1019	5001
1996	616	493	2012	587	1264	4970
1997	684	610	1507	618	1571	4991
1998	765	548	2272	721	1428	5734
1999	714	567	2513	766	1298	5859
2000	794	612	1844	1120	1663	6035
2001	777	591	2703	1257	1727	7055
2002	721	554	1805	1292	1419	5791
2003	1051	567	2152	1527	1697	6993
2004	1161	719	2278	1319	1655	7131
2005	854	651	1637	919	1376	5437

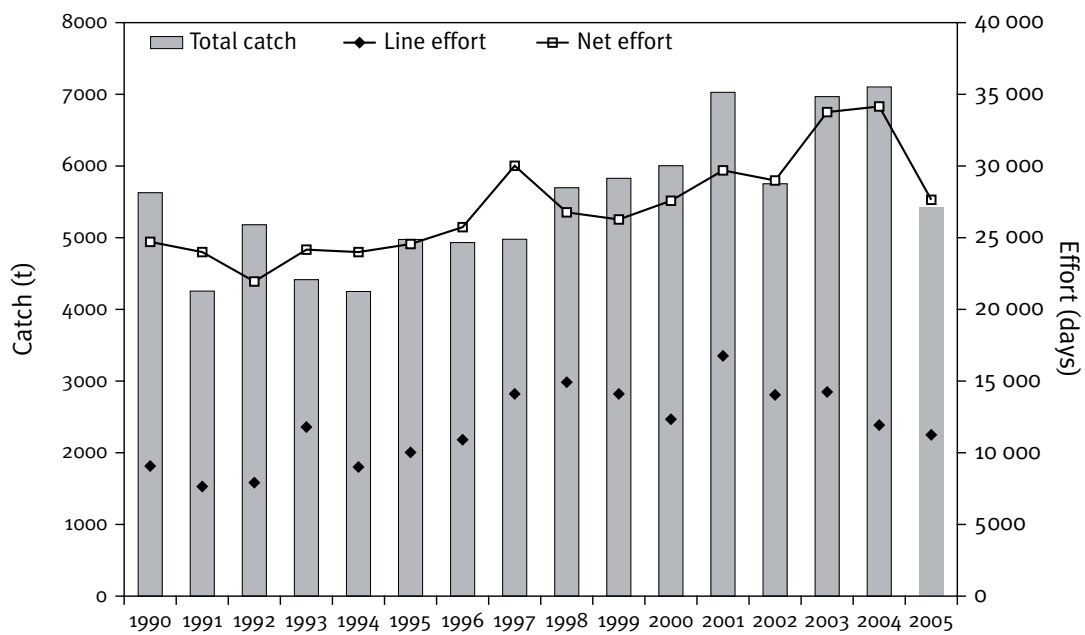


Figure 4: Total estimated catch and effort for the ECIFF.

An analysis of the species composition shows that mullet continues to be the major commercial species harvested in the ECIFF, particularly in southern Queensland (Figure 5).

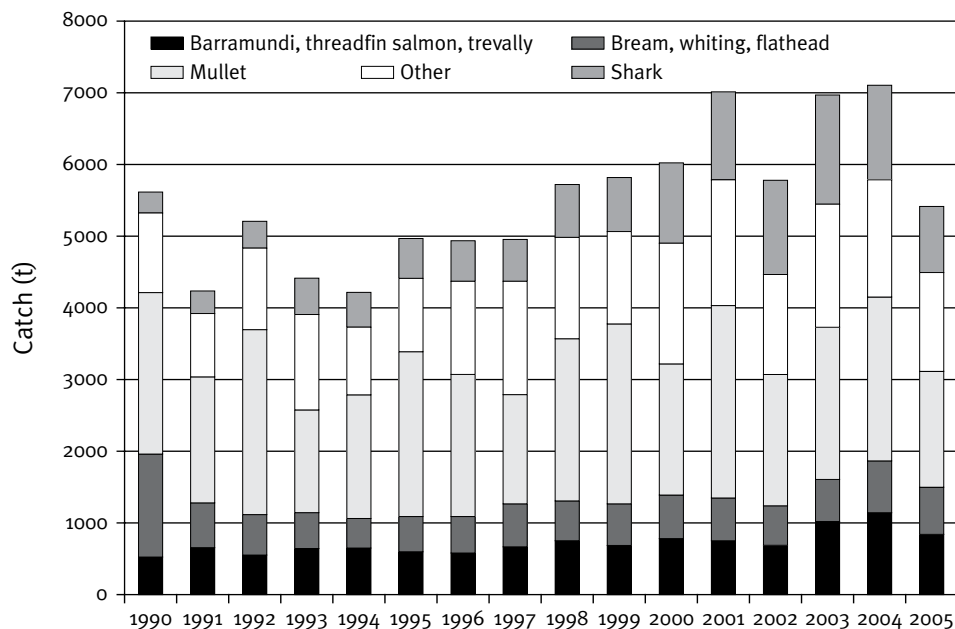


Figure 5: Species group composition, 1990–2004.

