
Flora and Fauna Assessment 81 Keyes Road, Ashbourne

Prepared for Ashbourne Landcare Group



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1.0 INTRODUCTION

1.1 Background

In 2021, the Ashbourne Landcare Group commissioned the author to conduct flora and fauna assessments across twelve private properties occurring within the Ashbourne district. The project was funded by a grant provided by the North Central Catchment Management Authority (NCCMA).

The surveys confirmed that the private lands across the Ashbourne district are of very high conservation significance. The following ecological values were recorded across the 12 properties:

- 306 separate plant species, 220 which are indigenous and 86 introduced,
- 59 separate bird species,
- eight plant species listed as *Endangered* or *Critically Endangered* under the Flora and Fauna Guarantee List,
- numerous plant species of regional significance,
- 43 of the plant species observed have not previously been (officially) recorded in the area according to a 10km radius search of the Victorian Biodiversity Atlas (VBA). Twenty-five of these are indigenous and 18 are introduced.

This report presents the results of the flora and fauna assessment at 81 Keyes Road, Ashbourne. It provides a list of the flora and fauna species that were recorded, a description of vegetation and habitat values and some recommendations for the maintenance and enhancement of ecological values.

1.2 Study area

The property at 81 Keyes Road is approximately 16.3 hectares in size. The majority of the property supports bushland, with the exception of small clearings in the eastern-central areas. A house and garden area are located in the northern portion of the property whilst a dam is located to the west. The property backs onto the Wombat State Forest.

1.3 Methods

81 Keyes Road was assessed for approximately three hours on the 3rd of December 2021. All areas of bushland were traversed on foot and a list was compiled of all flora and fauna species observed. For fauna, most species were recorded from identification of calls (e.g. birds, frogs) or scats and tracks (e.g. Bare-nosed Wombat). Notes were taken on the vegetation, habitat features and management issues, whilst photographs were taken of representative areas.

2.0 RESULTS

2.1 Flora species

During the December 2021 survey, a total of 94 flora species were recorded at 81 Keyes Road (see Appendix 1). Of these, 71 are indigenous species and 23 are introduced. Three of the recorded species are listed as threatened under the Flora and Fauna Guarantee Act 1988 and two are considered to be of regional significance (see Table 1 and Figure 1), including:

- At least 30 Yarra Gum (*Eucalyptus yarraensis*), scattered along the entire eastern portion of the property. Yarra Gum (*Eucalyptus yarraensis*) is listed as a threatened species under the Victorian Flora and Fauna Guarantee (FFG) Act 1988. The Ashbourne area supports many populations of this rare species.
- Several plants of Large-leaf Cinnamon Wattle (*Acacia leprosa* var. *uninervia*) near the eastern boundary. This species is listed as a threatened species under the Victorian Flora and Fauna Guarantee (FFG) Act 1988. Large-leaf Cinnamon Wattle is not common in the western half of Victoria.
- One patch of Swamp Everlasting (*Coronidium gunnianum*). This species is listed as a threatened species under the Victorian Flora and Fauna Guarantee (FFG) Act 1988. Swamp Everlasting is very uncommon the region.
- The regionally significant Thread Speedwell (*Veronica subtilis*) and Yellow Sebaea (*Sebaea ovata*). The Thread Speedwell is very rare in the western half of Victoria and has previously only been found in one other location in the region.

Table 1 Significant flora species recorded at 81 Keyes Road, December 2021

Scientific Name	Common Name	Status
<i>Acacia leprosa</i> var. <i>uninervia</i>	Large-leaf Cinnamon Wattle	FFG
<i>Coronidium gunnianum</i>	Swamp Everlasting	FFG
<i>Eucalyptus yarraensis</i>	Yarra Gum	FFG
<i>Sebaea ovata</i>	Yellow Sebaea	Regional
<i>Veronica subtilis</i>	Thread Speedwell	Regional

FFG – listed as a threatened species under the Flora and Fauna Guarantee Act 1988. **Regional** – considered to be of regional significance.

2.2 Vegetation description

The vegetation of the property is dominated by Messmate (*Eucalyptus obliqua*), Narrow-leaf Peppermint (*Eucalyptus radiata*) and Candlebark (*Eucalyptus rubida*) on the upper slopes and by Yarra Gum (*Eucalyptus yarraensis*) and Swamp Gum (*Eucalyptus ovata*) on the wetter flats in the central section. The understorey supports a range of ferns, shrubs, sedges, grasses, orchids and forbs including Austral Bracken (*Pteridium esculentum*), Silver Wattle (*Acacia dealbata*), Blackwood (*Acacia melanoxylon*), Prickly Moses (*Acacia verticillata*), Gorse Bitter-pea (*Daviesia ulicifolia* subsp. *ruscifolia*), Red-anther Wallaby-grass (*Rytidosperma pallidum*), Showy Violet (*Viola betonicifolia*), Slender Sun-orchid (*Thelymitra pauciflora* s.s), Common Bird-orchid (*Chiloglottis valida*) and Prickly Woodruff (*Asperula scoparia*).

