

Torres Strait Prawn Fishery

CURRENT STATUS

Endeavour prawn **fully fished**.

Tiger prawn **fully fished**.

King prawn **fully fished**.



MANAGEMENT TARGETS

Management aims to maintain a level of fishing effort that generates a long-term sustainable yield.

The total catch of the fishery has been close to target levels in recent years, but some 28% of the potential effort in the fishery is currently inactive.

TOTAL CATCH

2002: 1729 t; A\$25m

TARGET SPECIES

Endeavour prawn 853 t

Tiger prawn 714 t

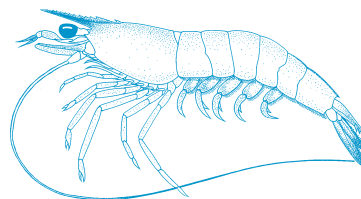
King prawn 162 t

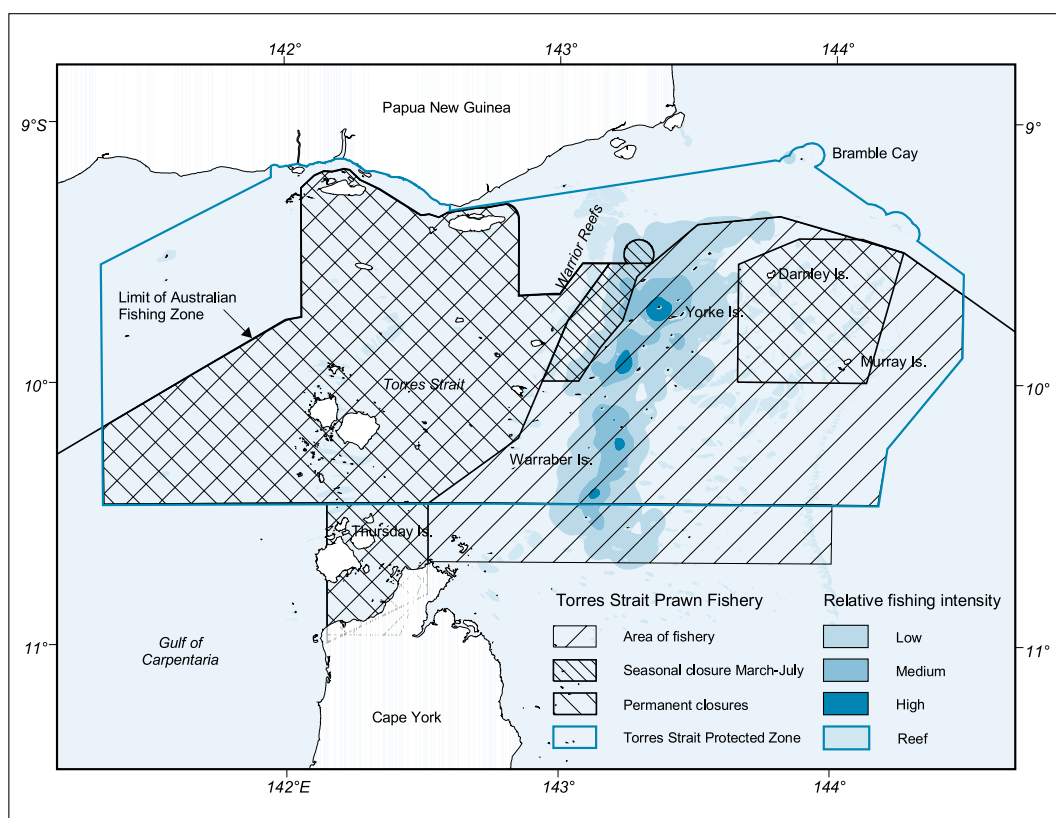
BYPRODUCT

Moreton Bay bugs, squid

ENVIRONMENTAL ISSUES

Turtle shark and stingray bycatch, benthic-habitat disturbance.





EFFORT

Annual effort increased steadily in the 1980s, reaching a peak in 1993, when limited fishing-access days per vessel was introduced. Total effort declined, but increased steadily over the next five seasons, after which it stabilised at around 10 000 nights fished. However, the efficiency of vessels has increased by an estimated 1.8% per year, which has added almost 20% to the effective effort over the last ten years. The trend was reversed in 2002 when net length was reduced by 10% and turtle-excluder devices (TEDs) became compulsory.

