

# Flora and Fauna on Farms

## JUNEE, KYEAMBA & HUMULA REGIONS



*The White-Plumed Honeyeater was the most abundant bird species recorded in the surveys*

As part of Murrumbidgee Landcare's 'Cross Property Planning' project, flora and fauna surveys were completed on 30 farming properties across the Kyeamba Valley, Tarcutta Valley and Junee Area Landcare Networks.

Across this intensively farmed landscape, the surveys revealed over 90 species of native birds, including 7 threatened species, and over 150 species of native plants.

The vegetation communities which were recorded included:

- Box Gum Grassy Woodlands (an Endangered Ecological Community)
- Inland Grey Box Grassy Woodlands (an Endangered Ecological Community)
- Dry Sclerophyll Forests, usually dominated by Red Stringybark and Mugga Ironbark
- River Red Gum Forests, along waterways
- Revegetation areas.

### Survey findings

Some interesting findings from the surveys include:

- The larger and more ecologically intact a remnant (ie high floristic and structural diversity), and the closer its proximity to similar remnants, the higher the number of bird species. In particular, the smaller insectivorous and nectarivorous woodland birds dominated these remnants

- Threatened Superb Parrots were recorded in Box Gum Grassy Woodland and River Red Gum sites irrespective of the overall diversity of flora and structure, provided sufficient tree hollows and flowering Eucalypts were available
- Opportunistic and generalist bird species typically dominated remnants with low floristic and structural complexity. Such birds adapt well to the surrounding agricultural matrix, and their numbers are not declining
- Most remnants with low floristic and structural diversity also had plentiful Noisy Miners, and exotic birds such as Starlings and Sparrows. Such birds tend to prevent other native species from establishing their territories in these sites
- Long, linear sites which were not interconnected with larger remnants also recorded mainly common and exotic species of birds.



*Noisy Miners are an aggressive native bird  
(Photo by Greg Holland)*

## Recommendations for future works

Using the findings of the surveys, the following recommendations were made to assist landholders to protect and enhance the areas of native vegetation on their properties:

### Weed management

- Reduce the impact of annual grasses by grazing them heavily early in the season, then removing grazing once the native species begin to grow
- Manage grazing to ensure there is no bare ground, which can provide weed species with the opportunity to establish. If there are bare areas following weed removal, add the seed of desired native species
- Maintain year-round ground cover with cryptogams, living plants and dense leaf litter
- Ensure perennial native species have sufficient rest periods from grazing pressure to allow them to set viable seed
- If grazing rotations aren't possible, slash exotic annuals before seeding
- Control weeds from scattered and isolated patches first, steadily working towards areas of dense infestations over time – as the saying goes, 'keep clean areas clean – of weeds'
- Monitor and release appropriate biocontrol agents, for weed species including Paterson's Curse, Horehound, St John's Wort, Thistles and Blackberry.

*"Control weeds from isolated patches first, working towards dense infestations over time"*

### Pest management

- Continue with feral animal control wherever and whenever possible, ideally as a community.

### Dam and riparian area management

- Protect riparian areas; use grazing very carefully in these vulnerable sites. Graze in early spring, then remove livestock
- In farm dam areas, consider planting patches of native grasses, reeds, rushes, forbs and small shrubs, both at the waters' edge and above the high-water mark, to slowly increase the biodiversity of the site
- Consider connecting areas of native vegetation to the nearest dam or other water-point with appropriate revegetation. If possible, fence off the dam and include in a conservation area.

### Habitat connectivity

- Continue increasing connectivity across the farm and broader landscape with plantings
- Protect old, often dying paddock trees and encourage recruits to grow around them. This may require assistance with fencing. If necessary, plant additional scattered paddock trees to provide connection between areas of native vegetation
- Consider adding connecting 'perch poles' with indents (hollows) or piles of rocks or logs for birds and small mammals to move between areas of native vegetation with less risk of predation. Such connections are also important between areas of native vegetation and watering spots.

### Habitat enhancement

- Leave fallen hollow logs on the ground, and leave dead trees with hollows standing. In areas with few hollows, consider adding nest boxes
- Where possible, increase the depth and width of plantings, reducing the 'edge effects'
- Encourage and conserve areas of thick native vegetation regrowth on-farm. This is particularly achievable in areas where minimal productivity is forgone, and can provide continued stepping stones for fauna to shelter, breed and maintain their territory.

This Fact Sheet is one of a series produced through the Murrumbidgee Landcare project "Cross Property Planning to Balance Production and Conservation". This project was assisted with funding from the NSW Environmental Trust's "Community Bush Regeneration" program, and the Australian Government.