The dam in the northern portion of the property is fringed by a variety of wetland plants including Floating Club-sedge (*Isolepis fluitans*), Broad-leaf Rush (*Juncus planifolius*) and Swamp Isotome (*Isotoma fluviatilis* ssp. *australis*).



Plate 1 Significant flora species recorded at 81 Keyes Road, December 2021.



Plate 2 The rare Yarra Gum (*Eucalyptus yarraensis*) in the southern area of the property.

2.3 High threat weeds

Of the weeds recorded within the property, two are considered to be high threat species that are recommended for control. These species are listed in Table 2 below. Common Blackberry was mostly scattered at low density while an infestation of mature Gorse occurs around the dam.

Table 2 High threat weeds recorded at 81 Keyes Road, December 2021

Scientific Name	Common Name
<i>Rubus anglocandicans</i>	Common Blackberry
<i>Ulex europaeus</i>	Gorse

2.4 Fauna

During the December 2021 survey, a total of 32 fauna species were recorded, including 27 bird, one frog and four mammal species (see Appendix 2). The property would support a much greater diversity of fauna species, however due to the high mobility and cryptic nature of many species, it would take a survey across multiple years and seasons to prepare a detailed list.

Habitat features observed within the property included:

- Several large trees with hollows. These trees are essential for many local birds and mammals which rely on hollows for breeding.
- Scattered small to large logs. These are important for fauna that live or feed at ground level to provide cover from predators. Large-old logs often have hollows that may be utilised for shelter and nesting.
- Healthy litter layer, including sticks, leaves, bark and humus. A healthy litter layer is essential for many insects.
- Diverse plant communities, providing food and habitat for various mammals, birds, insects and other fauna. Plant communities with many different species are better quality habitat than low diverse communities due to the variation in different flowers that attract specific insects. They are also more structurally diverse and provide better cover and shelter.
- The dam in the northern portion, providing habitat for frog species which rely on water for breeding, as well as a small diversity of water-bugs. The dam is also a source of drinking water for mammals and birds.

The property is connected to extensive areas of bushland and is therefore an important part of a network of corridors that allow fauna to move across the landscape.

2.5 Management issues and recommendations

Maintaining and enhancing the ecological values of the property will require protection of the bushland and occasional management. The following actions should be considered by the landowners:

- Control of high threat weeds shown in Table 2. Smaller plants can be removed by hand, however larger plants may need to be cut at ground level and painted with herbicide. If the landowners wish to avoid using herbicide, plants can be regularly cut at ground level. They will continue to re-shoot but at least will be kept at a low height and will not spread further seed.
- Retention of as many logs across the bushland area as possible, particularly the larger ones.
- Additional areas for hollow dependant fauna could be provided by installing nest-boxes. These should target areas of the property where there are few large-old trees.

3.0 CONCLUSION

The property at 81 Keyes Road contains bushland of high ecological significance. A total of 94 flora species and 32 fauna species were recorded during the brief assessment, including several FFG-listed and regionally significant plant species. The property also supports important habitat for a wide variety of fauna species.

Maintaining and enhancing the ecological values of the property will require protecting the bushland areas and controlling high threat weeds.

