

### Overview of commercial trawl fisheries

From 3 January 2017 until further notice, all 6 scallop replenishment areas (SRAs) located off Yeppoon, Bustard Head and Hervey Bay are closed to all scallop fishing. A winter closure also applies each year - fishers cannot take or be in possession of scallops in the Queensland East Coast Otter Trawl Fishery between 1 May and 31 October each year. These measures have been put in place to prevent further decline to the stock. Find out more [https://www.daf.qld.gov.au/fis heries/consultations-and-legislation/reviews-surveys-and-consultations/intended-scallop-fishing-cl osures].

Trawl fisheries are Queensland's largest commercial fisheries, producing up to 7800t of product worth about \$99 million each year.

There are 2 basic types of trawling: otter trawling and beam trawling. The otter trawl fishery, which operates in more open waters, is by far the larger, accounting for about 95% of the total harvest taken each year. Beam trawlers are used in estuaries.

Queensland has 4 main trawl fisheries:

- the east coast otter trawl fishery
- the Moreton Bay otter trawl fishery
- the river and inshore beam trawl fishery
- the fin fish (stout whiting) trawl fishery.

This guide gives an overview of Queensland's commercial trawl fisheries, including management areas, target species, gear used, licensing and regulations.

## Trawl fishery licensing and management areas

Queensland's commercial trawl fisheries are bound by licensing arrangements. You should also be aware of the trawl fishery management areas.

## Licensing

The following licensing arrangements apply to Queensland's commercial trawl fisheries:

- The fisher must have a commercial fisher licence [https://www.business.qld.gov.au/industri es/farms-fishing-forestry/fisheries/licences/fisher-licence].
- The boat must be licensed under a commercial fishing boat licence (CFBL) [https://www.b usiness.qld.gov.au/industries/farms-fishing-forestry/fisheries/licences/boat-licence].
- The boat licence must be officially endorsed for the particular fishery (i.e. marked with the symbol that stands for that fishery).

No new licences or symbols are issued for existing fisheries. To enter a trawl fishery, you must first obtain the correct licence (CFBL), fishery symbols [https://www.business.qld.gov.au/industri es/farms-fishing-forestry/fisheries/licences/fisheries-symbols] and effort units from an existing licence holder. Licences can be transferred from person to person, and fishery symbols can be transferred from one licence to another licence.

## Management areas

Queensland's trawl fisheries operate in all tidal waters out to the Queensland east coast offshore constitutional settlement boundary between Cape York and the New South Wales border, with the following exceptions:

- areas closed to trawling under the Fisheries (East Coast Trawl) Management Plan (2010) [https://www.legislation.qld.gov.au/view/html/inforce/current/sl-2010-0357]
- areas closed to fishing in Queensland marine parks (administered by the Department of National Parks, Sport and Racing [http://www.nprsr.qld.gov.au/])
- areas closed to fishing under the Great Barrier Reef Marine Park Zoning Plan 2003 [http://www.gbrmpa.gov.au/zoning-permits-and-plans/zoning], which is administered by the Great Barrier Reef Marine Park Authority
- waters over 300m deep (trawling at such depths is not feasible)
- otter trawl fishing is not permitted in estuaries.

Trawling in the Gulf of Carpentaria is jointly managed by the state and federal governments.

#### Also consider...

- Find out about commercial fishing fees and application forms [https://www.business.qld.gov.au/industries/farms-fishing-forestry/fisheries/fees-forms].
- Read the Fisheries Regulation 2008 [https://www.legislation.qld.gov.au/view/html/inforce/c urrent/sl-2008-0083] for more information about licensing and management areas of Queensland's commercial trawl fisheries.

## Trawl fishery target species

From 3 January 2017 until further notice, all 6 scallop replenishment areas (SRAs) located off Yeppoon, Bustard Head and Hervey Bay are closed to all scallop fishing. A winter closure also applies each year – fishers cannot take or be in possession of scallops in the Queensland East Coast Otter Trawl Fishery between 1 May and 31 October each year. These measures have been put in place to prevent further decline to the stock. Find out more [https://www.daf.qld.gov.au/fisheries/consultations-and-legislation/reviews-surveys-and-consultations/intended-scallop-fishing-closures].

