

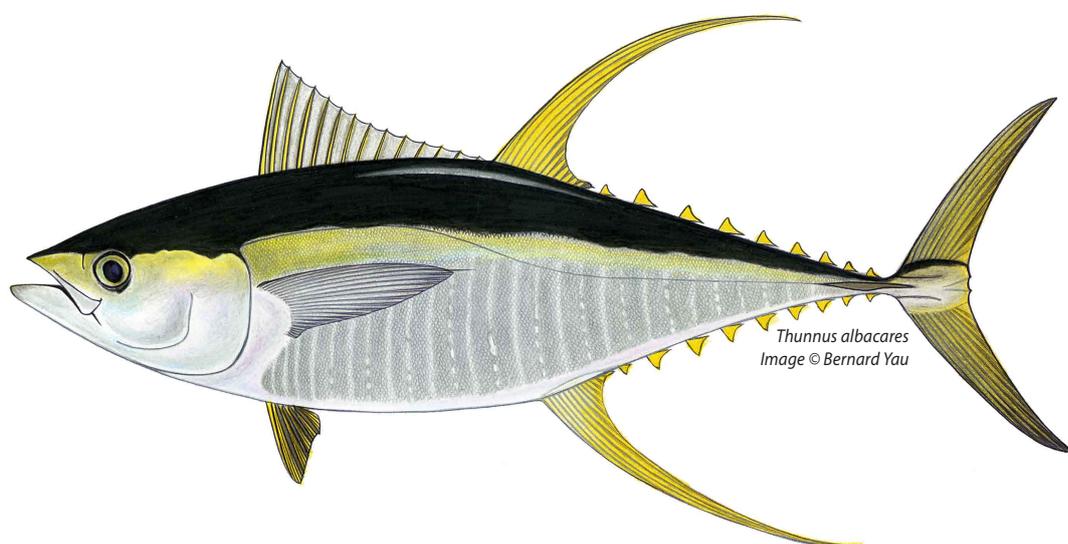
# Yellowfin Tuna

## (*Thunnus albacares*)

### EXPLOITATION STATUS FULLY FISHED

Mainly a Commonwealth fishery off eastern Australia, with some uncertainty about the degree of overlap with the much larger western and central Pacific stock. Status has been adopted consistent with the Commonwealth assessment - 'not overfished', but there is some concern about high rates of fishing in the western and central Pacific.

SCIENTIFIC NAME	STANDARD NAME	COMMENT
<i>Thunnus albacares</i>	yellowfin tuna	



### Background

Yellowfin tuna (*Thunnus albacares*) are distributed throughout the warm-temperate and tropical waters of all oceans living in temperatures between 15 and 31°C. They are a highly migratory, pelagic species that prefer open oceanic waters although they are occasionally caught in deep bays and harbours. Yellowfin tuna form large schools, primarily by size, which are often associated with floating debris such as logs. In the central Pacific, the larger fish frequently school with dolphins and it was this behaviour that led to high dolphin mortality during the early years of the purse seine fishery for yellowfin tuna; subsequent changes in fishing procedures have greatly reduced the dolphin mortality. It is a highly migratory species that regularly travels long distances and genetic studies have found that yellowfin tuna from all oceans share a common gene pool.

Yellowfin tuna are fast growing fish, with females reaching 5 kg by the end of their first year and maturity after about 2 years at

25 kg. Maximum size is in excess of 200 cm (fork length, FL) and 175 kg, but on the east coast of Australia, yellowfin are commonly 50 to 190 cm in length and 4 to 100 kg in weight. Spawning occurs through most of the year in water temperatures greater than 26°C, with females shedding eggs every 1-2 days over a period of several months; during a single spawning season, an individual can produce up to 1,500,000 eggs. Yellowfin tuna are opportunistic carnivores, feeding on small fish, crustaceans and squids.

