

Annual status report 2008

Coral Fishery



Queensland Primary Industries and Fisheries, part of the Department of Employment, Economic Development and Innovation (DEEDI), seeks to maximise the economic potential of Queensland's primary industries on a sustainable basis.

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Introduction

The Queensland Coral Fishery (QCF) is one of a range of harvest (hand collection) fisheries managed by the Queensland Primary Industries and Fisheries (QPIF). Commercially collected coral taxa, coral rubble and sand, and living rock are marketed domestically and internationally. Coral taxa can also be collected recreationally from areas outside of State Marine Parks and the Great Barrier Reef Marine Park (GBRMP).

This report covers fishing activity during the 2007–08 financial year.

Fishery profile 2007–08

Commercial harvest: Approximately 105 t (67 t living rock, 19 t live coral, 14 t ornamental coral, and 5 t other coral and coral rubble)

Recreational harvest: No estimate of level of harvest for 2007–08

Indigenous harvest: No estimate of level of harvest for 2007–08

Charter harvest: Not applicable to the fishery

Commercial Gross Value of Production (GVP): No estimate available

Number of authorities: 59

Commercial boats accessing the fishery: 34

Fishery season: All year

Source: QPIF CFISH database, 2 March 2009

Description of the fishery

The commercial Coral Fishery is based on the collection of a broad range of species from the classes Anthozoa and Hydrozoa. The key components of the fishery are:

- Live corals (includes anemones, soft and hard corals)
- Ornamental (non-living) corals
- Living rock (i.e. dead coral skeletons with algae and other organisms living on them)
- Coral rubble (i.e. coarsely broken up coral fragments)
- Coral sand (i.e. finely ground up particles of coral skeleton) – only taken as incidental catch and may not be targeted within Marine Park waters.

Due to the strong market demand for live corals for use in private aquaria, key target species are generally the small and vibrant varieties of coral. Live rock is also a major component of the fishery, due to its suitability as a substrate for the smaller, brighter corals in aquarium tanks. Anemones (Order Actinaria) are also a key target group in the coral fishery.

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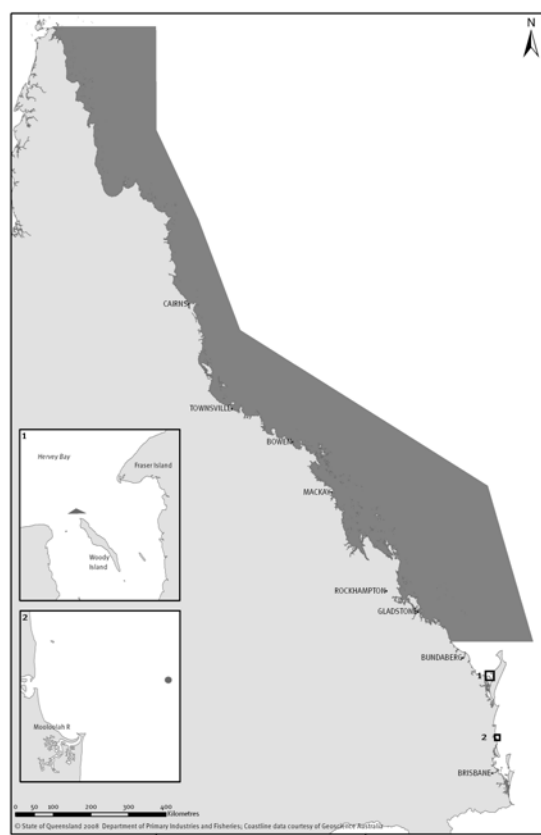


Figure 1: Map of fishery area.

Coral taxa from over 36 families are harvested for the live aquarium trade. Coral families targeted for the non-living, ornamental coral trade include:

- Pocilloporidae (cauliflower/bird's nest corals)
- Acroporidae (staghorn/velvet corals).

The QCF is a small scale, quota managed, hand harvest fishery (commercial Total Allowable Catch = 200 tonnes (t)) with 59 authorities. The quota is split between live coral (30%) and live rock/coral rubble/ornamental coral (70%).

Corals can also be collected by recreational fishers for personal home aquaria. Recreational fishers are limited by apparatus restrictions for the QCF (see Fishing methods). Additional regulations imposed under Marine Parks legislation limit the fishable area for recreational fishers to waters outside of declared Marine Parks.

Fishing methods

Coral may only be taken by hand or by using hand-held non-mechanical implements, such as a hammer and chisel. Licence holders may also use underwater breathing apparatus (SCUBA or hookah) when taking coral. Where a chisel is used, divers endeavour to remove only the coral itself, taking great care to minimise the amount of substrate that is taken or damaged. These removal methods reduce freight costs (less weight and volume) and also limit the environmental footprint of their harvesting.

Recreational harvesters are not permitted to use SCUBA or hookah gear.

Fishing area

The fishery operates along the east coast of Queensland within the bounds of the Offshore Constitutional Settlement (Figure 1). Commercial operators in the QCF collect coral from waters along the Queensland east coast between 10°41' Sand 24°30' S (not including areas closed through general fisheries closures or marine parks zoning under the Commonwealth *Great Barrier Reef Marine Park Act 1975* and the Queensland *Marine Parks Act 1982*). Two small collection areas exist south of 24°30' south however access to those areas is restricted through licence conditions. The fishery area also comprises two spatially defined high use Coral Collection Areas (CCAs) at Cairns and around the Keppel group of islands.

Main management methods used

Under Offshore Constitutional Settlement (OCS) arrangements between the Commonwealth and Queensland governments, management of coral collection adjacent to the east coast of Queensland falls under Queensland law. Fisheries in the Coral Sea (outside of the OCS) are managed by the Commonwealth Government.