Trawl fishers target major commercial species, but operators in the east coast trawl fishery are allowed to keep and sell a number of byproduct species.

## Major commercial species

#### **Prawns**

- Tiger prawn (*Penaeus esculentus*, *P. semisulcatus* or *P. monodon*). About 90% of Queensland's tiger prawns are harvested from the waters inside the Great Barrier Reef, offshore from their estuarine nurseries. They are caught in the east coast ofter trawl fishery.
- Endeavour prawn (*Metapenaeus endeavouri* and *M. ensis*). Most of the endeavour prawn harvest comes from the Cape York Peninsula waters from Cairns north, where the adults tend to inhabit inshore reef lagoons. They are caught in the east coast ofter trawl fishery and the river and inshore beam fishery.
- Red spot king prawn (*Penaeus longistylus*) also known as the northern king prawn. These prawns prefer hard-bottomed areas near reefs, in waters 35-55m deep. They are found from Mackay north. They are caught in the east coast otter trawl fishery.

- Banana prawn (*Penaeus merguiensis*). The banana prawn tends to be an inshore species, favouring the turbid waters that flow from estuaries. In some areas the size of the catch increases significantly after heavy rainfall. They are caught in the east coast ofter trawl fishery and the river and inshore beam fishery.
- Eastern king prawn (*Penaeus plebejus*). The catch of eastern king prawns varies throughout the year the highest being taken January-April and the lowest August-November. They are caught in the east coast ofter trawl fishery.
- Bay prawn (*Metapenaeus bennettae* and *M. macleayi*). Moreton Bay is the source of about 90% of the bay prawn harvest. Most are greasyback prawns (*M. bennettae*), but there are also school prawns (*M. macleayi*) and young prawns of various other species. Most are caught in spring and summer. They are caught in the east coast otter trawl fishery and the river and inshore beam fishery.

#### **Scallops**

Scallops (*Amusium balloti* and *A. pleuronectes*) are found at depths of 20-100m from Bowen south to northern New South Wales. They are abundant around Yeppoon and Bundaberg on the central coast. Saucer scallops are taken by trawlers using otter trawl nets with large mesh but also commonly appear as prawn trawlers' incidental catch. Scallops are caught in the east coast otter trawl fishery.

## Whiting

Stout whiting [http://www.daf.qld.gov.au/fisheries/species-identification/inshore-estuarine-species/whiting/stout-whiting] (Sillago robusta) are caught by trawlers in the fin fish (stout whiting) trawl fishery between Sandy Cape and the Queensland - New South Wales border. This is a separate fishery to the otter trawl fishery that targets prawns and scallops. Stout whiting inhabit the sandy sea floor, preferring deeper offshore waters. They are a different species to that targeted by recreational fishers, which are mostly winter whiting [http://www.daf.qld.gov.au/fisheries/species-identification/inshore-estuarine-species/whiting/trumpeter-winter-whiting] (Sillago maculata) or sand whiting [http://www.daf.qld.gov.au/fisheries/species-identification/inshore-estuarine-species/whiting/sand-whiting] (Sillago ciliata). The official fishing season for stout whiting is between 1 April and 31 December. Otter trawlers targeting prawns and scallops cannot keep any stout whiting that are caught.

## Moreton Bay bugs

Moreton Bay bugs (*Thenus australiensis* and *T.parindicus*) are another target species in the east coast and Moreton Bay trawl fisheries. However, most bugs are taken as an incidental part of the prawn and scallop catch.

## **Squid**

Squid caught in Queensland waters include:

- pencil squid (*Photololigo* spp.)
- tiger squid or northern calamari (Sepioteuthis spp.)
- arrow squid (Ommastrephes bartramii, Sthenoteuthis oualaniensis).

#### Incidental catch

Operators in the east coast trawl fishery are allowed to keep and sell a number of byproduct species - that is, species taken incidentally while targeting others, such as prawns. Byproduct species (or 'permitted species') are an economically important part of the overall catch in the east coast trawl fishery, particularly in Moreton Bay.

