NORTHERN TERRITORY

Finfish Trawl *Fishery*

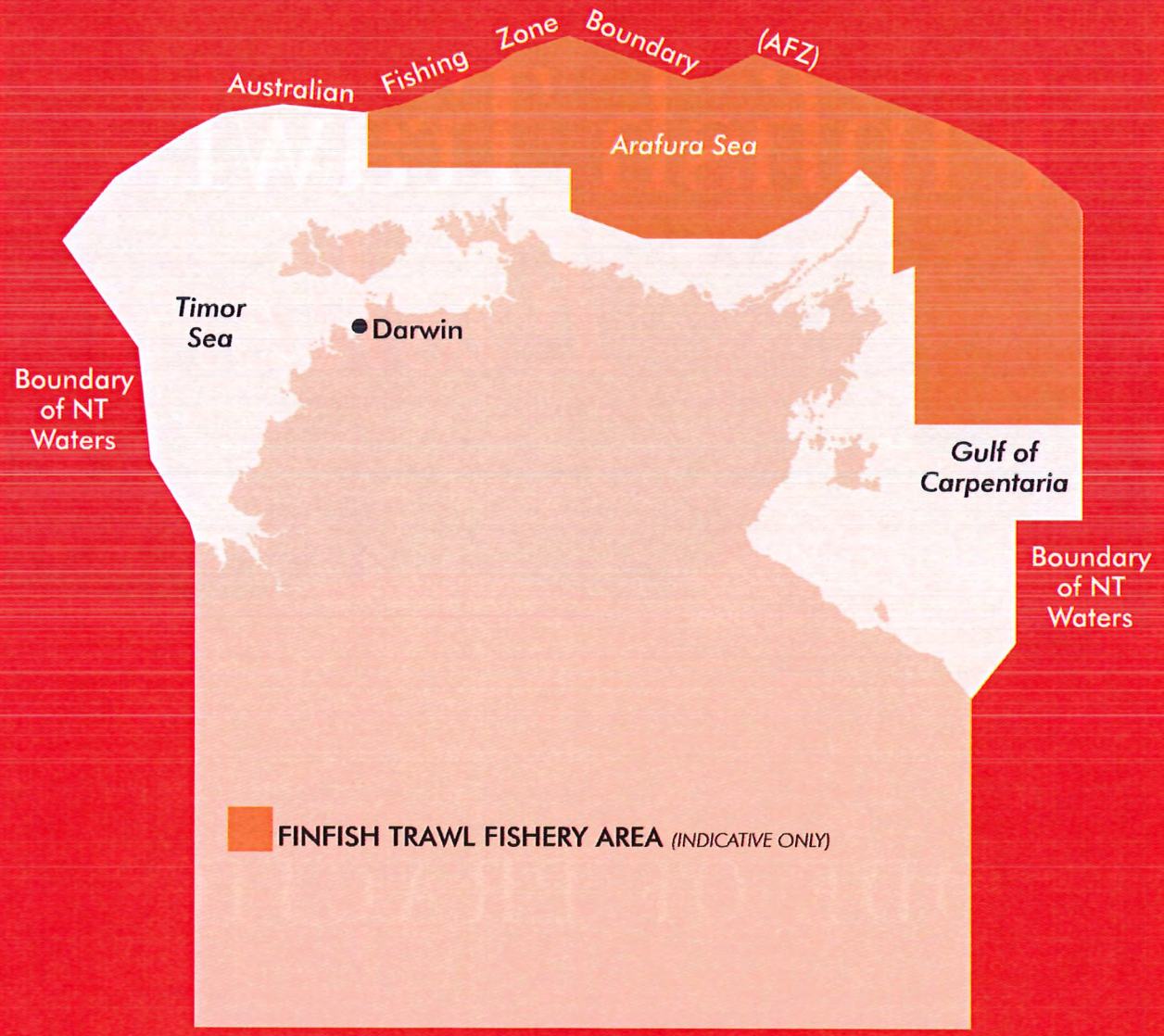
CODE OF PRACTICE

NORTHERN TERRITORY Seafood Council
WORKING TODAY FOR A SUSTAINABLE TOMORROW

Australian Government
Fisheries Research and Development Corporation

Northern Territory Government

FINFISH TRAWL FISHERY



OBJECTIVE

To provide operators in the Northern Territory Finfish Trawl fishery with the knowledge and understanding to further enhance the ecological sustainability of the fishery and safety of operations, while maximising the quality, safety and value of product.

