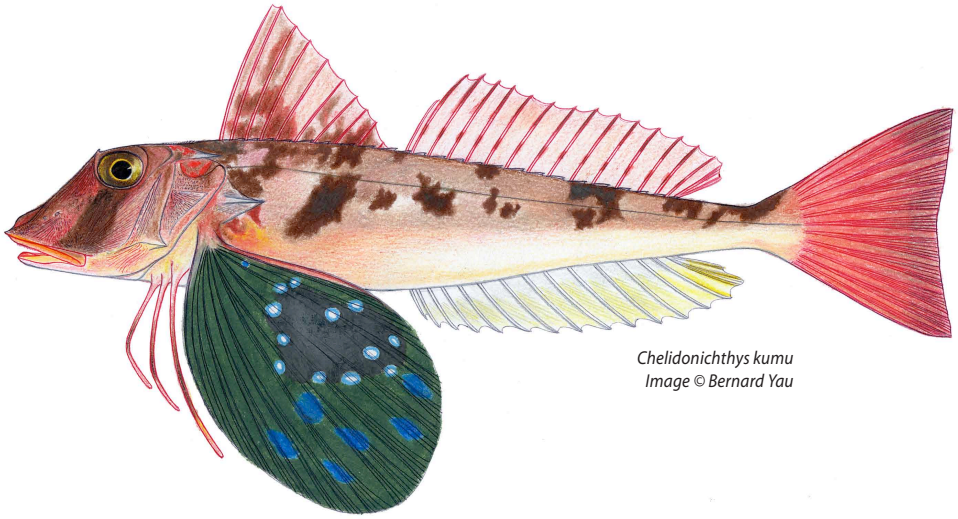
Red Gurnard and Latchets (Triglidae)

EXPLOITATION STATUS	UNDEFINED

Red gurnard is the primary species landed in NSW waters. There is little local information to assess status.

SCIENTIFIC NAME	STANDARD NAME	COMMENT
Chelidonichthys kumu	red gurnard	Majority of the NSW landings.
Pterygotrigla andertoni	painted latchet	Deepwater species; minor landings only in NSW.
Pterygotrigla polyommata	latchet	Minor landings in NSW. Sometimes called sharpbeak gurnard.



Chelidonichthys kumu
Image © Bernard Yau

Background

The gurnard family (Triglidae) comprise about 120 species worldwide with more than 30 species found in Australian waters. Gurnards are benthic fish found primarily in depths less than 200 m. Off NSW, several species of small butterfly gurnards (*Lepidotrigla* spp.) are a major component of trawl-bycatch. However, there are three species of gurnards in NSW waters that grow large enough to be marketed. The red gurnard (*Chelidonichthys kumu*) occurs mainly in deeper estuarine and inner continental shelf waters in depths less than 100 m around most of Australia. Red gurnard are also found through much of the tropical and temperate waters of the Indo-Pacific region, including New Zealand. Latchet (*Pterygotrigla polyommata*) are a more temperate species, occurring off all southern Australian states but generally inhabiting deeper waters, from100 to 400 m. The painted latchet (*Pterygotrigla andertoni*) is found mainly on the upper slope between 200 and 400 m depth, and is distributed around southern Australia and other areas of the south west Pacific, including New Zealand.

Red gurnard grow to about 55 cm in length and almost 2 kg in weight, while the two species of latchet seldom reach 50 cm in length. There is no biological information on red gurnard or latchet in Australia, but New Zealand studies of red gurnard found that they reached around 23 cm fork length (FL) after 2-3 years and could live for 15 years.

Historically in NSW, the names for red gurnard and latchet were confused and reported catches were often ascribed to the wrong species. Consequently, landings of all three species were combined for catch statistics. A new catch reporting system introduced in July 2009 requires catches of the three species to be reported separately.

The NSW catch of red gurnard and latchets is taken almost totally by the fish-trawl sector of the Ocean Trawl Fishery, with recent landings remaining relatively stable at around 25 to 30 t per annum. Significant quantities of mainly latchet are also taken in the Southern and Eastern Scalefish and Shark Fishery from grounds south of Sydney. The recreational catch of red gurnard and latchet is estimated to be less than 10 t per annum.

