

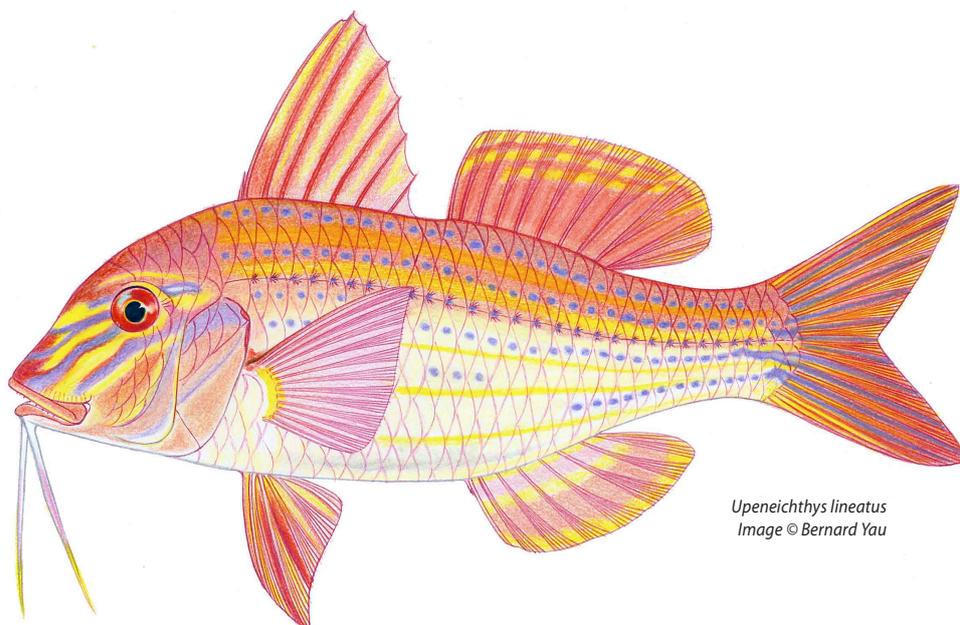
# Goatfish

## (Mullidae)

**EXPLOITATION STATUS** UNDEFINED

Small quantities (20 - 40 t annually) taken incidentally in prawn and fish trawls. Assessment is constrained by lack of biological information.

SCIENTIFIC NAME	STANDARD NAME	COMMENT
<i>Upeneichthys lineatus</i>	bluestriped goatfish	More than 80% of NSW catch.
<i>Parupeneus spilurus</i>	blacksaddle goatfish	
<i>Upeneus tragula</i>	bartail goatfish	



### Background

At least three species of goatfishes, popularly known as red mullet or barbounia, are included in the NSW catch. It is estimated that 80% or more of the catch consists of the bluestriped goatfish (*Upeneichthys lineatus*), a small fish measuring mainly between 15 and 20 cm in length. Also landed are small numbers of the larger blacksaddled goatfish (*Parupeneus spilurus*) which can grow to more than 40 cm, and the slender bartailed goatfish (*Upeneus tragula*) which seldom exceeds 15 cm. The bartailed and blacksaddled goatfishes are tropical species with ranges extending to central NSW while the bluestriped goatfish is endemic to eastern Australia between southern Queensland and southern NSW.

Goatfishes typically inhabit inshore waters where they feed on soft sandy areas of seabed using strong barbels on the underside of their

mouth to dig and to sense small prey. There have been no studies into the biology of any NSW species. Size composition data were collected during trawl surveys of king prawn and fish-trawling grounds by Fisheries Research Vessel *Kapala*, and some length data are available from commercial landings.

Annual landings of goatfish by NSW ocean trawlers are mostly between 20 and 30 t with most of the catch taken as by-product of prawn trawling. Red mullet are also landed in small quantities by the southern Queensland prawn-trawl fishery, and it is estimated that less than 1 t is taken annually by NSW recreational fishers. No stock assessment has been undertaken for any goatfish species in NSW and the species composition of the catch has not been accurately determined.

### Additional Notes

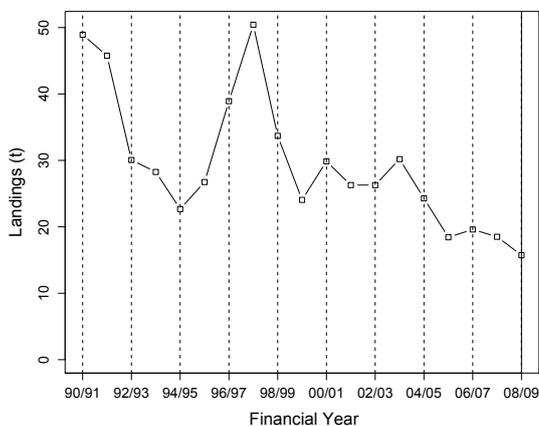
- There are three species in this reporting group, though bluestriped goatfish (*Upeneichthys lineatus*) is most commonly landed.
- Bluestriped goatfish is a widely distributed inshore species.
- Size composition data from recent commercial catch monitoring of bluestriped goatfish was compared with data from research trawls and no trends were apparent.