Recreational

Table 2 shows the estimated recreational catch of ECIFF species based on data provided by the Recreational Fishing Information System (RFISH) diary surveys conducted in 1997, 1999 and 2002. This table also highlights the large number of fish that are released and not actually harvested by recreational fishers.

Table 2: Species group harvest and release estimates from the RFISH diary surveys.

Species Group	1997		1999		2002	
	Harvest (t)	Release (t)	Harvest (t)	Release (t)	Harvest (t)	Release (t)
Barramundi	186	599	320	840	171	543
Bream	530	994	517	780	412	839
Dart	n/a	n/a	160	162	122	160
Flathead	133	141	113	86	96	149
Grunter	n/a	n/a	n/a	n/a	131	269
Mackerel—Grey	*18	*4	10	3	3	1
Mackerel—School	*145	*110	120	56	74	51
Mackerel—Shark	*6	*3	2	0.2	7	2
Mackerel—Spotted	*485	*99	159	37	97	39
Mangrove jack	n/a	n/a	116	121	107	137
Mullet	n/a	n/a	n/a	n/a	507	24
Shark	n/a	n/a	n/a	n/a	212	1750
Tailor	320	87	163	61	182	94
Threadfin	n/a	n/a	n/a	n/a	93	60
Trevally	**915	**1371	1174	1160	868	1171
Whiting—Winter	*767	*303	400	93	206	46
Whiting—Summer	*109	*189	109	74	92	128
Whiting—Unspecified	n/a	n/a	325	261	447	376
Total	***3614	***3901	***3688	***3735	3826	5838

*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

The charter harvest of ECIFF species has increased steadily since logbooks were introduced in 1996. The proportion of fish harvested relative to the number released has also increased in the past four years (Figure 6). Figure 7 indicates the primary ECIFF species caught by the charter sector in 2005.

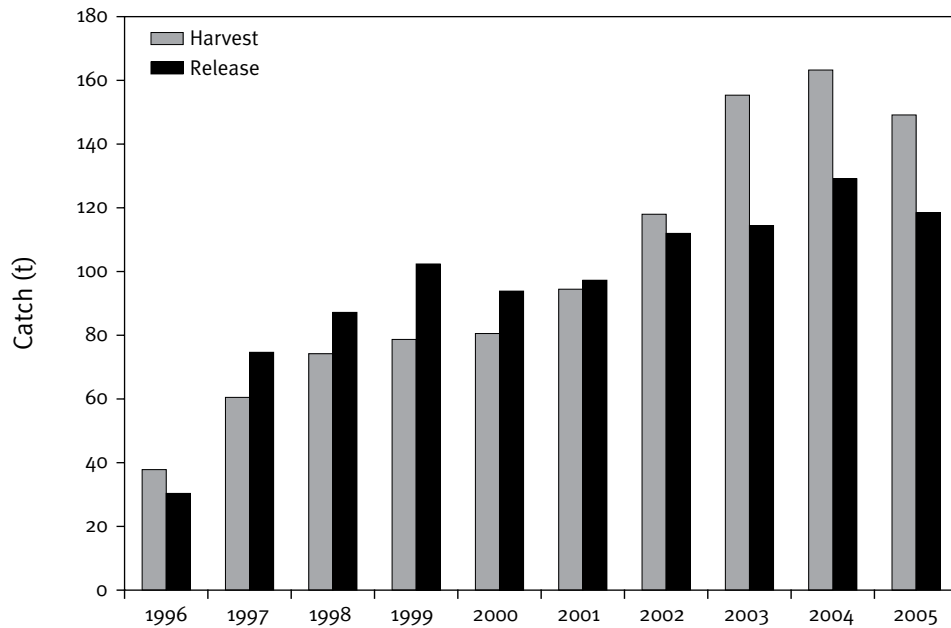


Figure 6: Charter harvest and release estimates in the ECIFF, 1996–2005.