Since 1 July 2006 the commercial coral fishery has operated under the QPIF "Policy for the Management of the Coral Fishery". QPIF reviewed the Policy in 2008 following the first year of operation under the Policy. A Coral Policy Working Group comprising representatives from the fishing industry, scientific community, the Great Barrier Reef Marine Park Authority (GBRMPA) and QPIF was formed to undertake the review. The review suggested several changes to the operation and management of the fishery under the Policy. These were endorsed by the Harvest Management Advisory Committee (MAC) and new arrangements under the Policy will commence on 1 July 2009.

Endorsed changes to the Policy include:

- Clearer definitions of Policy objectives including development of a separate Performance Measurement System (PMS) to monitor fishery performance in meeting its management objectives.

- Refining the intent of the policy provisions to provide for long-term resource sustainability, minimising the effects local concentrations of fishing effort, providing opportunities for economic development of the QCF, and commitment to ensuring community benefit of the coral resource is maintained.
- Refining the reporting arrangements to improve the quality of logbook reporting and minimising industry administration requirements.
- Changing references to ‘live coral’ to ‘specialty coral’ to better reflect product end use.
- Removal of the free trip allowance of LC1 coral – reporting transition period ends with the new policy.
- New catch review points (to be applied through the QCF PMS) – see Spatial trends/issues section.
- Refining the logbook to include all species identified as requiring monitoring through the Ecological Risk Assessment process.

Additionally, the following management measures are still in place for the commercial fishery under legislation and policy:

- Limited entry: 59 Commercial Harvest Fishery Licences are endorsed for the coral fishery.
- Limits on the number of boats and collectors operating under a licence at any one time.
- Collection by hand or hand-held implements only, with the aid of artificial breathing apparatus allowed.

Approximate allocation between sectors

The QCF is considered to be a predominantly commercial fishery. Very little coral habitat is available outside of State Marine Parks and the GBRMP where recreational collection is allowed and although there are no quantitative data available, the recreational harvest of coral and coral related products is considered negligible relative to the commercial sector.

Collecting coral is not considered to be a part of traditional or customary fishing practice by Indigenous fishers (McCormack 2006) and will not be reported on further in this report.

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

The QCF was granted a Wildlife Trade Operation (WTO) approval under Part 13A of the Commonwealth EPBC Act on 1 July 2006. The WTO approval acknowledged that the fishery is being managed in an ecologically sustainable manner and allows the continued export of product caught in this fishery. The current approval expires on 30 June 2009.

Catch statistics

Commercial

Approximately 105 t, comprising 67 t of living rock, 19 t of live coral (LC2-LC5), 14 t of ornamental coral and 5 t of other coral and coral rubble (combined) was harvested in the QCF in 2007–08 (Figure 2)¹. This represents just over half the TAC of 200 t and was very similar to catches in the 2006–07 season (Queensland Primary Industries and Fisheries 2008). Industry representatives believe the low catches are the result of a number of factors. First, the coral collection industry continues to evolve and some

¹ Coral categories are defined in the Coral Fishery Policy. There are five classifications of Live Coral (LC1 – LC5). LC1 comprises very small live corals with pedal disc < 5 cm diameter often associated with live rock. This category will be removed under the new Coral Policy to commence 1 July 2009.

operators have been investing significant levels of time and capital in research and development to expand and take advantage of niche export markets. This results in less collection time and reduced catches as businesses restructure and retool. Poor weather was also believed to have contributed to the low catches relative to total quota.

The majority of harvest (64 t) came from the Cairns Coral Collection Area (CCA) and 16 t from the Keppel CCA (Figure 3) in 2007–08. This was similar to 2006–07. Catches in the Cairns CCA once again exceeded the annual review reference point (RRP) of 42 t. The RRP for both CCAs have been revised under the Policy review and amended upwards to reflect the low risk the fishery poses to live rock sustainability in these areas (see Management performance section). Coral collected outside the CCAs increased to 26 t compared to 17 t in the previous year. Most of the increase came from the LC2-Lc5 and Ornamental categories (Figure 3).

Acroporidae and Pocilloporidae dominated (45% by weight) the total of 33 t of Live and Ornamental Coral collected in the QCF for 2007–08 (Figure 4). Ornamental Coral contributed the greatest proportion (approx. 94%) of this total weight. Ornamental Corals are produced from Acroporid and Pocilloporid corals. About 32% (by pieces) of all Ornamental corals were harvested from the Cairns CCA and the remainder (68%) from outside of the CCAs (Figure 3).

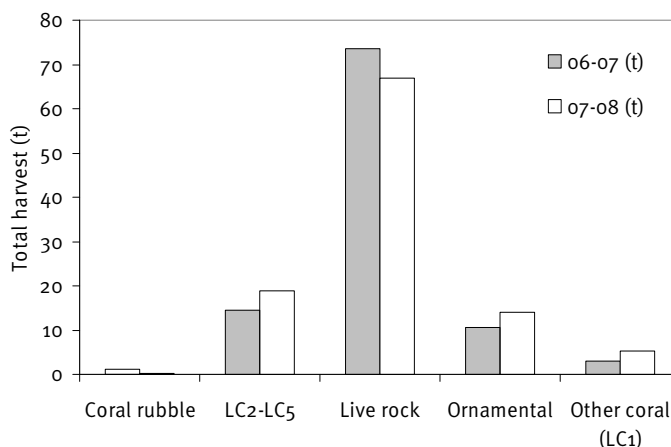


Figure 2. Catch composition (QCF Logbook categories) of Live Coral collected in the Queensland Coral Fishery for the quota years 2006–07 to 2007–08 (Source: DPI&F CFISH database, 2 March 2009)

Specimens from the Families

Acroporidae and Mussidae, *Catalaphyllia jardinei*, corallimorphs and soft corals (Family Alcyoniidae) together comprised nearly 63% of the total overall harvest by number of pieces collected.

