



**Australian Government**

**Australian Fisheries Management Authority**

2007/08

**CORAL SEA FISHERY**

**Annual Management Arrangements Booklet**

## **Important Note**

Every effort has been made to ensure that the information contained in this document is correct and accurate at the time of printing. However, the information provided is intended to serve as a guide only, and therefore AFMA shall in no way be liable for any loss caused, whether due to negligence or otherwise, arising from the use of or reliance upon this document. The document is not intended to replace any operator's concession concerning the conditions under which they are required to operate. Depending on the conditions attached to a concession, some of the items discussed in this document may not apply to a particular fishing operation.



# Table of Contents

Executive summary .....	3
PART A: Management Arrangements .....	4
Introduction .....	4
Input and output controls.....	5
Demersal line sector .....	5
Demersal trawl sector.....	5
Sea cucumber hand collection sector.....	5
Lobster and trochus collection sector .....	6
Aquarium sector .....	7
Spatial controls.....	8
Data collection programs.....	9
Compliance .....	9
Non-target species arrangements.....	9
Obligations of permit holders.....	10
General obligations.....	10
Bycatch obligations.....	10
Wildlife interactions.....	10
Carriage of observers .....	11
Cost recovery and management levies .....	12
Nomination of a boat.....	12
Transfer of permits .....	12
AFMA contacts.....	13
Reporting illegal fishing activity .....	15
PART B: Background.....	16
Brief history of the Fishery.....	16
Description of the Coral Sea Fishery.....	16
Bibliography .....	22
Appendix 1 Boundary coordinates for the fishery .....	23
Appendix 2 Guide to permit conditions in the CSF .....	25
Appendix 3 Observer data collection strategies in the CSF.....	35
Appendix 4 Obligations of the permit holder and the vessel's master towards the observer and AFMA.....	41



## Executive summary

AFMA prepares an annual management arrangements booklet for the Coral Sea Fishery. While not a statutory instrument, the annual management arrangements booklet describes the arrangements in place for the fishery, including relevant permit/licence conditions and arrangements that have been agreed to at a policy level. This document provides a means of communicating the management regime for a fishery to all stakeholders, including industry, government and the wider community.

The annual management arrangements booklet is prepared in accordance with the Fisheries Management Act 1991 and the Statement of Management Arrangements. Statement of Management Arrangements are prepared for those Commonwealth fisheries that do not have statutory management plans. The Statement of Management Arrangements for a fishery also assists in the strategic assessment accreditation process required under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

AFMA manages the five sectors of the CSF in a precautionary manner in accordance with objectives under the *Fisheries Management Act 1991*. Each sector is primarily managed under permit conditions using different controls that include limited entry, gear restrictions, size limits, total allowable catch (TAC) and spatial controls. There are many species targeted in the fishery and for most of these species there is very little known. AFMA has implemented a program of data collection and verification to improve understanding of the CSF resources. AFMA is striving to achieve a sustainable fishery with low cost management arrangements while maximising opportunities for collecting relevant information on stocks and interactions. AFMA seeks to provide an operational environment that maximises the net economic returns to the Australian community.



# PART A: Management Arrangements

## INTRODUCTION

This annual management arrangements booklet provides a detailed outline of the management arrangements and conditions in place for the fishery for 2007/08. This document highlights any changes that have occurred in the fishery since the previous fishing season. It has been prepared in accordance with the *Fisheries Management Act 1991* (the Act) and the Statement of Management Arrangements.

The Act provides the overarching legal framework for the management of the fishery. The Act outlines the objectives which must be pursued by the Minister in the administration of the Act and this fishery is managed in line with these objectives.

The Statement of Management Arrangements provides the overarching management policy for the Coral Sea Fishery (CSF). The Statement of Management Arrangements also assists in the strategic assessment accreditation process required under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

A harvest strategy is being prepared for the CSF and is due for implementation in 2008. This document will overview the various harvest strategies for the fishery and include decision rules for the setting of total allowable catches and trigger points and subsequent actions should these catch levels be reached.

Annual fishing permits are granted under *section 32* of the Act. There are five broad types of fishing permit in the CSF, distinguished by their conditions. These five permit types define the sectors of the fishery and are referred to as the Line, Trawl, Lobster and trochus, Sea cucumber and Aquarium sectors. Different permit conditions apply for each sector to reflect the different management arrangements in place for the various fishing methods and target species. Permits provide the legal mechanism for establishing and enforcing the management arrangements specific to this fishery and to each fishing sector. Permits are also subject to certain statutory conditions set out in *section 32(5)* of the Act in addition to the conditions specified in the permit.

Management arrangements for the CSF are reviewed on an annual basis. AFMA actively involves a wide range of stakeholders in the process of developing, implementing and reviewing fisheries management arrangements. This approach is supported by specific consultative processes embodied in the Authority's governing legislation and undertaken as part of good fisheries management practice. Consultation is undertaken with the stakeholder committee established for this fishery. This allows AFMA to take into account any representations received when making management decisions. AFMA also informs the Department of the Environment and Water resources (DEW) of any amendments to the management arrangements.

AFMA cooperates with relevant jurisdictions to pursue complementary management and research of shared stocks for all target and by-product species, which may be affected by management of the CSF.

There are a total of 18 fishing permits issued across the five sectors of the CSF (9 line and trap, 2 trawl and trap, 3 lobster and trochus, 2 aquarium, and 2 sea cucumber). Each sector is covered by a permit which includes conditions specific to that sector.



## INPUT AND OUTPUT CONTROLS

Entry to the whole fishery and to individual sectors is limited. No additional access has been granted since 1997.

Permit conditions for each sector use different controls that include limited entry, gear restrictions, size limits on species, total allowable catch (TAC) and spatial controls.

AFMA is currently developing a harvest strategy for the CSF and expects to set catch triggers for management actions for key species in the line, trap and trawl sectors to ensure that these resources are managed sustainably.

Line and trawl permit conditions prohibit the taking or carrying of the following tuna and tuna like species as these species are managed under the Eastern Tuna and Billfish Fishery:

- a) fish of the family *Scombridae* and of the family *Bramidae* (commonly known as pomfrets or ray's bream) except fish of the genera *Scomberomorus*, *Scomber*, *Acanthocybium*, *Grammatorcynus* and *Rastrelliger* (commonly known as mackerels), and
- b) fish of the families *Istiophoridae* and *Xiphiidae* (commonly known as billfish).

### Demersal line sector

Output controls: There are no output controls apart from a ban on the taking of tuna and tuna-like species.

Input controls: Permits allow the use of demersal longlines, trotlines, setlines and handlines.

The use of automatic or random baiting equipment is prohibited unless specifically approved by AFMA and stated in the permit conditions. Application for the use of automatic or random baiting equipment is not transferable and must be reapplied for on change of the nominated vessel or transfer of license. Mitigation measures are included in the permit conditions to address incidental interactions with protected species. Measures include the use of tori lines, hook and depth limits and observer coverage.

### Demersal trawl sector

Output controls: There are no output controls apart from a ban on the taking of tuna and tuna-like species.

Input controls: Permits allow for fishing by trawl and gear restrictions impose a minimum net mesh size on any part of the net. Permit holders are required to have Turtle Exclusion Devices (TEDs) installed and operational during trawling for crustaceans.

### Sea cucumber hand collection sector

Output controls: There are two sea cucumber permits in the Fishery which are transferable. Each permit has annual quotas for five individual sea cucumber species and an annual quota of 75 tonnes for all species of sea cucumber (see Table 1). The 150 tonnes TAC for the Fishery includes the quotas for these 5 species. For all other species of sea cucumber, the remaining uncaught proportion of the total TAC determines the catch limit. There are also minimum size limit guidelines for sea cucumber which are implemented through a voluntary agreement with industry (see Table 2).

Input controls: Permits allow the collection of sea cucumber only by hand with or without the assistance of SCUBA diving equipment. There is a limit on the number of persons allowed to take fish at anytime within the CSF using the boat nominated on the fishing permit.



A five tonne “move on provision” is in place to limit the potential for localised depletion on reefs. Once five tonnes has been collected of any species or species combination, the mother ship is required to move at least 15 nm to a new anchorage (on the same reef or another reef).

Rotational harvesting arrangements are established in the permit conditions. These arrangements identify a maximum number of 144 fishing days that may be undertaken at identified reefs over the next 3 years. These arrangements share effort over a wider area to minimise the potential for stock depletion in localised areas. (For further details see the guide to permit conditions for the sea cucumber sector in Appendix 2).

**Table 1.** Catch limits (based on landed weight) for the sea cucumber collection sector in the CSF

Common name	Species	Annual quota per permit	Total Allowable Catch
Black teat fish	<i>Holothuria whitmaei</i>	500 kg	1 tonne
White teat fish	<i>Holothuria nobilis</i>	2 tonnes	4 tonnes
Sand fish	<i>Holothuria scabra</i>	5 tonnes	10 tonnes
Prickly redfish	<i>Thelenota ananas</i>	10 tonnes	20 tonnes
Surf red fish	<i>Actinopyga mauritiana</i>	5 tonnes	10 tonnes
All species of the Order Aspidochirotida		75 tonnes (including the take of the above species)	150 tonnes (including the take of the above species)

**Table 2:** Minimum size limit guidelines for the sea cucumber collection sector in the CSF

Common name	Species	Minimum size limit
Black teat fish	<i>Holothuria whitmaei</i>	25 cm
White teat fish	<i>Holothuria nobilis</i>	32 cm
Sand fish	<i>Holothuria scabra</i>	16 cm
Prickly redfish	<i>Thelenota ananas</i>	30 cm
All other species		15 cm

### Lobster and trochus collection sector

Output controls: There is a minimum tail length size of 125 mm for lobster and a size range of 80 to 125 mm for trochus.

“Move on provisions” and annual catch triggers for lobster and trochus are in place to limit the potential for localised stock depletion on reefs and the potential overfishing of the resource (see Table 3).