#### Permitted species are:

- blue swimmer crabs
- barking crayfish
- cuttlefish
- mantis shrimp
- octopuses
- pinkies
- pipefish
- red spot crabs
- Balmain bugs.

Some of these species are subject to minimum legal sizes, take and possession limits and other restrictions, to ensure they do not become a target species over time.

#### Also consider...

• Find out about bycatch reduction devices (BRDs) [https://www.business.qld.gov.au/industri es/farms-fishing-forestry/fisheries/fisheries-profiles/trawl-fisheries/reducing-bycatch] and turtle excluder devices (TEDs) [https://www.business.qld.gov.au/industries/farms-fishing-fo restry/fisheries/fisheries-profiles/trawl-fisheries/turtle-excluder-devices].

## Commercial trawl fishing gear

Trawlers are allowed to tow more than one otter trawl or beam trawl. However, there are restrictions on how much net and the type of net that may be used - these restrictions differ in different parts of Queensland.

There are 2 types of trawl gear - beam and otter - and they are both used to take prawns. The main difference is in how they keep the net open.

#### Beam trawl

The beam trawl is generally used in the shallow inshore waters or lower estuaries. In Queensland, only about 5% of the trawl harvest is taken by beam trawling each year.

The net is attached to 2 'sleds' connected by a rigid pole, or beam, that holds the net open for fishing.

#### Otter trawl

The otter trawl net has chains hung below the footrope to disturb the prawns as the net is towed along the seabed, making them jump into the mouth of the oncoming net.

Each end of the net is attached to an otter board. The sheer force of water on the angled board forces each board sideways until the net is spread and held open.

Stout whiting are caught using modified otter trawl nets that have long (about 120m) sweeps. Sweeps are long extensions in front of the net that 'herd' the whiting towards the mouth. In

Queensland, only 5 operators are permitted to use these nets.

#### Also consider...

- Read the Fisheries (East Coast Trawl) Management Plan 2010 [https://www.legislation.qld. gov.au/view/html/inforce/current/sl-2010-0357] for more information about trawl gear and net restrictions.
- Find out about bycatch reduction devices (BRDs) [https://www.business.qld.gov.au/industri es/farms-fishing-forestry/fisheries/fisheries-profiles/trawl-fisheries/reducing-bycatch] and turtle excluder devices (TEDs) [https://www.business.qld.gov.au/industries/farms-fishing-forestry/fisheries/fisheries-profiles/trawl-fisheries/turtle-excluder-devices].

## Government controls and legislation for trawl fisheries

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From 15 July 2016, the use or possession of trawl spikes, ploughs, rippers and other similar devices that attach to trawl sleds, boards or beams are prohibited. These devices must not be used due to concerns about the impact they could have on the seafloor and the fishery.

A comprehensive range of measures are used to regulate the trawl fishery. These are detailed in the Fisheries Regulation 2008 and Fisheries (East Coast Trawl) Management Plan 2010, and include the following.

## Limits on operating time

Almost all the licences in the trawl fishery operate on an effort quota system. Each trawler is permitted to work a certain number of nights based on the quota it holds. Through this system, a trawler can increase its allocation by buying quota from another vessel without the effort in the fishery increasing.

The exceptions are the Moreton Bay trawl fishery, which is limited to fishing weeknights only, and the Finfish (Stout Whiting) Fishery, which is limited by a total catch quota.

#### **Area closures**

There are many areas throughout the fishery where trawling is prohibited or restricted. These areas are declared for a number of reasons, including habitat and nursery ground protection, maintenance of broodstock and bycatch reduction. In addition, there are a range of fisheries closures that have been introduced by the Department of National Parks, Sport and Racing [htt p://www.nprsr.qld.gov.au/] and Great Barrier Reef Marine Park Authority [http://www.gbrmpa.gov.au/] to manage marine parks.

#### **Boat size restrictions**

The size of boats in each fishery is restricted as a further mechanism to regulate fishing effort, the maximums being 20m for the stout whiting and east coast otter trawl fisheries, 9m for the river and inshore beam trawl fishery, and 14m for the Moreton Bay otter trawl fishery.