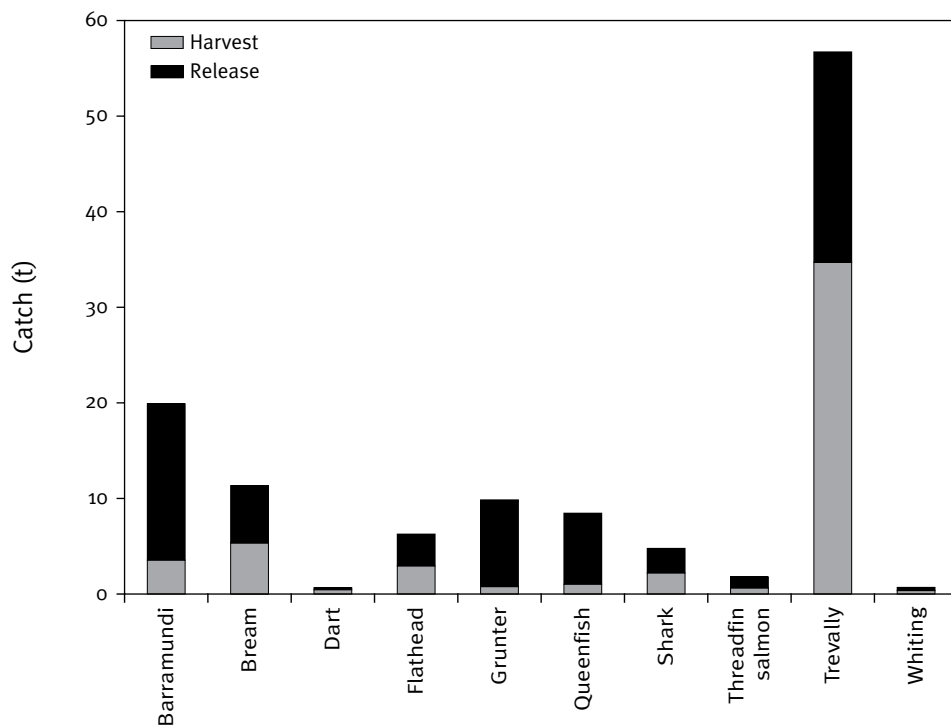


Figure 7: Estimated catch of popular ECIFF species by charter fishers in 2005.

Indigenous

There are no estimates available of inshore finfish catches by Indigenous fishers within the ECIF area for 2005. Limited information is available on Indigenous fish catches throughout the northern part of the fishery area from the National Recreational and Indigenous Fishing Survey (NRIFS 2003).²

Spatial issues/trends

The commercial mullet harvest takes place mainly in the south-east region of Queensland, from Bundaberg to the New South Wales border. The harvest of bream, whiting and flathead remains concentrated in the Fraser-Burnett area. The harvest of these species has remained fairly constant over recent years. The spatial trend in harvest for barramundi, threadfin salmon and trevally (Figure 8) indicates a concentration around the Cairns and Townsville areas and slightly increasing catches in the Fraser-Burnett region. The spatial trend of shark harvest (Figure 9) shows a reduction in take in northern regions from the Mackay area northwards and a slight increase in harvest in the Fraser-Burnett region.

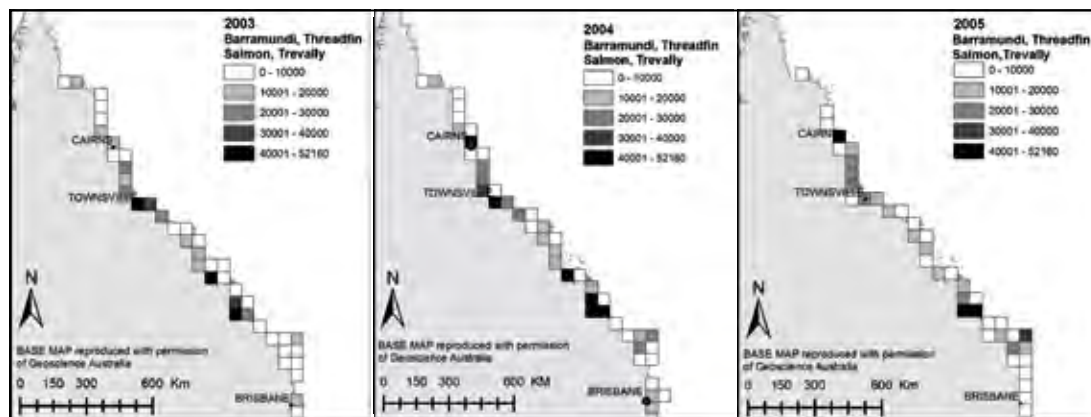


Figure 8: Commercial harvest (kg) spatial trend for barramundi, threadfin salmon and trevally, 2003–05.