Appendix 1 - Flora species recorded at 81 Keyes Road, December 2021

Key to symbols	
*	Introduced species
#	Non-indigenous native species

Status	Scientific Name	Common Name	FFG Status
	<i>Acacia leprosa</i> var. <i>uninervia</i>	Large-leaf Cinnamon-wattle	Endangered
	<i>Acacia verticillata</i> subsp. <i>verticillata</i>	Prickly Moses	
	<i>Acaena echinata</i>	Sheep's Burr	
	<i>Acrotriche prostrata</i>	Trailing Ground-berry	
	<i>Acrotriche serrulata</i>	Honey-pots	
*	<i>Agapanthus praecox</i> subsp. <i>orientalis</i>	Agapanthus	
*	<i>Aira elegantissima</i>	Delicate Hair-grass	
	<i>Asperula scoparia</i> subsp. <i>scoparia</i>	Prickly Woodruff	
*	<i>Billardiera heterophylla</i>	Bluebell Creeper	
*	<i>Briza minor</i>	Lesser Quaking-grass	
	<i>Brunonia australis</i>	Blue Pincushion	
	<i>Burchardia umbellata</i>	Milkmaids	
	<i>Carex inversa</i>	Knob Sedge	
	<i>Cassinia aculeata</i> subsp. <i>aculeata</i>	Common Cassinia	
*	<i>Centaurium tenuiflorum</i>	Slender Centaury	
	<i>Centipeda elatinoidea</i>	Elatine Sneezeweed	
*	<i>Cerastium glomeratum</i> s.l.	Common Mouse-ear Chickweed	
	<i>Chiloglottis valida</i>	Common Bird-orchid	
	<i>Coronidium gunnianum</i>	Pale Swamp Everlasting	Critically Endangered
	<i>Coronidium scorpioides</i> s.s.	Button Everlasting	
*	<i>Crataegus monogyna</i>	Hawthorn	
*	<i>Cytisus scoparius</i>	English Broom	
	<i>Daviesia leptophylla</i>	Narrow-leaf Bitter-pea	
	<i>Daviesia ulicifolia</i> subsp. <i>ruscifolia</i>	Gorse Bitter-pea	
	<i>Dianella admixta</i>	Black-anther Flax-lily	
	<i>Dianella tasmanica</i>	Tasman Flax-lily	
	<i>Dichondra repens</i>	Kidney-weed	
	<i>Dillwynia cinerascens</i> s.s.	Grey Parrot-pea	
	<i>Drosera auriculata</i>	Tall Sundew	
	<i>Drosera peltata</i> subsp. <i>peltata</i> spp. <i>agg.</i>	Pale Sundew	
	<i>Epacris impressa</i> var. <i>impressa</i>	Common Heath	
	<i>Epilobium billardioreanum</i>	Variable Willow-herb	

Status	Scientific Name	Common Name	FFG Status
	<i>Eryngium vesiculosum</i>	Prickfoot	
	<i>Eucalyptus obliqua</i>	Messmate Stringybark	
	<i>Eucalyptus ovata</i>	Swamp Gum	
	<i>Eucalyptus radiata subsp. radiata</i>	Narrow-leaf Peppermint	
	<i>Eucalyptus rubida subsp. rubida</i>	Candlebark	
	<i>Eucalyptus viminalis subsp. viminalis</i>	Manna Gum	
	<i>Eucalyptus yarraensis</i>	Yarra Gum	Critically Endangered
	<i>Euchiton japonicus s.s.</i>	Creeping Cudweed	
	<i>Galium leiocarpum</i>	Maori Bedstraw	
	<i>Geranium sp. 5</i>	Naked Crane's-bill	
	<i>Gonocarpus micranthus</i>	Creeping Raspwort	
	<i>Gratiola peruviana</i>	Austral Brooklime	
	<i>Hardenbergia violacea</i>	Purple Coral-pea	
*	<i>Hedera hibernica</i>	Atlantic Ivy	
*	<i>Holcus lanatus</i>	Yorkshire Fog	
	<i>Hydrocotyle foveolata</i>	Yellow Pennywort	
	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort	
	<i>Hydrocotyle sibthorpioides</i>	Shining Pennywort	
	<i>Hypericum gramineum</i>	Small St John's Wort	
	<i>Hypericum japonicum</i>	Matted St John's Wort	
*	<i>Hypochaeris radicata</i>	Flatweed	
*	<i>Iris pseudacorus</i>	Yellow Flag Iris	
	<i>Isolepis fluitans</i>	Floating Club-sedge	
*	<i>Isolepis levynsiana</i>	Tiny Flat-sedge	
	<i>Isotoma fluviatilis subsp. australis</i>	Swamp Isotome	
	<i>Juncus amabilis</i>	Hollow Rush	
*	<i>Juncus articulatus subsp. articulatus</i>	Jointed Rush	
*	<i>Juncus bulbosus</i>	Bulbous Rush	
	<i>Juncus planifolius</i>	Broad-leaf Rush	
	<i>Juncus subsecundus</i>	Finger Rush	
*	<i>Lavandula ssp.</i>	Lavender	
*	<i>Leontodon saxatilis subsp. saxatilis</i>	Hairy Hawkbit	
	<i>Lepidosperma laterale var. majus</i>	Variable Sword-sedge	
	<i>Leptospermum continentale</i>	Prickly Tea-tree	
	<i>Lomandra filiformis subsp. coriacea</i>	Wattle Mat-rush	
	<i>Lomandra filiformis subsp. filiformis</i>	Wattle Mat-rush	
	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush	
	<i>Lomandra longifolia subsp. exilis</i>	Cluster-headed Mat-rush	
*	<i>Lotus subbiflorus</i>	Hairy Bird's-foot Trefoil	
	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass	
	<i>Microtis unifolia</i>	Common Onion-orchid	