INTRODUCTION

A best practice guide for the Finfish Trawl fishery, this is specifically designed to assist operators to maximise the quality and value of product, minimise wastage and contribute to the ongoing ecological and economic health of the Finfish Trawl fishery and businesses involved in it.

This voluntary Code of Practice has been developed by the Finfish Trawl Licensee Committee of the Northern Territory Seafood Council, with funding assistance from the Fisheries Research and Development Corporation and the Northern Territory Government.

THE FISHERY

The Northern Territory Finfish Trawl fishery operates in waters to the north, north east and east of Darwin to the outer limit of the Australian Fishing Zone, excluding the area of the Timor Reef fishery and some waters in the Gulf of Carpentaria.

Under current licensing arrangements, net mesh size must exceed 110mm. The current single operator within the fishery uses a semi-demersal net specificially designed to minimise habitat disturbance while maintaining viable levels of catch. The use of high aspect trawl boards reduces bottom contact by as much as 80% compared to traditional otter boards used for fish trawling in the past.

The fishery currently targets Saddletail snapper *(Lutjanus malabaricus)* and Scarlet snapper *(Lutjanus erythropterus)*, with other major target groups consisting of Painted sweetlip, Red spot emperor, Moses snapper and Goldband snapper.

Catch of non-target species in the fishery is low. The small amount of by-catch consists mainly of sharks and rays which are normally released alive during sorting.

The current operators, with the assistance from Fisheries, have developed an exclusion device to eliminate turtles, sharks and rays. This is to become a self imposed permanent requirement for the fishery.

PREPARATION

Vessels

Good vessel design and maintenance minimise the chance of contamination and physical damage to the product.

Gear

Gear should be designed to minimise damage or loss of product. All gear used in the fishing operation should be maintained and stowed or secured in a safe manner when not in use.

Occupational health and safety

It is important that clear occupational health and safety guidelines are in place for the entire fishing operation and that crew members understand these and other relevant food safety and regulatory obligations.

Wearing appropriate clothing and footwear, avoiding loose clothing and securing long hair are wise precautions.

When crew understand their responsibilities during fishing operations the chances of accidents are minimised.

Hygienic handling

Crew should be trained in the hygienic handling of food products.

Any person with a contagious or notifiable illness must not be allowed to come in to contact with product unless the integrity of the product can be guaranteed.

Secure harmful materials

Harmful and poisonous materials such as oils, insecticides and cleaning products must be stored and/or secured in an area where they cannot contaminate fish product or handling areas.

Pest control

Rodents, birds and insects are all potential carriers of diseases which could contaminate product and it is important that adequate steps are taken to control pests on a vessel. Domestic animals should not be kept onboard.

Cleaning

Deck, mats, processing tables, fish bins, utensils and other potential fish contact surfaces should be cleaned and sanitised to prevent any contamination.

The vessel should be thoroughly cleaned prior to each fishing trip to remove any contaminants that may be present.

Ensure only "food safe" cleaning and sanitising products are used on product surfaces and always follow manufacturers directions in respect to their use.

Chilling and freezing facilities

If ice is used, sufficient supplies for both fish packing and storage should be taken onboard and equipment used during processing, handling or storage of ice should be clean.

Check brine tanks and refrigeration equipment prior to departure to ensure they are in working order.

HARVESTING

Shooting the net

The net should always be released in a cautious manner with good communication between crew and the person on controls. The net should be released so that it is approximately half a kilometre behind the vessel.