Once a 3 tonne lobster tail limit for any reef location has been reached, a move on provision is triggered and the mother ship is required to move at least 15 nm to a new anchorage.

Once 5 tonnes of trochus has been collected from any reef location, the mother ship is required to move at least 15 nm to a new anchorage (on the same reef or another reef).

Management responses to the triggering of the 30 tonne total catch limit for these sectors include undertaking an initial stock assessment to determine a Total Allowable Catch (TAC).

Input controls: Permits allow the collection of lobster and trochus by hand with or without the assistance of SCUBA diving equipment. There is a limit on the number of persons allowed to take fish at anytime within the CSF using the boat nominated on the fishing permit.

**Table 3:** Size limits, move on provisions and annual catch triggers for lobster and trochus

Common name	Size limit	Move on provision	Annual catch trigger
Lobster species	≥125 mm tail length	3 tonnes	30 tonnes
Trochus species	80 – 125 mm size range	5 tonnes	30 tonnes

### Aquarium sector

Output controls: There is a maximum landed weight for live rock of not greater than 20 metric tonnes per permit.

Input controls: Aquarium collection permits allow the take of live aquarium fish either by hand, by a barbless hook and line or by herding fish into collection areas with the use of cast; scoop and seine nets or hand held rod, and to conduct these activities with or without the use of SCUBA diving equipment. Depending on the type of gear used, restrictions include a maximum total net size/diameter, a maximum mesh size, a maximum handle/shaft length and a maximum net length

Live rock may be taken by hand or by using hand held non-mechanical implements.

The use of chemicals for taking fish is prohibited. At July 2007, there is one scientific permit issued which allows the use of quinaldine for deepwater collection of aquarium fish.

Each fishing permit has a maximum number of persons authorised to take fish using the boat specified in the permit. In addition, there is a combined precautionary trigger of 200 days fished per year. If fishing effort reaches 200 days, an evaluation will be undertaken of the sustainability and impacts of fishing at this level.



## Demersal finfish trapping (attached to permits for line and trawl sectors)

**Output controls:** There are no output controls.

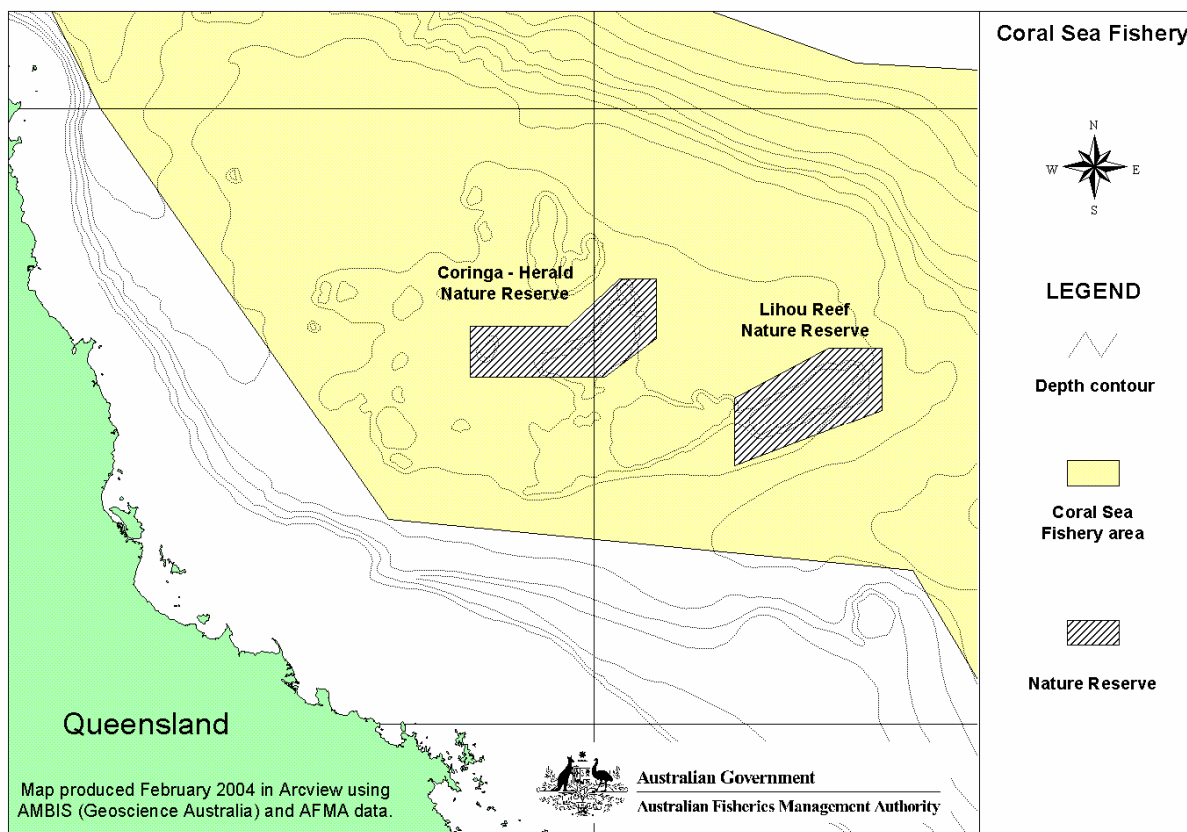
**Input controls:** Trap conditions are included on CSF line and trawl permits. The conditions allow the use of demersal finfish traps set on the sea floor. The traps must be metal. There is a maximum trap size and a maximum number of 50 traps per boat (see Appendix 2 for further details). Traps must be set and hauled individually.

Mitigation measures included in the permit conditions address ghost fishing, bycatch and other management issues. These measures include the use of sacrificial anodes on all traps, operational ICVMS installed on the vessel (including any aquarium permit holders who are otherwise not required to have ICVMS) and observer coverage. Any fishing trip involving demersal finfish traps is restricted to that method alone, unless the boat is carrying an observer on board

## SPATIAL CONTROLS

Two Marine Protected Areas (MPAs) help ensure the conservation of biodiversity within the area of the fishery (**Figure 1**). These are Coringa-Herald National Nature Reserve and Lihou Reef National Nature Reserve.

In order to address localised depletion of high value species in the fishery, “move-on provisions” are in place for the sea cucumber, lobster and trochus sectors. Rotational harvesting is also in place for the sea cucumber sector.



**Figure 1.** Map showing the location of Coringa-Herald and Lihou Reef National Nature Reserve.



## DATA COLLECTION PROGRAMS

The line, trap, trawl, sea cucumber, and lobster and trochus sector operators must complete Commonwealth fishing logbooks which record daily catch and effort. In the aquarium sector, catches from Commonwealth waters are recorded in a Queensland logbook.

Catches for the sea cucumber sector are verified through the Coral Sea Catch Disposal Record (CS2A or CS2B). Trawl, line and trap sector catches are verified through the SESS2A Catch Disposal Record.

Note: It is an offence to operate in the fishery without a copy of the correct logbook and catch disposal record on board. To obtain a logbook or catch disposal record, permit holders should contact the AFMA Data Processing Section directly on 02 6225 5382 or AFMA Direct on 1300 723 621.

Observer coverage requirements and data collection strategies are in place for auto longlining, demersal finfish trapping and trawling (see Appendices 2 and 3). Trawl and trap operators are required to carry observers on the first and every fourth trip. Trap operators may apply to AFMA to reduce the observer coverage to every eighth trip after 1,000 trap lifts.

Observer requirements for the auto longlining sector depend on the type of automatic baiting system used (see Appendix 2). An auto longline permit holder with a vessel that has had 100,000 hook sets observed by an AFMA observer (in this and/or other domestic fisheries) and who has met the current longline fishing Threat Abatement Plan (TAP) requirements may apply in writing to AFMA to have their observer coverage reduced to 1 in 8 trips, with a minimum coverage of at least 10% of hooks set annually.

## COMPLIANCE

AFMA authorised fisheries officers conduct both vessel and fish receiver premises inspections in accordance with section 84 of the *Fisheries Management Act 1991* (FMA) to ensure compliance.

Prior to departure reports are required for the sea cucumber sector. Prior to landing reports are required for the sea cucumber sector and also for the aquarium sector if live rock has been collected.

All vessels operating in the CSF are required to have an operational integrated computer vessel monitoring system (ICVMS) installed on their fishing vessels.

## NON-TARGET SPECIES ARRANGEMENTS

AFMA is currently developing a CSF bycatch minimisation program as part of the CSF Response to the Ministerial Direction issued in December 2005.

Specific precautionary bycatch management arrangements apply to the trawl sector. When fishing for crustaceans, trawl nets must be fitted with a turtle exclusion device (TED).

When a line permit holder is authorised to use automatic baiting equipment in the area of the CSF, he/she must have a bird scaring tori line installed in accordance with the *Fisheries Management Regulations 1992* (see Appendix 2).

An annual review of management arrangements takes into account all information relevant to bycatch species.

There are no non-target species taken in the sea cucumber, aquarium, or lobster and trochus collection sectors of the CSF due to the highly selective collection method.



## OBLIGATIONS OF PERMIT HOLDERS

### General obligations

Permit holders must comply with their Permit Conditions. The permit, or a true copy of the permit, must be carried on board the boat nominated to the specific permit at all times.

### Bycatch obligations

Permit holders must take all reasonable steps to ensure that their fishing operations minimise bycatch and habitat destruction.

CSF permit holders for the line and trawl sectors must record the catch and discard of any non-target species in their logbooks. These data will be used by AFMA to report on the progress made towards addressing bycatch issues and for catch statistics in annual data summaries.

### Wildlife interactions

**Note: Fishing in accordance with a CSF permit does not exempt operators from the EPBC Act provisions including for the take of protected species.**

#### a) Interactions with protected species under the *Environment Protection and Biodiversity Conservation Act*

There are four categories of protected species listed under the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*<sup>1</sup>. These species include listed threatened species and ecological communities, migratory species, whales and other cetaceans, and listed marine species. Under Part 13 of the *EPBC Act* it is an offence to kill, injure, or move any member of a listed marine species on Commonwealth land or in Commonwealth waters without the appropriate approval issued under that Act.

