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Management Status: Fisheries

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Fisheries

Overview

Fishing is the predominant extractive activity in the Great Barrier Reef Marine Park (GBRMP) and includes the major commercial fisheries of prawn trawling, reef line fishing and inshore netting and crabbing, as well as smaller dive-based fisheries for tropical rock lobster, aquarium fishes, coral, sea cucumber, trochus and specimen shells. Recreational fishing is an important activity with 56,000 privately registered boats in coastal communities adjacent to the Great Barrier Reef World Heritage Area (GBRWHA). In addition, tourist charter boats take recreational fishers to many fishing locations. Traditional fisheries also occur adjacent to indigenous communities.

Under the *Offshore Constitutional Settlement 1995* (OCS) between the Commonwealth of Australia and the State of Queensland, the Queensland Department of Primary Industries' <u>Queensland Fisheries Service</u> (QFS) has responsibility for the day-to-day management of all fish stocks in waters adjacent to Queensland's east coast, except for tuna and tuna-like species and other Coral Sea fisheries managed by the Commonwealth. This administrative



Under the *Offshore Constitutional Settlement* 1995, the Queensland Fisheries Service is responsible for the day-to-day management of fisheries. The GBRMPA is responsible for the conservation and wise use of the natural resources (including fisheries resources) of the GBRMP.

arrangement is subject to the provisions of the <u>Great Barrier Reef Marine Park Act</u> <u>1975</u>. The underlying basis for the relationship between the Great Barrier Reef Marine Park Authority (GBRMPA) and QFS is to have an ecosystemmanagement framework within which fisheries are managed. The Great Barrier Reef Marine Park (GBRMP) contains 64 per cent of Queensland's east coast waters, however in these areas fisheries

are still managed by the QFS.

The GBRMPA does not manage fisheries but is responsible for the health of the Great Barrier Reef ecosystem as a whole.

The GBRMPA, within its aim to protect the natural qualities of the Great Barrier Reef whilst providing for reasonable use of the entire Great Barrier Reef Marine Park, exercises control over fishing by virtue of the use of zones which restrict certain fishing activities in specific areas. Whilst the GBRMPA recognises that the harvesting of fishes, prawns and other living resources is an established reasonable use of the Marine Park, it acknowledges that fishing affects target species, non-target species and their habitats. Subsequently, these activities have the potential to produce ecological effects in both fished areas and the GBRMP as a whole if not conducted on an ecologically sustainable basis. The GBRMPA becomes involved in the management of fisheries when it is concerned the levels and type of fishing are having an unacceptably negative impact on the ecosystem. For example, high levels of take of particular species or of animals within a functional group, impact on by-catch and damage to habitat all impact upon biodiversity, the natural integrity and potentially, the resilience of the ecosystem.



Common to the charter of all resource management agencies are the principles of conservation, ecologically sustainable use, the protection of critical areas, equitable resource

use and an integrated management approach which involves the preparation of management plans in consultation with the major users and interest groups. These principles are applied, as effectively as possible but for most of the fisheries within the Great Barrier Reef, the issues are extremely complex. Such issues include:

- declining regional catches;
- decreased average size of fish;
- increased fishing effort;
- excess capacity in the fishery;
- impacts of fishing activities on incidentally caught species, some of which are endangered;
- the impacts of fishing on the marine habitat;
- the increased significance of the recreational fishery;
- indigenous use and rights to the resource; and
- issues associated with compliance of fisheries and marine park management regulations.

Management Arrangements

Queensland Fisheries Service

The *Fisheries Act 1994* (The Act) and the *Fisheries Regulation 1995* detail the legislative arrangements that apply to fisheries in Queensland and are administered by the Queensland Department of Primary Industries (DPI) via the <u>Queensland Fisheries Service</u> (QFS). The Act describes the arrangements for developing, implementing and repealing fisheries management plans. Management plans can be applied to specific fisheries and can be much more flexible and prescriptive than fisheries regulations. In general for commercial fisheries, controls on effort and catch are achieved through limited entry (the number of fishers permitted to work in the fishery), gear type, size restrictions, species size restrictions, amounts of fish that may be taken and area and seasonal closures. Recreational fisheries are managed primarily by gear type and size restrictions, species size restrictions, area and seasonal closures, and bag limits on most popular species.