Additional Notes

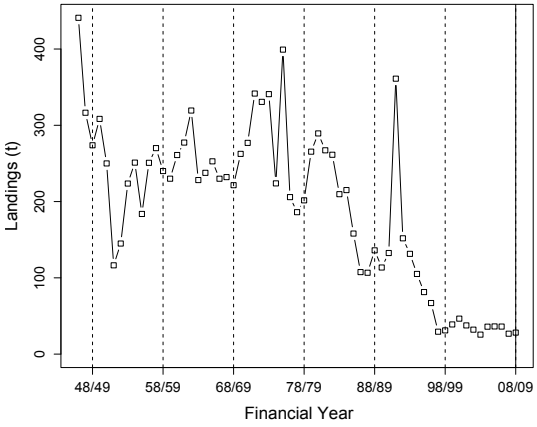
- Monitoring of the size composition of NSW commercial landings of red gurnard was recommenced in 2008/09 at the Sydney Fish Markets.
- Landings by NSW trawl fishery are low (< 50 t), and catch rates are low but reasonably stable (however changes may be masked by the combination of past catch data for three species).
- These species are also harvested by Commonwealth fisheries (latchet - 80 tonnes per annum, red gurnard - 100 tonnes per annum) but are not managed by catch quota, therefore major assessment projects have not been undertaken and few biological data have been collected.
- Species aggregate at certain times of the year, and sometimes large catches can be taken.
- Red gurnard are also taken incidentally by recreational fishers in both estuarine and ocean waters.

Catch

Recreational Catch of Red Gurnard and Latchets

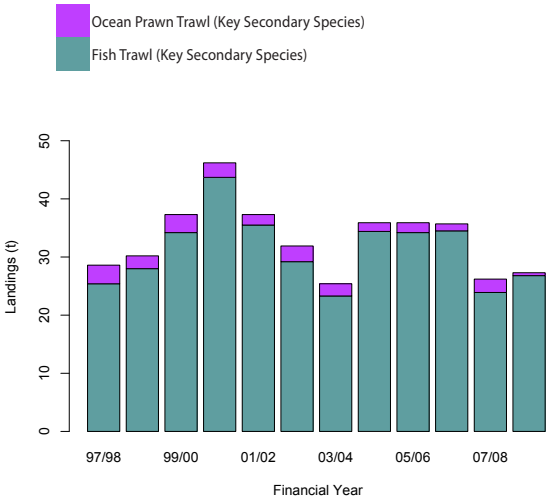
The annual recreational harvest of red gurnard and latchets in NSW is likely to be less than 10 t. This estimate is based upon the results of the offsite National Recreational and Indigenous Fishing Survey (Henry and Lyle, 2003) and onsite surveys undertaken by I & I NSW.

Historical Landings of Red Gurnard and Latchets



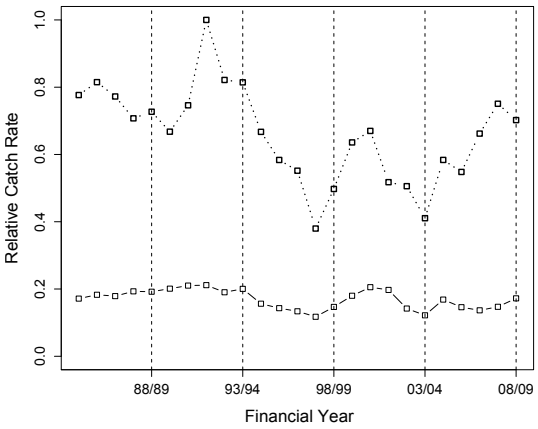
Commercial landings (including available historical records) of red gurnard and latchets for NSW from 1946/47 to 2008/09 for all fishing methods. Note that the decline in reported catch during the 1990s was due to changes in catch recording requirements for fishers with both NSW and Commonwealth licences.