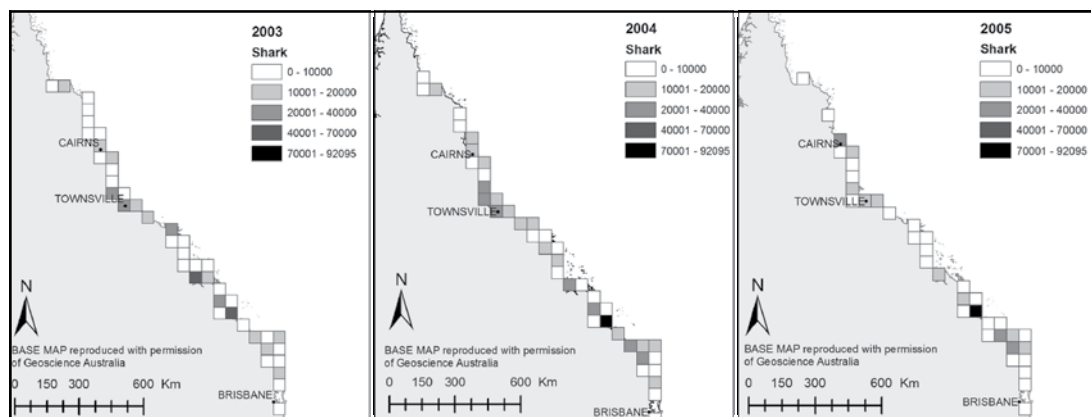


Figure 9: Commercial harvest (kg) spatial trend for shark, 2003–05.

² Henry, GW & Lyle, JM 2003, *The National Recreational and Indigenous Fishing Survey*, FRDC Project No. 99/158, Australian Government Department of Agriculture, Fisheries and Forestry, Canberra.

Socioeconomic characteristics and trends

The gross value of production (GVP) has fluctuated between \$20 million to \$30 million since 1990 (Figure 10). The sharp decrease of GVP in 2005 (although still within the \$20 million to \$30 million range) may have resulted from the closure of inshore waters to fishing as part of the rezoning of the Great Barrier Reef Marine Park in July 2004 and the subsequent removal of 59 active net fishing licences under the structural adjustment package.

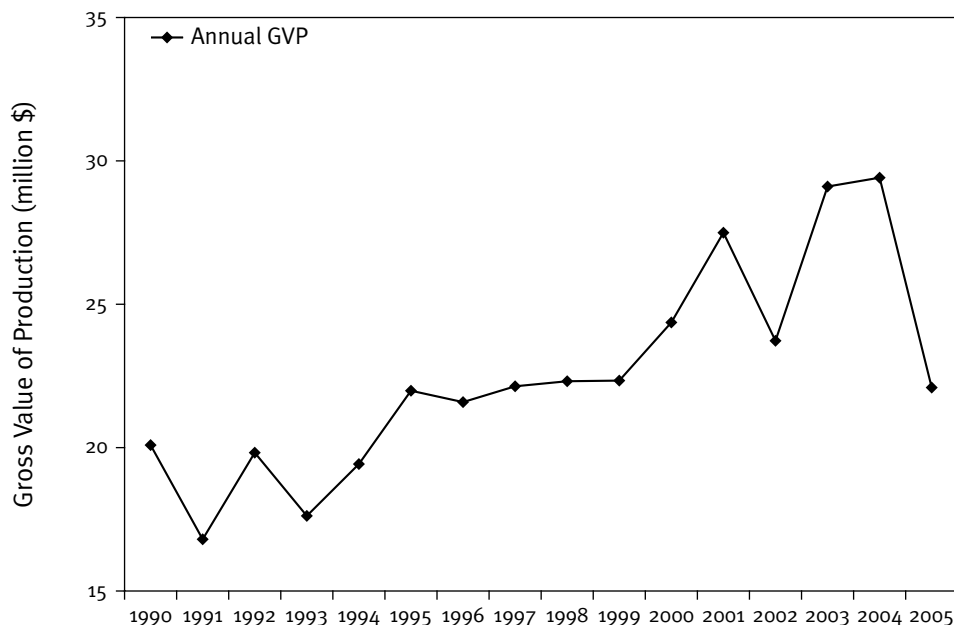


Figure 10: Annual gross value of production (GVP) figures (A\$), 1990–2005.

Fishery performance

Appraisal of fishery in regard to sustainability

The ECIFF is managed using a variety of input and output controls (e.g. limited licences, gear restrictions, permanent and seasonal closures, size and bag limits and competitive Total Allowable Catches for some species) and is regarded as being managed in a precautionary and sustainable manner. There are some concerns for the sustainability of certain species of sharks that take a long time to mature, give birth to few young and live to an old age. Increased catches over recent years have resulted in the issue of an investment warning for fishers, advising against any further expansion of fishing effort towards shark.

