

Ovens River Demonstration Reach

Bringing Back Native Fish

What is a Demonstration Reach?

Native fish of the Murray-Darling Basin have suffered serious declines in both distribution and abundance, particularly in the last 50 years. Close to one third of the Basin's 35 native fish species are listed as threatened, including Australia's largest freshwater fish, the Murray cod. Eight key reasons for these declines have been identified that pose an ongoing threat to native fish. These include flow regulation, habitat degradation, poor water quality, barriers to fish passage, alien species, disease, over exploitation and inappropriate translocations and stocking.

As fish are a strong indicator of river health, the poor status of our native fish shows that something is very wrong with the rivers and wetlands upon which the Basin's communities depend.

However, there are things we can do to slow and reverse the declines in native fish populations and river health. When a number of these actions, or management interventions, are carried out together, in one place, the cumulative benefit for native fish communities and river health is much greater than when actions are carried out in isolation.



This is one of the central ideas behind the Murray-Darling Basin Authority's Native Fish Strategy Demonstration Reach concept.

Demonstration Reaches are large scale river reaches or wetlands where a number of management interventions are applied to showcase the cumulative benefits of river rehabilitation on native fish populations.

Demonstration Reaches bring together resources to maximise effort. They do not involve a reduction in access to, or use of, the river or riverbanks.

Why the Ovens River?

The Ovens River is highly valued locally for recreational activities, biodiversity, water supply, aesthetic values and cultural heritage values. It also has a significant native fish population.

Within the Murray-Darling Basin, there are 35 native fish and 11 introduced fish species (MDBC, 2004) of which 15 native and eight introduced fish species have been recorded in the Ovens River. Eight of the native fish species within the Ovens River are listed as threatened species in Victoria's *Flora and Fauna Guarantee Act 1988*. Three of these species are also nationally listed as threatened under the *Environment Protection and Biodiversity Conservation Act 1999* - Murray cod, Trout cod and Macquarie perch.

The Ovens River Demonstration Reach extends from 5km downstream of Wangaratta upstream to Myrtleford - about 100 river kilometres.

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Key native fish species

Murray cod (*Maccullochella peelii peelii*) and Trout cod (*Maccullochella macquariensis*) are the focus within this river reach, but rehabilitation will also help the broader fish community including species with historical distributions such as Golden perch (*Macquaria ambigua*) (very low densities, with no evidence of natural recruitment) and Macquarie perch (*Macquaria australasica*) (absent for many years in the area).

Trout cod, Critically Endangered in Victoria and Endangered nationally, are fully protected and cannot be taken from the wild (Victorian Fishing Regulations 2008). While Trout cod historically had a distribution similar to Murray cod, only two known breeding populations occur in the state.

Murray cod is an iconic species of the Murray-Darling Basin and holds significant values for all Australians. It is classified as Endangered in Victoria and Vulnerable nationally. While widely distributed across the Basin, abundances have severely declined with some localised extinctions.

Both Trout cod and Murray cod need good riparian and instream habitat characteristics, including flowing waters, overhanging riparian vegetation, and snags.

Monitoring is a key element of the project, to track changes in fish communities after interventions. Annual fish surveys since 2008 have found fluctuations in native and introduced fish numbers. Successful recruitment of Trout cod and Murray cod has been found. But in 2011 native fish numbers declined and introduced species such as Carp and Gambusia increased. This may be due to significant flooding at the time providing favourable conditions for introduced species, and downstream dispersal of native fish eggs and juveniles. Such observations reinforce the need for long term monitoring to detect the longer term changes in fish communities after interventions.

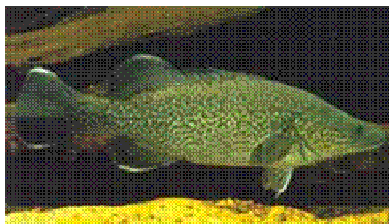


Photo: MDBA

Who is involved?

This project connects the North East Catchment Management Authority, the Arthur Rylah Institute (Department of Sustainability and Environment) and the Wangaratta community. A Technical Team includes fish ecologists and river health managers. A Community Group has representatives from Landcare, local anglers, Fisheries Victoria (Department of Primary Industries), and the indigenous community.

Field days, including demonstrations of boat electrofishing, are an important component of the project and are held to highlight achievements, share learnings and increase community awareness of value of this river reach. Key stakeholders, the local community and local schools are closely involved.

What's happening?

The Technical Team and the Community Group have worked together since 2007 to identify key issues for the Ovens River and implement priority actions. A Monitoring and Evaluation Plan is also an integral part of the project. Management interventions include:

- Riparian revegetation
- Weed control
- Re-snagging
- Fencing to restrict stock access
- Off stream watering points
- Improving fish passage.

Restoring native riparian vegetation is a high priority as it has multiple benefits. It can improve water quality by reducing nutrient and sediment loads, influence temperature and light, provide shade, control exotic vegetation, improve bank stability and terrestrial habitat, and provide sources of leaf litter to the stream to improve ecological processes. In the long term, native riparian vegetation will also provide a source of snags for instream habitat.

For more information, visit www.necma.vic.gov.au or telephone Fern Hames DSE (03) 5772 0273.