The more detailed logbook introduced with the Coral Fishery Policy has allowed greater resolution of harvest in the fishery (Figures 4–7) from which catch trends of species of interest. The logbook will be modified further to include additional species identified as low risk through the Ecological Risk Assessment (ERA). QPIF developed a Performance Measurement Systems for the QCF to ensure the continued sustainable collection of species at risk is tracked spatially over time. This will be reported in the Management Performance section of the ASR.

Fishers collected more individual pieces of coral in 2007–08 compared to 2006–07. Most of the increase was in the number of LC2 pieces (20/kg) with approximately 15% more pieces collected in 2007–08. Approximately 50% of the LC2 increase comprised pieces of the low risk species *Catalaphyllia jardinei*, *Duncanopsammia* spp., *Scolymia* spp. and *Balstomussa* spp. These species are closely monitored under the Performance Measurement System to ensure their harvest remains sustainable.

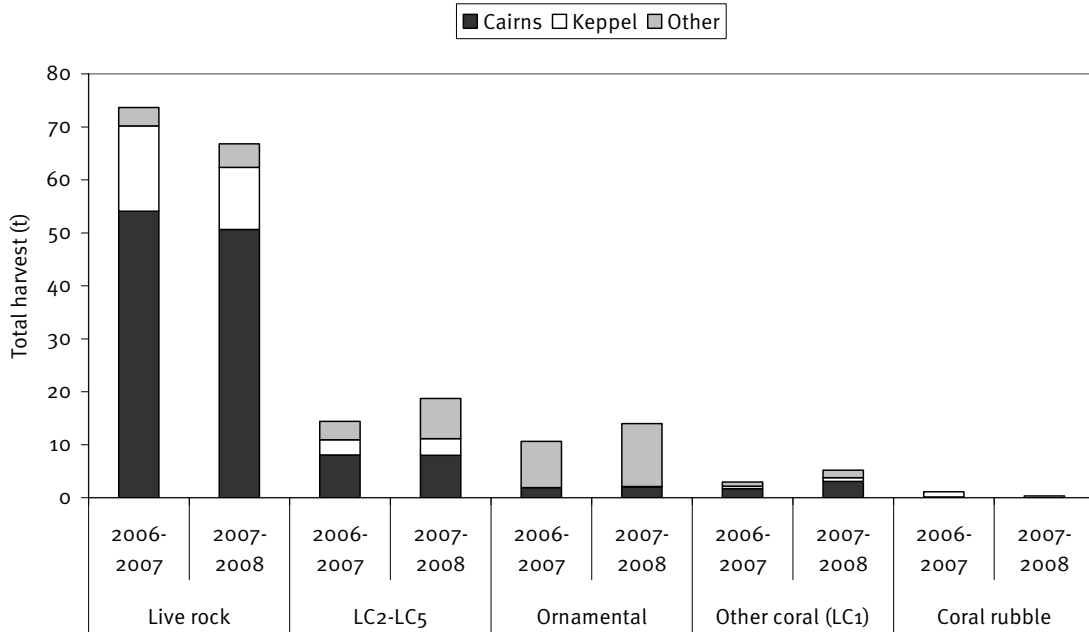


Figure 3. Regional breakdown of Live Coral (QCF Logbook categories) collected in the Queensland Coral Fishery for the quota years 2006–07 to 2007–08 (Source: QPIF CFISH database, 2 March 2009)

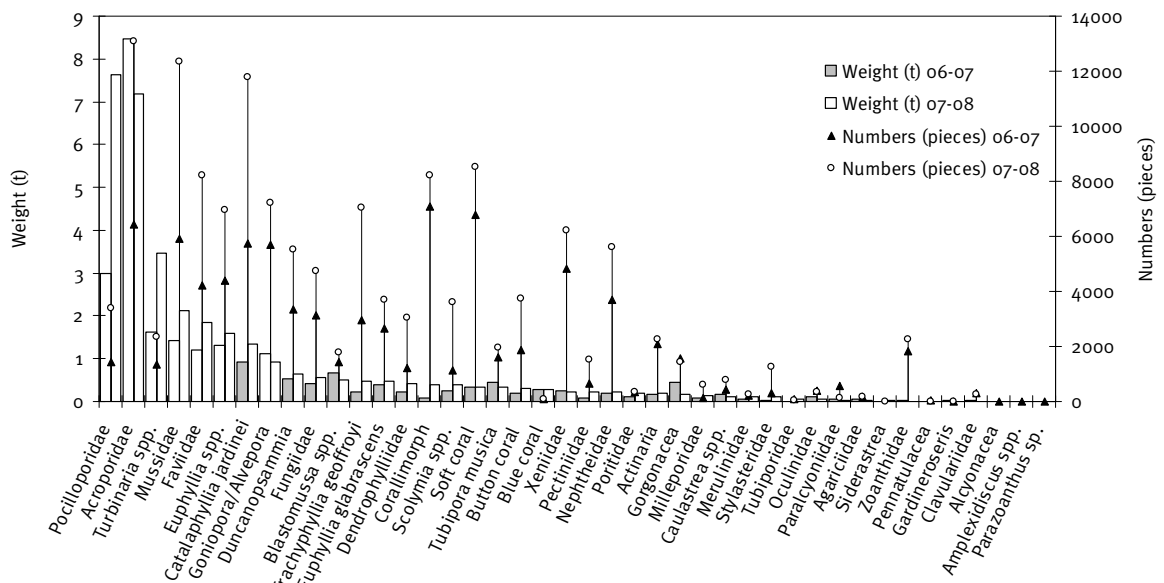


Figure 4. Catch composition (QCF Logbook categories) of Live Coral collected in the Queensland Coral Fishery for the quota years 2006–07 to 2007–08 (Source: QPIF CFISH database, 2 March 2009)

