South Australia
Habitat Fact Sheet

Fish Habitat Loss

Fish habitat is the environment fish need to survive and thrive. This includes things like water quality, temperature, structure and places to feed and breed. However, with the growing population in South Australia, fish habitat has been affected and still faces a number of threats.

1. Vegetation clearing

Approximately 70% of native vegetation cover has been removed from agricultural areas in South Australia. This has had profoundly negative effects on both fresh and marine waters.

- The loss of soil stability has led to erosion which results in large volumes of sediment being deposited in river channels. 'Sedimentation' causes many problems for fish including; infilling of deeper areas needed for larger fish, burying key habitats such as rocks or wood needed for reproduction and increasing turbidity which prevents aquatic plants from getting light.
- This loss of vegetation, results in the loss of natural leaf and insect fall into waterways which is primary food source for fish. Clearance of riparian vegetation also means that old trees are removed from river banks and cannot replenish the snag piles that are essential as key habitats for many fish species.

Photo: www.environment.sa.gov.au

SOUTH AUSTRALIA

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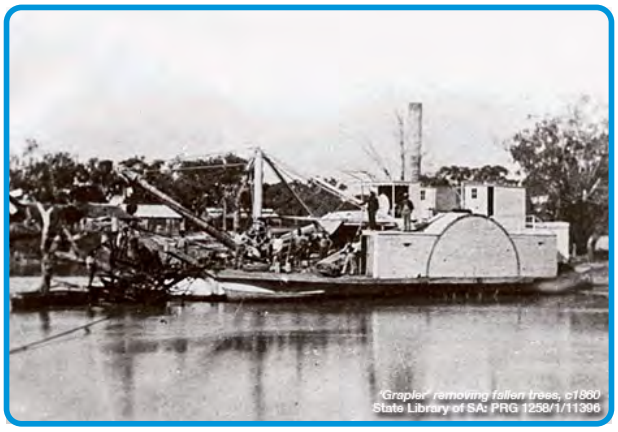
2. Desnagging

In the Murray River, South Australia, 'Snagging boats' were actively working from 1855 and vast quantities of snags (large woody debris) were removed to 'open-up' channels for the navigation of vessels. One boat alone, removed about 3 million snags from the Murray between 1911 and the 1960's. The removal of snags on such a large scale has had a detrimental effect on the reproduction of fish such as Murray cod, that depend upon snags for nests.



A snag removal boat working in the 1800's

A snag removal boat the PS Industry today.

3. Channelisation

Early endeavours to control rivers, particularly to stop flooding, focused on enlarging river channels to increase their capacity to transport water. Natural river channels were straightened and the banks lined with concrete. The construction of levee banks effectively stopped flood waters spilling out into adjacent floodplains. This resulted in an increase in localized erosion and less nutrients flowing from floodplains means reduced productivity (less plants & fish).

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4. Weirs Locks & Impoundments

The Murray River was once a flowing river – it is now a series of pools created by a series of weirs which control flow. Even though fishways are now installed on these weirs the changes to natural flow patterns created by the weir pools stops natural spawning cues and reduces the productivity of the river.

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

5. Shellfish Reefs

Extensive shellfish reefs consisting of oysters and mussels were once prolific along the SA coastline and provided important habitat for a myriad of aquatic life including snails, worms, crabs, shrimps and fish. Shellfish also play an important part in filtering coastal waters, significantly improving water quality. Due to increasingly poor water quality and oyster dredging, it is now estimated that there have been 1,500 kilometres oyster reef lost from around the South Australian shoreline.

Photo: Heidi Alleway

6. Seagrass

Seagrass provides important habitat in the form of complex cover for a variety of coastal species of fish including crustaceans, molluscs and the juveniles of many fish species. Large areas (>100,000 ha) of seagrass has been lost due to harvesting, dredging and poor water quality from urban and industrial developments.

The consequence of ignoring habitat degradation is a loss in fishery productivity. But by improving fish habitat, fish stocks can recover. In other words,

better habitat = better fishing.

How can I help restore fish habitat in SA?

Join! Establish, help, or donate to a **OzFish Unlimited Chapter** in your region

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Support! Get involved and support community programs that aim to improve fish habitat.

Act! -Help reduce nutrient rich runoff by not fertilizing gardens during times of rain.
-Restore riparian vegetation – this will help filter runoff, prevent erosion and provide structural habitat for fish.
-Put back our shellfish reefs