A management plan for the ECIFF is currently being developed, and is expected to be implemented in 2007. Other aspects of the management regime applying to the ECIFF that have changed recently involve the re-zoning of the Great Barrier Reef Marine Park (GBRMP) in mid-2004 with significant areas closed to both commercial and recreational fishing, complementary state Marine Park zoning and changes to the fisheries licensing system. In addition reporting arrangements for tailor and spotted mackerel quotas have been changed so that they are less onerous for fishers to comply with and more efficient for DPI&F to administer.³

³ Quota monitoring of these species has moved from the fisher phoning DPI&F to report the catch prior to landing to reporting through the logbook within 14 days.

Progress with meeting conditions on the DEH Wildlife Trade Operation approval

Conditions	Progress
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 1995.	<i>Ongoing</i> The ECIFF is currently being managed in accordance with the Queensland <i>Fisheries Act 1994</i> and the Fisheries Regulation 1995.
The Department of Primary Industries and Fisheries, Queensland (DPI&F) to inform the Department of the Environment and Heritage (DEH) 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>Ongoing</i> The Policy for the Elimination of Excess Fishing Capacity in Queensland's East Coast Net Fisheries was implemented by DPI&F over 12 months from June 2004. DEH has been informed of the changes to management arrangements associated with the implementation of the new fisheries licensing and fees system in July 2006. Reporting arrangements for tailor and spotted mackerel quotas have changed recently. Changes to licensing arrangements now allow increased flexibility in movement of fishery symbols between licences (though restrictions apply).
DPI&F to continue the development of a formal management 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.	<i>In progress</i> DPI&F has commenced a consultation process for the development of a management plan for the ECIFF, expected to be implemented during 2007. This process includes development of a performance measurement system, scheduled to be implemented in association with the proposed management plan.
DPI&F to initiate a program for stock assessments for species taken in the fishery and based on priorities established through a risk assessment analysis.	<i>Completed</i> An expert working group was convened to review stock assessment priorities. A planned schedule of stock assessments for 2006–09 is shown in Appendix 1. The stock assessments are supported by an expanded suite of monitoring programs in the fishery (Recreational Fishing Information System, Long Term Monitoring Program and observers).
DPI&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 30 November 2006.	<i>Required by 30 November 2006</i>

Management performance

A performance measurement system (PMS) for the ECIFF will be developed and implemented in consultation with stakeholders as part of the development of the management plan in 2007.

Quantitative stock assessments have been conducted on a number of the target species in the fishery, including tailor, mullet and spotted mackerel.

An expert working group was convened to assess priority species for future stock assessments on the basis of risk. The planned schedule of stock and risk assessments for the ECIFF for 2006–09 is shown in Appendix 1.

Resource concerns

There is a high diversity of species taken in the ECIFF and DPI&F is concerned at the lack of information on the status for some of these species. As resources allow, stock and risk assessments for additional species, as well as additional biological research, are being undertaken and the information gained will be incorporated into future management arrangements.

There is concern over the sustainability of the current harvest levels of shark species given the longevity and low reproductive output of some species. The lack of information on the species taken by fishers is being addressed through the fishery observer program and additional research. Specific measures to manage the harvest of shark and ray species sustainably are being considered as part of the development of the management plan.

Ecosystem

Non-retained species/bycatch

The level of bycatch in the ECIFF 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.

Halliday et al.⁴ found that bycatch in east coast commercial netting operations for mullet, whiting, small mackerels, barramundi and mixed estuary species was 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 when sand whiting was targeted; in this case, bycatch accounted for 28% of the total catch (in terms of numbers).

Interactions with protected species

In 2003, a Species of Conservation Interest logbook (SOI01) was introduced to record interactions with all species of conservation interest. The directions in this logbook also ensure that fishers are aware of their responsibilities to report interactions with protected species in Commonwealth waters to DEH and to the Queensland Parks and Wildlife Service where appropriate.

In the 39 085 fishing days (net and line fishing) recorded in the ECIFF in 2005, SOI data indicates that interactions with turtles were the most frequently reported interaction with a protected species (Table 3). All turtles were released alive.

Table 3: Species of Conservation Interest reported through fisher logbooks, 2005.

Species	Released alive	Dead
Cormorants	2	1
Dugongs	1	1
Green turtles	366	
Hawksbill turtles	2	
Loggerhead turtles	1	
Wide sawfish	1	
Sea snakes	17	
Marine turtles, unspecified	28	

⁴Halliday, I, Ley, J, Tobin, A, Garrett, R, Gribble, N & Mayer, D 2001, *The effects of net fishing: addressing biodiversity and bycatch issues in Queensland inshore waters*, FRDC project No. 97/206, Department of Primary Industries and Fisheries, Brisbane.