#### **Gear restrictions**

Otter and beam trawl nets are also regulated by total length and mesh size. These regulations manage the total amount of 'swept area' in the fishery and minimise the impact on non-permitted species. All otter trawlers are required to have a turtle excluder device [https://www.business.qld.gov.au/industries/farms-fishing-forestry/fisheries/fisheries-profiles/trawl-fisheries/turtle-excluder-devices] and a bycatch reduction device [https://www.business.qld.gov.au/industries/farms-fishing-forestry/fisheries-profiles/trawl-fisheries/reducing-bycatch] installed in any net being used. Beam trawlers are only required to have a bycatch reduction device installed

Alert: From 15 July 2016, the use or possession of trawl spikes, ploughs, rippers and other similar devices that attach to trawl sleds, boards or beams are prohibited. These devices must not be used due to concerns about the impact they could have on the seafloor and the fishery.

#### **Catch limits**

The small Finfish (Stout Whiting) Fishery, which has only 5 operators, is managed through a total allowable catch (TAC). There is a quota set on the amount of product that can be taken each year. The figure is determined by means of an annual stock assessment that establishes the yield that the population can sustain.

For more information, download the Queensland Finfish Trawl Fishery statement of management arrangements (PDF, 470KB) [https://www.daf.qld.gov.au/\_\_data/assets/pdf\_file/0016/53134/Final-Management-Arrangements.pdf].

## Monitoring and reporting

Commercial fishers have a legal obligation to report information about their fishing activities in a compulsory daily logbook [https://www.business.qld.gov.au/industries/farms-fishing-forestry/fisheries/monitoring-reporting/requirements/logbooks]. All trawl fishers must contribute data about their day's catch, the location fished, the apparatus used and any interactions with species of conservation interest. Fisheries Queensland uses this data to assess and monitor the status of individual species and fisheries [https://www.business.qld.gov.au/industries/farms-fishing-forestry/fisheries/monitoring-reporting/monitoring] in Queensland. []

Boats operating in certain fisheries or areas are also obliged to have on board a vessel monitoring system (VMS) [https://www.business.qld.gov.au/industries/farms-fishing-forestry/fisheries/monitoring-reporting/vms], which tracks the position of their boat, to monitor compliance with closures and other restrictions.

# Changes to the Fisheries (East Coast Trawl) Management Plan 2010

From 1 March 2015, new rules apply to the use of turtle excluder devices [https://www.business.qld.gov.au/industries/farms-fishing-forestry/fisheries/fisheries-profiles/trawl-fisheries/turtle-excluder-devices] and bycatch reduction devices [https://www.business.qld.gov.au/industries/farms-fishing-forestry/fisheries/fisheries-profiles/trawl-fisheries/reducing-bycatch/overview-devices] to

reduce the level of interactions with protected species, including sea snakes. Only 5 bycatch reduction devices will be allowed (with modified designs), and these are:

- square mesh codend
- fisheye
- bigeye
- square mesh panel
- v-cut with bell codend.

When using prawn nets, fishers must use approved bycatch reduction devices for the following specified areas:

#### Fishery area

Northern Area (north of 16 degrees)

Central area (16-22 degrees)

Shallow area (south of 22 degrees and outside of the deepwater net area)

Deepwater net area

#### Approved bycatch reduction devices

Square mesh codend (northern area), fisheye, bigeye, square mesh panel and v-cut with bell codend
Square mesh codend (central area), fisheye, bigeye
Square mesh codend (shallow area), fisheye, bigeye, square mesh panel, v-cut with bell codend
Square mesh codend (deepwater net area), fisheye, bigeye, square mesh panel

When using scallop nets, only a scallop square mesh codend is allowed.

#### Also consider...

• Learn about the Queensland Boating and Fisheries Patrol (QBFP) [http://www.daf.qld.gov.a u/fisheries/services/queensland-boating-and-fisheries-patrol], which enforces fisheries and boating safety laws through surveillance and inspection.

Contact: General enquiries 13 QGOV (13 74 68)

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