
Flora and Fauna Assessment 44 Daniels 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 44 Daniels 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 44 Daniels Road is approximately 32 hectares in size. Bushland covers part of the eastern portion of property, whilst most of the remainder has been previously cleared and is currently utilised for cattle grazing. A house site is situated in the southern part of the property. There are three dams, all located in the southern section, with the dam east of the house being over 300 metres in length. Two small gullies run north from two of the dams, the one in the west being known as Jock's Gully. Both run into the Campaspe River not far downstream.

1.3 Methods

44 Daniels Road was assessed for approximately three hours on the 25th of November 2021. As much of the property was surveyed as possible in the time allocated, with priority given to the bushland in the east, the three dams and the associated gullies. These areas were all 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 90 flora species were recorded at 44 Daniels Road (see Appendix 1). Of these, 63 are indigenous species and 27 are introduced or non-indigenous native species (e.g. Sweet Pittosporum from the Gippsland region). Three of the recorded species are listed as threatened under the Flora and Fauna Guarantee Act 1988 (see Table 1 and Figure 1), including:

- several Yarra Gum (*Eucalyptus yarraensis*) on the slopes above the gully in the north of the property.
- one large rhizomatous patch of Penny-leaf Flat-pea (*Platylobium rotundum*) in the bushland section in the north-east. This is the first record of this species for the Ashbourne area.
- Several plants of Floodplain Fireweed (*Senecio campylocarpus*) around the dam in the far south-east.

Table 1 Significant flora species recorded at 44 Daniels Road, November 2021

Scientific Name	Common Name	Status
<i>Eucalyptus yarraensis</i>	Yarra Gum	FFG
<i>Senecio campylocarpus</i>	Floodplain Fireweed	FFG
<i>Platylobium rotundum</i>	Penny-leaf Flat-pea	FFG

FFG – listed as a threatened species under the Flora and Fauna Guarantee Act 1988.

2.2 Vegetation description

The bushland in the eastern half of the property is dominated by Messmate Stringybark (*Eucalyptus obliqua*), Narrow-leaf Peppermint (*Eucalyptus radiata*) and Candlebark (*Eucalyptus rubida*) with a mid-storey of scattered Blackwood (*Acacia melanoxylon*). The ground layer varies from open areas with low plant cover to patches dominated by Austral Bracken (*Pteridium esculentum*) and various grasses and forbs such as Grey Parrot-pea (*Dillwynia cinerascens*), Red-anther Wallaby-grass

(*Rytidosperma pallidum*), Prickly Woodruff (*Asperula scoparia subsp. scoparia*), Tasman Flax-lily (*Dianella tasmanica*), Blue Pincushion (*Brunonia australis*), Common Bird-orchid (*Chiloglottis valida*), Pale Vanilla-lily (*Arthropodium milleflorum*), Chocolate Lily (*Arthropodium strictum*) and Milkmaids (*Burchardia umbellata*).

The dams support extensive areas of good quality wetland vegetation, particularly the large dam east of the house which contains aquatic herbfields dominated by Common Water-ribbons (*Cycnogeton procerum*). The gullies leading north from the dams contain narrow bands of semi-aquatic sedges, rushes, grasses and forbs. Jocks Gully includes numerous swampy depressions adjacent to the main channel that are dominated by wetland plants such as White Purselane (*Montia australasica*) and Small River Buttercup (*Ranunculus amphitrichus*).



Plate 1 Significant flora species recorded at 44 Daniels Road, November 2021



Plate 2 the threatened Round-leaf Flat-pea was found in bushland in the eastern section of the property.



Plate 3 Aquatic herbfields in the dam east of the house.

2.3 High threat weeds

Of the weeds recorded within the property, nine 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 44 Daniels Road, 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
<i>Salix X fragilis</i>	Crack Willow
<i>Ulex europaeus</i>	Gorse

2.4 Fauna

During the November 2021 survey, a total of 27 fauna species were recorded, including 20 bird, four frog and three 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 in the forest area in the east. These trees are essential for many local birds and mammals which rely on hollows for breeding.
- Scattered small to large logs in the forest area in the east. 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 in the forest area in the east, including sticks, leaves, bark and humus. A healthy litter layer is essential for many insects.
- Diverse plant communities in the forest area in the east, 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. Due to its large size and the presence of extensive aquatic vegetation, the dam east of the house would likely support a relatively high number of waterbirds at times, some of which would breed in the fringing sedgeland.

