

# Wetland restoration assisting in the national recovery of dwarf galaxias

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## Wetland restoration in south-eastern Australia is proving beneficial for threatened species.

The dwarf galaxias (*Galaxiella pusilla*) is a tiny, slender, freshwater fish that grows to a maximum length of 40 millimetres. The nationally vulnerable species is endemic to south-eastern Australia, where it typically favours the shallow, densely vegetated habitats of freshwater wetlands – habitats that have been widely lost due to extensive artificial drainage for farming.

With funding from the the Nature Foundation SA Inc., surveys undertaken by ecologists at Nature Glenelg Trust revealed the partial recovery of previously identified populations and detected new populations of the species, after the breaking of the millennium drought. These surveys also highlighted the crucial role of wetland restoration in enabling natural aquatic species recovery. A prime example of

this is the restoration of Pick Swamp (previously drained and cleared for grazing) and the regulation of the artificial channel from the adjacent Piccaninnie Ponds, recreating additional shallow, seasonal habitat across the Piccaninnie Ponds Karst Wetlands Ramsar site which has greatly aided population recovery of dwarf galaxias.

Further sites where the species has benefitted from wetland restoration works undertaken in the coastal region of the South East of South Australia over recent years include private wetlands at Middle Point Swamp and public land at Bucks Lake Game Reserve. Most importantly, hydrological works of this nature provide a self-sustaining solution to a key threatening process and hence are a cost-effective mechanism for long-term threatened species recovery.



*A male (top) and female (bottom) dwarf galaxias (Galaxiella pusilla)* (© Copyright, Michael Hammer)

As readers of Issues 22 and 25 of *Wetlands Australia* magazine may have noted, Nature Glenelg Trust also has a long-term project underway in Long Swamp, over the border in south-western Victoria. In partnership with key community groups and with funding from the Victorian Government, the final stage (phase 3) of trial restoration works has just been completed.

The third phase trial structure, which consists of just under 7000 sandbags, was built with substantial community volunteer support and completed over nine days of works throughout the month of April in 2015. This weir is higher than the first phase of the trial (reported in Issue 25 of *Wetlands Australia*) and

as a result will influence a much larger area of wetland habitat upstream in Long Swamp. Ecologists at Nature Glenelg Trust will continue to evaluate the response of native flora and fauna in Long Swamp to the trial, including fish; noting that dwarf galaxias are expected to colonise new areas of the wetland in response to an increase in aquatic habitat availability and connectivity.

For further information, please contact Nature Glenelg Trust by email: [info@natureglenelg.org.au](mailto:info@natureglenelg.org.au) or visit our website: [www.natureglenelg.org.au](http://www.natureglenelg.org.au).



*Wetland habitat at Pick Swamp in June 2012 (right), recreated from farmland – shown here in May 2007 just before restoration works commenced (left) (© Copyright, Mark Bachmann)*



*Dwarf galaxias (*Galaxiella pusilla*) habitat at Pick Swamp in 2014 (© Copyright, Lauren Veale)*





*The phase 3 trial structure (foreground) has begun to regulate wetland levels in Long Swamp (background) by restricting flows from the Nobles Rocks outlet (© Copyright, Mark Bachmann)*