

Australian Bonito

(*Sarda australis*)

EXPLOITATION STATUS FULLY FISHED

Relatively fast growing species that supports seasonally significant commercial and recreational catches.

SCIENTIFIC NAME	STANDARD NAME	COMMENT
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Sarda australis

Australian bonito



Sarda australis
Image © Bernard Yau

Background

Australian bonito (*Sarda australis*) are distributed throughout the waters of southeastern Australia (southern Queensland to Tasmania) and Norfolk Island. The species has also been reported in New Zealand. Nothing is known about the stock structure within this range. Leaping bonito (*Cybiosarda elegans*) are caught in small numbers off NSW - they can be distinguished by the yellow colour of the second dorsal and anal fins, and dark spots rather than lines on the dorsal surface. Oriental bonito (*Sarda orientalis*) have a wide Indo-Pacific distribution and are commonly caught off western Australia.

Recent research has shown that Australian bonito are fast growing fish which can grow to nearly 40 cm fork length (FL) in one year, and the majority of fish in landings are less than 3 years of age. Australian bonito grow to a

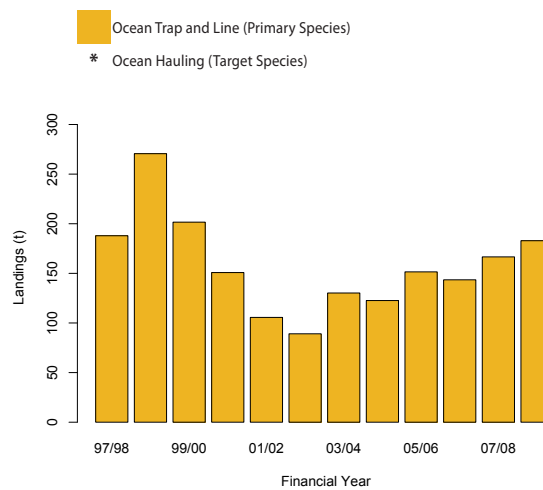
maximum length of about 80 cm and a weight of 9 kg, but the majority of fish in landings are 30 to 60 cm in length and less than 2 kg in weight. Australian bonito mature at about 36 to 38 cm FL, and spawning occurs during the spring/summer period. Little is known of the early life history of Australian bonito.

Since bonito was listed separately on catch returns in the early 1990s, annual commercial landings have generally been between 100 t and 150 t. Following a peak in commercial landings of bonito in 1998/99 (275 t), landings have returned to previous levels. The peak period for harvesting bonito is from March to June. Line methods within the Ocean Trap and Line Fishery account for the majority of the catch.

Additional Notes

- Biological, tag/recapture and length data have been analysed, confirming the relatively fast growth and short lifespan of Australian bonito. Maximum age of about 5 years.
- The fishery is based on just a few age classes, mostly 1 - 3 years old fish.
- Length at maturity about 36 to 38 cm fork length (approximately 1 year of age).
- Schooling species - availability appears to vary between years and areas.
- Bonito are a popular species with recreational fishers.
- Length-based monitoring of the commercial catch is continuing at the Sydney Fish Market.
- There is no minimum legal length for bonito in NSW, but there is a recreational bag limit of 10 bonito.

Landings by Commercial Fishery of Bonito



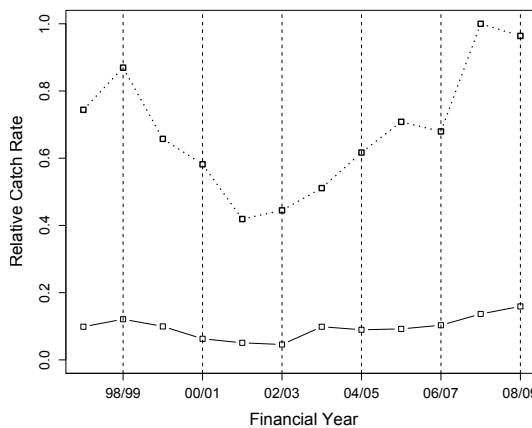
Reported landings of bonito by NSW commercial fisheries from 1997/98. * Fisheries which contribute less than 2.5% of the landings are excluded for clarity and privacy.

Catch

Recreational Catch of Bonito

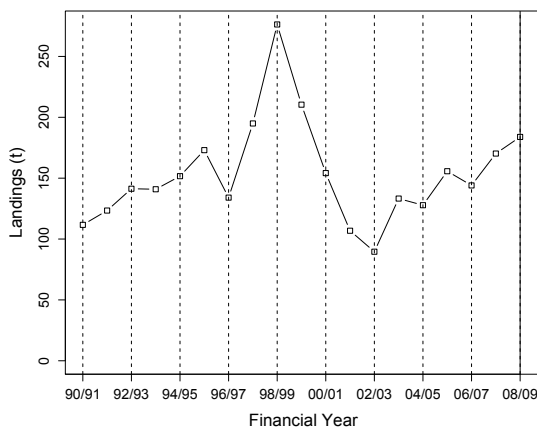
The annual recreational harvest of bonito in NSW is likely to lie between 40 and 110 t. This estimate is based upon the results of the offsite National Recreational and Indigenous Fishing Survey (Henry and Lyle, 2003) and onsite surveys undertaken by I & I NSW.

