
Flora and Fauna Assessment 28 Casey 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 28 Casey 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 28 Casey Road is approximately 15 hectares in size. Bushland covers the southern half of the property and along the north-western and northern boundaries. The property supports three dams, including two along the northern boundary and one in the north-central area.

The house and gardens are situated in the eastern part of the property.

1.3 Methods

The property was assessed for approximately three hours on the 2nd of November 2021. All areas of bushland, as well as the perimeter of the three dams, 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. 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 November 2021 survey, a total of 109 flora species were recorded at 28 Casey Road (see Appendix 1). Of these, 78 are indigenous species and 31 are introduced or non-indigenous native species (e.g. Sweet Pittosporum from the Gippsland region). Two of the recorded species are listed as threatened under the Flora and Fauna Guarantee Act 1988, whilst two are considered to be of local significance. (see Table 1 and Figure 1). This included several Yarra Gum (*Eucalyptus yarraensis*) around the dam in the north-west section and one plant of Austral Crane's-bill (*Geranium solanderi* var. *solanderi* s.s.) on the edge of the southern bushland area.

Table 1 Significant flora species recorded at 28 Casey Road, November 2021

Scientific Name	Common Name	Status
<i>Cyperus gunnii</i> subsp. <i>gunnii</i>	Flecked Flat-sedge	Local
<i>Eucalyptus yarraensis</i>	Yarra Gum	FFG
<i>Geranium solanderi</i> var. <i>solanderi</i> s.s.	Austral Crane's-bill	FFG
<i>Podolepis decipiens</i>	Showy Podolepis	Local

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

2.2 Vegetation description

The bushland in the southern half of the property is dominated by Swamp Gum (*Eucalyptus ovata*) on the wetter flats in the northern portion and Messmate Stringybark (*Eucalyptus obliqua*) in the centre and south. The understorey varies from open grassy areas to relatively dense patches of shrubs and Austral Bracken (*Pteridium esculentum*). Prominent understorey trees and shrubs include Blackwood (*Acacia melanoxylon*), Prickly Moses (*Acacia verticillata*) and Prickly Tea-tree (*Leptospermum continentale*). The areas with the most diverse understorey vegetation occur in the central and south-west section of the southern bushland area. The ground-layer includes a rich diversity of small shrubs, grasses, lilies, orchids and herbs including Grey Parrot-pea (*Dillwynia cinerascens*), Red-anther Wallaby-grass (*Rytidosperma pallidum*), Common Everlasting (*Coronidium*

scorpioides), Blue Pincushion (*Brunonia australis*), Common Bird-orchid (*Chiloglottis valida*), Pale Vanilla-lily (*Arthropodium milleflorum*) and Milkmaids (*Burchardia umbellata*).

The dams support good quality wetland vegetation, including a range of grasses, sedges and rushes adapted to periodic inundation, including Southern Swamp Wallaby-grass (*Amphibromus neesii*), Tall Spike-sedge (*Eleocharis sphacelata*), Small Spike-sedge (*Eleocharis acuta*) and Hollow Rush (*Juncus amabilis*).



Plate 1 Significant flora species recorded at 28 Casey Road, November 2021



Plate 2 the threatened Yarra Gum around the dam in the north-west section of the property.



Plate 3 Dam with native semi-aquatic sedges in the central section of the property.

2.3 High threat weeds

Of the weeds recorded within the property, seven are considered to be high threat species that are recommended for control. These species are listed in Table 2 below. All are scattered at low density throughout the bushland areas.

Table 2 High threat weeds recorded at 28 Casey Rd, November 2021

Scientific Name	Common Name
<i>Agapanthus praecox subsp. orientalis</i>	Agapanthus
<i>Billardiera heterophylla</i>	Bluebell Creeper
<i>Crataegus monogyna</i>	Hawthorn
<i>Cytisus scoparius</i>	English Broom
<i>Hedera hibernica</i>	Atlantic Ivy
<i>Pittosporum undulatum</i>	Sweet Pittosporum
<i>Rubus anglocandicans</i>	Common Blackberry

2.4 Fauna

During the November 2021 survey, a total of 23 fauna species were recorded, including 19 bird, three frog and one 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 several 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 in the forest areas, 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.

- Dams/wetlands. The three dams all support a good range of aquatic vegetation and would provide habitat for waterbirds, frogs and waterbugs. They would also serve as a source of drinking water for many animals.

The bushland within the property is also connected to other extensive areas of forest 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 are often a nice feature if installed near the house where animals can be more clearly observed entering and leaving the box.
- Avoid excessive disturbance in the bushland areas, particularly where there are dense areas of wildflowers.
- The threatened Austral Crane's-bill that was recorded in the south-western section of the property is easily propagated from seed. It is also an ideal plant for native gardens (showy pink flowers, easy to establish and often recruits naturally). Propagating the species and planting at other suitable sites elsewhere may be a project for Ashbourne Landcare Group.
- Depending on the landowner's personal vision for the property, it would be worth considering revegetating some of the previously cleared paddocks. This could include small clusters of plantings, scattered shelterbelts or more widespread planting. Any increase in vegetation cover would provide more habitat and improve wildlife corridors, as well as providing other benefits such as shade and shelter from winds. Ideal tree and shrub species

for planting could include Swamp Gum (*Eucalyptus ovata*), Yarra Gum (*Eucalyptus yarraensis*), Messmate Stringybark (*Eucalyptus obliqua*), Narrow-leaf Peppermint (*Eucalyptus radiata*), Manna Gum (*Eucalyptus viminalis*), Candlebark (*Eucalyptus rubida*), Snow Gum (*Eucalyptus pauciflora*), Blackwood (*Acacia melanoxylon*) and Silver Wattle (*Acacia dealbata*).