DPI&F delivered a comprehensive protected species education program to commercial and recreational fishers in August 2005, which provided advice on how to avoid or minimise interactions with a range of species, as well as how to handle the animals should an interaction occur. It also promoted more accurate reporting of interactions in fishery logbooks.

Fishery dependent logbook and observer data on incidental catches of protected species in the ECIFF were reported by Halliday et al.⁵, adding a further perspective on protected species interactions. In that study, turtles were also the most frequently reported protected species group in the discards from 263 net shots reported in a voluntary logbook program and from 279 net shots recorded by onboard observers. Other protected species interactions recorded in this study included sea snakes, cormorants, sawfish and a grey nurse shark.

Fishery impacts on the ecosystem

Commercial net fishing, recreational line fishing and Indigenous fishing activities are essentially passive fishing methods that have minimal negative effect on the ecosystem and the more general environment. Commercial net fisheries target high-order predator fish species and use highly selective fishing gear types and methods that incidentally catch small amounts of bycatch species.

Due to the low levels of discards and intermittent nature of net fishing, there is limited potential for discards to provide additional food resources for marine species. Discards would only be a small and interrupted food source for opportunistic scavenging species, and long-term changes in densities of these species as a result are unlikely.

Other ecosystem impacts

Two introduced and ecologically damaging pest fish species, *Tilapia mariae* and *Oreochromis mossambicus*, have caused considerable damage to ECIFF river catchments. Collectively known as tilapia, these declared noxious fish species can degrade natural freshwater and coastal river and stream habitats and aggressively displace native fish species. Although restricted to freshwater and brackish environments, tilapia have the potential to impact negatively on important ECIFF species, such as barramundi, that rely on these habitats for food or other critical parts of their lifecycle. The Invasive Animals Cooperative Research Centre is funding a DPI&F project in north Queensland that will develop management strategies for the control and eradication of feral tilapia populations in Australia. The project will finish at the end of 2008.

Ghost nets

Ghost fishing from discarded nets has an adverse impact on marine wildlife. DPI&F is participating in efforts by the Australian Government to quantify and address the risk of incidental capture posed to marine fauna by harmful marine debris. Sources of harmful marine debris as a key threatening process under the EPBC Act were identified at multi-jurisdictional workshops in Brisbane and Adelaide in 2004.⁶ Avoiding the unintentional discard of fishing lines and nets and the disposal of waste are key points in the codes of practice and the codes of conduct developed by both the commercial and recreational fishing industries to protect habitats and aquatic biodiversity.⁷

⁵ *ibid.*

⁶ Department of the Environment and Heritage, 2004, *Marine Debris Threat Abatement Plan Workshop report*, Australian Government, Department of the Environment and Heritage, Canberra.

⁷ For example, Environmental Management System developed by Mackay Net Fishers in association with Queensland Seafood Industry Association, Recfish Australia and the Australian Seafood Industry Council, 2001.

Research and monitoring

Recent research and implications

Findings from the Queensland and New South Wales sea mullet (*Mugil cephalus*) stock assessment⁸ have shown the stock has been heavily exploited since the fishery's introduction more than 100 years ago. Recruitment to the ECIF is highly variable and appears to have dropped in 1993 and has not yet fully recovered despite reasonably constant catch rates. Estimates of current biomass could not be determined with any certainty but it was considered likely that biomass was less than 60% of unfished levels.

Results from the 2004 stock assessment conducted for Queensland and New South Wales tailor stocks⁹ suggest that the population is heavily exploited with both exploitable biomass and egg production having declined an estimated 50% from the 1970s. Two-year-old tailor appear to have become smaller over time; the explanation for this is unknown. There are two hypotheses that may explain this trend:

- selectivity of predominantly larger one-year-old fish; the one-year-old fish that survive fishing would be small and grow into small two-year-old fish the following year
- a genetic change towards smaller fish.¹⁰

The assessment found no evidence that fishing at current levels had affected recruitment. Measures to enhance the management of the commercial catch include a competitive Total Allowable Catch, introduced in 2002, and a Fraser Island tailor netting ban, introduced in 2003.

Monitoring programs and results

Compulsory logbook program

Commercial fishery catch and effort information for the ECIF continues to be monitored through the compulsory daily logbook program (CFISH). The development of a new net fishery logbook to improve the species resolution of catch and effort recording in the ECIF is being considered as part of the development of the management plan.

Recreational fishery monitoring

Recreational Fishing Information System (RFISH) diary surveys were conducted during 2005. Data from these catch surveys is being analysed to produce statewide and regional estimates of catches of major species and species groups and the results will be available later in 2006.

