

• Restoring Gondwana •

- Stories from the land -



Birds of a feather

Restoring habitat values for wildlife

PROJECT PROFILE

- Restoring Gondwana: Revegetating and Protecting the Forest to Fitzgerald Macro Corridor in the S.W. biodiversity hotspot project (Restoring Gondwana).
- Conservation Connectivity - reconnection of natural habitat across landscapes to benefit wildlife

"At 4.45 pm stepped over the fence into PO34 (one year old revegetation) and in the first ten minutes recorded one red-capped parrot, one striated pardalote, three yellow-rumped thornbills, six weebills, one crested bellbird, one brown honeyeater, one tawny-crowned honeyeater, two or three silvereyes, two New Holland honeyeaters, one western wattlebird, and a pair of splendid fairy wrens."

These observations capture the essence of what we set out to achieve with the replanting of bush back into cleared agricultural land.

Working with our community partners, South Coast NRM successfully achieved over 770 ha of targeted revegetation for biodiversity through the Restoring Gondwana project.

Through restoring natural habitat across the landscape and protecting and enhancing corridors of vegetation between them, conservation efforts are making a big difference to the wildlife of the south coast region.

Known as *Connectivity Conservation*, the work improves the distribution of native species, genetic diversity and the ability of species to respond to changing conditions due to climate change.

ASSESSING THE BENEFITS ●●●

Wanting to understand the response of wildlife to revegetation in a measurable way, South Coast NRM undertook monitoring of birds at 20 sites over four catchment areas.

The sites included working farms, a partial farm/seed orchard and private properties managed for conservation or carbon sequestration.

The revegetated areas ranged in size from 7.5 ha to 26 ha and included up to 20 local plant species chosen for site specific needs (e.g. biodiversity and/or salt tolerance).

Using the Birdlife Australia 20 minute area search method, surveys were undertaken across new and historic flora survey sites and within adjacent or nearby remnant vegetation.

This survey method involved observing birds within a 2 ha area of the various habitats. We wanted to understand the number and types of species using the different types of vegetation.

WHAT WE FOUND ●●●

The surveys found that the number of different species at a site generally increased with the age of the revegetation but was also influenced by the extent and quality of adjoining natural bush.

There was also a distinct difference in the abundance of particular species occurring in each habitat type.

- 46 species occurred within revegetated sites
- 39 species occurred within adjacent remnant vegetation
- 27 species were common to both categories



Juvenile Wedge-tailed eagle at one year old revegetation - Photo South Coast NRM

USING THE BUSH ●●●

As revegetation matures, the density, height and ecological value of the vegetation develops.

In fact at times, revegetation can offer more energy and nutrients for wildlife than remnant vegetation, as pioneer species like Acacia provide abundant seed sources.

In time, as the vegetation matures it will become structurally more complex and the types of birds that use the bush and the way in which they use it, will respond to these changes.



The surveys found that within revegetation at 8 years of age, small, perching songbirds including blue-breasted fairy wren, splendid fairy wren, white-browed scrub wren and inland thornbill were supported, probably because of dense understorey vegetation.

Splendid Fairy Wren
- Photo Eddy Wajon

The proximity to adjoining remnant vegetation, and its quality, was also found to increase bird use of revegetation. Even degraded natural remnant bush was found to be beneficial for birds when upper storey tree cover and woody ground debris were maintained.

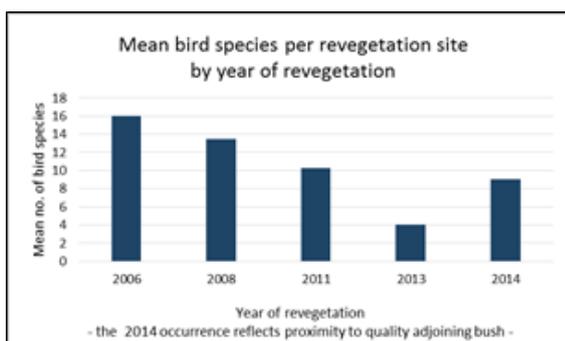
This was well demonstrated with the exciting discovery of three birds of conservation significance - the western whipbird, crested bellbird and white-browed babbler. These birds have all declined in distribution and abundance in the Wheatbelt. Two of them were noted in both the remnant bushland and revegetated areas.

Well planned revegetation with an appropriate seed mix can become dense after only a few years with adequate follow up rain.

If there is suitable nearby natural vegetation it may provide habitat for habitat sensitive species such as western whipbird.



Western Whipbird - Photo Eddy Wajon



In this graph, the greater number of species found in the 2014 revegetation compared to the 2013 plantings was almost certainly **due to the quality and quantity of the adjoining vegetation.**

That is, more birds were detected at the 2014 site due to the better condition and extent of the adjacent remnant bushland.

BIRDS OF A FEATHER ●●●



New Holland Honeyeater
Photo - Meredith Spencer

Of all the bird species, Honeyeaters were particularly common in the revegetation.

In fact, four of the 11 species recorded were only found in restored lands.

These highly mobile birds may provide valuable pollination services for the plants in these habitats.

Quails and Bronzewing pigeons found in three to eight year old revegetation may assist leaf litter rejuvenation and pest control, for example of snails and locusts.

The only birds that were notably absent from revegetation were those that have a distinct woodland preference, such as galah, kookaburra, owlet nightjar and the Australian shelduck. With the right seed mix, a woodland climax community may eventually support these species and more.

The research shows the importance of even newly established revegetation in providing habitat for birds, particularly when planted near to existing remnant bushland.

Reconnecting landscapes by replanting is key to helping protect and conserve our natural heritage.

Every tree and every shrub added to the landscape will improve the lot for our feathered friends.

Acknowledgements

South Coast NRM would like to thank fauna consultant Andy Chapman and the landholders involved in this survey for their time and enthusiasm. This project was undertaken with funding from the Australian Government's Biodiversity Fund.

Further information

For information regarding revegetation projects in the South Coast NRM region please contact the Biodiversity Program Leader at South Coast NRM on 9845 8537 or visit the website www.southcoastrnm.com.au



Australian Government



FURTHER INFORMATION

South Coast Natural Resource Management Inc.
39 Mercer Road, Albany, Western Australia 6330
E: info@southcoastrnm.com.au
T: (08) 9845 8537