3.0 CONCLUSION

The property at 28 Casey Road contains bushland of high ecological significance. A total of 109 flora species and 23 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 28 Casey Road, November 2021

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

Status	Scientific Name	Common Name	FFG Status
	<i>Acacia melanoxylon</i>	Blackwood	
	<i>Acacia verticillata subsp. verticillata</i>	Prickly Moses	
	<i>Acaena agnipila</i>	Hairy Sheep's Burr	
	<i>Acrotriche prostrata</i>	Trailing Ground-berry	
	<i>Acrotriche serrulata</i>	Honey-pots	
*	<i>Agapanthus praecox subsp. orientalis</i>	Agapanthus	
*	<i>Aira elegantissima</i>	Delicate Hair-grass	
	<i>Amphibromus neesii</i>	Southern Swamp Wallaby-grass	
*	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	
	<i>Arthropodium milleflorum s.s.</i>	Pale Vanilla-lily	
	<i>Asperula scoparia subsp. scoparia</i>	Prickly Woodruff	
*	<i>Billardiera heterophylla</i>	Bluebell Creeper	
	<i>Brunonia australis</i>	Blue Pincushion	
	<i>Burchardia umbellata</i>	Milkmaids	
*	<i>Carduus pycnocephalus</i>	Slender Thistle	
	<i>Carex gaudichaudiana</i>	Fen Sedge	
	<i>Carex inversa</i>	Knob Sedge	
	<i>Cassinia aculeata subsp. aculeata</i>	Common Cassinia	
	<i>Cassinia longifolia</i>	Shiny Cassinia	
*	<i>Centaurium tenuiflorum</i>	Slender Centaury	
	<i>Centella cordifolia</i>	Centella	
	<i>Centipeda elatinoidea</i>	Elatine Sneezeweed	
*	<i>Cerastium glomeratum s.l.</i>	Common Mouse-ear Chickweed	
*	<i>Cerastium vulgare</i>	Common Mouse-ear Chickweed	
	<i>Chiloglottis valida</i>	Common Bird-orchid	
	<i>Clematis aristata</i>	Mountain Clematis	
	<i>Coronidium scorpioides s.s.</i>	Button Everlasting	
	<i>Crassula helmsii</i>	Swamp Crassula	
*	<i>Crataegus monogyna</i>	Hawthorn	
*	<i>Crepis vesicaria subsp. taraxacifolia</i>	Bladder Hawksbeard	
	<i>Cyperus gunnii subsp. gunnii</i>	Flecked Flat-sedge	
*	<i>Cytisus scoparius</i>	English Broom	

Status	Scientific Name	Common Name	FFG Status
	<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> s.l.	Pale Sundew	
	<i>Eleocharis acuta</i>	Common Spike-sedge	
	<i>Eleocharis sphacelata</i>	Tall Spike-sedge	
	<i>Epacris impressa</i> var. <i>impressa</i>	Common Heath	
	<i>Epilobium billardioreanum</i> subsp. <i>cinereum</i>	Grey Willow-herb	
	<i>Eucalyptus obliqua</i>	Messmate Stringybark	
	<i>Eucalyptus ovata</i>	Swamp Gum	
	<i>Eucalyptus viminalis</i> subsp. <i>viminalis</i>	Manna Gum	
cr	<i>Eucalyptus yarraensis</i>	Yarra Gum	Critically Endangered
*	<i>Festuca arundinacea</i>	Tall Fescue	
	<i>Geranium solanderi</i> var. <i>solanderi</i> s.s.	Austral Crane's-bill	Endangered
	<i>Geranium</i> sp. 2	Variable Crane's-bill	
	<i>Glyceria australis</i>	Australian Sweet-grass	
	<i>Gonocarpus micranthus</i>	Creeping Raspwort	
	<i>Hardenbergia violacea</i>	Purple Coral-pea	
*	<i>Hedera hibernica</i>	Atlantic Ivy	
*	<i>Holcus lanatus</i>	Yorkshire Fog	
	<i>Hovea heterophylla</i>	Common Hovea	
	<i>Hydrocotyle hirta</i>	Hairy Pennywort	
	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort	
	<i>Hypericum gramineum</i>	Small St John's Wort	
*	<i>Iris pseudacorus</i>	Yellow Flag Iris	
	<i>Isolepis fluitans</i>	Floating Club-sedge	
*	<i>Isolepis levynsiana</i>	Tiny Flat-sedge	
	<i>Isotoma fluviatilis</i> subsp. <i>australis</i>	Swamp Isotome	
	<i>Juncus amabilis</i>	Hollow Rush	
*	<i>Juncus articulatus</i> subsp. <i>articulatus</i>	Jointed Rush	
*	<i>Juncus capitatus</i>	Capitate Rush	
	<i>Juncus holoschoenus</i>	Joint-leaf Rush	
	<i>Juncus planifolius</i>	Broad-leaf Rush	
*	<i>Lavandula</i> ssp.	Lavender	
*	<i>Leontodon saxatilis</i> subsp. <i>saxatilis</i>	Hairy Hawkbit	
	<i>Lepidosperma laterale</i> var. <i>majus</i>	Variable Sword-sedge	

