

## “Biodiversity and Nest Boxes on Farms” field day

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On the 2<sup>nd</sup> and 3<sup>rd</sup> of November 2016, the Cross Property project held farm walks at “Pine Park”, Steve and Michelle Sykes’ Humula property, and “Deakin”, Caroline and Ashley Hermes’ Bethungra property. The walks were led by ecologists Ian Davidson (Independent Wildlife Consultant with ‘Regeneration Solutions’), and Mason Crane (Research Officer with the Australian National University). There was a great turnout, with 56 locals taking advantage of the beautiful weather to explore the wildlife on the two magnificent properties.

### ***Biodiversity in remnant and revegetation areas***

Our walk at “Pine Park” took place in an area of the Sykes’ property which had a major gully which had suffered erosion in previous years. Around twenty years ago, the Sykes’ fenced the gully off and revegetated it, so the area is currently a beautiful and healthy environment for many native species. At “Deakin”, we walked through an area which was thought to have been cleared around 100 years ago, with regrowth and remnants now creating a highly diverse ecosystem.

Ian was very impressed with the quality of the two areas, and noted the value of the diversity of ages of vegetation which were present. This relates particularly to the importance of structure - having multiple “layers” of vegetation (ie groundcover, shrubs and young trees, through to the taller mature trees). The different layers provide habitat for different species, and also create a thick visual barrier which provides protection for smaller birds as they move about within the area.

In sites where all vegetation is the same size, you often have a relatively bare layer underneath the tree canopy, which is easy to see through. This can be a problem, as it allows noisy miners to easily patrol the space, preventing other small native birds from living there safely. As Mason noted, the three things that will maximise the number of birds in a revegetated area are the presence of shrubs, scattered mature trees, and water (eg a creek or drainage line).



*Above: Ian Davidson discusses birds and biodiversity at the Bethungra field day*



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## ***Bird spotting***

As we walked, Ian attracted numerous birds using his patented “twitching call” - an intriguing squeaking noise he was able to make with his hand pressed against his mouth. His technique was successful, and he was able to draw many birds down for us to view more closely, much to the delight of all who were present.

In all, we saw 34 different species of native birds (see box, below). Some of the highlights included two Dollarbirds, which were clearly distinguishable by their orange bill and legs, and the presence of a silver circle (looking like a dollar coin, hence their name) on the underside of each wing.

We also saw a Sacred Kingfisher, which Ian explained would have journeyed to Bethungra all the way from Borneo for breeding in spring/summer, due to the plentiful feed available here at this time. Similarly, the stunning Rainbow Bee-eaters we saw would have journeyed south from the Tropics for the same reason. The Dusty Woodswallows, which serve the valuable role of eating mosquitos, also come to our region in spring for breeding, from the drier country to the west.

Several relatively common but still striking Striated Pardalotes were spotted, and Ian described the important role that these birds play in feeding on psyllids (leaf-eaters) and lerps. Unlike most birds, pardalotes eat the whole bug, not just the shell, and so are an important natural control for these plant pests.

We also saw a family of five or six Superb fairy-wrens, which Ian explained were breeding in the habitat provided by the dense shrubs which were growing in the base of the gully at “Pine Park”. Thanks to the keen eyes of Angela Bonfante, we were also able to see the distinctive mud nest of a White-winged chough, located high in the branches of a yellow box tree.

### ***Bird species identified***

|                                     |                            |
|-------------------------------------|----------------------------|
| Apostlebird                         | Mistletoe bird             |
| Australian magpie                   | Noisy miner                |
| Black-faced cuckoo-shrike           | Rainbow bee-eater          |
| Brown falcon                        | Red-rumped parrot          |
| Brown-headed honeyeater             | Restless flycatcher        |
| Brown tree-creeper (vulnerable)     | Rufous songlark            |
| Crested shrike-tit                  | Rufous whistler            |
| Crimson Rosella                     | Sacred kingfisher          |
| Crimson Rosella (yellow subspecies) | Striated pardalote         |
| Dollarbird                          | Sulphur-crested cockatoo   |
| Dusky woodswallow (vulnerable)      | Superb fairy-wren          |
| Galah                               | Superb parrot (vulnerable) |
| Grey shrike-thrush                  | White-faced heron          |
| Laughing kookaburra                 | White-plumed honeyeater    |
| Little friarbird                    | White-winged chough        |
| Little raven                        | Willy wagtail              |
| Magpie-lark                         | Yellow-rumped thornbill    |



Ian and Mason also took the time to identify many of the plant species we saw, including some lovely Chocolate Lilies and Native Daisies, as well as pointing out the many Blakely's Red Gums (*Eucalyptus blakelyi*) which were in flower.

Mason highlighted the importance of species such as Silver Wattle (*Acacia dealbata*) and Golden Wattle (*Acacia pycnantha*) for squirrel gliders, especially near creeks, as they provide an important source of winter feed. Hickory wattle (*Acacia implexa*) is also a very important species in revegetation projects, as it provides valuable habitat and feed for small native birds.

### *The role of nest boxes on farms*

Through the Cross Property Planning (CPP) project, the Hermes' and Sykes' have both recently had three nest boxes installed in the areas we explored on their property. Following Ian's walk, Mason Crane took us to see the nest boxes and spoke to the group about the role that they can play in enhancing remnant and revegetated areas.

The nest boxes installed through the CPP project were designed to be suitable for squirrel gliders and sugar gliders. Mason described to the group the way that most gliders use around 7 tree hollows throughout the year, for shelter, nesting and breeding. The clearing and loss of native vegetation, including mature trees with hollows, means there are often not enough natural hollows to support populations of these animals. Given that natural hollows can take over 100 years to form, nest boxes can provide a means of survival for these animals until sufficient natural hollows develop.

When choosing a location for a nest box, a site which is connected to an area which might already have gliders present is ideal, bearing in mind that gliders can glide approximately 50 metres. Proximity to a drainage line is also a big advantage as when nothing is flowering gliders eat insects (moths, lerps, cicadas, etc). Most insect activity is concentrated around drainage lines, where there is more water and so more vegetative growth.

When installing nest boxes, a height of around 3 to 4 metres is sufficient, and will make it easier to get up and check them. Placement on the eastern side of the tree, with lots of branches and canopy cover around the box, will help provide protection from the elements and also from predators such as owls.



*Above: Mason Crane talks to the group about the role of nest boxes, at the Humula field day*

### *Inspecting the nest boxes*

Mason climbed his ladder to inspect the three boxes in the Sykes' revegetation area. In the first box, he found some leaves, which may indicate the presence of gliders, or alternatively it could be from birds such as Brown Treecreepers or Starlings. If you do not want Starlings to nest in your nest box, Mason explained that you could attach a flap of rubber to the roof to hang over the entrance hole; this will keep Starlings out, as they like to fly straight in to the hole, while gliders are easily able to climb around the rubber.

The second and third nest boxes did not have signs of use, however this was not surprising given the boxes had only been in place for around two months.

On the Hermes' property, Mason found some green leafy nesting material in the first box, and noted the presence of chew marks around the second box. Again this could indicate glider activity, or it could also have been from rosellas or galahs. The third nest box did not have signs of use. We look forward to hearing of future nest box activity from Steve and Michele, and Ashley and Caroline, over the coming months and years!



*Right: Mason Crane inspects a nest box for indicators of use*

*Below: The group enjoys a guided walk through the Sykes' revegetated gully area*