Fishing in accordance with a fishing permit does not automatically exempt a fisher from prosecution for the incidental take of a protected species, even if he/she reports the interaction. This is unless the management regime for that fishery has been accredited by the Minister for the Environment and Water Resources as taking *all reasonable steps to ensure that members of listed threatened species are not killed or injured as a result of the fishing*.

The CSF management regime has been accredited under the EPBC Act. Therefore, any CSF operator that interacts with a protected species as listed in Part 13 of the *EPBC Act* will not commit an offence if their operations are in accordance with the *CSF Management Arrangements*. However, fishers are required to report all interactions with protected species. Failure to report an interaction with a protected species is an offence under the *EPBC Act*.

Further information can be obtained from the *Department of the Environment and Water Resources (DEW)* website:

<http://www.environment.gov.au/coasts/fisheries/information/species.html>

#### b) Reporting of interactions with protected species to the Department of the Environment and Water Resources (DEW)

##### Option 1

Under the *EPBC Act*, operators are required to report all interactions with protected species (ie. catches or collisions) to DEW within seven (7) days of an interaction with a protected species by calling (free-call) **1800 641 806**, or email [protected.species@environment.gov.au](mailto:protected.species@environment.gov.au). This reporting to DEW is required unless operators are participating in the new reporting initiative as outlined below.

##### Option 2

---

<sup>1</sup> The *EPBC Act* is administered by *The Department of the Environment and Water Resources*.



AFMA and DEW have streamlined the reporting requirements for protected species interactions with Commonwealth fisheries. A Memorandum of Understanding has been signed enabling operators to fulfil their reporting obligations under the *EPBC Act* by reporting through AFMA logbooks – AFMA will periodically report to DEW on behalf of the fishers. All concession holders have been notified of this reporting arrangement and are reporting interactions to DEW via the AFMA logbooks. Any operator who does not participate in the new reporting arrangements will need to report protected species interactions separately to both AFMA via their logbooks and DEW on the phone number listed above.

#### c) Reporting in AFMA logbooks

CSF operators are required to report interactions with protected species in their Commonwealth logbooks. Operators who have an interaction with a protected species are required to circle **Yes** in the box at the bottom of the logsheet and then fill out the *Listed Marine and Threatened Species Form*. These forms are located at the back of the logbook. Completed forms must be returned to AFMA with the logsheets and catch disposal record within 3 calendar days of unloading.

#### d) Special reporting arrangements for the CSF aquarium sector

CSF aquarium operators must report interactions with protected species in the “comments” section of their Queensland Aquarium Fish Trip Logbook (AQ04). ). Original completed logsheets are submitted to AFMA. A copy of the Queensland logsheet must be returned to the Queensland Department of Primary Industries.

#### e) Interactions with tagged wildlife

Researchers investigating some wildlife species will periodically tag animals or, in the case of seabirds, use bands to help better understand aspects of their biology and population status. In the case of protected wildlife, most of the follow-up sightings of the marked animals are made at haul out sites, rookeries or breeding colonies. Researchers are therefore very interested in recoveries or observations of marked animals made by fishers, as they tend to be well away from colonies.

Operators who capture a tagged animal should record the details in the *Listed Marine and Threatened Species Form*. The band or tag number should be inserted in the appropriate section of the *Listed Marine and Threatened Species Form* and the following details recorded in the Comments section:

- tag or band number and colour
- species identification or description (photos are very useful)
- size
- sex (if it can be determined)
- time, date and position of capture.

If the tagged animal is captured alive, operators should record as many details as possible about that animal then release it as carefully as possible, noting the condition in which it was released. AFMA will arrange to notify the appropriate researchers. Researchers are often prepared to provide people with feedback on tagged animals.

#### **Carriage of observers**

Permit conditions require that the fishing permit holder, when requested by AFMA, must facilitate the carriage of fisheries observers on the boat, and is required to meet the costs of observers as invoiced by AFMA. The permit holder will be asked to provide written advice that the boat can safely carry an observer and their equipment, as well as a written undertaking that the permit holder is willing to do so.



If a permit holder does not believe that the boat can safely carry an observer, he/she will be required to provide written confirmation to this effect.

Permit holders need to be aware that an observer boarding the boat will undertake a pre cruise inspection. If, after the inspection, the observer has concerns that the vessel is not fit for the purpose of carrying an observer, he/she can refuse to board the boat. Permit holders should note that this may result in the boat's nomination being removed from the permit. Obligations of the permit holder and the vessel's master towards the observer and AFMA are described in Appendix 4.

Costs of routine observer coverage will be funded from the CSF levy base. Permit holders may be invoiced for observer coverage required for other purposes.

Please note: Operators should contact the AFMA observer section on 02 6225 5355 to arrange for an observer placement at least 72 hours or as soon as possible prior to departure.

## **COST RECOVERY AND MANAGEMENT LEVIES**

Costs of managing the CSF are fully recovered in accordance with the Commonwealth Cost Recovery Policy. Levies are charged per permit and calculated for each fishery based on the total industry funded costs of management for the fishery. The costs of management vary between the various fishing sectors and consequently the levies for each sector are different. AFMA generally issues a Levy Invoice for CSF permits early in the New Year. The invoice will specify the date by which full payment must be received by AFMA.

Please be aware that AFMA **will not process** a transfer of a permit if it is within a 14 day period before the issue of levy invoices until the date that the levy for the permit is paid.

## **NOMINATION OF A BOAT**

Only Australian boats can be nominated to fish in the CSF. An Australian boat is defined under section 4 (1) of the *Fisheries Management Act 1991* which specifies that an Australian boat is:

- a) a boat:
  - i. the operations of which are based on a place in Australia or an external Territory; and
  - ii. that is wholly-owned by a natural person who is a resident of, or by a company incorporated in, Australia or an external Territory; and
  - iii. that was built in Australia or an external Territory; or
- b) a boat, not being a boat mentioned in paragraph (a) or a boat owned by a foreign resident that is under a demise charter, that is registered under the *Shipping Registration Act 1981*, or
- c) a boat the subsection of a declaration under subsection (2).

You must nominate the boat that you wish to use to fish in the CSF against your permit before you can go fishing. A boat can only be nominated to one holder (that is, natural person or company) at any one time. The fee for a boat nomination is \$300.00.

The holder of a permit may apply to nominate or remove a boat on the approved form *BN- Boat Nomination Statutory Fishing Rights and Fishing Permits*. This form can be downloaded from the AFMA website at:

<http://www.afma.gov.au/information/publications/forms/licensing/default.htm>

## **TRANSFER OF PERMITS**

The holder of a permit may apply to transfer the permit to another person on the approved form *TP- Application for Transfer of Fishing Permits*. The fee for a permit transfer is \$300.00. The permit transfer form can be downloaded from the AFMA website at:



AFMA will not process the transfer of a CSF fishing permit if:

- litigation under the Act or any Regulation under the Act is proceeding;
- the permit has been suspended;
- the person to whom the permit is to be transferred has been ordered not to be on a boat in the AFZ for commercial fishing purposes;
- AFMA has grounds to suspend the permit but this has not yet occurred; and
- it is within a 14 day period before the issue of levy notices until the date that levy is paid.

If AFMA approves the transfer of a permit, certificates that show the change in ownership will be provided to both the seller and buyer of the permit.

## AFMA contacts

You can contact AFMA between 08:15 and 17:15 from Monday to Friday for the cost of a local call on the AFMADirect number. Our receptionist will be able to put you through to someone who can help with your enquiry.

 **AFMADIRECT 1300 723 621**

Alternatively, you can use the numbers listed below to contact AFMA officers directly.

### **Coral Sea Fishery Management**

Phil Domaschenz, Manager  
Phone 02 6225 5315  
Facsimile 02 6225 5439

Sally McCarthy, Management Officer  
Phone 02 6225 5340  
Facsimile 02 6225 5439

### **Environment Policy**

Tim Smith, Manager  
Phone 02 6225 5322  
Facsimile 02 6225 5446

### **Data Processing Section**

Laura Walker  
Phone 02 6225 5382  
Facsimile 02 6225 5440

### **Licensing & Quota Management**

Michelle Wilson, A/g Manager  
Phone 02 6225 5358  
Facsimile 02 6225 5426

### **Observer Section**

Steve Auld, Observer Co-ordinator  
Phone 02 6225 5355  
Facsimile 02 6225 5440

### **Compliance Section**

Adam Wade, Senior Compliance Officer  
Phone 02 6225 5482  
Facsimile 02 6225 5442

### **VMS and Intelligence**

Richard Bland  
Phone 02 6225 5369  
Facsimile 02 6225 5442

---

### **AFMA's mailing address**

AFMA  
Box 7051  
Canberra Business Centre  
ACT 2610





## REPORTING ILLEGAL FISHING ACTIVITY

Illegal fishing is fishing that is conducted by national or foreign vessels without the permission of the managing authority for that area of waters. Fishing which has not been reported or has been misreported is known as unreported fishing, and unregulated fishing is that which is not consistent with legislation, or which contravenes conservation and management measures.

Operators should report any incidence or suspicion of illegal fishing activity to the contact numbers listed below. Both numbers are available 24 hours per day. Any information provided will be treated confidentially and may be provided anonymously.

To report **illegal domestic** fishing activity phone AFMA Compliance on **02 6225 5369**.

To report **illegal foreign** fishing phone Coastwatch on **Freecall 1800 06 1800**.

Operators are requested to provide as much information as possible in their reports including:

- the date, time and location of the suspicious activity
- a description of the vessel involved
- the names of any verifying witnesses; and
- be prepared to provide any photographs and/or other supporting evidence.