The Queensland Fisheries Service has established a system of Management Advisory Committees (MACs) for all fisheries in Queensland. The MACs are primarily expertise-based and include representation from major stakeholder groups such as recreational and commercial fishers, marine park managers, enforcement officers, research scientists, marketers and conservation groups. The MAC system endeavours to ensure all interests are considered in the management of a fishery. The MACs report directly to the Queensland Fisheries Service.

Great Barrier Reef Marine Park Authority

The <u>Great Barrier Reef Marine Park Act 1975</u> provides for the establishment, control, care and development of the GBRMP. This Act has significant influence on the management and



Fisheries issues are extremely complex, involving many different stakeholders and fishing activities, potential impacts and jurisdictional arrangements.



accessing of fish stocks, principally via the GBRMPA's zoning plans, which regulate activities including fishing. Areas of the GBRMP are zoned in accordance with several objectives including the conservation of the Great Barrier Reef and the regulation of use so that the Great Barrier Reef is provided with appropriate protection while allowing for reasonable use of the Marine Park. The GBRMPA is also required to consider the maintenance of the outstanding natural values of the Great Barrier Reef World Heritage Area.

The GBRMPA thus has significant responsibilities for ensuring the conservation of fish stocks and the environment that sustains them. This range of responsibilities creates the requirement for fishing in the Marine Park to be conducted according to management practices that are assuredly ecologically sustainable.

The QFS and the GBRMPA consult regularly to ensure that fisheries and Marine Park management planning arrangements are complementary and compatible. The GBRMPA also maintains its practice of consulting



Fishing is considered a reasonable use of the GBRMP if it is ecologically sustainable, meaning the long term conservation of both the fish stocks themselves, and the environment that sustains them.

representatives of commercial and recreational fishing organisations and individuals in the development and review of zoning plans. In practice, a good working arrangement has been established, with close involvement of the fisheries agencies when zoning plans are being developed and involvement of GBRMPA staff in the QFS management planning process.

The EPBC Act

The *Environment Biodiversity and Conservation Act* 1999 (EPBC Act) commenced in July 1999. Under the Act, fisheries must be managed in a manner consistent with the principles of ecologically sustainable fisheries management as specified in the Commonwealth *Guidelines for the Ecologically Sustainable Management of Fisheries*. The *Sustainable Fisheries Section* of Environment Australia is assessing the environmental performance of fisheries for assessments under Part 10 of the *EPBC Act 1999*, assessments relating to impacts on protected marine species (Part 13) and those required for approval of export of fisheries product (Part 13A). While some fisheries in the GBRMP have been assessed or are currently under assessment, information about other fisheries is still being explored. The GBRMPA works closely with Environment Australia in assessing fisheries, which occur wholly or partially in the GBRMP.

Benefits of Marine Park Zoning to Fisheries Management

Marine Park zoning has a number of objectives including protecting biodiversity and critical sites, and managing conflicting use. Its overall goal is to contribute to ensuring the ecological health of the Great Barrier Reef World Heritage Area (GBRWHA).

There is now a wealth of literature from Australia and overseas that demonstrates that marine protected areas have significant benefits for fisheries management. Potential advantages include the protection of spawning stocks which provide recruits or larvae to



replenish fished areas and, recognising that fisheries management is an imprecise science, insurance against stock depletion through overfishing.

Trawl Fishery

The trawling effort for the Queensland east coast trawl fishery is spread along the coast, however most of the catch comes from the Great Barrier Reef World Heritage Area. The trawl fishery in the GBRWHA occurs predominantly within the Great Barrier Reef lagoon, the area between the Queensland coastline and the western margin of the mid-shelf reef complex.

The fishery has several components. The banana prawn fishery is an inshore fishery, which occurs during daylight in water depths of less than 25 metres. In the Great Barrier Reef lagoon, the tiger and endeavour prawn fishery is a night time fishery, which occurs over sandy and muddy bottoms in water depths of less than 20 metres. The offshore fisheries target king prawns in the central and northern sections of the Marine Park at night (30-50 metre depth) and scallops in the southern sections of the Marine Park at night (20-60 metres). In addition, Moreton Bay bugs are a valuable part of the catch in some areas (such as off Townsville and Gladstone).



