

Fish need floodplains too!

The Murray River and its floodplains both depend on intermittent flooding to stay healthy. River regulation has caused blockages to flow and reduced the frequency, duration and extent of flood events.

The Murray is home to many native fish species, which have all adapted in different ways to nature's 'boom and bust' approach. The reduction in flooding affects the availability of food resources for fish and the nursery habitat needed for juvenile fish to thrive.

The Victorian Murray Floodplain Restoration Project (VMFRP) will restore flooding at nine sites along the Murray River floodplain and fish are expected to benefit in several ways:

Floodplains are essential to the fish food chain

When the Murray and its tributaries flood, it brings the floodplain ecosystem back to life. Fish and fish larvae can both end up in the highly fertile wetlands after flooding, where they consume plants, algae, and aquatic and terrestrial invertebrates.

When the floodwaters recede, these fish return to the river along with an abundance of nutrients, invertebrates, zooplankton and other food. This is an essential part of the Murray River food chain, and is important for bigger predatory fish such as the Murray Cod.

Small-bodied fish like Carp Gudgeon and Australian Smelt enter wetlands with floodwater in winter or spring where they breed in their thousands. When the flood levels start to fall, they quickly leave the wetlands, swimming back to deeper permanent water.

These small fish are very sensitive to flood cues that tell them when it is time to enter and leave the floodplains. Large breeding events can be expected when water is provided to floodplain wetlands at VMFRP sites, particularly the low-level sites with a strong connection between floodplain creeks and floodplain wetlands.

Floodplain rivers make great nursery habitat

Species such as Silver and Golden Perch spawn during Murray River flood events. If the water rises during the warmer months of the year, perch will quickly swim up or downstream to breed, sometimes travelling hundreds of kilometres. They release their eggs into the floodwater, which then drift downstream.

The success of these spawning events depends on the survival of the larval fish which need to find productive habitats with lots of food and shelter from predators.

One place for these juveniles to thrive is in large floodplain lakes. These wetlands are filled by floods which often carry larvae and juvenile fish. When the dry lakes fill, food such as plankton and aquatic insects is in plentiful supply and there is plenty of space for tiny larvae to grow into substantial fish.

Strategies to manage floodplain lakes as nursery habitat are still being developed. There is good evidence of the potential for these sites from the large perch populations at Menindee Lakes on the Darling and Lake Victoria near Wentworth.



Fish like the golden perch respond to flow events to breed in the Murray River (Photo: MCMA).

Restoring our floodplains to reverse ecological decline

The Victorian Murray Floodplain Restoration Project is targeting nine ecologically significant floodplains for restoration in the Mallee and North Central regions.

We plan to remove blockages to flow and build infrastructure such as regulators and containment banks to help us manage these floodplains over the long-term. We'll be able to get water on and off the floodplain and hold it there for as long as needed to support the environment, before returning it to the river.



Murray cod rarely venture onto the floodplains but rely on the influx of nutrients after flood events to sustain them (Photo: MCMA).

More information

For more information on these projects, visit www.vmfrp.com.au. You can also email info@vmfrp.vic.gov.au or contact the VMFRP Project Officer of Communications and Engagement on **0428 516 233**.

