



Australian Government

Department of the Environment and Heritage

Assessment of the
Queensland Coral Fishery

June 2006

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This document is an assessment carried out by the Department of the Environment and Heritage of a commercial fishery against the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries*. It forms part of the advice provided to the Minister for the Environment and Heritage on the fishery in relation to decisions under Parts 13 and 13A of the *Environment Protection and Biodiversity Conservation Act 1999*. The views expressed do not necessarily reflect those of the Minister for the Environment and Heritage or the Australian Government.

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Assessment of the ecological sustainability of management arrangements for the Queensland Coral Fishery

TABLE OF CONTENTS

EXECUTIVE SUMMARY	4
Background.....	4
Overall assessment	7
Recommendations	8
PART I - MANAGEMENT ARRANGEMENTS	10
Conclusion	13
PART II – GUIDELINES FOR THE ECOLOGICALLY SUSTAINABLE MANAGEMENT OF FISHERIES.	14
STOCK STATUS AND RECOVERY	14
<i>Maintain ecologically viable stocks.....</i>	<i>14</i>
Information requirements	14
Assessment	15
Management response	17
Conclusion.....	18
<i>Promote recovery to ecologically viable stock levels</i>	<i>18</i>
Conclusion	18
ECOSYSTEM IMPACTS	18
<i>Bycatch protection.....</i>	<i>18</i>
Information Requirements	18
Assessment and Management Response.....	19
Conclusion.....	19
<i>Protected species and threatened ecological community protection</i>	<i>19</i>
Information requirements	19
Assessment	19
Management response	19
Conclusion.....	20
<i>Minimising ecological impacts of fishing operations</i>	<i>20</i>
Information requirements	20
Assessment	20
Management response	21
Conclusion.....	21
REFERENCES	22
LIST OF ACRONYMS.....	22

EXECUTIVE SUMMARY

Background

The Queensland Department of Primary Industries and Fisheries (DPI&F) has submitted a document for assessment under Parts 13 and 13A of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The draft document *Ecological Assessment of the Queensland Coral Fishery* (the submission) was received by the Department of the Environment and Heritage (DEH) in February 2006. The submission was released for a thirty-day public comment period that expired on 17 March 2006 and three public comments were received. The comments were either complimentary towards the fishery, or the concerns were being addressed through the management arrangements and recommendations agreed to by DPI&F. Consequently, DPI&F did not provide a formal response to the issues raised and no changes were made to the submission as a result of public comment.

The submission reports on the Queensland Coral Fishery (QCF) against the Australian Government *Guidelines for the Ecologically Sustainable Management of Fisheries*. The DEH assessment considers the submission, associated documents and public comments.

Table 1: Summary of the QCF

Area	All east coast Queensland waters north of latitude 24°30' south (the southern boundary of the Great Barrier Reef Marine Park (GBRMP) and within permitted zones of the GBRMP). Harvesting is also permitted in two small areas in Moreton Bay and off the coast of Maroochydore.
Fishery status	The target species is considered underfished.
Target Species	Species permitted to be harvested from the QCF include those of the class Hydrozoa or Anthozoa. 80 of over 400 coral species present on the Great Barrier Reef (GBR) are harvested. Those targeted for ornamental product are primarily comprised of hard corals in the genus <i>Pocillopora</i> (brown coral) or <i>Acropora</i> (staghorn coral) and to a lesser extent, <i>Fungia</i> spp (mushroom corals) and <i>Turbinaria</i> spp. Soft corals, anemones, corallimorphs, zooanthids and a range of other species are targeted for the live aquarium trade.
Byproduct Species	Considered negligible. Limited to commensal organisms associated with the harvest of living rock.
Gear	Hand harvest with the use of self contained underwater breathing apparatus (SCUBA) or hookah apparatus. Hand held implements including hammer and chisels are permitted.
Season	Year round.
Commercial harvest 2004/05	46,388 kilograms (kg) plus 20,106 pieces of unknown weight harvested.
Value of commercial harvest 2004	Approximately \$500 000 domestically. Export value unknown as export has not been permitted to date.
Recreational harvest	Not well known, but considered to be minimal.
Commercial licences issued	35 entities, possessing 59 coral collecting authorities.
Management arrangements	The QCF currently operates under a Total Allowable

	<p>Commercial Catch (TACC) of approximately 194 tonnes (t) with individual quotas of between 1-4 t, closed areas and limited entry.</p> <p>From 1 July 2006, the fishery will be managed according to the arrangements described in the <i>Policy for the Management of the Coral Fishery</i> (the Policy). These management arrangements include:</p> <ul style="list-style-type: none"> • TACC of 200 t with live coral component capped at 60 t; • individual quotas of approximately 1 to 4 t retained initially, however quota will be able to be transferred between existing authorities. An additional small amount (6 t) to be allocated <i>pro rata</i> across all authorities to bring the total TACC to 200 t; • coral harvesters authorised to take no more than 30% live coral and 70% other coral (live rock/coral, rubble/ornamental coral) from annual quota; • roving harvest arrangements; • limited entry; and • monitoring arrangements for high use areas.
Export	Currently no export.
Bycatch	Bycatch approaches zero, as the method of collection targets specific desired organisms.
Interaction with Threatened Species	Considered very low. Possible interactions with dolphins, dugongs and marine turtles.

The area of the QCF includes all Queensland east coast waters north of latitude 24°30' south (the southern boundary of the GBRMP) and within permitted zones of the GBRMP. Collection is currently permitted in general use zones, habitat protection zones and most conservation zones within the GBRMP. Harvesting is also permitted in two small areas in South East Queensland waters; one off Big Woody Island in Hervey Bay and the other off the coast of Maroochydore. QCF operators require additional permits from the Great Barrier Reef Marine Park Authority (GBRMPA) and the Queensland Parks and Wildlife Service (QPWS) to harvest in the GBRMP.

Under the Queensland *Fisheries Regulation 1995*, species permitted to be harvested from the QCF include those of the class Hydrozoa or Anthozoa. The QCF targets approximately 80 of over 400 coral species present on the GBR. Of those species, market forces dictate a narrow range of size and appearance. The species most commonly targeted for ornamental products are hard corals belonging to the genus *Pocillopora* (brown coral) or *Acropora* (staghorn coral) and to a lesser extent *Fungia* spp. (mushroom coral) and *Turbinaria* spp.

Corals targeted for the live aquarium industry include a more diverse range of mainly hard and soft corals as well as sea anemones. Among the more popular specimens are *Acropora*, *Pocillopora*, *Catalaphyllia*, *Euphyllia*, *Goniopora* and *Duncanopsammia*. Soft corals commonly targeted by the QCF include genera such as *Sarcophyton*, *Lobophyton*, *Sinularia* and *Alcyonium*. Corallimorphs and zooanthids are also harvested. Live rock is also taken either as bare rock to provide substrate, or may be targeted for the attached organisms.

Corals belong to the Phylum Cnidaria, which also includes hydroids, jellyfish and sea anemones. Within the class Anthozoa, corals fall under one of two sub-classes. The sub-class Octocorallia contains the blue coral (Order Helioporacea), soft corals (Order Alcyonacea), sea fans (Order

