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Wetland Restoration and Conservation

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WETLAND RESTORATION AND CONSERVATION



Polygala removal from Observation Point (*Phillip Island Nature Parks*).

Protecting habitat of international significance for shorebirds at Observation Point


**Ilona Fenner, Port Phillip and Western Port
Catchment Management Authority**

A pest plant control program has helped to safeguard shorebird habitat at Observation Point on Phillip Island's Northeast coast.

A lack of resources and the remote location had meant that little had been done over the years to

stifle the spread of weeds at Observation Point on Phillip Island's Northeast coast, an area of international significance as wetlands habitat for shorebirds. With resources provided through the Ramsar Protection Program, Phillip Island Nature Parks stepped in and began a pest plant control program that has made a major contribution to the protection of the character of Observation Point and helped to safeguard it as habitat for shorebirds.

A sensitive coastal region, Observation Point relies on native vegetation and particularly



the banksia woodland to prevent erosion and protect the area as a significant breeding area for ground-nesting birds like buff-banded rails and hooded plovers. In late 2012, as part of the Ramsar Protection Program, the introduced dolichos pea that was threatening the banksia woodland, was controlled, allowing this important vegetation to thrive.

Weeds like bridal creeper and the shrub polygala that began as garden plants in the neighbouring urban area spread prolifically into the nature reserve. Over a period of around 25 years these weeds made their way right out to the tip of Observation Point, strangling and shading out indigenous plants in their path.

A major effort of manual removal of polygala shrubs, some up to 2 metres high, in September of 2012 has cleared away all the adult polygala in the area. Small weed seedlings that developed

over the summer were systematically controlled in late autumn. The area is now experiencing the regeneration of native species; sticky hop-bush and bursaria are amongst the natives germinating where the canopy of polygala has been removed.

Phillip Island Nature Parks is a partner in the Ramsar Protection Program (<http://www.ppwcma.vic.gov.au/our-projects/major-environmental-projects/ramsar-protection-program.aspx>), which is working to protect habitat for shorebirds and migratory birds in the region. The Program is supported by the Port Phillip and Westernport CMA, through funding from the Australian Government's Caring for our Country and is part of Australia's commitment to the Ramsar Convention, which strives for the conservation and wise use of all wetlands.



Threatened fish reintroductions (*Adam Watt*).


The return of threatened native fish to South Australia's Lower Lakes

Adam Watt, SA Department of Environment, Water and Natural Resources; Nick Whiterod, Aquasave Consultants – Nature Glenelg Trust and Chris Bice, South Australian Research and Development Institute

Unprecedented water shortage and habitat degradation between 2007 and 2010 placed the Coorong, Lower Lakes and Murray Mouth (CLLMM) region on the verge of collapse and

threatened native small-bodied freshwater fish species with the risk of local extinction.

Wide-ranging multi-agency conservation measures (many under the South Australian Drought Action Plan for Murray Darling Basin (MDB) Threatened Freshwater Fish Populations) were initiated with the objective of conserving these fish species during this period. This included the removal of individuals from the wild and captive maintenance and breeding, with the objective of reintroducing fish to wild habitats upon the return of favourable conditions.



In 2010-11, broad-scale rainfall and significant inflows in the MDB resulted in increased flows to South Australia and improved flow and habitat availability across the CLLMM region. In turn, salinities declined, dry or isolated habitats became inundated and reconnected, and submerged and fringing emergent vegetation communities exhibited signs of recovery. This provided the opportunity to reintroduce the captive bred threatened fish species back into the region.

The Critical Fish Habitat project, part of the Murray Futures CLLMM Recovery Project, was developed to provide a scientifically robust framework to guide the reintroduction of four fish species to the region: Yarra pygmy perch (*Nannoperca obscura*), southern pygmy perch (*Nannoperca australis*), southern purple-spotted gudgeon (*Mogurnda adspersa*) and Murray hardyhead (*Craterocephalus fluviatilis*). The framework drew on knowledge of the ecology and habitat of each species to direct best-practice identification and assessment of potential sites and develop a methodology for release and post-reintroduction monitoring. This approach was taken to enhance the success of the reintroductions and restore self-sustaining wild populations.

Across four rounds of reintroduction between spring 2011 and autumn 2013, approximately 15-000 fish were released into 10 suitable sites. Encouragingly, post-reintroduction monitoring has highlighted initial signs of survival, with over 100 individuals sampled across the four species, and wild recruitment (in three of the species).

Ongoing reintroductions (and post-reintroduction monitoring) will be necessary to increase the likelihood of establishing self-sustaining wild populations of the four threatened species in the region. To do this, strong cross-agency partnerships developed during the projects will need to be supported and maintained to conserve threatened fish species in the Lower Lakes and respond to periods of water shortage anticipated in the future.