Trawling the net

The net must meet specified licence conditions and should be designed to minimise impacts on the seabed.

Having the net trawl above the seabed reduces the incidence of sponge, coral and other unwanted species, resulting in an improved quality of retained catch and minimising the impact on benthos.

Net soak time

Soak time will vary, however the net should remain in the water no longer than three hours. This will ensure that the quality of catch is maintained.

Hauling the net

The net should be hauled onto the vessel at a cautious speed which allows the crew to safely remove all catch. Leaving the fish meshed in the net will increase the risk of contamination.

Handle fish gently

When releasing the fish from the net, care should be taken to minimise any damage to the flesh.

Each time fish are handled there is potential for damage, so they should always be handled gently and a minimum number of times. Fish should not be placed on hot, dry surfaces and should also be protected from the drying effects of the sun and wind.

By-catch

Fishing in areas where a high incidence of by-catch or protected species is known to occur should be avoided. While by-catch in the fishery is very low, all attempts should be made to quickly release non retained animals alive with the minimum of stress and injury. Handling fish gently with wet hands or gloves will assist in minimising damage.

PROCESSING

Handle fish with clean hands

Before handling or processing catch, crew members should ensure their hands are clean. If gloves are used, they should be clean and rinsed regularly during processing. After use they should be cleaned and dried.

Processing surfaces and implements

Processing surfaces should be cleaned of waste, washed down and rendered sterile at the end of each processing run. During the run, regular rinsing off with clean seawater will also lessen the risk of contamination.

Smoking, eating and drinking should be prohibited in the processing, sorting and storage facility areas.

Water

Using only clean sea water or potable fresh water on product will maintain its safety and quality.

Seawater from polluted waters should not be used on product surfaces or containers

Dispatch in a timely and humane manner

Dispatching the fish as soon as possible may delay the onset of rigor and increase shelf life.

Bleed fish immediately

Fish that require bleeding should be bled quickly with a sharp knife.

Running clean water over the fish during bleeding will assist in keeping the fish cool and wash away the blood.

Chill fish as soon as possible

Delays in chilling the fish will adversely impact on product quality and safety.

Maintaining the cold chain throughout processing will assist in maintaining a high quality product.

Monitor brine tank temperature

Brine tank temperature should be between –1 °C and +4 °C and monitored regularly. Fish to be sold as fresh should not at any stage reach a temperature below –1 °C as partial freezing may occur.

Fish should be packed in the brine tank in a manner capable of lowering the core temperature of product to below 4 °C as quickly as possible.

Avoid leaving fish in the brine too long

Leaving whole fish in the brine too long may cause unsightly appearance, including a loss of colour, which can potentially lessen fish value. After the temperature of fish has been reduced, remove from the brine tank and process as soon as possible.

Change brine or slurry regularly

Only clean water should be used in brine tanks and it should be changed as required.

Removing viscera

Fish viscera contains digestive enzymes and micro-organisms and if not completely removed, may aid spoilage of product. Similarly, removed viscera should not come into contact with other fish.

Keep the deck clean

The vessel's deck should be continually washed down to remove any contaminants and to maintain a safe working environment.

Product utilisation

While markets and physical conditions during harvesting are factors, every effort should be made to maximise the utilisation of product.

Operators are encouraged to explore new markets for products.

PACKING & STORAGE

Use food grade packaging

Packaging used for product must be of food grade quality and stored in a contaminant and pest free environment.

Packing product

Pack product straight and with care. Do not straighten fish bent stiff with rigor, as this will tear the tissue.

Regularly check the accuracy of weights

To ensure packages contain correct weights of product, scales should be regularly checked for accuracy. Check weights should be available onboard and used at the beginning, at least, of each processing session.

Minimise transfer time from the brine or slurry to storage

Processing product in small batches will minimise the transfer time between brine and storage and will assist in maintaining the cold chain.

Regularly check thermometers

Fish quality and safety is dependent on temperature control and thermometers should be regularly checked for accuracy. A check thermometer should be available onboard and used at the beginning, at least, of each processing session.