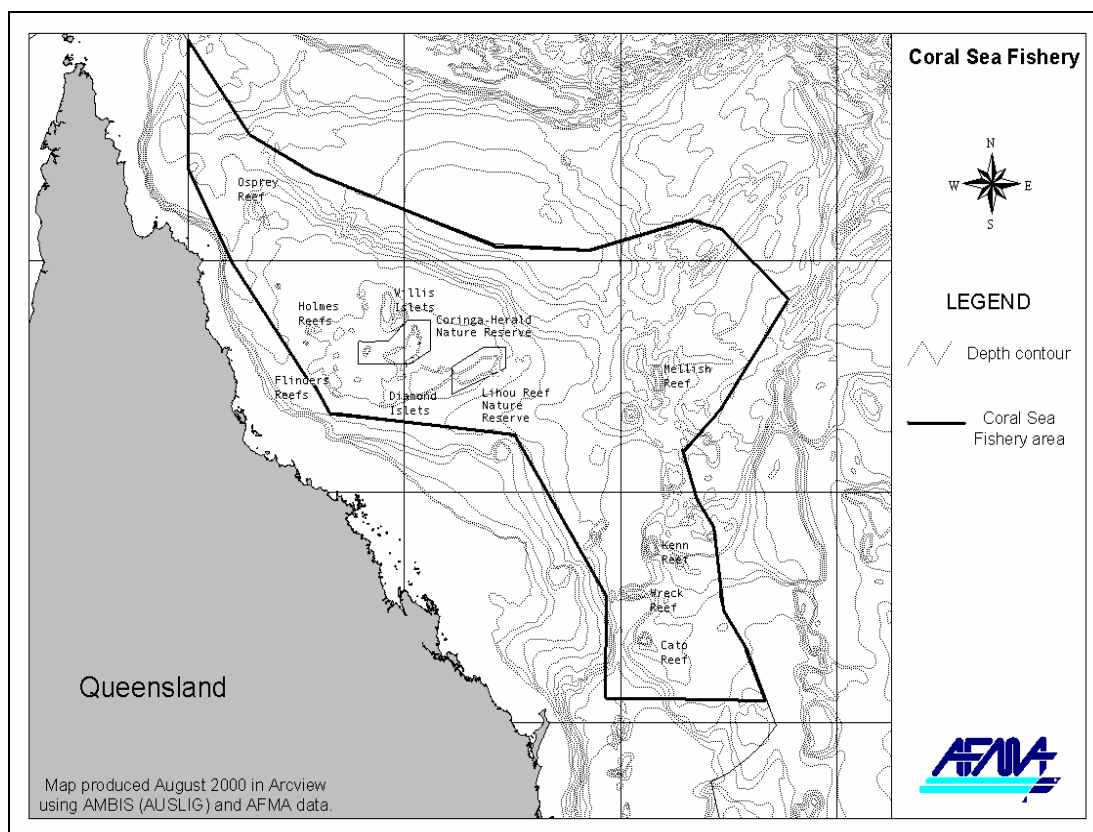
# PART B: Background

## BRIEF HISTORY OF THE FISHERY

A number of historical small-scale demersal line, trawl and hand collection fisheries existed before their integration into the CSF. Historically the fisheries in the area of the current CSF have been known by various names including the East Coast Deepwater Finfish Fishery (ECDFF), the East Coast Deepwater Crustacean Trawl Fishery (ECDTF) and the North Eastern Demersal Line Fishery (NEDLF).

The Fishery was accredited in November 2004 as meeting the requirements of the *Environment Protection and Biodiversity Conservation Act 1999*. The strategic assessment report is available on AFMA's website at [http://www.afma.gov.au/fisheries/ext\\_territories/coral\\_sea/publications/default.htm](http://www.afma.gov.au/fisheries/ext_territories/coral_sea/publications/default.htm).

Consequentially, the trawl, line, lobster and trochus, aquarium and demersal finfish trap (trial) sectors of the CSF were declared as exempt from the export provisions of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and this declaration will expire on 19 November 2009. The sea cucumber sector of the CSF has also been declared as an approved Wildlife Trade Operation (WTO) under the EPBC Act and this declaration will expire on 19 November 2007.



**Figure 2.** Coral Sea Fishery area of waters. Exact coordinates of the fishery are located at Appendix 1.

## DESCRIPTION OF THE CORAL SEA FISHERY



<p><b>Permitted Operating Methods</b></p>	<p><u>Demersal line sector</u> – demersal longlines, trotlines, droplines, setlines, handlines, and trial use of demersal finfish trap</p> <p><u>Demersal and midwater trawl sector</u> - otter board trawl gear for fish and for crustaceans and trial use of demersal finfish trap</p> <p><u>Sea cucumber collection sector</u> - hand collection</p> <p><u>Aquarium collection sector</u> – hand collection, and trial use of demersal finfish trap</p> <p><u>Lobster and trochus collection sector</u> - hand collection</p>
<p><b>Relevant Legislation</b></p>	<p><i>Fisheries Management Act 1991</i></p> <p><i>Fisheries Management Regulations 1992</i></p> <p><i>Fisheries Administration Act 1991</i></p> <p><i>Fisheries (Administration) Regulations 1992</i></p> <p><i>Environment and Protection Biodiversity Conservation Act, 1999</i></p> <p>International Convention for the prevention of pollution from Ships 1973 (MARPOL).</p> <p>Offshore Constitutional Settlement (OCS) Agreement with Queensland (3 February 1995)</p>
<p><b>Area of Fishery</b></p>	<p>The CSF covers waters from the east of Sandy Cape (Fraser Island) to east of Cape York. The Fishery commences east of the Great Barrier Reef Marine Park and extends to the edge of the Australian Fishing Zone. It excludes the areas of the Coringa-Herald and Lihou Reef National Nature Reserves (<b>Figure 1</b>)</p>



<p><b>Target Species</b></p>	<p><u>Demersal line sector</u>: a broad range of finfish including tropical groupers (Serranidae), snappers (Lethrinidae or Lutjanidae) and emperors (Lethrinidae or Lutjanidae)</p> <p><u>Trawl sector</u>: a broad range of finfish including alfonsino, gemfish, several species of cod, and several Lutjanids and potentially crustaceans.</p> <p><u>Sea cucumber collection sector</u> - Amberfish (<i>Thelenota anax</i>), Blackfish (probably <i>Actinopynga miliaris</i>), Pacific Black teat fish (<i>Holothuria whitmaei</i>), Greenfish (<i>Stichopus chloronotus</i>), Lollyfish (<i>Holothuria atra</i>), Prickly red fish (<i>Thelenota ananas</i>), Sand fish (<i>Holothuria scabra</i>), Surf red fish (<i>Actinopyga mauritiana</i>), White teat fish (<i>Holothuria fuscogilva</i>)<sup>2</sup></p> <p><u>Aquarium collection sector</u> – damselfish, butterflyfish, angelfish, wrasse, anemone fish, surgeonfish, blennies and gobies.</p> <p><u>Lobster and trochus collection sector</u> - The main trochus species in the CSF is probably not <i>Trochus niloticus</i>, but may be a related species, <i>Tectus pyramis</i>, which is smaller and has a lower value than <i>T. niloticus</i> (Wells and Bryce, 1988). This requires further clarification.</p> <p>The lobster sector targets species <i>Panulirus ornatus</i> and <i>Panulirus versicolor</i> (self-recruiting, resident within the Coral Sea), with possibly <i>P. pennisiulatus</i> as a minor species.</p>
<p><b>Environment/ Ecology</b></p>	<p>Sub-continental shelf and abyssal plains with scattered reef systems dominate the CSF. The richest areas for fish diversity in the Coral Sea are the exposed outer slopes of 5 – 20 m depth and large bomboras and pinnacle reefs (Allen, 1988).</p> <p>There are two areas in the CSF that are identified as being of high conservation value, and are therefore listed as marine protected areas (MPAs). The Coringa-Herald and Lihou Reef National Nature Reserves combined cover approximately 17,000 square kilometres of coral reef habitat which is closed to fishing (<b>Figure 1</b>).</p>
<p><b>Fishery Status</b></p>	<p>Overall status uncertain; most stocks have not been assessed.</p> <p>The 2006 BRS fishery status report for the CSF states:</p> <p>“Black teatfish, white teatfish, surf redfish, prickly redfish and other species of beche de mer <b>uncertain</b></p> <p>Aquarium fish sector, line-fishing and trawling sector, lobster and trochus sector <b>uncertain</b>”</p>

<sup>2</sup> Note that there has been a revision of the scientific names for Pacific black teatfish; *Holothuria whitmaei* (Bell, 1887) which was previously assigned as *Holothuria fuscogilva* and White teatfish; *Holothuria fuscogilva* (Cherbonnier, 1980) which was previously assigned as *Holothuria nobilis*.