For more information about the Critical Fish Project contact adam.watt@sa.gov.au

The CLLMM Recovery Project is part of the South Australian Government's Murray Futures program, which is funded by the Australian Government's Water for the Future initiative.

The South Australian Government acknowledges Ngarrindjeri are the Traditional Owners of the land and that according to their traditions, customs and spiritual beliefs its lands and waters remain their traditional country.



Dix Swamp with water in it, March 2012 (*Christine Bull*).

Wimmera wetlands shine through drought, fire and floods

Melissa Pouliot for Wimmera Catchment Management Authority

The Wimmera in Western Victoria is home to some of the state's most precious wetland areas, with more than 2000 wetlands, including shallow seasonal swamps, deep lakes and salt lakes. When the region is wet, it supports a variety of wetland plants and animals and becomes a migration hot-spot for birds.

The Wimmera Catchment Management Authority's (CMA) Habitat Tender program, which started five years ago, has helped support Wimmera farmers in protecting more than 2000 hectares containing 88 wetlands.

Fifteen kilometres east of Edenhope, farmers Wayne and Pam Caldwell and their son Hugh live in the heart of this biodiversity hotspot. Through the extremes of drought, floods and fire, the family remain positive and motivated about helping secure the future of their wetlands.

One of the biggest challenges they have faced was a fire sparked by lightning in March this year. They saved the house and surrounding sheds. But all that is left of the swamp they overlook from their back veranda is charcoal-coloured tree trunks, crunchy scorched brown leaves and a blackened expanse where the shallow wetland used to lie.

However, Wayne is thankful three swamp areas the family has protected through the Habitat Tender program escaped fire damage.



Birds nested in the hollows of this tree at Dix swamp for generations (*Christine Bull*).

“We count ourselves very lucky these three swamp areas weren’t burnt,” Wayne says. “We’ve put a lot of work, time and effort into them with funding, planning and management support from the CMA. We are so pleased we can continue to enjoy the massive regeneration of native grasses and red gums as a result of the work we’ve done.”

When the opportunity arose to be part of the CMA program, allowing Wayne to continue work he had been doing on his farm for many years, he jumped at the chance. “Being able to protect swamp areas without the financial burden of

doing it ourselves was a real bonus,” he says. “And it’s invaluable to have support and advice from the CMA through a five-year management plan for our swamps.”

After fencing off three wetland areas from stock, planting trees and controlling weeds, the family took it a step further with a Trust for Nature conservation covenant. “The standards and values a Trust for Nature conservation covenant places on the land match the standards that we have for the land. Plus it adds value to them environmentally and provides long-term security,” Wayne says.

“There’s been the longest drought on record followed by floods in the summer of 2010-11 where the swamp country came back to life with regrowth of habitat even though they’d been dry for so long. It’s nice to know everything is still there and regardless of the challenges of drought and fire, when the water returns it will all just switch back on again.”



The burnt Dix Swamp habitat tree in March 2013 (*West Wimmera Advocate*).



Water mouse close up during monitoring event at Bustard Bay (*Ian Gynther*).

Baselines and discoveries – Coastal 20 Wetlands Project

**Cassie Price and Adam Gosling,
WetlandCare Australia**

WetlandCare Australia and numerous partners are still absorbing the success of their recently completed Coastal 20 Wetlands Project, funded by the Australian Government's Caring for our Country. In 2011, the project set out to rehabilitate 20 iconic wetlands sites in varying states of degradation along the coast in south east Queensland and northern NSW.

The contributions of more than 150 project partners and over 4000 individual volunteers working with WetlandCare Australia has led to improvements across more than 3500 hectares of wetlands. These wetlands are critical as refuge for a range of threatened flora and fauna.

Baseline monitoring and evaluation has been a corner stone of the Coastal 20 Wetlands Project. Not only have we tracked the rehabilitation progress of the 20 sites during the three year project duration, but we have stimulated considerable community uptake to continue monitoring into the future. The Project has seen



A Coastal 20 field team on site in south east Queensland (Adam Gosling).

almost 500 community members trained in various elements of baseline wetland monitoring.

WetlandCare Australia, project partners and the community alike were excited to discover a wider distribution of the threatened water mouse or yirrko (Xeromys myoides) than was previously known. To add to their known but limited distribution, a previously undiscovered South East Queensland population was found. These rare wetland mammals take refuge in wet and marshy areas on the coastal fringe, feasting on small prawns, shellfish and crabs. They build tall mud nests complete with mud-slide escape routes. The Coastal 20 Wetlands Project did not stop at simply monitoring and researching this

previously unknown population, but enhanced and protected their critical habitat.

WetlandCare Australia hope to continue to build on the support and momentum generated from project partners and the community by moving into new rehabilitation phases for existing sites and expanding into other important sites on the Queensland and NSW coastal fringes.

For more information visit **wetlandcare.com.au** or contact WetlandCare Australia:
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