Chilled storage

Whole fish should be soldier packed, with each layer of fish covered in ice. Regular visual inspections are required to ensure adequate ice coverage. Re-ice the fish as necessary and continually remove melt water.

Frozen storage

Ensure cartons are lined with a suitable plastic liner, such as 35 micron low density plastic. Pack fillets with plastic food grade sheets between each layer.

Ensure fish are protected from freezer burn

Trunks and fillets should be protected from dry freezer air. Exposed fish flesh will quickly suffer freezer burn, which will lower the quality of product.

Monitor freezer gauges

It is good practice to monitor freezer temperature three or four times daily. Frozen product temperature must be kept at or below –18°C at all times and it is recommended that freezers be fitted with high temperature alarms.

TRANSPORT

It is important to ensure that the cold chain is maintained during unloading and transport to storage or market to ensure temperatures do not rise above the minimum recommended for frozen (–18°C) or move outside the chilled range (–1°C and +4°C) as appropriate.

Transferring product from onboard storage in small batches to the receiving unit, which in turn should be pre-chilled, will help ensure integrity of the cold chain.

All deck equipment and holding tanks should be thoroughly cleaned, disinfected and rinsed following unloading. Remove any unused ice from the vessel before cleaning begins.

WASTE & POLLUTION

Fish waste

By removing processing waste as soon as practical, the risk of contaminating product is reduced. Disposal of processing wastes from the vessel while trawling means that they are likely to become trapped within the trawl net.

Process wastes should be reduced either by crushing, grinding or other means to maximise their potential to pass through the net.

Plastics

Plastics are not allowed to be discharged into the sea. All plastics must be retained on the vessel and disposed of at port facilities. Plastic waste which forms a continuous loop should be cut onboard to minimise impacts in the event that it is accidentally lost at sea.

Noxious liquids

No discharge of residues containing noxious substances is permitted within 12 nautical miles of the nearest land. The discharge of liquid in quantities or concentrations that are harmful to the aquatic environment is prohibited by law.

Garbage

Non-plastic garbage which cannot be retained onboard for proper disposal ashore may, by law, only be disposed of at sea provided the vessel is more than 12 nautical miles from the nearest land.

Oil and oily mixtures

The law does not allow oils or oily mixtures to be discharged into the sea. Waste oil and oily residues must be stored onboard for disposal at port waste disposal facilities.

Retrieval of lost fishing gear and garbage

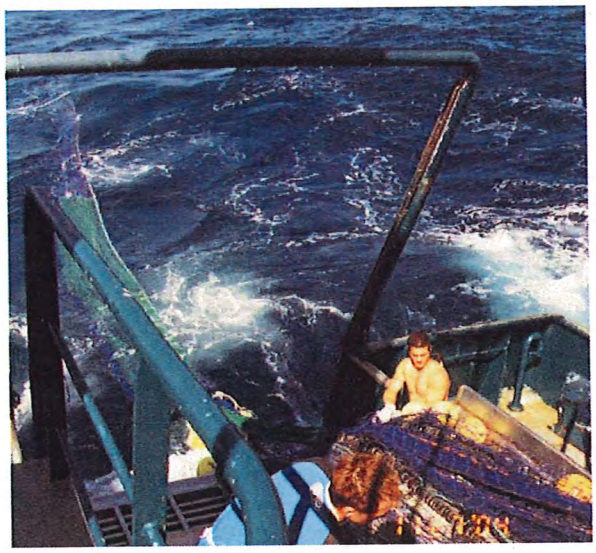
Lost fishing gear and garbage can pose a significant threat to aquatic life. All efforts should be made to retrieve lost fishing gear. If it is not possible to collect, report the location of the gear to the relevant authorities.

Efforts should also be made to retrieve any non-degradable garbage or wastes found during fishing operations for proper disposal at onshore facilities.

