Tilefish

*(Branchiostegus spp.)*

**EXPLOITATION STATUS** UNDEFINED

An incidental catch of fish trawling, tilefish apparently have a restricted distribution off NSW. Commercial landings and size composition data are available, and a biological study is underway.

<table>
<thead>
<tr>
<th>SCIENTIFIC NAME</th>
<th>STANDARD NAME</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branchiostegus wardi</td>
<td>pink tilefish</td>
<td>The major component of tilefish landings.</td>
</tr>
<tr>
<td>Branchiostegus serratus</td>
<td>Australian barred tilefish</td>
<td>Small quantities landed.</td>
</tr>
</tbody>
</table>

**Background**

Two species of tilefish inhabit NSW waters - the pink tilefish, *(Branchiostegus wardi)* and the less commonly caught barred tilefish *(B. serratus)*. They mainly inhabit depths between about 50 and 200 m although the barred tilefish has been caught as deep as 350 m. Both have a relatively restricted distribution along the east coast of Australia, between Noosa Heads in southern Queensland and eastern Bass Strait. The pink tilefish has also been reported from New Caledonia.

The pink tilefish is mainly plain pink on the body, grading to pink/white on the belly and has a colourful caudal fin bearing two broad yellow stripes in the centre, a dark triangular patch on the lower part of the fin and yellow and grey on the upper part of the fin. The barred tilefish is more silver/white in body colour and has about 15-16 dark vertical bands prominent on the upper body.

Pink tilefish prefer mud or sandy substrates, and they are reported to live in burrows. Tilefish feed on molluscs, worms, squid, crab and small fish. Tilefish larvae are pelagic with distinct patterns of spines along the head and on their scales. These spines are shed when the larvae develop into benthic juveniles. Pink tilefish grow to about 50 cm maximum length. The majority of small fish (< 40 cm) are female while male fish dominate the larger size classes.

Almost all the NSW tilefish catch is landed by fish and prawn trawlers working off Newcastle-Port Stephens and is comprised mostly of pink tilefish. The annual catch has reached 11 t but is mostly less than 5 t. Tilefish are marketed as fresh fish, mainly in the Sydney Fish Markets. Little has been published in relation to the biology of the species; a study is currently underway investigating the growth and reproductive biology of pink tilefish.
Additional Notes

- Pink tilefish *Branchiostegus wardi* is the main species taken - distribution is from southern Queensland to eastern Bass Strait, but significant landings only occur in the Newcastle/Nelson Bay area off central NSW.

- The environmental assessment for the Ocean Trawl Fishery assigned a moderately-high risk for pink tilefish.

- Tilefish are bottom dwelling fish that eat crustaceans and small fish species. Growth and reproductive biology are currently being studied.

- Tilefish have been traditionally reported as ‘moonfish’, and there has been confusion in the catch records with the oceanic moonfish (opah) *Lampris guttatus*. Recent reported landings of tilefish have apparently been less than the amount marketed through the Sydney Fish Markets.

- Taken only by trawling - commercial catch is low (recently less than 2 t) and fluctuates between years. Landings since 2005/06 have been lower than expected, and the reasons for this are being investigated.

Catch

**Recreational Catch of Tilefish**

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

**Historical Landings of Tilefish**

[Graph showing historical landings of tilefish]

Commercial landings (including available historical records) of tilefish for NSW from 1990/91 to 2008/09 for all fishing methods. Note that the landings since 2005/06 may have been greater than indicated due to issues with the correct common name.

**Landings by Commercial Fishery of Tilefish**

[Graph showing landings by commercial fishery]

Reported landings of tilefish by NSW commercial fisheries from 1997/98. Fisheries which contribute less than 2.5% of the landings are excluded for clarity and privacy. Note that the landings since 2005/06 may have been greater than indicated due to issues with the correct common name.

**Catch Per Unit Effort Information of Tilefish Harvested by Fish Trawling in NSW**

[Graph showing catch per unit effort]

Catch rates of tilefish 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.
The length distribution of pink tilefish landed by NSW commercial fishers is comprised mainly of fish between 25 and 50 cm total length (TL). There is no minimum legal length for pink tilefish in NSW.

Further Reading


Please visit the CSIRO website, http://www.marine.csiro.au/caab/ and search for the species code (CAAB) 37 331006 and 37 331005, common name or scientific name to find further information.