
Flora and Fauna Assessment 367 Chambers 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 367 Chambers 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 367 Chambers Road is approximately 7.8 hectares in size. Remnant bushland is restricted to the floodplain of the Campaspe River, which runs along the eastern border of the property. Lands to the west have been previously cleared and are comprised of open pasture with scattered planted trees. The house is located in the southern portion of the property.

1.3 Methods

367 Chambers Road was assessed for approximately three hours on the 3rd of December 2021. As much of the property was surveyed as possible in the time allocated, with priority given to the remnant vegetation along the Campaspe River. This area was 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. Black Wallaby). 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 72 flora species were recorded at 367 Chambers Road (see Appendix 1). Of these, 55 are indigenous species and 17 are introduced. Three of the recorded species are listed as threatened under the Flora and Fauna Guarantee Act 1988 and one is considered to be of regional significance (see Table 1 and Figure 1), including:

- At least twenty plants of Wiry Bossiaea (*Bossiaea cordigera*) along the banks of the Campaspe River. This species is listed as Endangered under the FFG Act and is restricted to central and south-west Victoria. The species has not previously been recorded at Ashbourne.
- At least 40 Yarra Gum (*Eucalyptus yarraensis*) along the Campaspe River, distributed along most of the length of the property. This species is listed as Critically Endangered under the FFG Act. The Ashbourne area supports many populations of this species.
- Several plants of Austral Crane's-bill (*Geranium solanderi* s.s.) on the flats adjacent to the Campaspe River in the central-eastern part of the property. This species is listed as Endangered under the FFG Act
- Several plants of Thread Speedwell (*Veronica subtilis*) on the flats adjacent to the Campaspe River in the southern part of the property. This species is rare in central Victoria and has not previously been recorded at Ashbourne (although it was recorded at one other nearby property during the Ashbourne Landcare surveys).

Table 1 Significant flora species recorded at 367 Chambers Road, December 2021

Scientific Name	Common Name	Status
<i>Bossiaea cordigera</i>	Wiry Bossiaea	FFG
<i>Eucalyptus yarraensis</i>	Yarra Gum	FFG
<i>Geranium solanderi</i>	Austral Crane's-bill	FFG
<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 riparian vegetation along the Campaspe River is of variable quality, but includes some patches of very high ecological significance. The rare Yarra Gum (*Eucalyptus yarraensis*) is the dominant tree along the entire length of the river, while the river channel supports a variety of aquatic plants such as Common Water-ribbons (*Cycnogeton procerum*), Floating Club-sedge (*Isolepis fluitans*) and Swamp Club-sedge (*Isolepis inundata*). The banks of the river are dominated by shrubs and sedges including Wiry Bossiaea (*Bossiaea cordigera*), Woolly Tea-tree (*Leptospermum lanigerum*), River Bottle-brush (*Callistemon sieberi*) and Fen Sedge (*Carex gaudichaudii*). Examples of the Campaspe River floodplain with such intact and diverse riparian and aquatic vegetation, including dominance of several rare species, are very uncommon in the region.

There are some extensive depressions in the north-east section of the property leading into the dam that were likely formed by a former channel of the river. These areas support a range of wetland plants including Austral Sweet-grass (*Glyceria australis*), Southern Swamp Wallaby-grass (*Amphibromus neesii*) and Prickfoot (*Eryngium vesiculosum*). Several remnant Manna Gum (*Eucalyptus viminalis*) are scattered across the floodplain.



Plate 1 Significant flora species recorded at 367 Chambers Road, December 2021



Plate 2 diverse aquatic and riparian vegetation along the Campaspe River in the south of the property.



Plate 3 The FFG-listed Yarra Gum (*Eucalyptus yarraensis*)

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 is scattered along the river terraces while some large plants of Gorse are located adjacent to the river in the southern part of the property.

Table 2 High threat weeds recorded at 367 Chambers 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 15 fauna species were recorded, including 10 bird, two frog, one reptile and two 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 along the Campaspe River. These trees are essential for many local birds and mammals which rely on hollows for breeding.
- Scattered small to large logs along the river. 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 along the river corridor, including sticks, leaves, bark and humus. A healthy litter layer is essential for many insects.
- Diverse plant communities along the river corridor, 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.