Catch Per Unit Effort Information of Bonito Harvested by All Line Methods in NSW



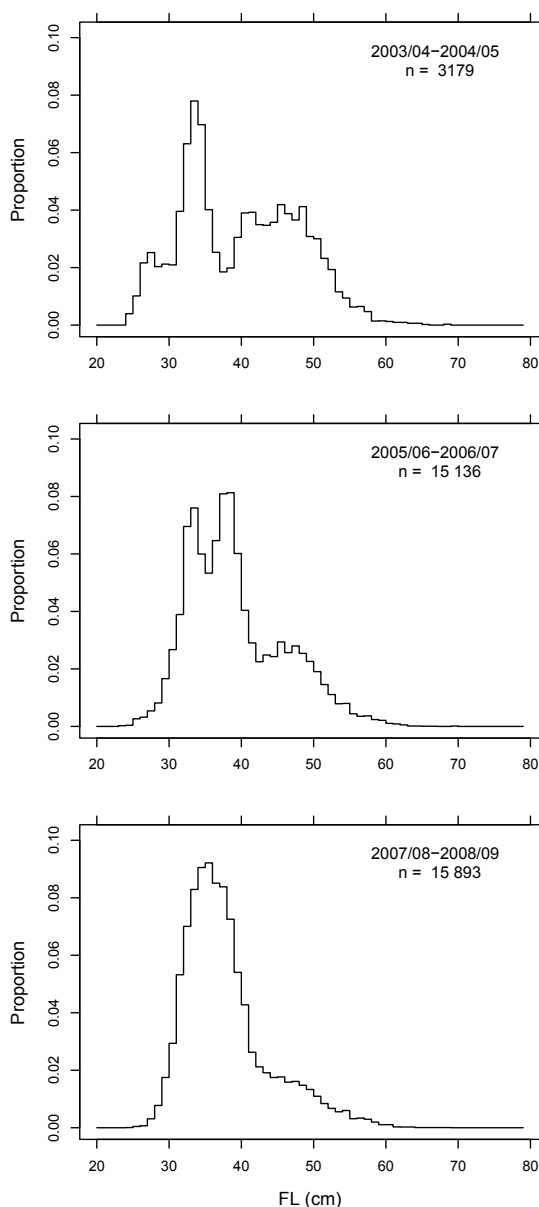
Catch rates of bonito harvested using all line methods for NSW. Two indicators are provided: (1) median catch rate (lower solid line); and (2) 90th percentile of the catch rate (upper dashed line). Note that catch rates are not a robust indicator of abundance in many cases. Caution should be applied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

Historical Landings of Bonito



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

Length Frequency of Australian Bonito



The length distribution of Australian bonito in commercial landings comprises mainly fish between 30 and 60 cm fork length (FL), and generally shows 2 or 3 strong modes. The strongest mode usually occurs between 30 and 40 cm FL, and there is good representation of larger fish (> 50 cm) in all years. There is no minimum legal length for Australian bonito in NSW.

Further Reading

Collette, B.B. and C.E. Nauen (1983). *Scombrids of the World. An Annotated and Illustrated Catalogue of Tunas, Mackerels, Bonitos and Related Species Known to Date*. Rome, FAO: 137 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.

James, G.D. and G. Habib (1979). First record of Australian bonito, *Sarda australis*, from New Zealand. *New Zealand Journal of Marine and Freshwater Research* **13** (3): 425-426.

Relini, L.O., F. Garibaldi, C. Cima, G. Palandri, L. Lanteri and M. Relini (2005). Biology of Atlantic bonito, *Sarda sarda* (Bloch, 1793), in the western and central Mediterranean a summary concerning a possible stock unit. *Col. Vol. Sci. Pap. ICCAT* **58** (2): 575-588.

Steffe, S., J. Murphy, D. Chapman, B.E. Tarlington, G.N.G. Gordon and A. Grinberg (1996). An assessment of the impact of offshore recreational fishing in New South Wales on the management of commercial fisheries. Final Report FRDC Project 94/053. Cronulla, Fisheries Research Institute: 139 pp.

Please visit the CSIRO website, <http://www.marine.csiro.au/caab/> and search for the species code (CAAB) 37 441020, 37 441008 and 37 441006, common name or scientific name to find further information.