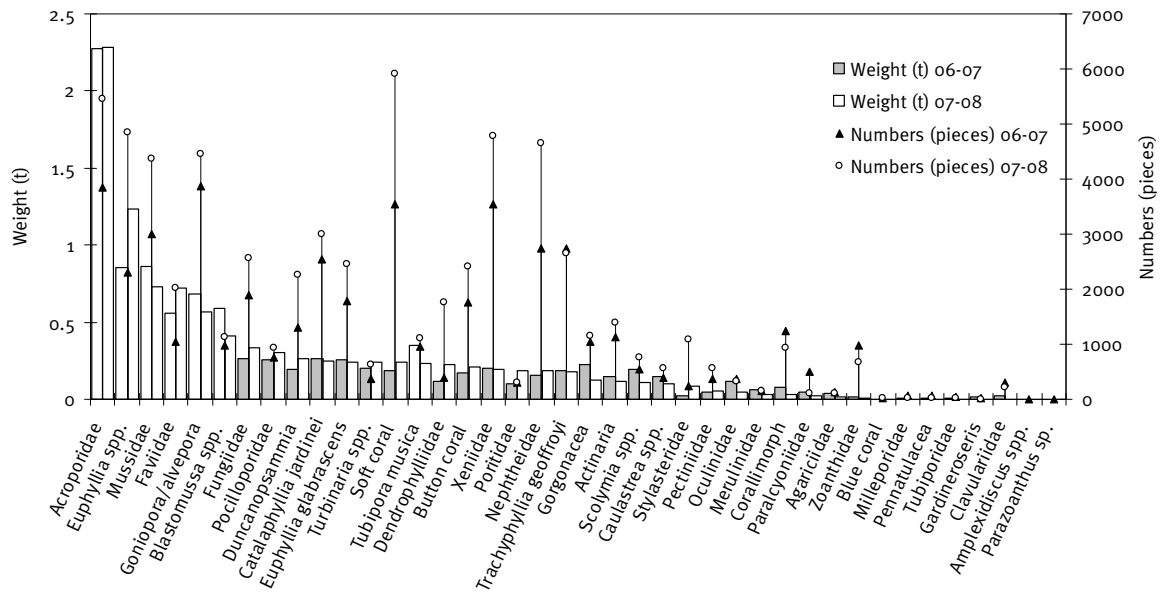


Figure 5. Catch composition (QCF Logbook categories) of Live Coral collected in the Cairns Coral Collection Area for the quota years 2006–07 to 2007–08 (Source: QPIF CFISH database, 2 March 2009)

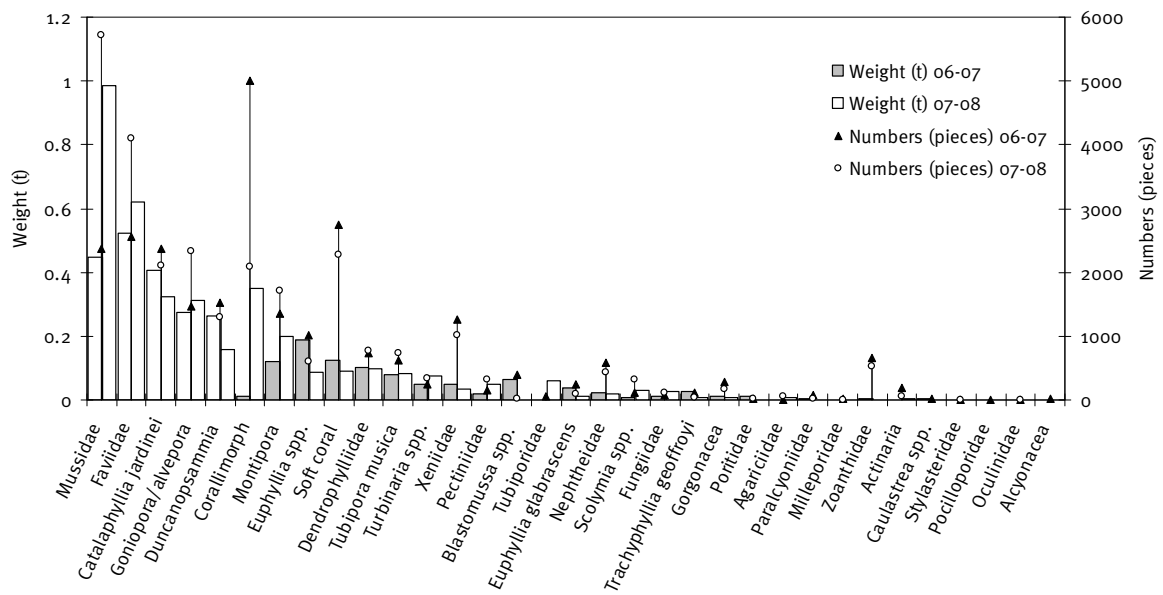


Figure 6. Catch composition (QCF Logbook categories) of Live Coral collected in the Keppel Coral Collection Area for the quota years 2006–07 to 2007–08 (Source: QPIF CFISH database, 2 March 2009)

