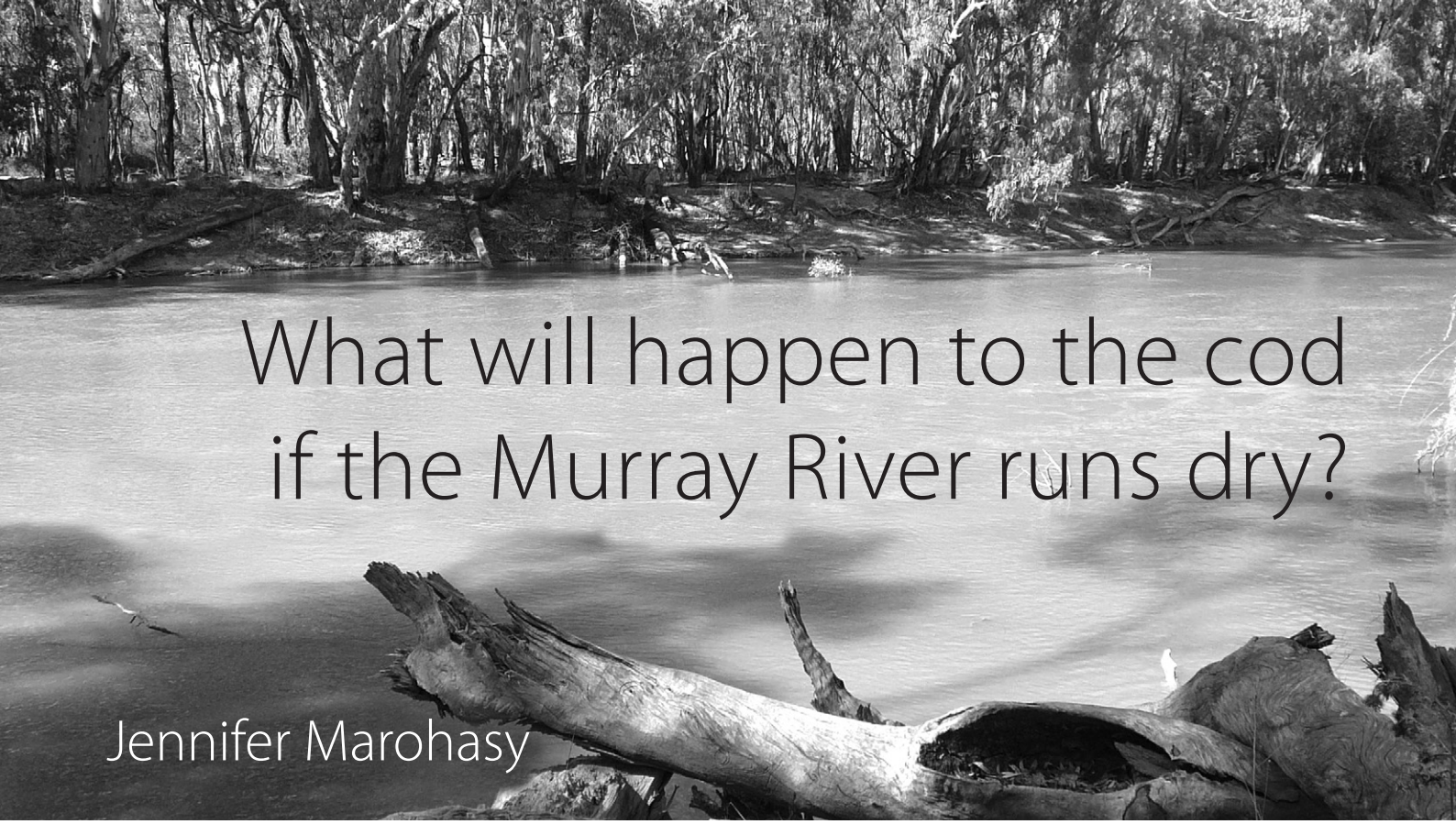

What will happen to the cod if the Murray River runs dry?

Jennifer Marohasy

The Murray River at Riversdale, September 2006

The Murray River and its environment have a special place in white Australia's mythology. As a nation we dream of a blue river brimming with water, of tall river red gum forests, fields of golden wheat, and fat, happy sheep. But we fear salt levels rising, red gums dying, the river about to run dry and the famous Murray cod threatened with extinction.

Some fear all this is a sign of our unsustainable lifestyles and industries: how irrigation is incompatible with the fragile Australian landscape and how the burning of fossil fuels is creating a climate crisis.

The Prime Minister, John Howard, called an emergency summit in November to discuss the water crisis in the southern Murray-Darling Basin. The meeting was triggered by the NSW government's decision to suspend water trading on the Murray and Murrumbidgee rivers because of very low water levels in the dams.

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According to Parliamentary Secretary to the Prime Minister, Malcolm Turnbull, the dams could be empty by autumn if it doesn't rain.