- Aquatic habitats along the river and dams, providing habitat for waterbirds, frogs and waterbugs. These habitats would also serve as a source of drinking water for many animals.

The bushland along the Campaspe River within the property also forms part of an important habitat corridor which connects to other extensive areas of forest. Vegetation within the property 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 landowner:

- 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 landowner wishes 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 areas as possible, particularly the larger ones.
- Additional areas for hollow dependant fauna could be provided by installing nest-boxes along the creek.
- Depending on the landowner's personal vision for the property, it would be worth considering carrying out revegetation in the currently treeless paddocks west of the river to increase the width of the riparian corridor. The wider the corridor, the more habitat values it would support, however even a narrow corridor (e.g. 10m wide) parallel to the river would be of great value. Ideal tree and shrub species for planting in this area include Narrow-leaf Peppermint (*Eucalyptus radiata*), Swamp Gum (*Eucalyptus ovata*), Yarra Gum (*Eucalyptus yarraensis*), Manna Gum (*Eucalyptus viminalis*), Blackwood (*Acacia melanoxylon*) and Silver Wattle (*Acacia dealbata*).

3.0 CONCLUSION

The property at 367 Chambers Road contains bushland of high ecological significance. A total of 72 flora species and 15 fauna species were recorded during the brief assessment, including several threatened plant species. The property also supports good quality habitat and is part of an important biolink that allows fauna to travel across the landscape.

Maintaining and enhancing the ecological values of the property will require protecting the bushland from excessive disturbance, controlling high threat weeds and potentially undertaking revegetation of previously cleared areas.

Appendix 1 - Flora species recorded at 367 Chambers Road, December 2021

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

Status	Scientific Name	Common Name	FFG Status
	<i>Acacia dealbata</i> subsp. <i>dealbata</i>	Silver Wattle	
	<i>Acacia melanoxylon</i>	Blackwood	
	<i>Acacia verticillata</i> subsp. <i>verticillata</i>	Prickly Moses	
	<i>Acaena novae-zelandiae</i>	Bidgee-widgee	
*	<i>Alopecurus pratensis</i>	Meadow Foxtail	
	<i>Amphibromus neesii</i>	Southern Swamp Wallaby-grass	
*	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	
	<i>Arthropodium milleflorum</i> s.s.	Pale Vanilla-lily	
	<i>Asperula scoparia</i> subsp. <i>scoparia</i>	Prickly Woodruff	
	<i>Blechnum nudum</i>	Fishbone Water-fern	
	<i>Bossiaea cordigera</i>	Wiry Bossiaea	Endangered
	<i>Callistemon sieberi</i>	River Bottlebrush	
*	<i>Callitriche stagnalis</i>	Common Water-starwort	
	<i>Carex appressa</i>	Tall Sedge	
	<i>Carex gaudichaudiana</i>	Fen Sedge	
	<i>Carex inversa</i>	Knob Sedge	
*	<i>Cirsium vulgare</i>	Spear Thistle	
*	<i>Crataegus monogyna</i>	Hawthorn	
	<i>Cycnogeton procerum</i> s.s.	Common Water-ribbons	
	<i>Dillwynia cinerascens</i> s.s.	Grey Parrot-pea	
	<i>Drosera peltata</i> subsp. <i>peltata</i> spp. <i>agg.</i>	Pale Sundew	
	<i>Eleocharis sphacelata</i>	Tall Spike-sedge	
	<i>Eryngium vesiculosum</i>	Prickfoot	
	<i>Eucalyptus ovata</i> subsp. <i>ovata</i>	Swamp Gum	
	<i>Eucalyptus pauciflora</i>	Snow Gum	
	<i>Eucalyptus radiata</i> subsp. <i>radiata</i>	Narrow-leaf Peppermint	
	<i>Eucalyptus viminalis</i> subsp. <i>viminalis</i>	Manna Gum	
	<i>Eucalyptus yarraensis</i>	Yarra Gum	Critically Endangered
	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge	
*	<i>Galium aparine</i>	Cleavers	
	<i>Geranium potentilloides</i>	Soft Crane's-bill	
	<i>Geranium solanderi</i>	Austral Crane's-bill	Endangered
	<i>Geranium</i> sp. 2	Variable Crane's-bill	
	<i>Glyceria australis</i>	Australian Sweet-grass	