DPI&F is currently designing regional surveys to provide more detailed information on the recreational fishery catch of key inshore finfish species. A workshop was held with scientists from other jurisdictions and stakeholders in late April 2006 to discuss appropriate survey methods. A combination of boat ramp and roving creel surveys is being developed and will be trialled in South East Queensland in 2006–07. It is intended that similar surveys will be undertaken in other regions in subsequent years, to complement future statewide RFISH surveys.

⁸ Bell, PA, O'Neill, MF, Leigh GM, Courtney AJ & Peel, SL 2005, *Stock assessment of the Queensland–New South Wales sea mullet fishery* (*Mugil cephalus*), Department of Primary Industries and Fisheries, Brisbane.

⁹ Leigh, GM & O'Neill, MF 2004, *Stock assessment of the Queensland–New South Wales tailor fishery* (*Pomatomus saltatrix*), Department of Primary Industries and Fisheries, Brisbane.

¹⁰ *ibid.*

Long Term Monitoring Program

The DPI&F Long Term Monitoring Program (LTMP) provides data to complement the information obtained from logbooks and recreational fishing diaries for various Queensland fisheries. The LTMP data includes age and length composition of the catch and supplementary data provided by fishers in stock assessments. A number of species taken in the ECIFF are currently being monitored, including barramundi, tailor, mullet and spotted mackerel.

The LTMP results from the 2000–02 barramundi surveys have recently been published¹¹ and have shown that the age–length relationship for barramundi is highly variable both within a river system and between rivers, indicating that size is not a good indicator of age in barramundi and that growth rates of individual fish are highly variable. Although there is only limited data presently available from these surveys, they are providing valuable information on age, size frequency and reproduction of barramundi stocks; in time, the LTMP data, along with commercial logbook and recreational diary data, will contribute to stock assessments.

LTMP data for tailor has been collected since 1999 with the majority of tailor collected being aged at one to two years old. This data showed a significant relationship between length and weight, but no difference between sexes or between regions.

LTMP surveys of spotted mackerel started in 2004 and this first year of monitoring provided baseline annual estimates of length, age and sex structure of commercial and recreational catch using a fishery-dependent sampling regime. The length structure of the catch was similar for both commercial and recreational sectors and the sex ratio was found to be highly skewed, with a scarcity of male fish captured in both sectors of the fishery in all regions.

Following the setting of objectives that align with DPI&F requirements for collecting the data that will support stock assessments, LTMP surveys will start in 2006 for additional ECIFF species including yellowfin bream, winter whiting and dusky flathead. These surveys will rely on fishery-dependent sampling and will be focused on southern Queensland.

Collaborative research

Stock assessments of the east coast mullet and tailor stocks have been conducted in collaboration with New South Wales.

A collaborative research project between researchers from CRC Reef Research Centre, DPI&F, the Northern Territory Department of Primary Industries, Fisheries and Mining, Fisheries Western Australia and commercial fishers in Queensland and the Northern Territory began in July 2005 to determine whether grey mackerel fisheries in Queensland and the Northern Territory (including the Queensland east coast) were part of a single or multiple stocks. The project will use three basic techniques to examine grey mackerel stock structure: i) mtDNA and microsatellite genetic analyses, ii) otolith microchemistry and iii) parasite incidence. Results are expected by June 2008 and will set the basis for future stock assessments.

Researchers from James Cook University's Fishing and Fisheries Research Team are collaborating with DPI&F on a research project to assess the impacts of inshore fisheries in the Great Barrier Reef region on biodiversity. The project, which is funded by the Australian Government's Marine and Tropical Science Research Facility, commenced in mid-2006 and will focus on enhancing biological and ecological knowledge of shark species and other key species taken in inshore fisheries (e.g. threadfins, grunter, queenfish, mangrove jack, garfish and grey mackerel). The results will inform future quantitative risk assessments.

¹¹ Details of the sampling protocols used in the LTMP together with all reports are available from the DPI&F website at www.dpi.qld.gov.au/fisheriesmonitoringprogram/

Fishery management

Compliance report

Compliance and enforcement in the ECIFF is the responsibility of the DPI&F Queensland Boating and Fisheries Patrol (QBFP).

During 2005, 329 inspections were conducted on commercial net operations in the fishery with several offences detected during the period. Eleven Fisheries Infringement Notices (FINs) (on-the-spot fines) were issued during the period with the majority relating to recreational fishers using or possessing nets not prescribed for recreational use. Four additional offences were successfully prosecuted during the period for contravening a condition of an authority; contravening closed waters; possession of undersized fish; and a recreational fisher possessing a net not prescribed for recreational use. In addition, two cautions were issued for unlawful possession of commercial fishing apparatus and contravening a condition of an authority.