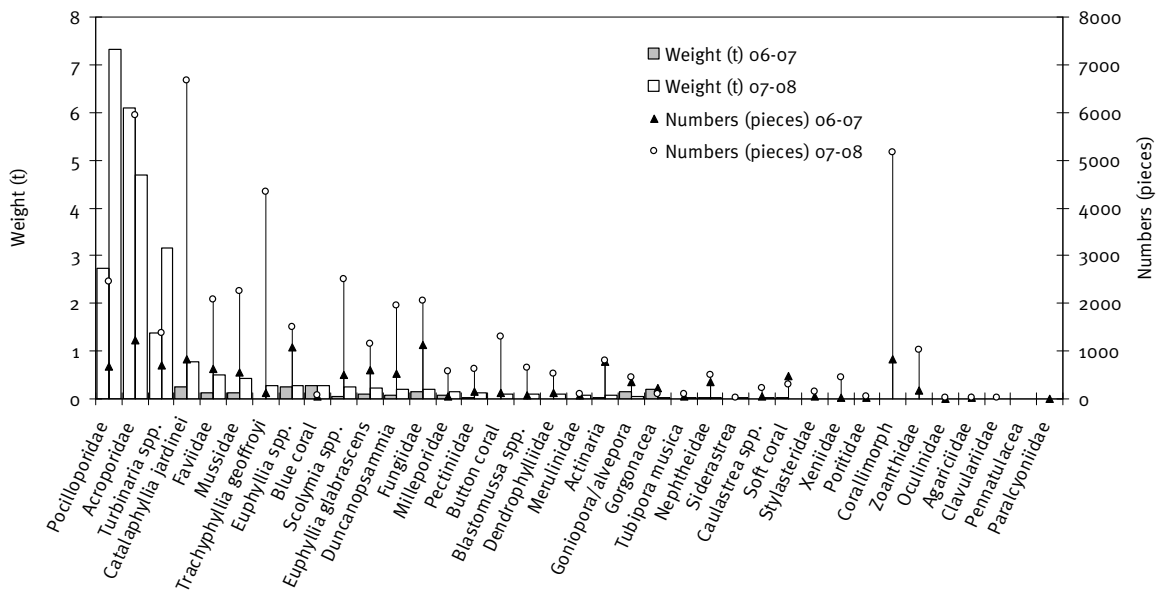


Figure 7. Catch composition (QCF Logbook categories) of Live Coral collected outside of the Coral Collection Areas for the quota years 2006–07 to 2007–08 (Source: QPIF CFISH database, 2 March 2009)

Recreational

The amount of coral taken recreationally within the fishery is considered minimal considering the limited known distribution of coral outside Marine Parks and the gear restrictions imposed.

Indigenous

Indigenous use of corals has not been documented and any participation in the fishery is considered to be minimal (McCormack 2006).

Spatial issues/trends

Based on information supplied by the ERA for the fishery and a discussion paper on live rock harvest, the Coral Policy Review Working Group agreed to new catch review points for the Cairns and Keppel CCAs. These come into effect through the QCF Performance Measurement System. The new RRP are:

Cairns

- 80t live rock (including rubble & LC1 rock)
- 13t live coral
- 5t ornamental coral

Keppel

- 24t live rock (including rubble & LC1 rock)
- 11t live coral
- 1t ornamental coral

Recent coral bleaching events in the Keppel region have caused regional concern for anemone and associated anemonefish stocks. The MAFF industry peak representative body, Pro-Vision Reef, has instigated a moratorium for the Keppel Region, prohibiting the commercial take of certain anemone fish and their parent anemones as a proactive move to facilitate recovery following the bleaching event. This issue is discussed in more detail in the Resource Concern section of this report.

QPIF developed a *Coral Stress Response Plan for Coral and Marine Aquarium Fish Fisheries* in response to Keppel region bleaching events. The plan is integrated with GBRMPA Coral Bleaching Response Plan

and a recently developed fishing industry Code of Conduct (see Fishery impacts on ecosystem) to ensure habitat stress information is received in a timely manner for QPIF and industry to enact on ground actions. The plan will be implemented in 2009. The Performance Measurement System for the QCF refers to the plan as the preferred management response in the event that a bleaching event impact is detected.

Socio-economic characteristics and trends

The QCF focuses on the collection of coral specimens for commercial and private marine aquariums and to supply a small trade in decorative souvenirs and ornaments. It is a significant Australian industry; however the QCF is considered a small exporter of hard and soft corals and living rock on the world scale (Wabnitz *et al.* 2003).

There are no Gross Value of Production (GVP) estimates for the fishery. Pro-vision Reef (the industry peak representative body) is currently investigating methods for establishing the true value of the QCF and the Marine Aquarium Fish Fishery.

Fishery performance

Appraisal of fishery in regard to sustainability

Catch and fishing effort data from commercial fisher logbooks suggest that the QCF continues to be managed by QPIF in a sustainable manner. There have been no significant changes to harvest levels in the fishery as a whole or at the taxa level.

Given the size of harvest relative to the resource and the quota control of coral amounts being harvested, Queensland's coral fishery is one of the lowest impact coral fisheries on an international level. The emphasis of the fishery is on quality rather than quantity, which contributes to both the ecological and economic sustainability of the fishery.

The QCF underwent a Vulnerability Assessment (Roelofs & Silcock 2008) and an ERA in 2007 (Roelofs 2008). The assessments determined the risks to the ecological sustainability of taxa in the fishery, based on the best available data on catch levels, biological characteristics and the distribution of harvested species. The ERA found that from the 100 taxa collected in the fishery, none were identified as moderate risk or above, eleven taxa were identified as low risk; the remainder were at negligible risk from the fishery.

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

QPIF's progress against the recommendations attached to the WTO approval under the EPBC Act are detailed in Table 3.

Table 3. Progress against Round 1 DEWHA recommendations for the QCF.