The trawl fishery in the GBRMP occurs predominantly within the Great Barrier Reef lagoon, the area between the Oueensland coastline and the western margin of the mid-shelf

The trawl fishery is a limited entry fishery. Licensed operators can fish anywhere where trawl fishing is permitted and at anytime during permitted trawl times. Restrictions are placed on the size and number of nets used, the mesh size of nets and the size of the ground chain permitted.

Both spatial and seasonal closures under the fisheries management regime and the zonal management system for the Marine Park apply to the trawl fishery. Spatial closures are intended to protect fisheries

habitat (such as inshore seagrass beds) or reserve areas free from extractive use. Seasonal closures also apply in some areas and are designed to minimise the capture of juvenile prawns recruiting to the fishery and reaching a commercial size before entering the fishery. For example, trawling is prohibited north of Cape Tribulation between 15 December and the end of February.

Under the revised *East Coast Trawl Fishery (ECTF) Management Plan*, some additional 96,000 kilometres square of the GBRMP was closed to trawling. These new closures prevent the expansion of the trawl fishery into areas where historically there had been no trawling. Of the total area of the Great Barrier Reef Marine Park, 50 percent is not available for trawling on either a permanent or temporal basis. A major permanent closure applies to much of the Far Northern Section of the Marine Park. Apart from inshore areas, much of the lagoon south of Princess Charlotte Bay is available for trawling. Trawling is a highly aggregated activity, which occurs in some 31 percent (as opposed to 50 percent) of the Marine Park.



In August 2001, following extensive negotiations, the Queensland Government implemented an effort cap on trawling in the GBRWHA. This cap ensures that there will be no migration of trawl effort into the Marine Park, following the removal of fishing licences and their associated effort under a structural adjustment scheme. As of late 2002, the number of vessels permitted to operate in the fishery was 530. Following this legislative amendment, the GBRMPA accredited the *ECTF Management Plan* as ensuring an ecologically sustainable trawl fishery in the Far Northern Section of the GBRMP. In making this decision the GBRMPA was mindful that almost 80 percent of the Far Northern Section of the Marine Park is closed to trawling under Great Barrier Reef Marine Park zoning or Queensland fisheries legislation.



Part of the ECTF Management Plan involved the capping of effort and introduction of TEDs and BRDs.

The revised <u>ECTF Management Plan</u> restricts the commercial take of trawlers to principal (i.e. target) and permitted (i.e. byproduct) species. In order to reduce the incidental catch of non-target and non-byproduct (i.e. bycatch) species, the plan made the use of turtle excluder and bycatch reduction devices mandatory for all areas of the fishery as of 1 January 2002. The legislated design specifications for turtle excluder devices (TEDs) were revised in late 2002. A further review of the relevant legislation for bycatch reduction devices (BRDs) has commenced to ensure that an effective design standard is

being used by the industry. The revised trawl plan also aims for a 40 percent reduction of bycatch species taken and a 25 percent reduction in the amount of benthos taken. Research is underway to assess the impact of turtle excluder and bycatch reduction devices in reducing bycatch.

The GBRMPA has completed an audit of the East Coast Trawl Fishery. It outlines the achievements and weaknesses of this fishery in achieving the objectives set out in the Trawl Plan.

A major study conducted by the CSIRO on the recovery of seabed habitat from the impact of prawn trawling in the Far Northern Section of the Great Barrier Reef Marine Park is now in its final stages. Analyses of recovery rates of seabed organisms after trawling has ceased are being conducted. For more information about the condition of these seabed communities, see Environmental Status – Inter-reefal and lagoonal benthos)

• The management arrangements for the ECTF are still being assessed under the *EPBC Act* 1999 and the Commonwealth <u>Guidelines for the Ecologically Sustainable Management of</u> <u>Fisheries</u>.

Coral Reef Fish and Pelagic Line Fisheries

About 96 percent of the coral reef line fishery catch comes from the GBRMP. The fishery is second only to the trawl fishery in terms of both its economic value and its potential impact on Marine Park ecosystems. It is the most important fishery in the Marine Park in terms of



the number of fishers (commercial and recreational, including charter) and includes species of great importance to tourism operations.