### Catch

#### Recreational Catch of Goatfish

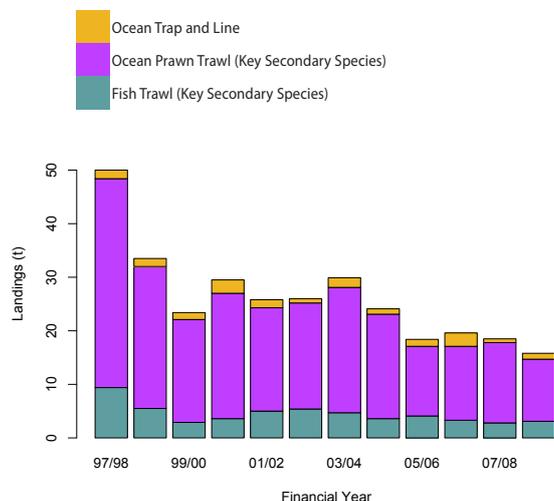
The annual recreational harvest of goatfish in NSW is likely to be less than one tonne.

#### Historical Landings of Goatfish



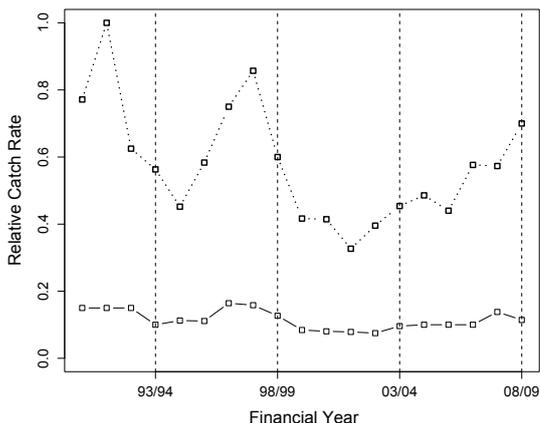
Commercial landings (including available historical records) of goatfish for NSW from 1990/91 to 2008/09 for all fishing methods.

#### Landings by Commercial Fishery of Goatfish



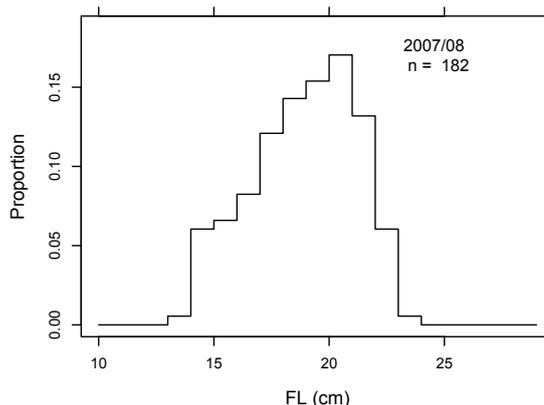
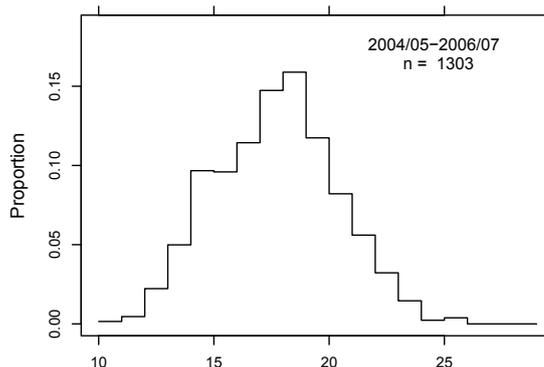
Reported landings of goatfish by NSW commercial fisheries from 1997/98. Fisheries which contribute less than 2.5% of the landings are excluded for clarity and privacy.

#### Catch Per Unit Effort Information of Goatfish Harvested by Ocean Prawn Trawling in NSW



Catch rates of goatfish harvested using ocean prawn trawling for NSW. Two indicators are provided: (1) median catch rate (lower solid line); and (2) 90th percentile of the catch rate (upper dashed line). Note that catch rates are not a robust indicator of abundance in many cases. Caution should be applied when interpreting these results.

#### Length Frequency of Bluestriped Goatfish



The length distribution of bluestriped goatfish landed by NSW commercial fishers in recent years has shown a single mode, with the majority of fish being between 15 and 20 cm fork length (FL). Blue striped goatfish do not have a minimum legal length.

## Further Reading

- Curley, B.G., M.J. Kingsford and B.M. Gillanders (2002). Spatial and habitat related patterns of temperate reef fish assemblages: implications for the design of Marine Protected Areas. *Marine and Freshwater Research* **53**: 1197-1210.
- Hutchins, B. and R. Swainston (1999). Sea Fishes of Southern Australia - Complete Field Guide for Anglers and Divers. Smithfield, NSW, Gary Allen Pty Ltd.
- 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.
- Kuiter, R.H. (1993). Coastal Fishes of South-Eastern Australia. Honolulu, University of Hawaii Press.
- Platell, M.E., I.C. Potter and K.R. Clarke (1998). Do the habitats, mouth morphology and diets of the mullids *Upeneichthys stotti* and *U. lineatus* in coastal waters of south-western Australia differ? *Journal of Fish Biology* **52**: 398-418.

Please visit the CSIRO website, <http://www.marine.csiro.au/caab/> and search for the species code (CAAB) 37 355001, 37 355015, and 37 355014, common name or scientific name to find further information.



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