In addition, 51 unattended or incorrectly marked nets were seized and the premises of several marketers were inspected.

Changes to management arrangements in the reporting year

In June 2004, DPI&F developed and implemented the Policy for the Elimination of Excess Fishing Capacity in Queensland's East Coast Net Fisheries. Licence holders who were not able to demonstrate a minimum level of effort under their licences, as defined in the policy, were asked to show cause and explain why their N1, N2, N5, or N8 fishery symbol should not be removed from their licence upon renewal. Because licences expire throughout the year, this process lasted twelve months. In that time approximately 300 fishery symbols in the fishery were removed, resulting in a 40% reduction in the total number of fishery symbols.

The commercial catch of both tailor and spotted mackerel is managed via a competitive Total Allowable Catch. The reporting arrangements for both quotas were changed in 2006. Previously, fishers had to report catches of over 100 kg for tailor and 15 fish for spotted mackerel by telephone immediately, as well as through commercial logbooks submitted on a monthly basis. Operators are now required to report their catch in commercial logbooks, which are to be submitted to DPI&F within 14 days of the catch. When a certain portion of the quota is reached (i.e. 100 t for tailor and 120 t for spotted mackerel) fishers are advised by DPI&F and are required to telephone prior to fishing to obtain permission for continued fishing and to report by telephone immediately if they catch over 100 kg for tailor and 15 fish for spotted mackerel.

New fees and licensing arrangements for Queensland's fisheries were implemented in July 2006. Commercial licence holders can now move individual fishery symbols from one primary licence to another. The movements are subject to application.

Complementary management

Queensland continues to work with New South Wales 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.

Appendix 1: Planned schedule of stock and risk assessments for the ECIFF for 2006–09

Key Area	Proposed Activity	2006			2007				2008				2009			
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Fisheries Resource Assessment																
Bream—Yellowfin	Following Ecological Risk Assessment (ERA), regional level stock assessment (only South East Queensland)															
Flathead—Dusky																
Whiting—Sand																
Barramundi—East coast	Application of Bayesian production models developed in the Gulf of Carpentaria to east coast barramundi fisheries															
Mackerel—Spotted	Re-run the Begg et al. 2005 ¹² assessment triennially															
Sea mullet	Following ERA re-run the Bell et al. 2005 ¹³ assessment. NB: Requires successful completion of data collation project															
Tailor	Following ERA re-run Leigh & O'Neill 2004 ¹⁴ assessment being mindful of uncertainties regarding discard mortality and alternate approaches for future assessments															
Threadfin salmon	Discuss prospects for a multi-jurisdictional catchment/regional assessment model for threadfins in 2008 at the September 2006 Northern Australian Fisheries Management Meeting															

¹²Begg, GA, O'Neill, MF, Cadrin, SX, Bergenius, MAJ 2005, *Stock assessment of the Australian east coast spotted mackerel fishery*, CRC Reef Research Centre Technical Report No. 58, CRC Reef Research Centre, Townsville.

¹³Bell, PA, O'Neill, MF, Leigh GM, Courtney AJ & Peel, SL 2005, *Stock assessment of the Queensland–New South Wales sea mullet fishery (Mugil cephalus)*, Department of Primary Industries and Fisheries, Brisbane.

¹⁴Leigh, GM & O'Neill, MF 2004, *Stock assessment of the Queensland–New South Wales tailor fishery (Pomatomus saltatrix)*, Department of Primary Industries and Fisheries, Brisbane.

Key Area	Proposed Activity	2006			2007				2008				2009			
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Management Strategy Evaluation																
Bream—Yellowfin	Management Strategy Evaluation considering size limits, bag limits, effort control, spatial closures															
Flathead—Dusky																
Whiting—Sand																
Ecological Risk Assessment																
Sawfish spp.																
Shark—Australian black tip																
Shark—Black tip																
Shark—Bull																
Shark—Creek whaler																
Shark—Graceful																
Shark—Great hammerhead																
Shark—Grey reef																
Shark—Hardnose																
Shark—Lemon																
Shark—Milky																
Shark—Pigeon																
Shark—Scalloped hammerhead																
Shark—Sharpnose																
Shark—Silky																
Shark—Spinner																
Shark—Spot tail																
Shark—White cheek																
White-spotted guitarfish																

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Acknowledgements

Mark Lightowler, Mark Doohan, Brooke Young, Len Olyott, Brad Zeller, Dr Malcolm Dunning, Anthony Roelofs, Fiona Hill, Tracey Scott-Holland.

Cover image

Barramundi (*Lates calcarifer*)