Recommendation	Progress statement
<p>QPIF to inform DEWHA of any intended amendments to the management arrangements that may affect sustainability of the target species or negatively impact on bycatch, protected species or the ecosystem</p>	<p><i>Ongoing</i></p> <p>The Policy for the Management of the Coral Fishery was reviewed in 2007/2008. Operation of the QCF under the new policy will commence on 1 July 2009.</p>
<p>Within 6 months of the Queensland Policy for the Management of the Coral Fishery being implemented, QPIF, in collaboration with GBRMPA and QPWS, to conduct compliance risk assessment for the QCF. QPIF to develop and implement strategies to address all identified risks (other than risks categorised as low) within 3 months of their identification.</p>	<p><i>Completed</i></p> <p>A Compliance Risk Assessment (CRA) was conducted for the QCF in October 2006. Strategies to address identified risks have been incorporated in Queensland Boating and Fisheries Patrol (QBFP) operational plans.</p> <p>The QBFP used the CRA outputs to plan operational activities associated with management of the fishery. Through identification and prioritisation of compliance risks associated with the fishery, planning and operational process in specific areas may be improved. The CRA is planned to reviewed and updated in 2009.</p>
<p>Within 18 months of the implementation of the Queensland Policy for the Management of the Coral Fishery, QPIF, in collaboration with relevant stakeholders, to develop fishery specific objectives linked to performance indicators and performance measures for target, bycatch, protected species and impacts on the ecosystem.</p>	<p><i>Completed</i></p> <p>A draft Performance Measurement System (PMS) was developed by the Coral and Aquarium Working Group in March 2008. The PMS incorporated outcomes of the ERA of the QCF (December 2007) and the Coral Policy Review (February 2008) in the development of appropriate objectives and associated review reference points. Outputs from the ERA have provided a basis for developing performance indicators aimed at measuring management performance in maintaining ecological sustainability of the species supporting the QCF. Species identified as low risk from the operation of the QCF, are monitored through the PMS.</p> <p>Formal implementation of the PMS is underway and will be completed before the commencement of the fishery under the new Policy on 1 July 2009.</p>
<p>QPIF, in collaboration with relevant stakeholders, to monitor the status of the fishery in relation to the fishery specific objectives, performance indicators and performance measures specified in the QCF management regime once developed. Within 3 months of becoming aware of a breach in a performance indicator or a performance measure not being met, QPIF to finalise a clear timetable for the implementation of appropriate management responses.</p>	<p><i>Completed</i></p> <p>The recommendation will be met following implementation of the PMS. Performance measures will be regularly assessed and reported against in the timeframes specified within the PMS.</p>

Recommendation	Progress statement
<p>QPIF to implement data validation mechanisms for fishery dependent data for the QCF within 6 months.</p>	<p><i>Completed</i></p> <p>Data validation procedures were implemented for the QCF on 1 July 2006 through prior reporting arrangements under the Coral Policy and via licence conditions. The arrangement now requires that all coral harvesters provide a report of their catch to QPIF via a 24 hour phone system before coming into port.</p> <p>Validation of logbook information provides confidence in the accuracy of reporting by commercial fishers. With greater reliance on logbook data for ecological assessments, there is a need for authentication of the information reported by fishers through the logbook program.</p>
<p>QPIF to finalise a data sharing agreement with GBRMPA and QPWS within six months of the start of the WTO.</p>	<p><i>In progress</i></p> <p>QPIF anticipated that the Great Barrier Reef Intergovernmental Agreement currently under development would provide the framework for a formal data agreement between the agencies to facilitate information sharing relating to the QCF . The timeframe for completion of the agreement is unknown at this stage. However QPIF believe this recommendation is being met despite the lack of a formal arrangement.</p> <p>QPIF, GBRMPA and QPWS continue to work collaboratively on projects relating to the assessment, monitoring and management requirement of the QCF however. Effective information sharing between agencies was critical to the success of the QCF ERA, the coral Policy review and the development of the Performance Measurement System. Information sharing is a key process underpinning the QPIF Coral Stress Response Plan which integrates with the GBRMPA Coral Bleaching Response Plan and the industry Code of Conduct.</p>

Recommendation	Progress statement
<p>QPIF to develop a research strategy for the QCF within 18 months. QPIF will cooperate with other Australian jurisdictions with marine aquarium fisheries to facilitate research.</p>	<p><i>Completed</i></p> <p>QPIF recently developed the <i>Harvest Fishery Research & Development Priorities (2008-2013)</i> document which aims to:</p> <ul style="list-style-type: none"> • focus the development of research & development projects for the Queensland harvest fishery sectors • provide a publicly available document to disseminate research priorities as identified by the Harvest Fisheries Scientific Advisory Group (Harvest SAG) and endorsed by the Harvest Fisheries Management Advisory Committee (Harvest MAC) to research providers and funding organisations • provide a register of past and ongoing relevant research. <p>The development of research priorities and strategy within the document incorporated outcomes from the QCF ERA. Strategically focused research effort will benefit management of the QCF by ensuring information is being collected on priority research and management needs for the fishery.</p>
<p>Within 3 months of the review of the Policy QPIF, in collaboration with relevant stakeholders, will develop and implement a process to review the risk of localised depletion in high use areas in the fishery. QPIF will review available catch data, identify any harvest areas and species groups at risk of localised depletion and, where necessary, develop and implement management measures to mitigate any risks.</p>	<p><i>Completed</i></p> <p>In August 2007 the Coral Policy Review group identified that an ERA approach would best meet the requirement to review the risk of unsustainable harvest levels in high use areas in the fishery, and to identify any harvest areas and species groups at risk of localised depletion. A Coral Fishery ERA workshop involving industry members, research scientists, QPIF and GBRMPA, was conducted in December 2007. The ERA report identified no harvested taxa as higher than low risk from this fishery. QPIF undertakes to review the outcomes of the ERA every three years.</p> <p>Outputs from the ERA indicate there is negligible to low risk for local concentration of harvesting effort in the QCF that leads to localised and serial depletion of harvested species.</p>