<p><b>Impact of fishing</b></p>	<p>Due to the highly specific method of collection, there is no bycatch or significant impact on ecological communities in the three fisheries restricted to hand collection.</p> <p>There is insufficient data available to determine the impacts of trawl or demersal line fishing on target species.</p> <p>Given the limited amount of available information for the CSF, it is difficult to assess the impacts on related species and food chains. However, catch levels are capped at a precautionary level by means of limited entry provisions combined with other measures to ensure sustainable fishing of commercial species.</p> <p>In the event an area or species is identified by the Ecological Risk Assessment (ERA) for Commonwealth fisheries as being high risk, AFMA management will implement measures to minimise any impact on the physical environment, ecological communities or on food chains within the area of the CSF. Measures would be implemented after full consultation with stakeholders and consistent with AFMA's legislative objectives.</p>
<p><b>Socio-economic issues</b></p>	<p>The Gross Value of Production (GVP) for the combined sectors of the CSF increased from \$1,108,200 in 2004-2005 to \$1,249,800 in 2005-2006 (as determined by the Department of Agriculture Fisheries and Forestry (DAFF)).</p> <p>The majority of CSF permit holders are not solely dependent upon the CSF for their livelihood as they also hold fishing concessions allowing them access to other Commonwealth and State fisheries.</p> <p>On average, each permit holder employs a crew of between 3 and 7 per vessel per voyage. The number of crew depends on the method of fishing and size of vessel. The main unloading ports for product from the CSF are Townsville, Bundaberg, Brisbane, Cairns and Hobart.</p>



<p><b>Resource Competition</b></p>	<p>The Eastern Tuna and Billfish Fishery is exclusively pelagic and overlaps some areas of the CSF. CSF operators are prohibited to take tuna or tuna-like species from the fishery; thereby eliminating resource competition among these fisheries.</p> <p>Additionally, the CSF potentially shares resources with the South East Trawl Fishery and the Gillnet, Hook and Trap Fishery such as blue-eye trevalla, gemfish and alfonsino.</p> <p>Sea cucumber, lobster, trochus and prawns are caught in the Torres Strait Fisheries. However, it is unknown if any of these stocks are shared.</p> <p>Species common to the CSF and state fisheries are prawns and other crustaceans, gropers, coral trouts, snappers, emperors, other reef finfish species, sea cucumbers, a large number of target aquarium species, lobster and trochus.</p> <p>Charter fishing expeditions for recreational anglers also fish the same waters for the same species. AFMA considers that limited recreational fishing takes place in the CSF and is seeking to access all available information.</p> <p>Due to its isolation from the coastline, the level of indigenous fishing in the CSF is thought to be minimal. A project funded by the Fisheries Research and Development Corporation (FRDC) entitled the <i>National Recreational and Indigenous Fishing Survey</i> (Project No. 99/158) provided no additional information on indigenous fishing in the waters of the CSF.</p>
<p><b>Research – Current Knowledge</b></p>	<p>The Southern Cross University conducted a desktop study on the CSF titled <i>A profile of the Coral Sea Fishery: Lobster Hand-collection Management and Strategy</i>. A report from this work was published in July 2001 and the results suggested that <i>Panulirus ornatus</i>, <i>P. versicolor</i> and <i>P. penicillatus</i> are the only lobster species likely to be sustainably harvested from the CSF (Smith, 2001).</p> <p>In March 2002 the Commonwealth Scientific Industrial Research Organisation (CSIRO) produced a report titled <i>Research for Management of the Coral Sea Collector Fishery (Beche-de-mer)</i>.</p> <p>In 2002, Scientific Permits for fish traps were issued and a reef shark tagging project commenced.</p> <p>In 2003, Oxley et al. produced a report for CRC Reef for the Department of the Environment and Heritage entitled <i>Marine surveys undertaken in the Coringa-Herald National Nature Reserve</i>.</p> <p>The following final FRDC research reports were published: Benzie, J A., and Uthicke, S. <i>Stock size of Beche-de-mer, recruitment patterns and gene flow in black teatfish, and recovery of over-fished black teatfish stocks on the Great Barrier Reef</i>. (FRDC Project No. 1998/133) and Stutterd, E and Williams, G. <i>The future of beche-de-mer and trochus fisheries and aquaculture in Australia</i>.</p>



<b>Research Being Undertaken</b>	An ongoing shark and nautilus tagging project is being conducted on Osprey Reef.
<b>Research Needs</b>	<p>Analyse existing data from logbooks and observer records to assist in setting catch triggers for the CSF harvest strategy.</p> <p>Estimate CSF sea cucumber stock size and relative stock status based on catch rates and habitat mapping.</p> <p>Identify the main species of trochus in the CSF by collection and identification of suitable samples.</p>



## Bibliography

Allen, G.R. (1988) *The Fishes of the Coral Sea*, Australian National Parks and Wildlife Service, Canberra, unpublished.

Australian Fisheries Management Authority (2003) *Environmental Assessment Report – Coral Sea Fishery*, Australian Fisheries Management Authority, Canberra.

Benzie, J A., and Uthicke, S. Stock size of Beche-de-mer, recruitment patterns and gene flow in black teatfish, and recovery of over-fished black teatfish stocks on the Great Barrier Reef. (FRDC Project No. 1998/133)

Bureau of Rural Sciences (2005) *Fishery Status Reports 2005 – Status of Fish Stocks managed by the Australian Government*. Department of Agriculture, Fisheries and Forestry, Canberra.

Commonwealth Scientific Industrial Research Organisation Report (2002) Research for Management of the Coral Sea Collector Fishery (Beche-de-mer).

Department of Environment and Heritage (2004) *Assessment of the Coral Sea Fishery*, Department of Environment and Heritage, Canberra.

Oxley, W.G. et. al. (2003) CRC Reef for the Department of Environment and Heritage Marine surveys undertaken in the Coringa-Herald National Nature Reserve.

Smith, M. (2001) The Coral Sea Fishery: Tropical Rock Lobster Hand-collection, Honours Thesis, Southern Cross University, Lismore.

Stutterd, E and Williams, G. (2003) The future of beche-de-mer and trochus fisheries and aquaculture in Australia. Bureau of Rural Sciences. Australia.



## Appendix 1 Boundary coordinates for the fishery

That part of the Australian Fishing Zone, excluding the areas known as Coringa-Herald National Nature Reserve and Lihou Reef National Nature Reserve, enclosed in the area bounded by a line:

- a) Commencing at the point of Latitude 24 degrees 30 minutes South, Longitude 154 degrees 40 minutes East;
- b) then running from there north along the geodesic to the point of Latitude 22 degrees 15 minutes South, Longitude 154 degrees 40 minutes East;
- c) then north-westerly along the geodesic to the point of Latitude 18 degrees 45 minutes South, Longitude 152 degrees 35 minutes East;
- d) then north-westerly along the geodesic to the point of Latitude 18 degrees 20 minutes South, Longitude 148 degrees 20 minutes East;
- e) then north-westerly along the geodesic to the point of Latitude 15 degrees South, Longitude 146 degrees East;
- f) then north-westerly along the geodesic to the point of Latitude 13 degrees South, Longitude 145 degrees East;
- g) then north along the meridian of Longitude 145 degrees East to its intersection with the outer limit of the Australian Fishing Zone;
- h) then generally southerly along that outer limit to its intersection with the parallel of latitude 24 degrees 30 minutes South;
- i) then west along that parallel to the point of commencement.

**The areas within the boundary coordinates below are closed to fishing under the Environment Protection and Biodiversity Conservation Act 1991.**

***Coringa-Herald National Nature Reserve enclosed in the area bounded by a line:***

- a) Commencing at the point of Latitude 16 degrees 46 minutes South, Longitude 149 degrees East;
- b) then running from there east along that parallel to the point of Latitude 16 degrees 46 minutes South, Longitude 149 degrees 48 minutes East;
- c) then north-easterly along the geodesic to the point of Latitude 16 degrees 23 minutes South, Longitude 150 degrees 12 minutes East;
- d) then east along the parallel to the point of Latitude 16 degrees 23 minutes South, Longitude 150 degrees 30 minutes East;
- e) then south along the meridian to the point of Latitude 16 degrees 52 minutes South, Longitude 150 degrees 30 minutes East;
- f) then south-east along the geodesic to the point of Latitude 17 degrees 11 minutes South, Longitude 150 degrees 05 minutes East;
- g) then west along that parallel to Latitude 17 degrees 11 minutes South, Longitude 149 degrees East;
- h) then North along that meridian to the point of commencement.

***Lihou Reef National Nature Reserve enclosed in the area bounded by a line:***

- a) Commencing at the point of Latitude 17 degrees 21 minutes South, Longitude 151 degrees 08 minutes East;
- b) then running from there north-east along the geodesic to the point of Latitude 16 degrees 57 minutes South, Longitude 151 degrees 54 minutes East;
- c) then east along that parallel to the point of Latitude 16 degrees 57 minutes South, Longitude 152 degrees 20 minutes East;
- d) then south along that meridian to the point of Latitude 17 degrees 27 minutes South, Longitude 152 degrees 20 minutes East;



- e) then south-westerly along the geodesic to the point of Latitude 17 degrees 54 minutes South, Longitude 151 degrees 08 minutes East;
- f) then north along that meridian to the point of commencement.



## Appendix 2 Guide to permit conditions in the CSF

This section is intended to provide a guide to CSF permit conditions. It does not override any permit, and the permit holder must comply with his/her permit conditions.

While some permit conditions are generic to the CSF or to particular sectors, other conditions such as observer coverage requirements may vary between permits.

### CONDITIONS APPLICABLE TO ALL SECTORS OF THE CSF FOR 2007/08 SEASON.

#### Obligations

The permit holder or authorised agent must comply with the provisions of the Fisheries Management Act 1991, the Fisheries Management Regulations 2002 and any other conditions as specified on the permit. The permit holder or authorised agent must ensure the permit, or a true copy of it, is carried on board the boat nominated on the permit at all times and must be produced upon demand by an Authorised Officer.

#### Single jurisdiction fishing trips

Before entering the CSF to conduct fishing activities under the authority of the fishing permit, all fish on board the boat must be unloaded.

After fishing in the CSF under the authority of the fishing permit, all fish on board the boat are to be unloaded before fishing is commenced in any other area of waters or fishery.

This means that you must not fish in the area of the CSF and in an area outside the CSF on the same fishing trip.

#### Fishing outside the Australian Fishing Zone

On a trip in which the fishing permit holder, or person acting on behalf of the fishing permit holder, fishes within the area of the CSF he/she must not on the same trip fish outside the Australian Fishing Zone (AFZ) except where a fisheries officer is onboard the boat for the entire trip and prior approval has been granted by AFMA.

#### ICVMS requirements

The fishing permit holder must ensure the boat nominated to fish in the CSF is fitted with an AFMA approved operational Integrated Computer Vessel Monitoring System (ICVMS) and comply with the associated conditions.

#### Carriage of Fishery Observers

Fishing permits authorising the use of trawl nets, automatic baiting equipment, and demersal finfish traps have compulsory observer requirements. In addition, AFMA or its delegate may request other permit holders to carry an observer. Permit holders must facilitate the carriage of fisheries observers on the boat and meet the costs as invoiced by AFMA.

