

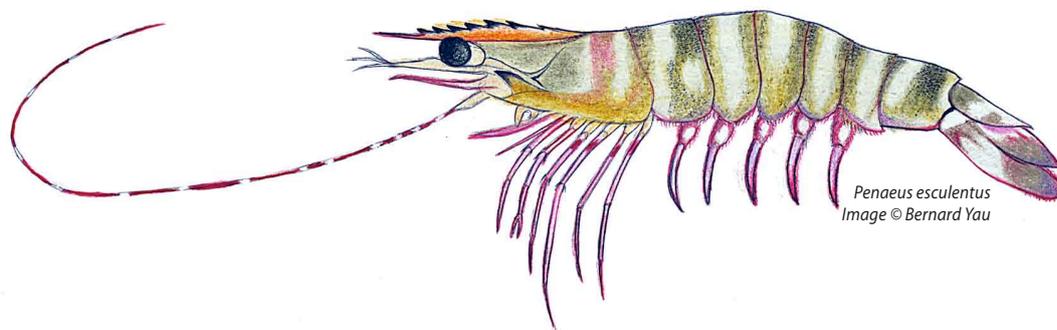
Brown Tiger Prawn

(*Penaeus esculentus*)

EXPLOITATION STATUS UNDEFINED

NSW is at the southern end of the species' range. Recruitment is likely to be small and variable.

SCIENTIFIC NAME	COMMON NAME	COMMENT
<i>Penaeus esculentus</i>	brown tiger prawn	Native to NSW waters
<i>Penaeus monodon</i>	black tiger prawn	Also known as leader prawn and giant tiger prawn - farmed in NSW.



Background

There are a number of large striped 'tiger' prawns known from Australian waters. Species such as the black tiger prawn (*Penaeus monodon*) and grooved tiger prawn (*P. semisulcatus*) have wide tropical distributions throughout the Indo-West Pacific and northern Australia. The brown tiger prawn (*P. esculentus*) is also mainly tropical but appears to be endemic to Australia, inhabiting shallow coastal waters and estuaries from central NSW (Sydney), around the north of the continent, to Shark Bay in WA. This species is fished commercially throughout its range and contributes almost 30% of the ~1800 t tiger prawn fishery (70% grooved tiger prawn) in the Northern Prawn Fishery of northern Australia.

Of the three species above, the brown tiger prawn is the only one landed in significant quantities by NSW fishers. Juvenile brown tiger prawns settle and grow in seagrass beds in estuaries before migrating as pre-adults to the ocean for spawning. Adults occur in coastal

waters in mud, sand or silt substrates less than 30 m deep. Off northern Australia, female brown tiger prawns mature between 2.5 and 3.5 cm carapace length (CL) and grow to a maximum of about 5.5 cm CL; males grow to a maximum of about 4 cm CL. Spawning occurs mainly in water temperatures around 28-30°C, and the resulting planktonic larvae are dispersed by coastal currents back into the estuaries to settle.

Compared to northern Australian states, the NSW tiger prawn catch is extremely small. Since 2000, reported landings have been between 3 and 6 t per year, with about half taken in pocket nets by estuary general fishers (particularly in Wallis Lake) and the remainder by ocean prawn trawlers. The ocean prawn trawl catch also includes small numbers of black tiger prawns believed to have escaped from prawn farms.

Additional Notes

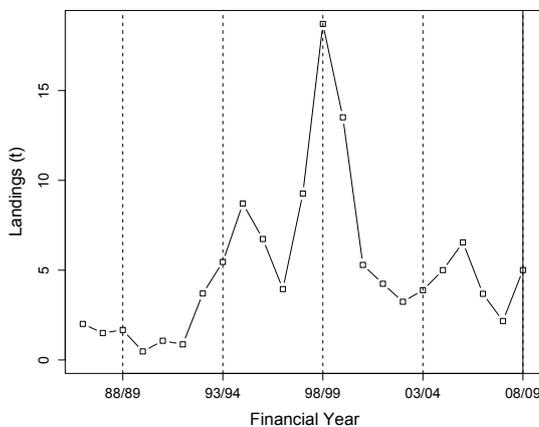
- Caught mainly by the Ocean Trawl Fishery, and the Estuary General Fishery in Wallis Lake.
- *Penaeus esculentus* is endemic to sub-tropical and tropical waters around Australia. Catches are generally incidental when fishing for other species of prawn.
- There is a small fishery for *P. esculentus* in NSW waters, mostly in Wallis Lakes and off northern NSW.
- *P. esculentus* is the smallest of the three 'tiger prawn' species found in the Gulf of Carpentaria.
- There is a combined recreational bag limit of 10 litres for all prawns.

