Sea Mullet

*(Mugil cephalus)*

**EXPLOITATION STATUS**

FULLY FISHED

A long history of stable landings and catch rates is evident for both the estuary and ocean fisheries.

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<th>SCIENTIFIC NAME</th>
<th>STANDARD NAME</th>
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<tr>
<td><em>Mugil cephalus</em></td>
<td>sea mullet</td>
<td>Also known as bully mullet.</td>
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**Background**

The sea mullet (*Mugil cephalus*) occurs around much of the Australian coastline, as well as in many temperate and subtropical areas worldwide. In NSW waters, sea mullet are found primarily in estuaries and inshore waters, although they also occur in the freshwater reaches of coastal rivers. Within estuaries, sea mullet are found in association with shallow weed beds and bare substrates. They mostly eat microscopic plants (e.g. blue-green algae, filamentous green algae and diatoms), macroalgae (e.g. the green sea lettuce *Ulva* spp.) and detritus, and often ingest large amounts of substrate in the process.

Spawning occurs at sea, from autumn to early winter. The larvae enter estuaries and the small juveniles subsequently live in sheltered shallow water habitats. Many sea mullet travel into freshwaters, where they may reside for long periods, particularly if denied passage back to the estuary. Sea mullet grow quite quickly, taking about 4 years to reach 35 cm in length. Maximum length is approximately 60 cm but few fish greater than 50 cm are caught. Between late summer and early winter, adult sea mullet (two or more years of age) leave estuaries in large schools that then travel northward along the open coastline on their way to spawning grounds. This behaviour appears to be triggered by strong westerly winds and falling water temperatures. Shorter migrations by so-called ‘hard-gut’ (sub-adult) mullet also occur periodically, possibly in response to heavy flooding.

Sea mullet comprise the largest catch by weight of all species taken in commercial fisheries in NSW. The majority of the sea mullet harvest from NSW estuaries is sold as whole fish, but a significant quantity of the female roe (eggs) is exported to markets in South-East Asia and the Middle East. Sea mullet are not a significant recreational species, but are targeted by a small number of specialist anglers.
Additional Notes

- Reasonably fast growing, short-lived species, well distributed along the coast in all significant estuaries. The stock is also shared with Queensland.
- Monitoring of ocean haul catches for size/age composition is continuing in both NSW and Queensland.
- Recent catch rates in both the estuarine and ocean fisheries in NSW give no cause for concern about the current status of the stock.
- Bad weather during autumn 2009 resulted in poor catches during the ocean hauling season.
- In NSW there is a minimum legal length of 30 cm total length for sea mullet and a recreational bag limit of 20 mullet.

Catch

Recreational Catch of Sea Mullet

The annual recreational harvest of sea mullet 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.

Catch Per Unit Effort Information of Sea Mullet Harvested by Mesh-Netting in NSW

Catch rates of sea mullet harvested using mesh-netting 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 Sea Mullet

Commercial landings (including available historical records) of sea mullet for NSW from 1944/45 to 2008/09 for all fishing methods. During 2008/09 landings by the ocean hauling fishery were significantly lower than in previous years due to very bad weather along the north coast of NSW during the short autumn spawning season.
The length distribution of sea mullet landed by NSW commercial fishers using hauling nets on ocean beaches has remained relatively stable since the 1990s and comprises mainly fish between 30 and 50 cm fork length (FL). The minimum legal length of sea mullet in NSW is 30 cm total length (approximately 27 cm FL).

Further Reading


Please visit the CSIRO website, [http://www.marine.csiro.au/caab/](http://www.marine.csiro.au/caab/) and search for the species code (CAAB) 37 381002, common name or scientific name to find further information.