#### Fish taken with another boat

Unless specified otherwise, the fishing permit does not allow the carrying of fish taken with the use of another boat.

#### Transshipping fish

Unless specified otherwise, the fishing permit does not allow the transshipping of fish.

#### Boat nominations

Permit conditions prevent the same boat being shared by two holders of separate fishing concessions.



### Taking or carrying tuna and tuna like species:

The fishing permit does not allow for taking or carrying tuna and tuna like species of:

- a) fish of the family *Scombridae* and of the family *Bramidae* (commonly known as pomfrets or ray's bream) except fish of the genera *Scomberomorus*, *Scomber*, *Acanthocybium*, *Grammatorcynus* and *Rastrelliger* (commonly known as mackerels), and
- b) fish of the families *Istiophoridae* and *Xiphiidae* (commonly known as billfish).

### Disposal of catch

Unless specified otherwise, catch caught from the CSF may only be sold or otherwise disposed of to a person in Australia if the person holds a current AFMA Fish Receiver Permit or the fish are for the person's private or domestic use.

The holder of the fishing permit must not sell or otherwise dispose of fish of the Class Osteichthyes (bony fishes) in a form other than as a whole, gilled, gutted or headed fish and/or a combination of these forms.

### Reporting Requirements

Unless specified otherwise, the holder of the fishing permit must ensure that relevant information about fish taken in the area of the CSF is accurately and fully recorded and submitted to AFMA in Daily Confidential Fishing Logbooks and in the Catch Disposal Records. If the catch is dispatched using multiple vehicles, then a transit form must also be completed.

### Landing requirements for sharks (when authorised under a permit)

All sharks taken under the authority of a fishing permit are landed in the following manner:

All sharks of the Class Chondrichthyes, excluding skates and rays, angel shark of the Family Squatinidae and spurdogs of the genus *Squalus*, must be landed and sent to the receiver headed and gutted (trunked) with their dorsal, pectoral and caudal (tail) fins on their carcass. The tail tip may be cut off at the sub-terminal notch, but the caudal lobe must be left attached. Pelvic fins and claspers may be removed or left attached to their carcass.

Angel sharks of the Family Squatinidae and Dogfishes of the family Squalidae (for example Endeavour dogfishes, black sharks, brier sharks, lantern sharks and green eye spurdogs) may be landed headed and gutted (trunked) with their belly flaps removed. The dorsal and caudal (tail) fins must not be removed from their carcass. The tail tip may be cut off at the sub-terminal notch. Pelvic fins, pectoral fins and claspers may be removed or left attached to their carcass.

Skates, rays and Trygonorrhina sp. (banjo shark) may be processed at sea, but not skinned or filleted. Banjo shark may be landed headed and gutted with their belly flaps, pelvic fins and claspers removed from their carcass. The pectoral fins and tail must not be removed from Banjo sharks. Pectoral fins (flaps) obtained from skates and rays may also be landed separately.

All elephant fish of the Families Callorhynchidae, Chimaeridae and Rhinochimaeridae must be landed and sent to the receiver headed and gutted with the belly flaps removed. Fins must be removed excluding the second dorsal fin and tail, which must be left, attached to their carcass for identification purposes.

### Shark fins

The fishing permit holder and/or authorised representative is prohibited from carrying, retaining, or landing all shark (Class Chondrichthyes) dorsal, pectoral, caudal, pelvic and anal fins that are not attached to their carcass.



### Shark livers

The fishing permit holder is prohibited from carrying, retaining and landing livers obtained from sharks unless the individual carcasses from which the livers were obtained are also landed.

## **ADDITIONAL CONDITIONS SPECIFIC TO THE LINE SECTOR**

### Methods authorised under the fishing permit

Unless otherwise specified, the fishing permit only allows fishing for fish with the use of demersal longlines, trotlines, droplines, setlines and handlines in the CSF area of waters.

### Use of automatic baiting equipment

Automatic baiting equipment is being trialled and assessed in the fishery. The fishing permit does not allow the use of automatic baiting equipment. Specific approval from AFMA must be gained to use automatic baiting equipment on a trial basis. Such approval is not transferable between vessels or on transfer of a permit.

### Use of random baiting equipment

Random baiting equipment is being trialled and assessed in the fishery. The fishing permit does not allow the use of random baiting equipment. Specific approval from AFMA must be gained. Such approval is not transferable between vessels or on transfer of a permit.

## **AUTO LONGLINE SECTOR**

Auto longlining is being trialled and assessed in the fishery. AFMA approval is required for the use of auto longline equipment. The following conditions apply to permits with this approval.

### Automatic baiting equipment

The fishing permit holder is permitted to use automatic baiting equipment in the area of the CSF subject to the following conditions.

The fishing permit holder must:

Ensure that the nominated boat is fitted with an AFMA approved automatic baiting system;

have a bird scaring tori line installed in accordance with the Fisheries Management Regulations as follows:

1. Tori Pole apparatus consisting of:
  - a Tori Pole; and
  - a bird line attached to the Tori Pole; and
  - at least 3 streamer pairs attached to the bird line.
  
2. A Tori Pole must be constructed of material that is strong enough to withstand all weather conditions in which longline fishing activities are likely to be undertaken and, when in use be:

so mounted on the boat that it operates satisfactorily in the weather conditions in which it is being used; and



so positioned that the bird line attached to it will pass directly over the point at which the hooks connected directly or indirectly to the longline, enter the water.

3. A bird line must be:
  - (a) constructed of material that is:
    - (i) between 2 mm and 5 mm in diameter at all points; and
    - (ii) strong enough to withstand all weather conditions in which longline fishing activities are likely to be undertaken; and
  - (b) long enough, and able to be set, to extend at least 150 metres from the stern of the boat on which it is mounted: and
  - (c) fitted with at least 3 streamer pairs which are so positioned that, when the bird line is set:
    - (i) the streamer pair nearest to the boat is positioned not more than 10 m (measured horizontally) from the boat; and
    - (ii) each other streamer pair is positioned approximately 7 metres apart from any other streamer pair in the apparatus.
4. A streamer pair must be:
  - (a) constructed from:
    - (i) cord that is at least 2.5 mm in diameter; and
    - (ii) red urethane tubing, long enough to extend the full length of the streamer pair, the inside diameter of which is at least 5 mm; and
  - (b) assembled by:
    - (i) threading the cord through the tubing; and
    - (ii) crimping or knotting the cord at the lowermost end to secure the tubing to the cord; and
  - (c) mounted on the bird line using a 3-way swivel that is strong enough to withstand all weather conditions in which longline fishing activities are likely to be undertaken; and
  - (d) of such length that:
    - (i) each streamer in a streamer pair, when mounted on the bird line, has its lowest point swinging freely just clear of the water; and
    - (ii) each streamer in the streamer pair that is positioned the greatest distance from the boat is:
      - (A) if the boat is an Australian boat - at least 1 m long; or
      - (B) if the boat is a foreign boat - at least 3.5 m long; and
  - (e) able to move freely.

C. facilitate the carriage of an AFMA approved observer for the first commercial trip after installation of an AFMA approved automatic baiting system and thereafter as directed by AFMA;

- i. if a "Mustad" automatic baiting system is installed then carriage of an observer is required thereafter every 4th trip; or
- ii. if "Best Fishing Gear" (BFG) automatic baiting system is installed then carriage of an observer is required thereafter every 3rd trip.

D. observe and comply with Fisheries Management Regulation 2001 (No. 1), Schedule 1, Amendments Part 12 Incidental Catch of Seabird, Division 3 Discharge of Offal Regulation Numbers 75, 76 and 77.



- E. ensure that all information about any interaction of seabirds are accurately and fully recorded and submitted in the logbook titled Coral Sea Line Fishing Daily Fishing Log (LN01) in accordance with the General Information and Instructions for completion of the logbook dated December 2005.
- F. ensure that every shot engaging the automatic baiting gear is set in waters deeper than 200 metres unless a fisheries observer is on board the boat, in which case 50% of all shots engaging the automatic baiting gear must be set in waters deeper than 200 m.
- G. ensure that no more than a total of 15,000 hooks be used, stowed and/or secured on the boat when fishing under the authority of this fishing permit.
- H. ensure that all commitments made in your fishery plan relating to the use of the automatic baiting equipment are met and any contingent action required by the plan is taken.
- I. on transfer of this permit or change of the nominated vessel, provision for the use of automatic baiting equipment must be sought from AFMA.

## **ADDITIONAL CONDITIONS SPECIFIC TO THE TRAWL SECTOR**

### Methods authorised under the fishing permit

The fishing permit only allows fishing for fish (including crustaceans) by the method known as otter trawl in the CSF area of waters. The trawl net must not be less than 38 mm at any part of the net when measured in accordance with the condition titled "Measuring nets".

### Turtle Exclusion Device

The fishing permit holder, or authorised representative, must ensure that the otter trawl net is only deployed in the CSF area of waters to fish for crustaceans if fitted with a Turtle Exclusion Device (TED) which complies with specifications.

### Carriage of Observers

The fishing permit holder or authorised representative is required to carry an observer on the nominated boat on the first trip and every fourth fishing trip thereafter with the aim of covering at least 25% of all trawl shots.

## **ADDITIONAL CONDITIONS SPECIFIC TO THE SEA CUCUMBER HAND COLLECTION SECTOR**

### Taking and carrying fish

The fishing permit allows the collection of sea cucumber in the CSF area of waters subject to the following catch limits.

The landed weight of fish that may be taken under the fishing permit must not exceed:

- (a) 2 tonnes of white teat fish;
- (b) 500 kg of black teat fish;
- (c) 10 tonnes of prickly red fish;
- (d) 5 tonnes of sand fish;
- (e) 5 tonnes of surf red fish; and
- (f) 75 tonnes in total of sea cucumber including all those species referred to in parts (a) - (e) of this condition and any other sea cucumber.



### Methods authorised under the fishing permit

The fishing permit authorises the collection of the sea cucumber by hand with or without the use of SCUBA diving equipment.