Recommendation	Progress statement
<p>Within 18 months, QPIF to develop a process to improve estimates of recreational and Indigenous take and factor these, along with permitted take under research and other relevant permits, into fishery assessments and management controls to ensure overall catch levels are sustainable.</p>	<p><i>Ongoing</i></p> <p>The QCF is considered to be a predominantly commercial fishery. Very little coral habitat is available outside of State Marine Parks and the GBRMP where recreational collection is permitted. Although there are no quantitative data available, the recreational harvest of coral and coral related products is considered negligible. Collecting coral is not considered to be a part of traditional or customary fishing practice by Indigenous fishers.</p> <p>QPIF will continue to investigate methods for improving the estimates of recreational and Indigenous catch relevant to the QCF. The permitted take under research and other relevant permits will also be considered in fishery assessments and management controls.</p>

Management performance

QPIF implemented the QCF Performance Measurement System (PMS) in 2009. The PMS was developed in consultation with the Harvest Management Advisory Committee (MAC). Analysis of performance of the QCF against these measures indicates that no review reference points were triggered during the 2007–08 reporting year (Table 4).

Table 4: Performance against the review events in the QCF Performance Measurement System.

Performance measure	Performance
<p>1. Annual catch (kg) of species of greater than negligible ecological risk (listed below) is >30% higher or lower than mean catch over the previous 2 years</p> <p>2. Greater than 80% of the annual catch of t of species of greater than negligible ecological risk occurs in a single 6 x 6 nm logbook grid site</p> <p>Species greater than negligible risk from the QCF as determined by the coral fishery ERA are:</p> <ul style="list-style-type: none"> - <i>Trachyphyllia geoffroyi</i> - <i>Acanthastrea lordhowensis</i> - <i>Blastomussa merletti</i> - <i>Blastomussa wellsii</i> - <i>Scolymia vitensis</i> - <i>Duncanopsammia axifuga</i> - <i>Euphyllia glabrascens</i> - <i>Plerogyra</i> spp - <i>Catalaphyllia jardinei</i> - <i>Acropora</i> spp - <i>Gorgoniidae</i> spp - <i>Entacmea quadricolor</i> - Live rock (Cairns and Keppel regions only) 	<p><i>1. Indicator not measured</i></p> <p>Two years of logbook data are required. The indicator will be measured following the completion of the 2008–09 season.</p> <p><i>2. Indicator partially measured</i></p> <p>Not triggered for taxa recorded on current logsheet (does not include species breakdown for <i>Blastomussa</i>, <i>Plerogyra</i> spp. or <i>Entacmea quadricolor</i> – logsheet is in process of amendment to meet the PMS and will come into effect with release of the new Policy for the Management of the Coral Fishery on 1 July 2009).</p>

Performance measure	Performance																									
<p>Total annual catch in high use management areas (reported through logbooks) – the Review Reference Points (RRPs) are:</p> <p>Cairns</p> <ul style="list-style-type: none"> ▪ 80t live rock (incl rubble & LC1 rock) ▪ 13t live coral ▪ 5t ornamental coral <p>Keppel</p> <ul style="list-style-type: none"> ▪ 24t live rock (incl rubble & LC1 rock) ▪ 11t live coral ▪ 1t ornamental coral 	<p><i>Not triggered</i></p> <table border="1"> <thead> <tr> <th>Product form</th> <th>Year</th> <th>Cairns (t)</th> <th>Keppel (t)</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Live rock</td> <td>06-07</td> <td>54</td> <td>16</td> </tr> <tr> <td>07-08</td> <td>51</td> <td>12</td> </tr> <tr> <td rowspan="2">Ornamental</td> <td>06-07</td> <td>2</td> <td>-</td> </tr> <tr> <td>07-08</td> <td>2</td> <td><1</td> </tr> <tr> <td rowspan="2">Specialty coral</td> <td>06-07</td> <td>8</td> <td>3</td> </tr> <tr> <td>07-08</td> <td>8</td> <td>3</td> </tr> </tbody> </table>	Product form	Year	Cairns (t)	Keppel (t)	Live rock	06-07	54	16	07-08	51	12	Ornamental	06-07	2	-	07-08	2	<1	Specialty coral	06-07	8	3	07-08	8	3
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Greater than 75% of quota used in <6 months	<p><i>Not triggered</i></p> <p>Only 52.5% of the overall quota used in 2007–08</p>																									
Bleaching severity & interaction with fishery is > Level 2 as defined in QPIF Coral Stress Response Plan	<i>Not measured</i>																									
Number of DPIF ministerial letters referring to sustainability concerns with the Coral Fishery: More than 5 Ministerial Letters are prepared per calendar year	<p><i>Not measured</i></p> <p>To be reviewed annually.</p>																									
Greater than 10% of the active vessels in the fleet are used to commit an offence under the <i>Fisheries Regulation 2008</i>	<p><i>Not triggered</i></p> <p>No commercial or recreational offences relating to the QCF were detected in 2007–08.</p>																									
Quota usage (reported through AIVR): 1. Greater than 25% of fishery quota used in >6 months. 2. More than 10 licence holders use <25% of their quota holding	<p><i>Not measured</i></p> <p>To be measured in real time for the 2008–09 season</p>																									
Proportion of industry adopting identified best practice protocols* Greater than 80% of active operators have adopted best practice protocols *Measure is dependent on formalisation of protocols within the industry developed Code of Conduct to be implemented in May 2009	<p><i>Not triggered</i></p> <p>Membership statistics indicate that the indicator will not be triggered in 2008–09 with the 88% of active licences members of Pro-vision Reef.</p>																									

