# Linking Landscapes Symposium

Bendigo, May 2017

Biolinksalliance.org.au



Symposium Presentation No. 7

# Bush Stone-curlews in Central Victoria

## **Judy Crocker**

Mid-Loddon Sub-catchment Management Group

Summarised by Dr Peter Mitchell, Biolinks Alliance

In this talk, Judy spoke about streamside restoration and corridor works across the Mid-Loddon region and work to improve the ecological health of the forest, and finally a program more directly targeted to protecting and building up the local population of Bush Stone-curlews.

#### Corridors across the Mid-Loddon

Mid-Loddon Landcare has been putting in corridors and protecting remnants and streamsides since 2001. The concept was to connect the forests of Bendigo and Shelbourne Forest to the east and forests to the west with the Loddon River. Because of the very degraded state of Shelbourne Forest, an enormous amount of runoff over many many years had created "creeks" – really just wash-aways. The early corridor works were along these creeks. It was easy to do – if one farmer did one spot, others didn't want to be left out. As a result, streamside revegetation was completed along most of the washaways.

The group then decided to start filling in corridors right across the network (the map is a few years old and they have done lots more since then). As well as connectivity, a driver for this work was shading for stock. Where possible, the corridors were connected with the old-growth trees in paddocks.

### Thinning the forests

Shelbourne Nature Conservation Reserve is 839 ha of regrowth box-ironbark forest and woodlands without a lot of life. It has few large old trees, no nectar, no logs on the ground, a few tree-top birds, a few wallabies, and lots of kangaroos. One of the big issues was runoff – no water was getting into the ground and hence not much was growing in the forest. Every time it rained, water ran off and out of the forest causing erosion across farmlands.

In 2012, the community decided to deal with the cause of all the erosion problems, and looked at the forest itself. They received funding for thinning of the trees and, in June 2014, thinning was carried out across 106 ha of forest in two catchments on the western side (where runoff onto farmland was an issue). Felled trees were laid on the ground.

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Over the first summer, it looked like a huge fire hazard. But then all the leaves dropped off and ended as leaf litter on the ground. With the first rains, plants started to come up and, by May 2017, there was a rich understorey in thinned areas. Logs had retained the litter and everything was starting to work. Birds such as Fairy-wrens returned. Fungi appeared. After large rains in 2016, water finally started to trickle out of the forest – it had taken two years to fill the soil profile in the thinned catchments. This water started to refill the dams that were originally put in when the runoff was at its worst (but the landholders weren't complaining).

It is now a beautiful forest, although it still has a long way to go. For example, there is now food for wildlife and many birds have moved in, but there are no tree hollows. The group recently installed 50 nest boxes to make up for the lack of natural hollows.

The results of the thinning are being monitored, including bird surveys, soil sampling and transects for plants and invertebrates. Treated areas are being compared with un-thinned forest.

A couple of years ago, DELWP decided to burn this section of forest, despite local concerns and despite the presence of curlews in the area. The burnt area is now severely degraded with water running off again. Flat areas have survived but the rest is a "disaster" and it "won't happen again".

The group has now applied for funds to thin another 35ha of forest. After doing the first 106 ha, they now know what works and what doesn't, and there are now strict protocols to do this work. With thinning at this scale, it is important to maintain a mosaic of habitats by retaining some dense patches and maintaining the mix of tree species.

Bringing the forest back for the curlews has also made a fantastic place for citizen science projects monitoring the diversity of changes produced by thinning and burning. The group has many local monitors and also people from Latrobe University. And more are welcome.

For more information on the Shelbourne NCR Restoration Project, click here.

#### Save our Curlews in the Mid-Loddon

While this work was in progress, the group found that the Bush Stone-curlews were disappearing, and people started asking "where have all the curlews gone?". They started to monitor them and found about 6-8 birds (one pair and a few odd birds), although it was hard to tell exactly how many there were as they called from different places at different times. But the question was: if we are losing curlews, how good is the habitat and connections in meeting the needs of the curlews? They need lots of litter on the ground and places for scrape nests on the ground among logs.

The curlews became an icon for the groups in the network. People were ringing up to say they had one curlew and wanted more for their bush. The silhouette of the curlew is unique, so the group made some statues. This hasn't attracted more curlews to the area but for \$50 people can have a curlew in their garden. There are now about 70 curlews in gardens, but

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then people complained that they were not breeding. Now people can buy baby curlew statues for their gardens for another \$50.

To support the curlews, the groups set up five protected sites near the Shelbourne Nature Conservation Reserve. These are 4-8 ha with 6-foot fences and cost around \$40,000 each. But fencing is not enough – the sites were so degraded, it took a long time for suitable curlew habitat to build up. One site set up in 2009 now has lots of litter and logs on the ground (some provided by VicRoads). Last year was fairly wet and fungi appeared, and it looked like the site was starting to work as an ecological system suitable for curlews. The wild birds are now moving between these protected sites and other good habitat areas.

But the group also needed to build up the population, so they decided to breed them. They built breeding enclosures and have received a pair of curlews from Kyabram Fauna Park, four young birds from Halls Gap and another pair from their partners in NSW. The NSW birds settled in quickly and produced two chicks. Next year, they hope the birds will raise 4-6 chicks. This year, any excess chicks will go to NSW and next year their excess birds will be released in the mid-Loddon. This means better genetic diversity for both populations.

The NSW group had discovered that, after one of their first releases, many of the chicks died of malnutrition. The birds need to be released in sites with good habitat in good seasons. The Mid-Loddon group has now built a soft release enclosure within one of the protected habitat sites to start the release in the Mid-Loddon. Birds will spend six weeks before release into the larger site, and feeding will continue as they gradually learn to look after themselves. The young birds are very friendly, which is not what is wanted for animals to be released to the wild, so people have to be careful not to be too friendly back.

The group is seeking funds for more breeding enclosures which cost around \$5,000 each. The protected sites could also benefit with water supplies, and these would also bring other food sources. And the group is also working through the legal requirements for releasing the birds.

This is all taking a lot of time and is a work in progress. A full description of the Mid-Loddon "Save our Bush Stone-curlews" project is available <a href="here">here</a> with a 2017 update <a href="here">here</a>.