Report pollution

Any oil or chemical spills or other incidences of environmental damage in the area of the fishery should be reported as follows:

- Within 3nm, to the **Pollution Hotline 1800 064 567**
- Beyond 3nm, to the **Rescue Co-ordination Centre Australia** phone **1800 641 792** or fax **1800 622 153**



THREATENED SPECIES

There are a number of species listed as protected under the Commonwealth's *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act) and under the Northern Territory's *Territory Parks and Wildlife Conservation Act*.

On occasions, unintended interactions with protected species may occur. It is a legal requirement to report any such interactions to the Australian Government Department of the Environment and Heritage.

Some examples of interactions that require reporting are:

- Any action resulting in the killing, injuring, taking or trading of a listed species
- The accidental capture of a listed species in a fishing operation
- A humane action that is necessary to relieve or prevent the suffering of a listed species
- An action taken to prevent risk to human health
- An action that is necessary to deal with an emergency where there is a serious threat to human life or property

Reporting requirements

Under the EPBC Act, the Department of the Environment and Heritage (DEH) must be notified within 7 days of a person becoming aware of an interaction and the report should include the following details:

- Time and date
- Species involved
- Number of animals
- Specific location
- Gear or bait type used

The following are protected species listed in Territory and/or Commonwealth legislation.

Common Name	Scientific Name
Speartooth Shark*	*Glyphis sp. A*
Northern River Shark*	*Glyphis sp. C*
Loggerhead Turtle*	*Caretta caretta*
Green Turtle*	*Chelonia mydas*
Leatherback Turtle*	*Dermochelys coriacea*
Hawksbill Turtle*	*Eretmochelys imbricata*
Flatback Turtle*	*Natator depressus*
All cetaceans (whales & dolphins)	*Cetacea*
Freshwater Sawfish*	*Pristis microdon*
Dwarf Sawfish	*Pristis clavata*
Green Sawfish	*Pristis zijsron*
Narrow Sawfish	*Anoxypristis cuspidata*

* Interaction should be reported to DEH within 7 days

To report an interaction or to seek further information:

Phone: 1800 641 806
Email: protected.species@deh.gov.au
Mail: Director, Wildlife Impact and Protection Section
Dept. Environment & Heritage
GPO Box 787
Canberra ACT 2601

DEFINITIONS

By-Product – Catch which is kept to be sold but is not the principal target.

By-Catch – Catch which is returned to the sea either because it has little or no commercial value or because regulations preclude it being retained.

Ecologically Sustainable Development – Using, conserving and enhancing community resources so that ecological processes, on which life depends, are maintained and the total quality of life, now and in the future, can be increased

CONTACTS

Australian Maritime Safety Authority (AMSA)
Queries regarding Commonwealth environmental laws.
Tel: 02 6279 5015 | Fax: 02 6279 5966

CSIRO
Enquiries and reporting of tagged fish
Tel: 1300 363 400

Bureau of Meteorology
Forecasts and warnings **Tel: 08 8920 3826**
General Enquires **Tel: 08 8920 3800**

Department of the Environment and Heritage (DEH)
Reporting all listed species interactions.
Tel: 1800 641 806

Finfish Trawl Licensee Committee
Industry representative
Tel: 08 8981 5194 | Fax: 08 8981 5063

Fishwatch
Reporting illegal fishing activities
Tel: 1800 065 522

Museum and Art Gallery of the Northern Territory
Identification of unusual or exotic fish
Tel: 08 8999 8201

