

South Australia Fish Fact Sheet



Mulloway *Argyrosomus japonicus*

Mulloway are a prized fish amongst recreational fishers around Australia. Depending on where you are from, they are also called jewfish or 'jewies' as their large ear bones (otoliths) were once used for jewellery. Mulloway are also aptly titled the 'silver ghost' by recreational fishers due to their cryptic behaviour. As such they are caught mainly by the most determined of fishers.



Photo: James Fitzpatrick, Reel Scream

General Features

An elongated, silver to bronze-green body with a large curve tail, large eyes and a mouth full of small pointy teeth. In the torch light of night, a series of pearl spots reflect the pronounced lateral line. A large fish, they grow rapidly and are known to reach weights in excess of one hundred pounds.

Distribution

Mulloway inhabit marine temperate waters from southern Queensland with a southward distribution to the central coast of Western Australia. They are found in many aquatic environments from the upper reaches of estuaries, to the near shore marine environment and even on deeper offshore reefs.

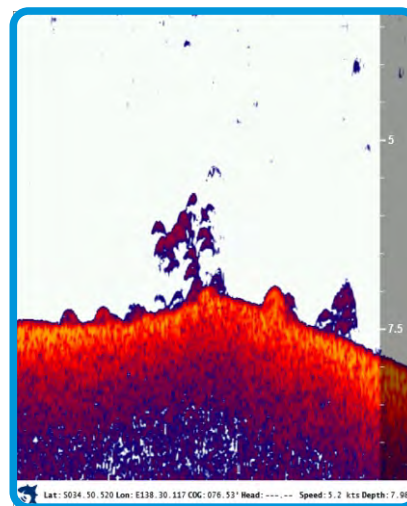


Photo: James Fitzpatrick, Reel Scream

Mulloway are known to migrate large distances and some fish have been detected to move 100's of kilometres between estuaries, although their journeys over lifetimes could well be much longer. Despite large movements, several genetically distinct groups or stocks of Mulloway exist, indicating little reproductive mixing or barriers to fish moving between different regions across Australia

Habitat

Recreational fishers look for mulloway in a variety of different places from beaches, break walls to offshore reefs. Estuaries are a popular place for many anglers targeting Mulloway as they have attractive habitat features. 'Structure' including reef, or rocky shorelines, break walls, jetties and bridge pylons are prime places to look for mulloway in estuaries. Captures of mulloway in these places might suggest they are important for foraging, although underwater observers have also noted individual or shoals of mulloway resting within crevices, or close to structure where they can seek refuge from fast flowing tidal currents.



Above: School mulloway sounded up around a bridge pylon.

Below: A typical SA 'Jewie.'

Several fish species, including Mulloway, are dependent on the estuarine environment to complete their lifecycle. In years of high freshwater flows fisherman report large aggregations of mature Mulloway around river mouths, compared to drought years.



Photo: James Fitzpatrick, Reel Scream

Production of larger numbers of juvenile Mulloway also occurs in wetter years, when more freshwater flow occurs. Upstream river flow brings food resources, providing a 'fuel supply' for food webs, boosting production of worms, shrimp, prawns, crabs, oysters, mussels and small fish! Small crustaceans like Mysid shrimp increase in abundance upon higher freshwater inputs to estuaries, and in turn form a significant part of the diet of juvenile Mulloway. Furthermore, freshwater flow changes salinity and turbidity conditions in estuaries which can be more favourable to Mulloway by enabling them to access food resources to grow quickly or avoid predators.

Threats/Impacts

Alteration of river flow regimes are among the biggest impacts on fishes inhabiting rivers. Enormous water diversion and storage across the Murray-Darling River Basin has removed many of the small and medium size flow events in this system. Now, there is less water reaching the lower Murray and Coorong. Building of barrages along the Coorong, to permanently retain freshwater and to stop the tidal migration of saltwater upstream into the Lower Lakes has had a detrimental effect on Mulloway abundance. Before the construction of the barrages, a large mulloway fishery existed in the Lower Lakes. Water supply dams built on the Onkaparinga and Torrens Rivers have had a similar type of impact in these locations.



Photo: Discover Murray River / www.murrayriver.com.au

Left: 1 of 5 of the Goolwa Barrages built to stop salt water intrusion in the lower Murray River.



Right: The mouth of the Murray River, Coorong SA.

Photo: Discover Murray River / www.murrayriver.com.au

The legacy of past damage to fish habitat still persists today. But there is a solution! You can help improve Mulloway fisheries by participating in fish habitat enhancement projects in your local area. Contact OzFish Unlimited today. Visit www.ozfish.org.au