Resource concerns

QPIF are considering management implications of the outputs from two scientifically reviewed reports on anemone and anemonefish abundances in the Keppel region (Jones, Gardner & Sinclair 2008; Frisch & Hobbs 2009). The reports suggest the region has lower abundances than other regions of the fishery. The cause of the comparatively low abundance has not been determined. The Keppel region is a highly dynamic environment that due to its geographical location and local hydrodynamics appears to be subject to increased levels of freshwater inundation and sediment runoff as well as periods of elevated sea temperatures which has caused recent widespread bleaching events. This is likely to be a factor in the report's findings and will be considered in the final deliberation of this regional issue.

Resolution of the Keppel issues aside, QPIF are satisfied that there are no resource concerns in this fishery at the current participation levels and with the suite of management controls that are in place. Outcomes from the recent ERA of the QCF support the low impact nature of this fishery which is based more on quality than quantity. Natural catastrophic events such as coral bleaching and cyclones are likely to have more localised impact on coral and anemone resources than fishery activity at the present level of effort in the fishery. The QPIF Coral Stress Response Plan and industry commitment to sustainable fishing practices through their Code of Conduct (to be implemented in May 2009) provides confidence that should these impacts arise, responsible and sustainable fishing will ensue.

Non-retained species/bycatch

There is no bycatch from this fishery due to the highly selective harvesting methods used.

Interactions with protected species

Commercial operators are required to fill in a Species of Conservation Interest (SOI) logbook if they have interactions with protected species. Due to the selective, relatively benign harvesting method and high attendance of fishing gear, operators pose negligible risk to protected species. There have been no reported interactions with SOI during this reporting period.

Fishery impacts on the ecosystem

The physical impact on the broader ecosystem is considered negligible as a result of the selective fishing method and the small number of individual animals that are collected relative to the available resource.

The ERA indicated that QCF operations are not likely to negatively impact on natural food webs and critical predator/prey relationships. Broader ecosystem impacts from natural events, such as cyclone damage to reefs and coral bleaching, are likely to have greater ecological impacts than the fishery operations. The QPIF Coral Stress Response Plan provides a gradient of management responses commensurate with the level of impact. This helps to ensure that fishery activities do not exacerbate already stressed environments.

To further mitigate fishery impacts on the ecosystem, the industry peak representative body, Pro-vision Reef, have developed a Code of Conduct for industry operators that is aimed at developing and documenting '*non regulatory approaches for world's best practices, thereby engendering community and market confidence in the marine aquarium supply industry, particularly in terms of environmental performance and responding to the challenge of global climate change. The Code has direct links with response plans for coral stress, including bleaching developed by the Great Barrier Reef Marine Park Authority and the Queensland Department of Primary Industry and Fisheries, marking a significant step forward for collaborative management arrangements for these fisheries.*' (Ryan Donnelly, Pro-vision Reef, email, 25 March 2009). Pro-vision Reef plans to officially launch the Code in May 2009.

QPIF supports the initiative and encourages the implementation of the Code.

Research and monitoring

Recent research and implications

QPIF has developed a Coral Stress Response Plan for the QCF and the Marine Aquarium Fish Fishery in the event that the supporting fisheries habitat (e.g. coral reef) is impacted by ecological and physical disturbances (e.g. coral bleaching, cyclones). The framework supports the adoption of a tiered approach to determining and implementing an appropriate management response that is dependent on factors such as the severity and longevity of the impact. The plan will be published in 2009.

QPIF, through the MAC, have also developed a *Harvest Fishery Research & Development Priorities (2008-2013)* paper. This document will guide and promote research related to the Queensland harvest fisheries by defining the priority research needs.

Monitoring programs and results

Compulsory logbook program

Logbook data provide the QPIF with detailed information on catch trends in the commercial fishery. No independent monitoring is currently undertaken by the QPIF.

Summaries of logbook data are provided to the Harvest MAC for consideration by representatives from industry, scientists and managers. Data are assessed further, if required, by the QPIF Harvest Fishery Scientific Advisory Group.

Collaborative research

QPIF were not involved in collaborative research during the 2007–08 reporting period.

Fishery management

Compliance report

Compliance and enforcement in the QCF are the responsibility of Queensland Boating and Fisheries Patrol (QBFP).

During the 2007–2008 quota year, thirteen units were inspected in the QCF, including 10 commercial fishing vessels, with the remainder comprising recreational fishers and marketer premises. No offences were detected. No significant issues were identified by either industry or the QBFP.

Changes to management arrangements in the reporting year

No changes have been made to the management arrangements in the reporting year.

Consultation, communication and education

Consultation with stakeholders in the QCF occurs through the Harvest MAC and the Coral and Aquarium Fish working group. Two MAC meetings were held in 2007–08 reporting period. Stakeholder involvement was key factor in the development of the revised Coral Fishery Policy. The Coral Policy Review Working Group included representatives from research, industry and conservation agencies. The Policy was also subject to a 28 day public consultation process. Public comments were considered and addressed in the final Policy.

Extensive consultation with industry and researchers also ensured the outputs of the Vulnerability and Ecological Risk Assessments captured the latest scientific information and local ecological knowledge.

Complementary management

Harvest MAC membership was expanded to include representation from the Australian Fisheries Management Authority in 2008 to ensure management complementarities between the QCF and the Coral Sea Fishery.

There were no other complementary management issues during the reporting period.

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Front cover image

Coral collection activity

