

The first season at a newly restored wetland — Gooseneck Swamp, Victoria

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As the smoke haze from a bushfire wafted along the eastern flank of the Grampians National Park in Victoria's south-west this summer, there was an unfamiliar croaking and squabbling of waterbirds and frogs.

For the first time in several decades during a dry summer, a pool of water still rippled against the green sedges of Gooseneck Swamp.

In 2013, the Nature Glenelg Trust in partnership with the Hamilton Field Naturalists Club, Glenelg Hopkins Catchment Management Authority, Parks Victoria and neighbours of the site began a staged process of restoration at Gooseneck Swamp in the far south-eastern corner of the Grampians National Park. Initial works, including the installation of a temporary sandbag weir at the site of an artificial drainage cutting, kicked off in August 2013 and were funded through a Victorian Department of Environment and Primary Industries' Communities for Nature Grant.

By the time summer came, and on the back of a rapidly drying spring, the water was still holding at a level 45 centimetres higher than it would have been without intervention. Despite it being an especially hot and dry summer, the wetland still managed to hold water until March and the concentration of wetland birds up to this point was a remarkable demonstration of the merits of restoring wetland hydrology.

While these casual on-ground observations were rewarding, it is robust, repeatable datasets that can tell a more powerful story. Bird monitoring at Gooseneck Swamp has been undertaken monthly by local Hamilton Field Naturalist Club members Dr. Rod Bird, Steve Clark and Jane Hayes, all of whom have a long-term affiliation with the site and their observations have provided preliminary indicators of the success of the restoration works.

Based on opportunistic surveys undertaken since 2011, a total of 14 wetland dependent bird species have been recorded. This list has grown to 25 since the installation of the weir and the shift to regular monthly monitoring. Notable additions include the Australasian shoveler (*Anas rhynchos*), black-winged stilt (*Himantopus himantopus*), Latham's snipe (*Gallinago hardwickii*) and musk duck (*Biziura lobata*). Aside from new species observations, the most dramatic result was the observation of significant numbers of spoonbill, swans, teal, heron and duck species in February, a month when, in similar dry summers past, the wetland would have long before dried out.

In addition to these observations, we also trialled the use of a field camera to record changes in water levels and, quite coincidentally, have managed to compile a stunning visual appraisal of the increase in bird abundance as the wetland dried over February (see vimeo.com/79938328). Beyond sharing the evolving story of the site with neighbours and community groups through involvement in restoration activities, flora and fauna monitoring and field days, we now have a great collection of sights and sounds from this first year of biological monitoring and we will continue to track progress into the future.



Water persisting in Gooseneck Swamp, February 2014, and growth of reeds (© Copyright, Rod Bird)



Gooseneck Swamp information day participants atop the trial restoration structure (© Copyright, Lachlan Farrington)