The main target species for all sectors of the fishery are coral trout, emperors, red-throat emperor, red emperor, other cods, wrasse and snappers. Pelagic species such as Spanish mackerel are also caught, mainly by trolling.

Since the mid-1990s there has been a progressive shift in the commercial sector toward supplying live reef fish to the Asian market. In 2001, half the commercial coral trout catch and a quarter of the total coral reef fish catch were exported live to China.



Coral trout (pictured frozen on a commercial vessel) are one of the main target species for the coral reef fishery.

The QFS released a revised draft management plan for the reef line fishery in October 2002. In general, the GBRMPA supports this draft plan, which includes sensible measures to ensure that fishing for coral reef fish will be ecologically sustainable. The proposed measures also include significant reduction of commercial fishing effort, appropriate recreational bag limits and new fish size limits based on the latest scientific advice. The reduction in commercial fishing effort proposed in the plan will complement the current rezoning of the GBRMP through the <u>Representative Areas Program</u> and prevent

displacement and concentration of effort in this fishery. The Marine Park "green zones" are recognised by the QFS as essential for the management of the fishery, in that they safeguard a proportion of fish stocks from fishing pressure.

The GBRMPA has raised with QFS the concern that the draft plan does not include any closures to protect reef fish at critical spawning times (these were included in an earlier draft plan). The GBRMPA continues to support closures for nine days around the new moon in October, November and December.

Phase 3 of research on the <u>effects of line fishing</u> in the Marine Park has continued monitoring of stock recovery rates of reefs closed to fishing that were previously monitored while open to fishing. This will continue until 2005. The project also involves analysis of fish biology, life cycles, fishery economics, and the development of sustainability indicators for target species, bycatch and the impact of commercial fishing on tropical marine ecosystems. The study will provide Marine Park and fisheries managers with an evaluation of current and potential management strategies to ensure ecological sustainability.

Net and Inshore Line Fishery

The east coast commercial net and inshore line fishery focuses on species such as barramundi, shark, small mackerel, tropical salmon, mullet, gar, whiting and flathead. Commercial fishers generally use nets to target these species (except spotted mackerel), while the recreational sector usually uses hook and line. Commercial fishers involved in the net fishery (apart from larger vessels targeting shark) are usually small-scale operators



whose operating costs are more modest than those in the otter trawl or coral reef finfish fisheries. The Queensland Fisheries Service has indicated that once management arrangements for the coral reef finfish fishery are finalised, resources will be directed to preparing an East Coast Inshore Finfish Fishery Management Plan. Recent changes to fisheries regulations relating to netting and finfish resources targeted by this fishery have been implemented in response to specific management priorities. The main issues in the fishery are ecological sustainability of current levels of effort, latent effort (substantial number of unused or under-utilised commercial netting endorsements), concerns over possible interaction with species of conservation concern, and strong opposition to commercial netting in near-shore areas and estuaries from recreational fishers and the wider community.



The QFS has indicated that it will prepare an Inshore Finfish Fishery Management Plan once arrangements for the coral reef finfish fishery are finalised.

Dive-Based Fisheries

The Queensland Fisheries Service is the lead agency responsible for the management of several dive-based fisheries. The Great Barrier Reef Marine Park Authority has separate legislative assessment and permitting requirements in relation to commercial dive-based or 'collecting' fisheries under the *Great Barrier Reef Marine Park Act 1975*. These fisheries include tropical rock lobster, marine aquarium fishes, trochus, sea cucumber, coral and specimen shells.

The Harvest Fishery Management Advisory Committee (HarvestMAC) established under the *Fisheries Act 1994* is facilitating the development of management arrangements for each of the dive-based fisheries and provides an effective forum through which to address management issues across the harvest fisheries.

Tropical rock lobster

The Queensland East Coast tropical rock lobster fishery has both a recreational and a commercial component.

The commercial fishery is managed on a limited entry basis and is restricted to north of 14° S latitude (centred on three reefs off Shellbourne Bay). The commercial fishery is subject to a closed season (October to January inclusive) for spawning stock protection, a minimum size limit and prohibitions on the taking of berried females. Take must be by hand or hand-spear only. Underwater breathing apparatus may be used in the commercial fishery. There is no bycatch associated with this fishery.