Status	Scientific Name	Common Name	FFG Status
	<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 corniculatus</i>	Bird's-foot Trefoil	
*	<i>Lotus subbiflorus</i>	Hairy Bird's-foot Trefoil	
	<i>Luzula meridionalis var. flaccida</i>	Common Woodrush	
	<i>Lythrum hyssopifolia</i>	Small Loosestrife	
	<i>Microlaena stipoides var. stipoides</i>	Weeping Grass	
	<i>Microtis unifolia</i>	Common Onion-orchid	
	<i>Monotoca scoparia</i>	Prickly Broom-heath	
	<i>Montia australasica</i>	White Purslane	
*	<i>Myosotis sylvatica</i>	Wood Forget-me-not	
	<i>Myriophyllum crispatum</i>	Upright Water-milfoil	
*	<i>Nymphaea alba</i>	White Waterlily	
	<i>Olearia erubescens</i>	Moth Daisy-bush	
	<i>Opercularia varia</i>	Variable Stinkweed	
*	<i>Oxalis corniculata s.s.</i>	Creeping Wood-sorrel	
	<i>Oxalis exilis</i>	Shade Wood-sorrel	
	<i>Oxalis perennans</i>	Grassland Wood-sorrel	
#	<i>Pittosporum undulatum</i>	Sweet Pittosporum	
	<i>Plantago varia</i>	Variable Plantain	
	<i>Podolepis decipiens</i>	Showy Podolepis	
	<i>Polystichum proliferum</i>	Mother Shield-fern	
*	<i>Prunella vulgaris</i>	Self-heal	
	<i>Ranunculus glabrifolius</i>	Shining Buttercup	
*	<i>Rubus anglocandicans</i>	Common Blackberry	
	<i>Schoenus apogon</i>	Common Bog-sedge	
	<i>Schoenus maschalinus</i>	Leafy Bog-sedge	
	<i>Solenogyne gunnii</i>	Hairy Solenogyne	
	<i>Stellaria pungens</i>	Prickly Starwort	
*	<i>Taraxacum officinale spp. agg.</i>	Garden Dandelion	
	<i>Tetrarrhena juncea</i>	Forest Wire-grass	
	<i>Thelymitra spp.</i>	Sun Orchid	
*	<i>Trifolium dubium</i>	Suckling Clover	
*	<i>Trifolium subterraneum</i>	Subterranean Clover	
	<i>Typha domingensis</i>	Narrow-leaf Cumbungi	
	<i>Veronica gracilis</i>	Slender Speedwell	
	<i>Viola eminens</i>	Tall Violet	

Appendix 2 - - Fauna species recorded at 28 Casey Road, November 2021

Key to symbols	
*	Introduced species
L	Recorded previously by the landowner

Status	Common name	Scientific Name	Type	FFG Status
	Australian Magpie	<i>Cracticus tibicen</i>	Bird	
	Banjo Frog	<i>Limnodynastes dumerilii</i>	Frog	
	Brown Thornbill	<i>Acanthiza pusilla</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 Rosella	<i>Platycercus eximius</i>	Bird	
	Eastern Spinebill	<i>Acanthorhynchus tenuirostris</i>	Bird	
	Eurasian Coot	<i>Fulica atra</i>	Bird	
	Grey Fantail	<i>Rhipidura albiscapa</i>	Bird	
	Grey Shrike-thrush	<i>Colluricincla harmonica</i>	Bird	
	Laughing Kookaburra	<i>Dacelo novaeguineae</i>	Bird	
	Little Raven	<i>Corvus mellori</i>	Bird	
	Nankeen Kestrel	<i>Falco cenchroides</i>	Bird	
	New Holland Honeyeater	<i>Phylidonyris novaehollandiae</i>	Bird	
	Pacific Black Duck	<i>Anas superciliosa</i>	Bird	
	Plains Froglet	<i>Crinia parasignifera</i>	Frog	
	Purple Swamphen	<i>Porphyrio porphyrio</i>	Bird	
	Spotted Pardalote	<i>Pardalotus punctatus</i>	Bird	
	Striated Pardalote	<i>Pardalotus striatus</i>	Bird	
	Striated Thornbill	<i>Acanthiza lineata</i>	Bird	
	White-throated Treecreeper	<i>Cormobates leucophaea</i>	Bird	
	Yellow-faced Honeyeater	<i>Lichenostomus chrysops</i>	Bird	