### Operator limit

The fishing permit holder must ensure that not more than seven (7) persons take fish using the nominated boat.

### Tender boats

The fishing permit allows the nominated boat, and a maximum of two (2) tender boats registered with that boat, to be used for the fishing activities specified in the permit conditions.

### Prior to departure reports

Prior to leaving port to fish for sea cucumber the permit holder must advise AFMA if the boat will be operating under the authority of the fishing permit or any other authorisation nominated to the boat by contacting telephone number (07) 3830 0884 and provide the details requested by the operator.

### Prior to landing report

At least two hours before the boat is moored or anchored in a port or any other place, the fishing permit holder, or authorised representative, must notify AFMA by contacting telephone number (07) 3830 0884 and provide the details requested by the operator.

The fishing permit holder, or authorised representative, must not commence unloading until the date and time specified in the notification provided to AFMA. This condition does not apply if the boat is moored or anchored in the Fishery in circumstances of emergency or solely to allow the boat's crew to sleep.

### Rotational Zone Plan

#### 1. ZONES

Reefs within the CSF have been divided into 21 zones with a total of 144 fishing days. These zones are to be fished in accordance with the fishing plan in the permit conditions

Days permitted are the total days allotted to all permit holders in the sea cucumber hand collection sector of the CSF. Days are to be fished on a competitive basis, it is the permit holders responsibility to ensure that they do not exceed the number of days allotted.

#### 2. ZONE CO-ORDINATES

Co-ordinates for each zone are outlined in Attachment C of the permit.

#### 3. DIVERS

A maximum of 4 divers can be in the water at any one time.

#### 4. DEDUCTION OF FISHING DAYS

For the purpose of deducting fishing days at each zone the following rules will apply:

A fishing day is defined as arriving in a zone before 0900 or departing after 1500.

A no fishing day is defined as departing a zone before 0900 or arriving after 1500

A half fishing day is defined as spending less than 6 hours in a zone between 0900 and 1500.

If a strong wind warning is issued the holder should write SWW in their logbook if no fishing took place. No day will be deducted in this case.



## **ADDITIONAL CONDITIONS SPECIFIC TO THE LOBSTER & TROCHUS SECTOR**

### Taking and carrying fish

The fishing permit allows the collection of trochus and lobster in the CSF area of waters.

### Methods authorised under the fishing permit

The fishing permit authorises the collection of lobster and trochus by hand with or without the use of diving equipment.

### Operator limit

The fishing permit holder must ensure that not more than seven (7) persons take fish using the nominated boat.

### Tender boats

The fishing permit allows the nominated boat and a maximum of two (2) tender boats registered with that boat, to be used for the fishing activity specified in the fishing permit.

### Lobster size limit

The fishing permit holder or authorised representative is prohibited from taking lobster with a tail length less than 125 mm.

### Trochus size limit

The fishing permit holder or authorised representative is prohibited from taking trochus that, when measured in their original form as fished, at the widest part of the base of the shell are less than 80mm or more than 125 mm.

### Move on provision for lobster collection

In the event of a 3 tonne catch of lobster tail is collected in the same location, the fishing permit holder, or authorised representative must move the mother ship at least 15 nm to a new anchorage.

### Move on provision for trochus collection

One a total of 5 tonnes of trochus has been collected on any reef location, the fishing permit holder, or authorised representative must move the mother ship at least 15 nm to a new anchorage.

## **ADDITIONAL CONDITIONS SPECIFIC TO THE AQUARIUM SECTOR**

### Taking and carrying fish

The fishing permit allows the collection of fish which includes all species of bony fish, sharks, rays, crustaceans, molluscs and other marine organisms including live rock but excluding corals, mammals, reptiles and birds. The fish may only be collected for use as aquarium species and may not be used for human consumption.

### Methods authorised under the fishing permit

The fishing permit only allows the fishing permit holder to:

- (a) take live aquarium fish by hand, barbless hook and line and scoop net;
- (b) herd fish into collection areas with the use of cast, scoop and seine nets or hand held rod; and



- (c) conduct these activities with the use of diving equipment, in the CSF area of waters subject to the following gear restrictions:
- i if fishing with a scoop net, the net must be no more than 2 metres in any direction, have a maximum mesh size of 25 mm and have a handle/shaft length of less than 2.5 m, and
  - ii if fishing with a cast net, the net must be no more than 6 m in diameter and have a maximum mesh size of 28 mm; and
  - iii if fishing with a seine net, the net must be no more than 16 m in length, have a maximum mesh size of 25 mm and have a drop of less than 3 m. The size of the mesh is determined by measuring the distance between the innermost edges of two diagonally opposite knots of the mesh, while the two knots are pulled in opposite directions so that the twine is taut.
  - iv live rock may only be taken by hand or hand held non-mechanical implements.

#### Live Rock Catch Limits

Maximum landed weight for live rock is not to exceed 20 metric tonnes per permit per annum.

#### Operator limit

Not more than eight (8) persons may take fish using the nominated boat.

#### Tender boats

The fishing permit allows the nominated boat and a maximum of two (2) tender boats registered with that boat, to be used for the fishing activity specified in conditions titled 'Fish taken with another boat' and 'Transshipping fish'.

#### Chemicals & explosives

The fishing permit prohibits the use of chemicals (including anaesthetics) and explosives.

#### Logbook requirements

The fishing permit holder must ensure that information about fishing activity undertaken under the fishing permit is recorded in the catch and effort logbook distributed by the Queensland DPI&F and known as the "Aquarium Fish Trip Logbook AQ04" and copies of relevant pages of that logbook are submitted monthly to: Manager, Coral Sea Fishery AFMA, Box 7051 Canberra Business Centre, ACT 2610.

#### Landing requirements

The fishing permit holder, or an authorised representative must, at least two hours prior to the boat mooring or anchoring at port, report to AFMA by email [monitoring@afma.gov.au](mailto:monitoring@afma.gov.au) (or fax 02 6225 5442 if email is not possible) the following information:

- (a) the name of the vessel;
- (b) distinguishing symbol of the vessel;
- (c) port of landing;



- (d) date and time of landing;
- (e) total weight of live rock on board the vessel.

Unloading must not commence until the date and time specified in the report. If the date and time of arrival is different from that specified in the previous report, AFMA must be notified again immediately. The revised time or arrival must not be less than two hours from the time AFMA is notified and unloading must not commence until the revised date and time.

#### Definition of live rock

A limestone base covered with living coralline algae and other encrusting species.

## **ADDITIONAL CONDITIONS SPECIFIC TO FISHING WITH DEMERSAL FINFISH TRAPS**

The fishing permit holder, or authorised agent, must ensure that:

- (a) All fish traps are constructed of metal. Traps must not be constructed in whole or in part of mono-filament or multi-filament net;
- (b) The maximum trap size is 1.8 metres x 1.8 metres x 0.8 metres;
- (c) No more than 50 traps be used, stowed and/or secured on the boat;
- (d) All fish traps are individually numbered and clearly display the distinguishing symbol of the boat specified in these conditions;
- (e) All fish trap doors are fitted with sacrificial anodes (of no more than one month life span);
- (f) A fish trap is not abandoned but returned to Port and accounted for by the permit holder, or authorised agent at the conclusion of each fishing trip unless left unattended in a place where:
  - i. it is not capable or will not become capable of taking fish or aquatic life;
  - ii. it is secured in a location where it will not interfere with other marine operations;
  - iii. it is able to be retrieved easily and safely;
  - iv. the trap door is left secured open;
  - v. the trap is not baited; and
  - vi. a legibly and indelibly marked float is attached to the trap; and
  - vii. at the conclusion of a fishing trip the operator reports the following in their individual fishing trip report:
    - a. the date, location (Lat/ Long) and number of traps left secured;
    - b. the (Lat/ Long) and number of traps retrieved; and
  - viii. a trap is not left unattended for any period in excess of one (1) month;
- (g) Traps must be set and hauled individually (not connected in a sequence), unless AFMA gives written approval for an exemption.

#### Removal of all other fishing equipment

Any fishing trip involving demersal finfish traps is restricted to that method alone, unless the boat is carrying an observer on board.



The fishing permit requires the removal of other commercial fishing equipment on the boat prior to departure unless a fisheries observer is on board.

Observer coverage requirements

The fishing permit requires an observer to be onboard for the first fishing trip and every fourth fishing trip thereafter with the aim of covering at least 25% of all trap lifts.



# Appendix 3 Observer data collection strategies in the CSF

## DATA COLLECTION STRATEGY FOR AUTO-LONGLINERS

### General

Vessel name

Skipper's Name

Date and time of departure

Date and time of return

### For each shot:

#### Gear

Number of hooks, size of hooks, line length, bait type and quantity

Sink rate (as described by Fenaughty and Smith (unpublished)). This method involves recording the time taken for a plastic bottle to sink after deployment. The bottle is attached to the main longline (mother line) by a given length of line. The observer monitors a bottle at every change in magazines (usually 1000 m or 1300 m -will vary with vessel). The rate for each bottle, not an average, is given. This should be done once a day for the duration of the trip.

Gear entanglement and loss noted including quantity. The number of hooks lost can be determined from the change in line length and no. of hooks between shots.

Autobaiting efficiency - the average % of hooks that are effectively baited (based on a sample)

#### Protected species

On setting and hauling the gear, a visual census of protected species be conducted and species name and approximate numbers recorded.

Additional observations with regards to behaviour should be recorded (whales and seals removing fish, birds diving on bait).

For species that are captured during fishing operations, not only record the capture but details of the capture (if the animal was hooked or entangled, which part of the gear the animal encountered), appropriate biological information (e.g., size, adult or juvenile) and condition at time of release.

#### Retained and discarded catch - target, byproduct and bycatch species

Two objectives for onboard monitoring with respect to catch data are;

- (1) estimation by number and weight of both retained and discarded fish species, and
- (2) identification of the species composition of each of the retained and discarded components of the catch. Length-frequency data should also be collected.