Status	Scientific Name	Common Name	FFG Status
	<i>Gonocarpus tetragynus</i>	Common Raspwort	
	<i>Gratiola peruviana</i>	Austral Brooklime	
*	<i>Holcus lanatus</i>	Yorkshire Fog	
	<i>Hydrocotyle pterocarpa</i>	Wing Pennywort	
	<i>Hydrocotyle sibthorpioides</i>	Shining Pennywort	
	<i>Hypericum japonicum</i>	Matted St John's Wort	
*	<i>Hypochaeris radicata</i>	Flatweed	
	<i>Isolepis fluitans</i>	Floating Club-sedge	
	<i>Isolepis inundata</i>	Swamp Club-sedge	
	<i>Juncus amabilis</i>	Hollow Rush	
*	<i>Juncus articulatus subsp. articulatus</i>	Jointed Rush	
	<i>Juncus planifolius</i>	Broad-leaf Rush	
	<i>Juncus procerus</i>	Tall Rush	
*	<i>Leontodon saxatilis subsp. saxatilis</i>	Hairy Hawkbit	
	<i>Lepidosperma laterale var. majus</i>	Variable Sword-sedge	
	<i>Leptospermum lanigerum</i>	Woolly Tea-tree	
*	<i>Lotus subbiflorus</i>	Hairy Bird's-foot Trefoil	
	<i>Phragmites australis</i>	Common Reed	
*	<i>Plantago lanceolata</i>	Ribwort	
	<i>Poa labillardierei var. labillardierei</i>	Common Tussock-grass	
	<i>Polystichum proliferum</i>	Mother Shield-fern	
	<i>Potamogeton cheesemanii</i>	Small-fruit Pondweed	
	<i>Pteridium esculentum subsp. esculentum</i>	Austral Bracken	
	<i>Ranunculus glabrifolius</i>	Shining Buttercup	
*	<i>Rubus anglocandicans</i>	Common Blackberry	
	<i>Rytidosperma laeve</i>	Smooth Wallaby-grass	
	<i>Rytidosperma spp.</i>	Wallaby Grass	
	<i>Schoenus apogon</i>	Common Bog-sedge	
	<i>Schoenus maschalinus</i>	Dwarf Bog-sedge	
	<i>Senecio quadridentatus</i>	Cotton Fireweed	
*	<i>Sonchus asper s.l.</i>	Rough Sow-thistle	
	<i>Stackhousia monogyna s.l.</i>	Creamy Stackhousia	
	<i>Tetrarrhena juncea</i>	Forest Wire-grass	
*	<i>Trifolium dubium</i>	Suckling Clover	
*	<i>Trifolium subterraneum</i>	Subterranean Clover	
*	<i>Ulex europaeus</i>	Gorse	
	<i>Veronica subtilis</i>	Thread Speedwell	
	<i>Viola hederacea sensu Entwisle (1996)</i>	Ivy-leaf Violet	

Appendix 2 - - Fauna species recorded at 367 Chambers Road, December 2021

Key to symbols	
*	Introduced species

Status	Common name	Scientific Name	Type	FFG Status
	Australian King-Parrot	<i>Alisterus scapularis</i>	Bird	
	Banjo Frog	<i>Limnodynastes dumerilii</i>	Frog	
	Black Wallaby	<i>Wallabia bicolor</i>	Mammal	
	Common Froglet	<i>Crinia signifera</i>	Frog	
	Crimson Rosella	<i>Platycercus elegans</i>	Bird	
	Eastern Grey Kangaroo	<i>Macropus giganteus</i>	Mammal	
	Grey Fantail	<i>Rhipidura albiscapa</i>	Bird	
	Grey Shrike-thrush	<i>Colluricincla harmonica</i>	Bird	
	Laughing Kookaburra	<i>Dacelo novaeguineae</i>	Bird	
	Lowland Copperhead	<i>Austrelaps superbus</i>	Reptile	
	Striated Thornbill	<i>Acanthiza lineata</i>	Bird	
	Sulphur-crested Cockatoo	<i>Cacatua galerita</i>	Bird	
	White-browed Scrubwren	<i>Sericornis frontalis</i>	Bird	
	White-eared Honeyeater	<i>Lichenostomus leucotis</i>	Bird	
	White-faced Heron	<i>Egretta novaehollandiae</i>	Bird	