Worldwide, about one million tonnes of yellowfin tuna are harvested annually making it one of the most important fishery resources of the world. The total Australian catch is comparatively small (~ 2000 t per annum) and although yellowfin tuna are found around the whole Australian coast, most of the catch is taken off NSW and Queensland in the Commonwealth managed East Coast Tuna and Billfish Fishery. Yellowfin tuna is an excellent eating fish that is sold frozen, canned, fresh, and smoked, and is highly valued for sashimi.

In recent years, the NSW yellowfin tuna catch has been less than ten tonnes per year, with almost all taken by line-fishing methods in the Ocean Trap and Line Fishery. The species is also a popular gamefish and it is likely that the recreational fishery lands far more yellowfin tuna than the commercial fishery.

### Additional Notes

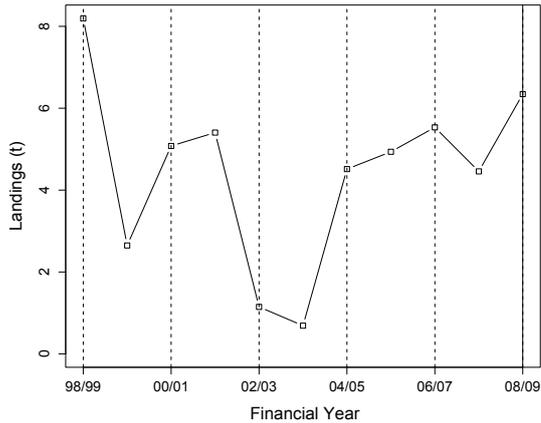
- NSW commercial landings are very small (< 10 t) compared with Commonwealth Eastern Tuna and Billfish Fishery (approximately 2,000 t per annum).
- Recreational landings off NSW are significant but not accurately estimated - likely to be between 50 and 350 t.
- Commonwealth assessment processes for the Eastern Tuna and Billfish Fishery consider this species to be not overfished (40-50% of unfished biomass), but there is some concern that current levels of fishing may be reducing the stock if recent levels of recruitment are 'average'.
- Some catch and catch rate information is available for the recreational fishery (Lowry and Murphy, 2003; Murphy *et al.*, 2002; Park, 2007; Williams, 2002).
- There is a combined recreational bag limit of 5 fish under 90 cm total length (TL) and 2 fish over 90 cm TL for all tuna species.

### Catch

#### Recreational Catch of Yellowfin Tuna

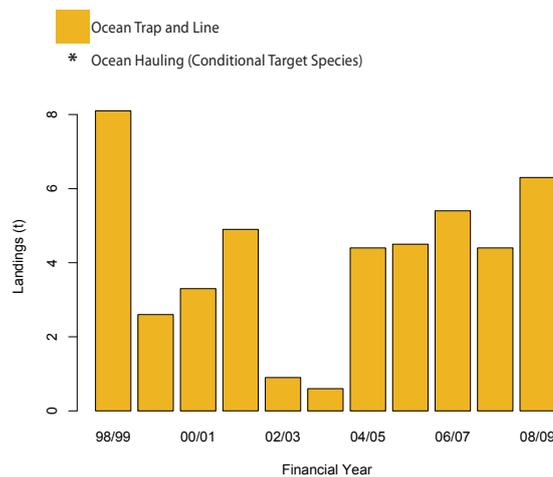
The annual recreational harvest of yellowfin tuna in NSW is likely to lie between 50 and 350 t. This estimate is based upon the results of the offsite National Recreational and Indigenous Fishing Survey (Henry and Lyle, 2003) and onsite surveys undertaken by I & I NSW

Historical Landings of Yellowfin Tuna



Commercial landings (including available historical records) of yellowfin tuna for NSW from 1998/99 to 2008/09 for all fishing methods.

Landings by Commercial Fishery of Yellowfin Tuna



Landings of yellowfin tuna by NSW commercial fisheries from 1998/99. \* Fisheries which contribute less than 2.5% of the landings are excluded for clarity and privacy.

## Further Reading

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Please visit the CSIRO website, <http://www.marine.csiro.au/caab/> and search for the species code (CAAB) 37 441002, common name or scientific name to find further information.



