

# Frogs on Farms

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## Introduction

The 'Frogs on Farms' project grew out of success of the 'Diversity In a Piped System' project (2004 to 2006), which demonstrated that wildlife ponds can improve the biodiversity value on farms in the Wimmera and Mallee. Frogs were identified as the faunal group most at risk from the development of the Wimmera Mallee Pipeline. This project is investigating strategies for maintaining frog populations on farms using wildlife ponds.



*A Plains Froglet Crinia parinsignifera in a farm dam near Berrinillock.*

## Methods

The project is establishing eight wildlife ponds in the Wimmera and Southern Mallee channel/dam region, and four in the Northern Mallee Pipeline region. In the channel/dam region, ponds are being established in black box woodland areas adjacent to existing frog populations to test the capacity of frogs to disperse from dams and waterholes to wildlife ponds. Some ponds will be kept full of water, others allowed to dry down over summer. This will test whether stable or varying water levels may favour some frog species over others. In the pipeline region, ponds are being established in, or next to, an old farm dam which previously provided habitat for frogs. These will test the capacity of wildlife ponds to re-establish frog populations in their former habitats. The woodland areas are protected from grazing either through stock exclusion or through fencing.

The ponds being established are a new circular design promoted in the BCG Farmer's Guide to Installing a Wildlife Pond (available on the BCG website). These are four metres in diameter and planted out with aquatic vegetation. Water levels in the ponds are maintained using a float valve connected to a piped water supply.

Frog surveys are being conducted once per season, ie. four times a year, both during the day and at night. Bird surveys are also conducted during the day, at the same time as the frog surveys, to provide a measure of the overall biodiversity value of each site.



*A newly-completed wildlife pond near Culgoa, with aquatic plants establishing.*

## Results

Surveys of frogs and birds commenced in July 2007 and will be completed by the end of 2008.

In the channel/dam region, frogs have been recorded in most of the dams or waterholes where the wildlife ponds have been established. One dam in the bed of Lalbert Creek, which part-filled with winter rain, supported three different species of frogs. In the Northern Mallee Pipeline region, not surprisingly, no frogs have been found in the dry dams, though a Spotted Marsh Frog was found under a piece of wood on the bank of a dam near Manangatang. This species does not burrow, requiring moist places to survive and standing water to breed. Frogs have not yet been recorded in any of the wildlife ponds, but as the vegetation in them is still establishing, and with the hot dry conditions over summer, this is not unexpected. Winter/spring 2008 will be quite different, with the ponds well established and frogs spawning after the rains.

There has been a high use of the pond sites by birds, particularly during the hotter months. Red-rumped Parrots, Crested Pigeons, honeyeaters and White-winged Choughs (locally called Black Jays) are often recorded around the ponds.

## Conclusion

The outcome of the project will be an effective strategy for increasing a farm's environmental value through establishing wildlife ponds that both sustain frog populations and enhance overall biodiversity. This will include an alternative use of farm dam sites and the protection of remnant native vegetation.

The wildlife ponds will, in some areas, provide the only open water resource for wildlife. This is important at the local scale for aquatic fauna such as insects and frogs, but the ponds will also prove to be a vital resource for water dependent reptiles, birds and mammals that move throughout the landscape. The value of a healthy environment on farm, which wildlife ponds can help nurture, will flow on through the landscape for productive and healthy systems – human and natural.