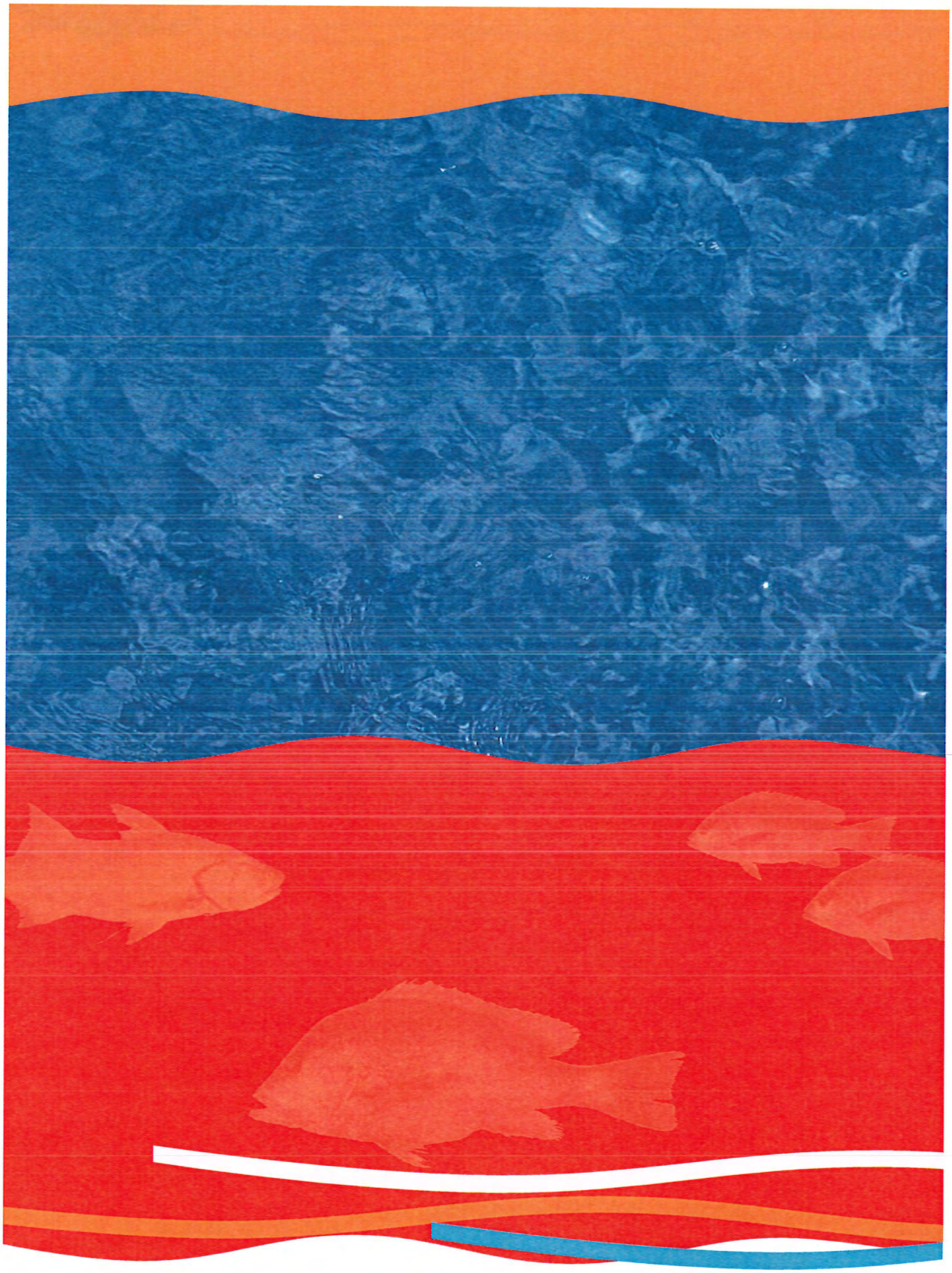
NT Fisheries
Fisheries Management Agency
Tel: 08 8999 2144 | Fax: 08 8999 2065

NT Parks and Wildlife Commission
Interactions with tagged animals and protected species.
Tel: 08 8999 5511

NT Pollution Hotline
Reporting pollution within the NT
Tel: 1800 064 567

Northern Territory Seafood Council
Peak industry body, NT
Tel: 08 8981 5194 | Fax: 08 8981 5063

Rescue Co-ordination Centre Australia (RCC Australia)
Reporting close collisions and pollution at sea beyond 3nm.
Tel: 1800 641 792 | Fax 1800 622 153



For more information:
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