To obtain the number of fish retained and discarded, the lines are monitored as they are hauled and the number of fish of each species is recorded. This includes fish that are knocked off the hook before landing (bycatch species). Commercial species that come off the hook as the set is being hauled (floaters) are noted in the comments.

The observer obtains length-frequency information as the fish are landed on deck. The main priority has been to collect length data for all of the target species landed and then as large a sample as possible of the bycatch species, but this priority can be changed at the written direction of AFMA. It is important to note that any shift in focus towards bycatch species will be at the detriment of target species as there is only a certain amount of time available to achieve the sampling objectives.



Estimates of the retained catch weight are obtained by a combination of different methods. One way is to multiply the number of fish by the average size/weight. Another is to estimate weight by bin volumes or other handling method. To check on the accuracy of their estimation techniques, scientists' compare their figures with the skipper's estimation and can also check when the catch is weighed during unloading.

Estimates of the discarded catch weight should be obtained by a combination of different methods. As for the retained catch, it may be possible to multiply the number of fish by the average size/weight if the catch is landed on deck. Although more accurate estimates can be made if the catch is landed and measured, it is not practical to land every component of the discarded catch. For fish that are knocked off the hook before landing, an estimate should be made before release.

Any observations of catch loss ('biteoffs') to sharks should be noted.

The 'state' of the discards should also be monitored to give estimates of %alive and %dead when returned to the water.

### **Additional sampling**

Aim to identify all major species while on-board. Photographs can be taken in order to confirm these identifications back in port.

For species that cannot be identified and that are a major part of either the retained or discarded component of the catch, photographs as well as samples will be taken and delivered to the Queensland Museum and/ or CSIRO and/ or Australian Institute of Marine Science (AIMS) for identification.

Additional sampling for otoliths for aging and tissue samples for genetic analysis can be made at the written direction of AFMA (this is because removing otoliths or tissue for genetic analysis may compromise the price of the fish so it is an additional expense to be borne by the operator).

According to prior experience, it is possible to collect a maximum of 10 to 15 otoliths per set without compromising the quality of the catch data. Genetic samples will only be stored according to available equipment e.g. standard freezer.



# DATA COLLECTION STRATEGY FOR TRAWL

## General

Vessel name  
Skipper's Name  
Date and time of departure  
Date and time of return

### ***For each shot:***

## Gear

Shot depth  
Shot duration  
Gear entanglement and loss.

## Protected species

On setting and hauling the gear, record a visual census of protected species will be conducted and approximate numbers.

Record additional observations with regards to behaviour (turtles or seals removing fish, birds diving on bait).

For species that are captured during fishing operations, not only record the capture but details of the capture (if the animal was hooked or entangled, which part of the gear the animal encountered), appropriate biological information (e.g. size, adult or juvenile) and condition at time of release.

## Retained and discarded catch - target, byproduct and bycatch species

Two objectives for onboard monitoring with respect to catch data are;

- (1) estimation by number and weight of both retained and discarded fish species, and
- (2) identification of the species composition of each of the retained and discarded components of the catch. Length-frequency data are also collected.

To obtain the number of fish retained and discarded, the nets are monitored as they are hauled and the number of fish of each species is recorded. This includes 'stickers' and fish that fall out of the net before landing (bycatch species).

The observer obtains length-frequency information as the fish are landed. The main priority has been to collect length data for all of the target species landed and then as large a sample as possible of the byproduct and bycatch species but this priority can be changed at the written direction of AFMA. It is important to note that any shift in focus towards byproduct or bycatch species will be at the detriment of target species as there is only a certain amount of time available to achieve the sampling objectives.

Estimates of the retained catch weight are obtained by a combination of different methods. One way is to multiply the number of fish by the average size/weight. Another is to estimate weight by bin volumes or other handling method. To check on the accuracy of their estimation techniques, our scientists' compare their figures with the skipper's estimation and can also check when the catch is weighed during unloading. Our scientists endeavour to, and regularly achieve within, 5% precision.

Estimates of the discarded catch weight are also obtained by a combination of different methods. As for the retained catch, it may be possible to multiply the number of fish by the average size/weight if the catch is landed on deck. Although more accurate estimates can be made if the catch is landed and measured, it is not practical to land every component of the discarded catch.



Monitor the 'state' of the discards to give estimates of % alive and % dead when returned to the water.

### **Additional sampling**

Aim to identify all major species while on-board. Photographs should be taken in order to confirm these identifications back in port.

For species that cannot be identified and that are a major part of either the retained or discarded component of the catch, photographs as well as samples will be taken and delivered to the Queensland Museum and/or CSIRO and/or Australian Institute of Marine Science (AIMS) for identification.

Additional sampling for otoliths for aging and tissue samples for genetic analysis will be made at the written direction of AFMA (this is because removing otoliths or tissue for genetic analysis may compromise the price of the fish so it is an additional expense to be borne by the operator).

According to prior experience, it is possible to collect a maximum of 10 to 15 otoliths per set without compromising the quality of the catch data. Genetic samples will only be stored according to available equipment eg. standard freezer.



# DATA COLLECTION STRATEGY FOR DEMERSAL FINFISH TRAPS

## General

Vessel name  
Skipper's Name  
Date and time of departure  
Date and time of return

### **For each shot:**

## Gear

No. of demersal finfish traps  
Dimensions of finfish traps and mesh gauge.  
Presence of galvanic timed release anodes fitted to each fishing trap  
Bridle and line length  
Bait type and quantity  
Number of trap sets and lifts per day.  
Details of gear entanglement and loss

## Protected species

On setting and hauling the gear, conduct a visual census of protected species and record approximate numbers.

Presence of galvanic timed release anodes fitted to each fishing trap and trap doors.

Record additional observations with regards to behaviour (seals removing fish, birds diving on traps).

For species that are captured during fishing operations, not only record the capture but details of the capture (if the animal was entangled, which part of the gear the animal encountered), appropriate biological information (eg. size, adult or juvenile) and condition at time of release.

## Retained and discarded catch - target, byproduct and bycatch species

Two objectives for onboard monitoring with respect to catch data are

- (1) estimation by number and weight of both retained and discarded fish species, and
- (2) identification of the species composition of each of the retained and discarded components of the catch. Length-frequency data are also collected.

To obtain the number of fish retained and discarded, the finfish traps are monitored as they are hauled and the number of fish of each species for each trap is recorded.

The observer obtains length-frequency information as the fish are landed. The main priority has been to collect length data for all of the target species landed and then as large a sample as possible of the byproduct and bycatch species but this priority can be changed at the written direction of AFMA. It is important to note that any shift in focus towards byproduct or bycatch species will be at the detriment of target species as there is only a certain amount of time available to achieve the sampling objectives.

Estimates of the retained catch weight are obtained by a combination of different methods. One way is to multiply the number of fish by the average size/weight. Another is to estimate weight by bin volumes or other handling method. To check on the accuracy of their estimation techniques, our scientists' compare their figures with the skipper's estimation and can also check when the catch is weighed during unloading. Our scientists endeavour to, and regularly achieve within, 5% precision.

Estimates of the discarded catch weight are also obtained by a combination of different methods. As for the retained catch, it may be possible to multiply the number of fish by



the average size/weight if the catch is landed on deck. Although more accurate estimates can be made if the catch is landed and measured, it is not practical to land every component of the discarded catch.

Note any observations of catch loss to predation and/or cannibalism in the traps.

Monitored the 'state' of the discards to give estimates of %alive, %dead and survivability when returned to the water.

### **Additional sampling**

Record the substrate type demersal finfish traps were set on.

Demersal finfish trap setting depth.

Aim to identify all major species while on-board. Photographs should be taken in order to confirm these identifications back in port.

For species that cannot be identified and that are a major part of either the retained or discarded component of the catch, photographs as well as samples will be taken and delivered to the Queensland Museum and/or CSIRO and/or Australian Institute of Marine Science (AIMS) for identification.

Additional sampling for otoliths for aging and tissue samples for genetic analysis will be made at the written direction of AFMA (this is because removing otoliths or tissue for genetic analysis may compromise the price of the fish so it is an additional expense to be borne by the operator).

According to prior experience, it is possible to collect a maximum of 10 to 15 otoliths per set without compromising the quality of the catch data. Genetic samples will only be stored according to available equipment eg. standard freezer.



## **Appendix 4 Obligations of the permit holder and the vessel's master towards the observer and AFMA**

Regulation 18 of the *Fisheries Management Regulations* (SR 1992 No. 20) made under the *Fisheries Management Act 1991* outline the permit holder's and vessel operator's requirements in relation to the provision of an AFMA observer.

Additional obligations of the permit holder and the vessel operator towards the observer and AFMA include:

1. The vessel owner will ensure that the vessel is able to carry an observer when requested. Note that observers can provide their own safety equipment including life raft if required;
2. Allow the observer access to the vessel's position finding and communications equipment;
3. Facilitate collection of position and scientific catch data and storage of biological samples;
4. Provide an appropriate standard (see below) of accommodation and victualling similar to a crew member. Reasonable costs for victualling may be charged to the Program;
5. Take appropriate action to guarantee the observer is provided with medical care to an adequate standard (see Operational Health and Safety: Illness or Incapacity of the Observer);
6. Provide a safe and healthy living and work environment in which the observer is free from harassment and undue influence;
7. Cooperate and assist observers.

Vessels have an obligation to assist observers, within the parameters of their normal working environment, planned fishing operations and the master's vessel responsibilities. This in effect means observers cannot unduly disrupt the vessels operations and observers must obey any lawful request of the vessel's master, particularly if it involves safety issues.

### **Standards of accommodation and victualling**

AFMA has an expectation that observers will be provided with accommodation equal to that of a crew member. On voyages of 36 hours or more observers will require at a minimum their own clean bunk and an area for the safe storage of gear. Observers should have access to meals equal to that of a crew member. Reasonable costs for food may be sent to the Observer Program for reimbursement.