As Papua New Guinea is also entitled to about 25% of the catch, in 2002 Australia can endorse up to eight of their trawlers to fish in the Australian area. Additionally, three licences with access to the area for the whole season

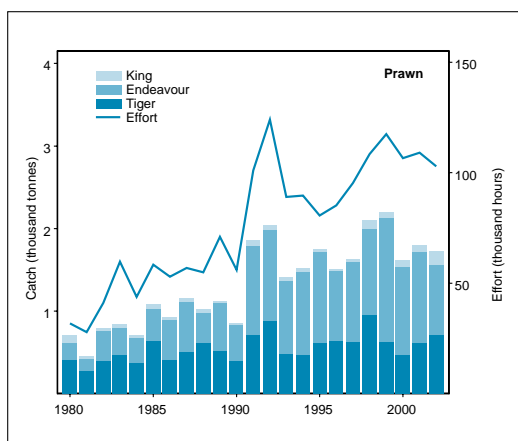
have been reserved for Torres Strait Islander participation.

The total effort of existing Australian licensees is limited by the assignment of allocated fishing days to each vessel. In 2002 the total allocation for Australian vessels was 13 532 fishing days divided between 77 licensed vessels—an average of 176 days per vessel. The Protected Zone Joint Authority (PZJA)⁴ is currently exploring ways to reduce total effort further.

CATCH

The total catches of brown tiger prawns in 2001 (621 t) and 2002 (714 t) were within 10% of the long-term average catch (654 t). Endeavour prawn catches were also average in 2001 (1095 t), but in 2002 (853 t) were 17%

⁴ The Torres Strait Protected Zone Joint Authority—with a membership of the Australian Government Minister for Agriculture, Fisheries and Forestry, the Queensland Minister for Primary Industries and Rural Communities, and the Chair of the Torres Strait Regional Authority—is responsible for management of commercial and traditional fishing in the Australian area of the Torres Strait Protected Zone and designated adjacent Torres Strait waters.



below the long-term average (1020 t). The most notable change in 2002 was the record red-spot king prawn catch (162 t). As this species is usually found close to reefs, possibly the ability to trawl close to reefs has improved; alternatively, recruitment may have been unusually strong.

MANAGEMENT REFERENCE POINTS

Future management of the fishery will include a reduction of total potential effort to the level estimated to produce the maximum sustainable yield. How the reduction will be applied to the Australian commercial fishing industry, traditional inhabitants of Torres Strait, and the Papua New Guinea fishery is the subject of debate at management meetings. The intended effect of the reduction is to ensure (and demonstrate) that the fishery is sustainable and, combined with action to manage the fishery's bycatch, complies with the requirements of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

ENVIRONMENTAL ISSUES

Prawn trawlers sweep a large area of seabed to catch sparsely distributed prawns. They are 'tickled' up into the advancing net by a chain along the net's footrope, which runs through the soft mud or sand substrate. This process disturbs the benthos, and a wide variety of non-target species are taken as bycatch. Most have no commercial value, so are discarded. Retained or byproduct species include Moreton Bay bug (*Thenus orientalis*), saucer scallop



Tiger prawns have wide appeal

(*Amusium pleuronectes*), several species of squid, and some finfish and shark. Marine reptiles (mainly turtles and sea snakes) are also taken as bycatch. A strategic assessment of the fishery has been prepared for evaluation under the EPBC Act.

MANAGEMENT PERFORMANCE

The total catch of the Torres Strait Prawn Fishery has been close to target levels for the past three years. However, some 28% of the potential effort in the fishery remains available but has not yet been activated by the existing Australian fleet. Action to limit this effort is required in 2003, as it poses a significant risk to the achievement of the PZJA's management objectives, and the fulfilment of Australia's Torres Strait Treaty obligations to share the catch.

Bycatch in demersal trawl fisheries—from prawn trawling in particular—has attracted considerable attention from the public, researchers and conservation groups over the past decade. In response, management instituted a Bycatch Action Plan that aims to eliminate the catch of large animals such as turtles, sharks and stingrays, and substantially reduce the ratio of bycatch to prawns. The use of turtle-excluder devices is now compulsory, and research on bycatch-reduction devices is stepping up. Size limits have been introduced for Moreton Bay bugs, and there is a shark-bycatch limit of five fish or 30 kg.