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## Results of the bird surveys

Bird surveys were completed by Dr Fiona Christie, University of Melbourne

### Threatened species recorded

Brown Treecreeper	( <i>Climacteris picumnus</i> )
Diamond Firetail	( <i>Stagonopleura guttata</i> )
Flame Robin	( <i>Petroica phoenicea</i> )
Grey-Crowned Babbler	( <i>Pomatostomus temporalis</i> )
Scarlet Robin	( <i>Petroica boodang</i> )
Superb Parrot	( <i>Polytelid swainsonii</i> )
Varied Sittella	( <i>Daphoenositta chrysoptera</i> )

### Most commonly recorded species

#### (In order of abundance)

White-Plumed Honeyeater	( <i>Lichenostomus penicillatus</i> )
Noisy Miner *Nuisance	( <i>Manorina melanocephala</i> )
Australian Magpie	( <i>Cracticus tibicen</i> )
Galah	( <i>Cacatua roseicapillus</i> )
White-Winged Chough	( <i>Corcorax melanorhamphos</i> )
Buff-Rumped Thornbill	( <i>Acanthiza reguloides</i> )
Willie Wagtail	( <i>Phipidura leucaphrys</i> )
Superb Fairy-Wren	( <i>Malurus cyaneus</i> )
Superb Parrot *Threatened	( <i>Polytelis swainsonii</i> )
Striated Pardalote	( <i>Pardalotus striatus</i> )
Sulphur-Crested Cockatoo	( <i>Cacatua galerita</i> )
Eastern Rosella	( <i>Platycercus eximius</i> )
Red-Rumped Parrot	( <i>Psephotus haematonotus</i> )
Rufous Song-Lark	( <i>Cincloramphus mathewsi</i> )
Little Friarbird	( <i>Philemon citreogularis</i> )
Rufous Whistler	( <i>Pachycephala rufiventris</i> )
Grey Fantail	( <i>Rhipidura albiscapa</i> )
Magpie-Lark	( <i>Grallina cyanoleuca</i> )
Black-Faced Cuckoo-Shrike	( <i>Coracina novaehollandiae</i> )
Common Starling *Exotic	( <i>Sturnus vulgaris</i> )
Crested Pigeon	( <i>Ocyphaps lophotes</i> )

### Least commonly recorded species

Apostlebird	( <i>Struthidea cinerea</i> )
Barn Owl	( <i>Tyto alba</i> )
Black-Shouldered Kite	( <i>Elanus axillaris</i> )
Brown Song-Lark	( <i>Cincloramphus cruralis</i> )
Collared Sparrowhawk	( <i>Accipiter cirrocephalus</i> )
Dollarbird	( <i>Eurystomus orientalis</i> )
Horsefield's Bronze-Cuckoo	( <i>Chrysococcyx basalis</i> )
Peregrine Falcon	( <i>Falco peregrinus</i> )
Red-kneed Dotterel	( <i>Erythrogonys cinctus</i> )
Restless Flycatcher	( <i>Myiagra inquieta</i> )
Sacred Kingfisher	( <i>Todiramphus sanctus</i> )
Southern Boobook	( <i>Ninox novaeseelandiae</i> )
Spotted Dove	( <i>Streptopelia chinensis</i> )
White-Necked Heron	( <i>Ardea pacifica</i> )
White-Winged Triller	( <i>Lalage sueurii</i> )



Diamond Firetail (Photo by JJ Harrison)



Striated Pardalote (Photo by Greg Holland)



Dollarbird (Photo by Greg Holland)

## Results of the flora surveys

Flora surveys were completed by Alison Elvin, Natural Capital

### Threatened species recorded

Woolly Ragwort (*Senecio garlandii*)

### Most commonly recorded native species

#### Trees and shrubs

Wyalong Wattle (*Acacia cardiophylla*)  
Silver Wattle (*Acacia dealbata*)  
Kangaroo Thorn (*Acacia paradoxa*)  
River Sheoak (*Casuarina cunninghamiana*)  
White Box (*Eucalyptus albens*)  
Blakely's Red Gum (*Eucalyptus blakelyi*)  
River Red Gum (*Eucalyptus camaldulensis*)  
Tumbledown Gum (*Eucalyptus dealbata*)  
Yellow Box (*Eucalyptus melliodora*)  
Grey Box (*Eucalyptus microcarpa*)

#### Grasses, sedges and herbs

Corkscrew Grass (*Austrostipa scabra*)  
Tall Sedge (*Carex appressa*)  
Chocolate Lily (*Dichopogon strictus*)  
Common Rush (*Juncus ursitus*)  
Wattle Mat-Rush (*Lomandra filiformis*)  
Many-Flowered Mat-Rush (*Lomandra multiflora*)  
Weeping Grass (*Microleana stipoides*)  
Yellow Wood Sorrel (*Oxalis perennans*)  
Native Swamp Dock (*Rumex brownii*)  
Wallaby Grass (*Rytidosperma caespitosa*)

### Most commonly recorded introduced species

Capeweed (*Arctotheca calendula*)  
Wild Oats (*Avena fatua*)  
Paterson's Curse (*Echium plantagineum*)  
Barley Grass (*Hordeum leporinum*)  
Flatweed (*Hypochaeris radicata*)  
Ryegrass (*Lolium perenne*)  
African Box-Thorn (*Lycium ferocissimum*)  
Onion Grass (*Romulea rosea*)  
Silverleaf Nightshade (*Solanum elaeagnifolium*)  
White Clover (*Trifolium repens*)  
Rat's Tail Fescue (*Vulpia myuros*)



Woolly Ragwort, a threatened species, was found on one property



Numerous River Red Gum saplings were emerging on many properties



The understorey on many sites was dominated by introduced species