Landings by Commercial Fishery of Red Gurnard and Latchets



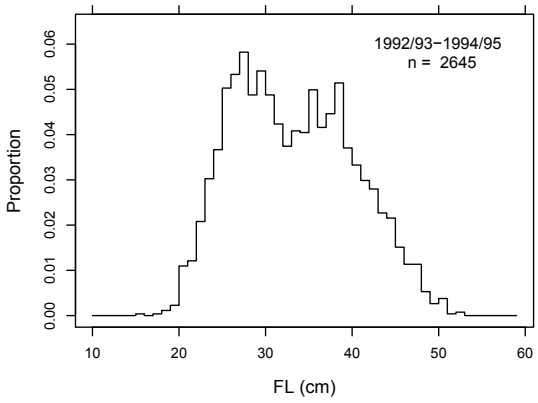
Reported landings of red gurnard and latchets by NSW commercial fisheries from 1997/98. Fisheries which contribute less than 2.5% of the landings are excluded for clarity and privacy.

Catch Per Unit Effort Information of Red Gurnard and Latchets Harvested by Fish Trawling in NSW

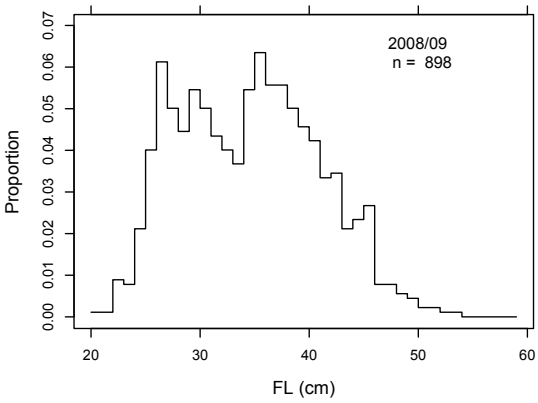


Catch rates of red gurnard and latchets harvested using fish trawling for NSW. Two indicators are provided: (1) median catch rate (lower solid line); and (2) 90th percentile of the catch rate (upper dashed line). Note that catch rates are not a robust indicator of abundance in many cases. Caution should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

*Length Frequency of **Red Gurnard***



The length distribution of red gurnard caught during trawl surveys by the Fisheries Research Vessel *Kapala* was comprised mainly of fish between 20 and 50 cm fork length (FL).



The length distribution of red gurnard landed by NSW commercial fishers in 2008/09 comprised mainly fish between 25 and 45 cm fork length (FL). There is no minimum legal length for red gurnard in NSW.

Further Reading

Elder, R.D. (1976). Studies on age and growth, reproduction and population dynamics of red gurnard, *Chelidonichthys kumu* (Lesson and Garnot), in the Hauraki Gulf, New Zealand. *Fisheries Research Bulletin* **12**: 62 pp.

Ferrell, D. (1993). Pilot study on the feasibility of ageing snapper, rubberlip morwong, red gurnard and banjo (fiddler) rays. Unpublished report. Cronulla, NSW Fisheries Research Institute: 22 pp.

Henry, G.W. and J.M. Lyle (2003). The National Recreational and Indigenous Fishing Survey. Final Report to the Fisheries Research & Development Corporation and the Fisheries Action Program Project FRDC 1999/158. NSW Fisheries Final Report Series No. 48. 188 pp. Cronulla, NSW Fisheries.

Klaer, N.L. (2001). Steam trawl catches from south-eastern Australia from 1918 to 1957: trends in catch rates and species composition. *Marine and Freshwater Research* **52**: 399-410.

Klaer, N.L. (2004). Abundance indices for main commercial fish species caught by trawl from the south-eastern Australian continental shelf from 1918 to 1957. *Marine and Freshwater Research* **55** (6): 561-571.

Staples, D. J. (1970). Methods of ageing red gurnard (Teleosti: Triglidae) by fin rays and otoliths. *New Zealand Journal of Marine and Freshwater Research* **5**(1): 70-79.

Sutton, C.P. (1997). Growth parameters, and estimates of mortality for red gurnard (*Chelidonichthys kumu*) from off the east and west coasts of the South Island, New Zealand. New Zealand Fisheries Assessment Research Document 97/1: 15 pp.

Please visit the CSIRO website, http://www.marine.csiro.au/caab/ and search for the species code (CAAB) 37 288001, 37 288005 and 37 288006, common name or scientific name to find further information.