



Loving a river to life

Restoring the riverbanks of the Upper Murrumbidgee has provided new hope for the endangered Macquarie Perch.

Standing ankle deep in the Murrumbidgee River in October 2016, Prue Haantjens became one of few people to have ever witnessed the Macquarie Perch spawning. The only others to witness this extraordinary event, which usually occurs at dusk and dawn, were her colleagues from the NSW Department of Primary Industries, standing metres away.

The group watched as two of these native fish, which Prue had tracked for months, swam to a shallow area in a riffle (where shallow water flows over rock) and witnessed a cloud of eggs being released into the water. New life was in the making.

Prue, a fish biologist and PhD student, tracked the movement of Macquarie Perch in the Upper Murrumbidgee for three years, sharing what she learnt with Bush Heritage Australia. Only two significant populations of this species remain in NSW, due to overfishing and the decline of suitable habitat.

A river can bind a community

It's this habitat that Bush Heritage, together with other landowners, is working to restore as part of the Upper Murrumbidgee Demonstration Reach (UMDR). The UMDR is a local initiative formed by government, community and private groups to demonstrate native fish recovery along a 100 kilometre stretch of river in NSW and the ACT.

Antia Brademann began working as the project's facilitator three years ago.

"When I started, I sometimes felt quite depressed about the enormity of the task ahead. I'd walk along the river and see erosion, sand build-up and deep mud. Blackberries and willows grew so densely that it was difficult to pass through. In some sites you'd be hard-pressed to find one native species."

In contrast, Antia describes the calm and peace she felt paddling her kayak into the Bredbo Gorge, where the river forms Scottsdale Reserve's western border.

"You see Black Cypress Pine and the greens and greys of the gums. The water flows faster – you find waterholes nine metres deep, and spectacular rock formations. It's like entering another world."

A special spot

The Bredbo and Colinton gorges supply healthy deep pools for fish like Macquarie Perch, which travel en masse in breeding pairs to spawn there. The perch seek out riffles with a pool above or within them to allow for courtship, oxygenated water and water flow.

Willows and blackberries that, until recently, lined entire sections of the river downstream, provide quite a different environment, as Scottsdale Reserve Manager Phil Palmer explains.

"Willow roots form a mat over rocks in the riffles, where native fish would otherwise lay their eggs. The fibrous root mat also reduces oxygen and slows the flow of water. Willows are deciduous so they drop their leaves, which decay and form sludge and mud in the river. There is less food for native fish and their breeding habitat is diminished."

It was this scene that so troubled Antia Brademann three years ago. While the Bredbo and Colinton gorges shone a light on the river's potential, the sixkilometre section in between was in dire straits. But Antia's work, together with other landholders and Bush Heritage



Opposite left: Scottsdale Reserve Manager Phil Palmer inspects a threatened Trout Cod, before releasing it back into the river.

Opposite right: UMDR facilitator Antia

Above: Revegetation on Scottsdale Reserve, along the banks of the Murrumbidgee. Photos by Annette Ruzicka

Below: PhD student Prue Haantjens tags a Macquarie Perch before releasing it back into the river. Photo courtesy of Prue Haantjens

volunteers and donors, has already provided relief as part of the Rivers of Carbon Upper Bidgee project, which received funding from various sources.

River and fish health go hand in hand

In just three years, 16,000 Ribbon Gums, Yellow Box, Apple Box and other species have been planted along the river, including 4000 on Scottsdale alone. Although the benefits may not be fully realised for decades, the change is already visible. Wattles that were planted only a year ago stand head-high and many willows and blackberries have been controlled.

Results like this make years of research worthwhile for Prue Haantjens.

"Scientists can conduct research, but it doesn't mean anything without landholders, community members and organisations like Bush Heritage working together to make positive change."

Prue spent months travelling up and down this river, quietly tracking fish. Antia learnt to paddle here, discovering the gentle lilt of her boat as it moved through the water. Phil raises his family on it, watching his daughters play and develop their own connections.

"We're all the caretakers of this river", says Phil. "We can choose to love it to death or love it to life. Our choice is to love it to life."

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