Status	Scientific Name	Common Name	FFG Status
	<i>Monotoca scoparia</i>	Prickly Broom-heath	
	<i>Myriophyllum crispatum</i>	Upright Water-milfoil	
	<i>Opercularia varia</i>	Variable Stinkweed	
	<i>Oxalis exilis</i>	Shade Wood-sorrel	
*	<i>Plantago coronopus subsp. coronopus</i>	Buck's-horn Plantain	
	<i>Poa labillardierei var. labillardierei</i>	Common Tussock-grass	
	<i>Podolepis decipiens</i>	Showy Podolepis	
*	<i>Prunella vulgaris</i>	Self-heal	
	<i>Ranunculus glabrifolius</i>	Shining Buttercup	
	<i>Ranunculus lappaceus</i>	Australian Buttercup	
	<i>Rytidosperma geniculatum</i>	Knead Wallaby-grass	
	<i>Schoenus apogon</i>	Common Bog-sedge	
	<i>Sebaea ovata</i>	Yellow Sebaea	
	<i>Senecio minimus</i>	Shrubby Fireweed	
	<i>Solenogyne dominii</i>	Smooth Solenogyne	
	<i>Solenogyne gunnii</i>	Hairy Solenogyne	
	<i>Tetrarrhena juncea</i>	Forest Wire-grass	
*	<i>Trifolium dubium</i>	Suckling Clover	
*	<i>Trifolium subterraneum</i>	Subterranean Clover	
	<i>Veronica subtilis</i>	Thread Speedwell	
*	<i>Vicia sativa subsp. nigra</i>	Narrow-leaf Vetch	

Appendix 2 - - Fauna species recorded at 81 Keyes Road, December 2021

Key to symbols

*	Introduced species
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Status	Common name	Scientific Name	Type	FFG Status
	Australian Magpie	<i>Cracticus tibicen</i>	Bird	
	Australian Wood Duck	<i>Chenonetta jubata</i>	Bird	
	Black Wallaby	<i>Wallabia bicolor</i>	Mammal	
	Black-faced Cuckoo-shrike	<i>Coracina novaehollandiae</i>	Bird	
	Common Froglet	<i>Crinia signifera</i>	Frog	
	Crimson Rosella	<i>Platycercus elegans</i>	Bird	
	Eastern Grey Kangaroo	<i>Macropus giganteus</i>	Mammal	
	Eastern Spinebill	<i>Acanthorhynchus tenuirostris</i>	Bird	
	Eastern Yellow Robin	<i>Eopsaltria australis</i>	Bird	
	Fan-tailed Cuckoo	<i>Cacomantis flabelliformis</i>	Bird	
	Golden Whistler	<i>Pachycephala pectoralis</i>	Bird	
	Grey Shrike-thrush	<i>Colluricincla harmonica</i>	Bird	
	Laughing Kookaburra	<i>Dacelo novaeguineae</i>	Bird	
	Pacific Black Duck	<i>Anas superciliosa</i>	Bird	
	Red Fox	<i>Vulpes vulpes</i>	Mammal	
	Red Wattlebird	<i>Anthochaera carunculata</i>	Bird	
	Rufous Fantail	<i>Rhipidura rufifrons</i>	Bird	
	Rufous Whistler	<i>Pachycephala rufiventris</i>	Bird	
	Sacred Kingfisher	<i>Todiramphus sanctus</i>	Bird	
	Shining Bronze-Cuckoo	<i>Chalcites lucidus</i>	Bird	
	Short-beaked Echidna	<i>Tachyglossus aculeatus</i>	Mammal	
	Spotted Pardalote	<i>Pardalotus punctatus</i>	Bird	
	Striated Pardalote	<i>Pardalotus striatus</i>	Bird	
	Striated Thornbill	<i>Acanthiza lineata</i>	Bird	
	Sulphur-crested Cockatoo	<i>Cacatua galerita</i>	Bird	
	Superb Fairy-wren	<i>Malurus cyaneus</i>	Bird	
	White-browed Scrubwren	<i>Sericornis frontalis</i>	Bird	
	White-eared Honeyeater	<i>Lichenostomus leucotis</i>	Bird	
	White-naped Honeyeater	<i>Melithreptus lunatus</i>	Bird	
	White-throated Treecreeper	<i>Cormobates leucophaea</i>	Bird	
	White-winged Chough	<i>Corcorax melanorhamphos</i>	Bird	
	Yellow-faced Honeyeater	<i>Lichenostomus chrysops</i>	Bird	