The commercial tropical rock lobster fishery is managed on a limited entry basis and is restricted to north of 14° S latitude.



An investment warning for the commercial fishery was issued on 31 May 2001 due to concern regarding latent effort and decreasing catches in the fishery. Further management arrangements are required to address these concerns.

More research is needed to provide a reliable stock assessment, information regarding the mortality rates of spawning lobsters and increased knowledge of the spawning stock/recruitment relationship between this fishery and the Torres Straits fishery.

The recreational tropical rock lobster fishery is subject to size, bag and boat possession limits. Additional management arrangements to deter black marketing are proposed.

Marine aquarium fishes

The marine aquarium fish fishery is managed by input controls (on apparatus, number of participants, number of divers and area of operation). Commercial fishers are limited to collection of fishes by hand or by using lines or cast, scoop or mesh nets; however underwater breathing apparatus may be used. It is a limited entry fishery, with some 60 transferable authorities. Recreational aquarium fish collection also occurs, however only limited catch and effort information is available. There is no bycatch associated with this fishery.



There are concerns over the potential for localised depletions for some aquarium fish species

There are concentrations of collectors and effort in areas close to overseas air export facilities (mainly located in Brisbane and Cairns). Collected species are exported or sold to domestic hobbyists. Management arrangements have been introduced to address latent effort in the fishery and to address concerns regarding potential for localised depletion, including the introduction of different categories of "authorities" (or licences) which may be subject to restrictions including bag limits, amendments to the application process including entry criteria and the introduction of history-based access to special management areas.

Only limited assessment of catches of marine aquarium fish has occurred and there is an absence of reliable long-term historical catch and effort information. Species and site-specific data returns are required to monitor the fishery adequately.

Trochus

The fishery for this mollusc is managed through limited entry and a quota system. Currently there is a 300-tonne total allowable catch set in the *Fisheries Regulation 1995* for the east coast fishery, with 250 tonnes allocated each year to existing "authority" (or licence). Only one species (*Trochus niloticus*) is collected commercially in Queensland under six trochus licenses, which are transferable. Commercial collection may be undertaken by hand or using a handheld non-mechanical implement with underwater breathing apparatus. The transferability of



authorities is a key management issue. The QFS is in the process of converting the total allowable catch to a 'unit' format that removes unallocated quota. There is a negligible recreational component and no bycatch associated with this fishery.

Size limits provide spawning and recruitment stock protection, which is further enhanced by a degree of self-selectivity in the fishery whereby a proportion of legal sized shell is not suitable for collection if 'worm eaten' or sun bleached. The fishery has long been centred mainly in the Swains Reefs and catches have been stable over time. Green zones encompass several highly productive trochus reefs and are effective spatial closures from a fisheries management perspective. Quota is easier to monitor than in the sea cucumber fishery because the product is more readily accounted for and inspected. A review of two previous stock assessments has been completed recently with no concerns identified.

Sea Cucumber

Sea cucumber (also known as the dried product 'beche-de-mer') is a quota-managed fishery with six quota holders. There are two main target species of sea cucumbers, viz black teatfish and white teatfish. However, the black teatfish fishery has collapsed and there is a zero quota for black teatfish until stocks regenerate. The current sea cucumber total allowable catch for the east coast is 380 tonnes made up of 127 tonnes of white teatfish and 253 tonnes of other species. A 15-centimetre minimum size limit applies but is difficult to enforce because these animals can change size and shape dramatically once caught. There is no recreational component and no bycatch associated with this fishery.

There is little information available about the biology of sea cucumbers and recruitment rates are largely unknown, so there is a poor scientific basis for catch quotas. Research is being undertaken on the principal species to enable better stock assessments to be undertaken. Some species not yet harvested could become high-value, high-demand species in the future.

Difficulties with quota monitoring and compliance are being addressed through requirements for prior reporting of catch and the development of additional management arrangements.

Coral

Coral is an input and output control (quota) managed fishery. There are some 50 coral collecting sites, each of which can have an annual harvest of up to four tonnes. Actual harvest levels are below 50 tonnes landed annually by 36 operators. Harvest levels are sustainable, although conflicts arise between harvesting and coral viewing at some accessible sites.