Catch

Recreational Catch of Brown Tiger Prawn

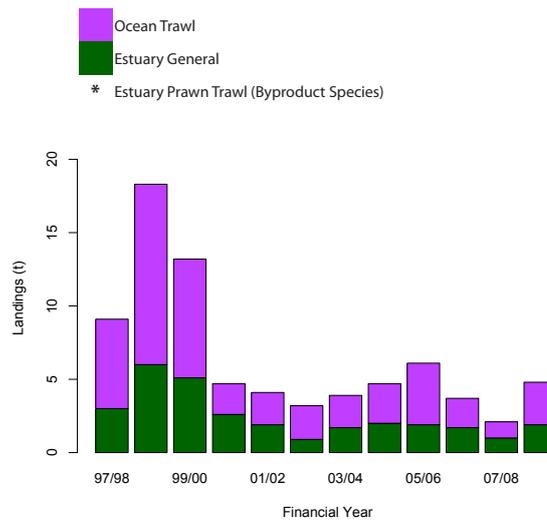
The annual recreational harvest of brown tiger prawn in NSW is likely to be less than one tonne.

Historical Landings of Brown Tiger Prawn



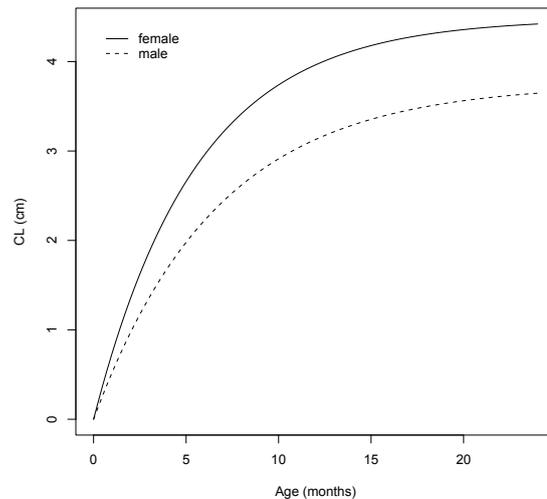
Commercial landings (including available historical records) of brown tiger prawn for NSW from 1986/87 to 2008/09 for all fishing methods.

Landings by Commercial Fishery of Brown Tiger Prawn



Reported landings of brown tiger prawn by NSW commercial fisheries from 1997/98. * Fisheries which contribute less than 2.5% of the landings are excluded for clarity and privacy.

Growth Curves of Brown Tiger Prawn



Growth curve for brown tiger prawn using parameters from Kirkwood and Somers (1984). Lengths are presented as carapace length (CL).

Further Reading

- Broadhurst, M.K. (2003). [Reducing unwanted bycatch and improving size selectivity in NSW prawn fisheries](#), *Professional Fisherman*: 16-17.
- Grey, D.L., W. Dall and A. Baker (1983). [A Guide to the Australian Penaeid Prawns](#). Darwin, Northern Territory Government Printing Office.
- Jones, D.S. and G.J. Morgan (1994). [A Field Guide to Crustaceans of Australian Waters](#). Sydney, Reed.
- Kailola, P.J., M.J. Williams, P.C. Stewart, R.E. Reichelt, A. McNee and C. Grieve, Eds. (1993). [Australian Fisheries Resources](#). Canberra, Australia, Bureau of Resource Sciences, Department of Primary Industries and Energy, and the Fisheries Research and Development Corporation.
- Kirkwood, G.P. and F. Somers (1984). Growth of the two species of tiger prawn, *Penaeus esculentus* and *Penaeus semisulcatus*, in the western Gulf of Carpentaria, *Australian Journal of Marine and Freshwater Research* **35**: 703-12.
- Montgomery, S.S. (2000). Status of eastern king and school prawn stocks in: [Juvenile Prawn Summit: Summary of Proceedings](#), Cronulla Fisheries Centre, NSW Fisheries.
- Racek, A.A. (1959). Prawn investigations in eastern Australia. *NSW State Fisheries Research Bulletin* **6**: 1-57.
- Rothlisberg, P.C., B.J. Hill and D.J. Staples (1985). [Second Australian national prawn seminar NPS2](#), Cleveland, Australia.
- Ruello, N.V. (1974). History of Prawn Fishing in Australia. *Australian Fisheries* **33** (2): 1-14.

Please visit the CSIRO website, <http://www.marine.csiro.au/caab/> and search for the species code (CAAB) 28 711044 and 28 711051, common name or scientific name to find further information.