The prospect of empty dams has been hastened by the NSW and Victorian governments making the world's largest environmental flow release just last October.

Indeed, during one of the worst droughts on record, these governments released 513 gigalitres of water (the equivalent of a Sydney Harbor of water), into the the Barmah-Millewa red gum forest which straddles the Murray River upstream of Echuca.

The joint release saw over half of the forest floodplain inundated, resulting in greatly improved condition for wetland vegetation and creating breeding conditions for key wetland fauna. According to government reports, the flooding waters provided for new growth and canopy regeneration in stressed river red gums and triggered breeding in important native fish species as well as in many water bird species, including the great egret, darters, spoonbills, grebes, ibis and cormorants, and the critically endangered intermediate egret.

Incredibly, it was possible to create these conditions conducive to the breeding of native fish and bird species during one of the worst droughts on record, because of the dams and weirs built as part of the Snowy Mountain scheme to drought proof the region; dams built to turn the Murray-Darling Basin into the food bowl of Australia.

The Murray River is a part of white's Australia's history, but we have never reconciled with it. It is naturally salty, often muddy and before all the dams and weirs were built it did run dry. It is now bridled by dams. It is regulated from the mountains to the sea. It is changed and it is perhaps now more like we always dreamed it should be.

While farmers and environmentalists in South Australia have been complaining over recent years that there is not enough water in the river they have been receiving 80 per cent of their water allocation. In reality, as a consequence of the building of dams and weirs, the water level in the river has been unnaturally high for much of the length of the river, most of the time.

Furthermore, the received evidence shows salt levels have more than halved over the last 20 years at key sites, Murray cod and silver perch numbers have been on the increase and while there are many stressed red gums in South Australia, forests in New South Wales and Victoria are generally healthy and even during drought have supported large populations of water birds.

But what will happen if just 18 months after the world's largest environmental flow release, the river runs dry?

This winter really was dry. Combine this with the world's largest environmental flow release, water hungry regrowth following the January 2003 bushfires, new blue gum plantations, groundwater licences being activated by farmers who can now trade water, improved on-farm water use efficiency and water continuing to be evaporated from all the salt interception schemes and it is perhaps not surprising that the region has a chronic water shortage.

Governments and key commentators have conveniently blamed climate change. Yet the long-term rainfall record for the Murray Darling Basin does not show a decline in rainfall. Rather, like the early 1920s and early 1940s, recent years have been dry. This last winter has been exceptionally dry, but there have also been exceptionally dry years in the past where the winter and spring rains failed.

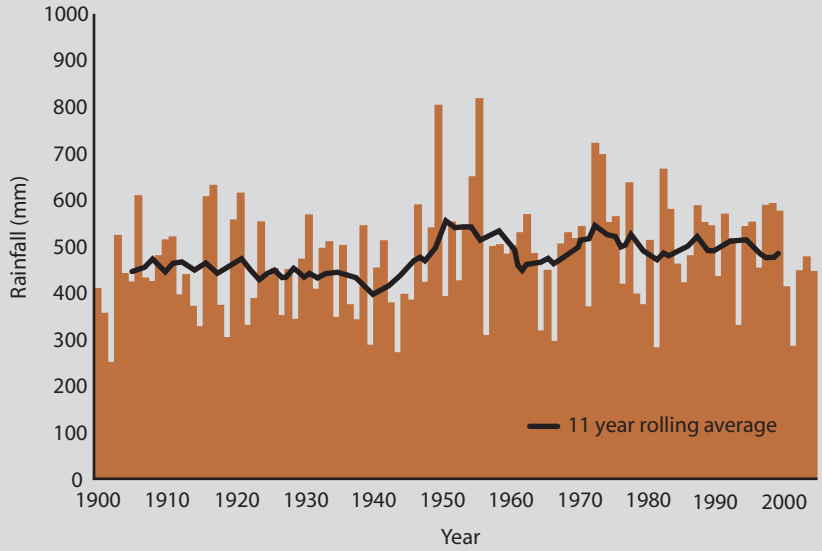
If the Murray runs dry next year it will be devastating for farmers and all the rural communities that draw their water from the river, but it will not be a disaster for the river environment. Australian rivers run dry. The Murray ran dry in 1914 and 1923.

Murray cod will survive in the billabongs, waiting for the floods that normally follow drought. But when it does rain again, I doubt it will flood. Rather the dams will fill, then the water will be released according to a predetermined plan. There will be water allocated for rice in New South Wales, for grapes in South Australia and the iconic river red gum forests all along the way.

Murray cod populations would no doubt benefit from a good flood, but they will probably have to wait for the next drought, when some government decides to create an artificial flood, with all the water it has managed to store in a dam or two. Indeed we have managed to regulate the river, but we have not reconciled with it.

The Murray River at Riversdale, January 1914

Murray Darling Basin Annual Rainfall, 1990-2005



SOURCE: Australian Bureau of Meteorology

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