The industry has progressed from the curio trade to the aquarium live coral trade. Collectors now are targeting species never collected previously. There has been concern that rarer species could



There are 50 coral collecting sites within the GBRMP



be targeted and overcollected. Quota monitoring has been strengthened and additional management arrangements are being developed.

Specimen shells

There are seven authorities to collect specimen shells. The QFS permits specify no more than ten live shells of any one species are to be taken annually. The intent is for a specimen collection fishery, not a large-volume collection fishery. Currently 'limited collecting' is defined as 'a maximum of five specimens per species in possession in any 28-day period'. This applies 'as of right' in Marine Park General Use zones, but is difficult to enforce. Zoning provisions for 'limited collecting' will be altered by means of the Reef-wide rezoning which is currently occurring through the <u>Representative Areas Program</u>.

Crab Fisheries

The east coast commercial crab fisheries comprise three fisheries: blue swimmer crab, mud crab and spanner crab. Commercial and recreational fishers use crab pots and dillies to target these crab species. Commercial crabbers usually are small-scale operators who also participate in the inshore net fishery.

Fishery Management Plans for the blue swimmer and mud crab fisheries have been proposed for release by Queensland fisheries managers. A Management Plan has been introduced for the spanner crab fishery. Fisheries Regulations relating to blue swimmer crab and mud crab have been introduced to address specific issues.

The spanner crab fishery operates mostly outside the GBRMP with only about 5 percent of the catch being taken from the GBRMP. The spanner crab fishery is managed with a Total Allowable Catch (TAC). The main issue of concern in this fishery is the consistent decline in Catch Per Unit Effort (CPUE) in the fishing area within the GBRMP. CPUE is used to assess the health of fished stocks.

The mud crab fishery operates mainly in inter tidal areas outside the GBRMP. The blue swimmer crab fishery mostly operates in offshore areas south of the



The mud crab fishery operates mainly in intertidal areas outside the GBRMP. There are concerns over current levels of effort and localised depletions of stocks.

GBRMP. It is difficult to determine exactly how much catch is taken in the GBRMP because of the scale in which fishers report their catches. The main concerns about the mud crab fishery is the ecological sustainability of current levels of effort, latent effort (substantial number of unused commercial fishing licences) and localised depletion of stocks.

In Queensland, there are about 900 commercial crabbing licences for blue swimmer crab and mud crab. The QFS has estimated that about 400 of these licenses are used actively in the mud crab fishery and about 150 are used actively in the blue swimmer crab fishery. There are over 200 spanner crab licences, of which about 170 are used actively to take the TAC.



- The management arrangements for the mud crab fishery are currently being reviewed by Environment Australia (EA) under the *EPBC Act 1999* and the Commonwealth <u>Guidelines</u> for the Ecologically Sustainable Management of Fisheries.
- The management arrangements for the spanner crab fishery were assessed in 2002 by EA under the *EPBC Act 1999* and the Commonwealth <u>Guidelines for the Ecologically Sustainable</u> <u>Management of Fisheries</u>. The fishery was found to be compliant with the guidelines and exempted for five years from further assessment.

Community Awareness and Compliance

User groups and communities are consulted and involved in the development of Marine Park zoning and management plans and Queensland's fisheries management arrangements. The GBRMPA's communication and education program further enhances public understanding and acceptance of the fishing regulations in the Marine Park management strategy.

Fishing was the key focus of an enhanced compliance strategy that began in July 1999. High priority areas included dugong protection, trawling and line fishing in protected zones. Assisted by additional Commonwealth Government funding, the strategy included enhanced patrol activities, development of an integrated intelligence-based planning system and use of a range of new technologies. The strategy has seen a significant increase in the rate of detection and prosecution of illegal fishing activity in the Marine Park. The GBRMPA also has access to the satellite-linked vessel monitoring system developed by the QFS for trawlers and vessels involved in the sea cucumber and trochus fisheries.



User groups and communities are consulted and involved in the development of Marine Park zoning and management plans, such as occurred at this meeting of GBRMPA staff and Midge Point community members.

Amendments to the <u>Great Barrier Reef Marine Park Act 1975</u> came into effect on 19 July 2001. These amendments included provision to increase the maximum fines for illegal fishing contrary to Marine Park zoning provisions to \$220,000 for an individual and \$1.1 million for a body corporate. The GBRMPA's legislation will continue to be reviewed to streamline fisheries enforcement in the Marine Park. The GBRMPA is also seeking to ensure that illegal fishing in the Marine Park is considered a serious fisheries offence under QFS fisheries management plans and that appropriate additional penalties, such as licence suspension, apply to offenders under Queensland legislation.



Summary

- Management arrangements for fisheries in the GBRMP are subject to the *Offshore Constitutional Settlement 1995* between the State and the Commonwealth. Under this agreement, the QFS undertakes the day to day management of fisheries, other than tuna and billfish, under the *Fisheries Act 1994* (*Qld*). Meanwhile, the GBRMPA continues to have responsibility for the management of the Great Barrier Reef Marine Park under the *Great Barrier Reef Marine Park Act 1975*, including the use of Marine National Park or "green' zones that preclude commercial and recreational fishing to support conservation of fish species and natural ecosystems of the GBRMP.
- Fisheries issues are complex involving multiple stakeholder groups and issues such as declining catches, impacts on by-catch and habitat, increasing fishing effort and compliance.
- Trawling is a major commercial fishery in the GBRMP. The *ECTF Management Plan* capped effort and is addressing issues such as by-catch and ecological sustainability.
- Coral reef fish and pelagic line fisheries are major fisheries that include commercial, recreational and charter fishers. The QFS released a revised draft *reef line fishery management plan* in October 2002 that proposes a significant reduction of commercial fishing effort, new recreational bag limits and new fish size limits based on the latest scientific advice.
- The commercial net and inshore line fishery involves both commercial and recreational fishers. The QFS has indicated that it will prepare an East Coast Inshore Finfish Fishery Management Plan to help address issues such as the ecological sustainability of current levels of effort, latent effort, threats to endangered species and conflict with other users.
- Several dive-based fisheries occur in the GBRMP. Generally, there is no by-catch associated with these fisheries, however there are concerns over the sustainability of the rock lobster fishery, and stocks of the black teat fish (a sea cucumber) have collapsed.
- There are three crab fisheries, however these fisheries generally operate outside the boundaries of the GBRMP. There are concerns over declining catches, levels of effort, localised stock depletions and latent effort.
- The commencement of the *EPBC Act in 1999* requires fisheries in the GBRWHA to be assessed under the Commonwealth Guidelines for the Ecologically Sustainable Management of Fisheries. The GBRMPA works closely with Environment Australia on these assessments.







Further reading

General information about fish in the Great Barrier Reef

- http://www.reefed.edu.au/explorer/
- <u>http://www.reef.crc.org.au/aboutreef/wildlife/reeffish.html</u>
- Searchable database on coral reef fish
- <u>http://www.fishbase.org/search.html?server=MNHN-Paris</u>

Fisheries, research and management

- http://www.gbrmpa.gov.au/corp_site/key_issues/fisheries/index.html
- http://www.dpi.qld.gov.au/fishweb/
- http://www.afma.gov.au/
- <u>http://www.frdc.com.au</u>

Environment Australia Sustainable fisheries Section (includes Guidelines for the Ecologically Sustainable Management of Fisheries and assessment reports for various fisheries)

• <u>http://www.ea.gov.au/coasts/fisheries/index.html</u>

- Fisheries assessments and supporting documentation:
- http://www.ea.gov.au/coasts/fisheries/assessment/index.html

Report from the Independent Expert Panel on the Management of the Queensland Coral Reef Finfish Fishery:

• <u>http://umparra.gbrmpa.gov.au/testweb/corp_site/key_issues/fisheries/comm</u> ercial/fin_fish_report.html

GBRMPA Audit of the Management of the East Coast Trawl Fishery

<u>http://www.gbrmpa.gov.au/corp_site/key_issues/fisheries/commercial/trawl_fish_report.html</u>

Policy Information sheet on multiple hook line fishing in the Great Barrier Reef Marine Park

<u>http://www.gbrmpa.gov.au/corp_site/key_issues/fisheries/commercial/documents/policy_info_sheet_002.pdf</u>

Best environmental practices (fishing)

• <u>http://www.gbrmpa.gov.au/corp_site/key_issues/tourism/fishing.html</u>