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 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 area as possible, particularly the larger ones.
- Additional areas for hollow dependant fauna could be provided by installing nest-boxes in the forested area.
- Avoid excessive disturbance in the bushland areas, particularly where there are dense areas of wildflowers.
- The threatened Round-leaf Flat-pea that was recorded in the bushland area could possibly be propagated by potting up small areas of rhizome. This would not harm the remnant patch which is over ten metres in width. Any propagated plants could then be planted in similar habitat at other local properties. This could potentially be a project for the Ashbourne Landcare Group.

- Depending on the landowner's personal vision for the property, it would be worth considering fencing off one or both of the gullies than run north-south through the property and revegetating these with trees and shrubs. This would be of great value to the Ashbourne biolink by improving connectivity across the landscape towards the Campaspe River to the north. It would also increase the abundance of birds and other fauna across the property and improve habitat connectivity to the existing dams.

Ideal tree and shrub species for planting along the gullies could include Swamp Gum (*Eucalyptus ovata*), Yarra Gum (*Eucalyptus yarraensis*), Manna Gum (*Eucalyptus viminalis*), Blackwood (*Acacia melanoxylon*) and Silver Wattle (*Acacia dealbata*). Some areas along the gullies are very boggy and so the wet areas would be best planted with Swamp Gum and Yarra Gum.

3.0 CONCLUSION

The property at 44 Daniels Road contains bushland of high ecological significance. A total of 90 flora species and 27 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 fencing and revegetation along the gullies.

Appendix 1 - Flora species recorded at 44 Daniels 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 serrulata</i>	Honey-pots	
*	<i>Agapanthus praecox subsp. orientalis</i>	Agapanthus	
*	<i>Agrostis capillaris var. capillaris</i>	Brown-top Bent	
*	<i>Aira elegantissima</i>	Delicate Hair-grass	
*	<i>Alopecurus pratensis</i>	Meadow Fox-tail	
*	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	
	<i>Arthropodium milleflorum s.s.</i>	Pale Vanilla-lily	
	<i>Arthropodium strictum s.s.</i>	Chocolate 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>Callitriche brutia var. brutia</i>	Thread Water-starwort	
*	<i>Callitriche stagnalis</i>	Common Water-starwort	
	<i>Carex appressa</i>	Tall Sedge	
	<i>Carex gaudichaudiana</i>	Fen Sedge	
	<i>Cassinia aculeata subsp. aculeata</i>	Common Cassinia	
	<i>Cassinia longifolia</i>	Shiny Cassinia	
*	<i>Cerastium glomeratum s.l.</i>	Common Mouse-ear Chickweed	
	<i>Chiloglottis valida</i>	Common Bird-orchid	
	<i>Coronidium scorpioides s.s.</i>	Button Everlasting	
	<i>Crassula helmsii</i>	Swamp Crassula	
*	<i>Crataegus monogyna</i>	Hawthorn	
	<i>Cycnogeton procerum s.s.</i>	Common Water-ribbons	
	<i>Cyperus gunnii subsp. gunnii</i>	Flecked Flat-sedge	
*	<i>Cytisus scoparius</i>	English Broom	
	<i>Daviesia leptophylla</i>	Narrow-leaf Bitter-pea	
	<i>Dianella tasmanica</i>	Tasman Flax-lily	
	<i>Dillwynia cinerascens s.s.</i>	Grey Parrot-pea	
	<i>Drosera auriculata</i>	Tall Sundew	
	<i>Drosera peltata s.l.</i>	Pale Sundew	

Status	Scientific Name	Common Name	FFG Status
	<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>Eucalyptus cypellocarpa</i>	Mountain Grey-gum	
	<i>Eucalyptus obliqua</i>	Messmate Stringybark	
	<i>Eucalyptus radiata</i> subsp. <i>radiata</i>	Narrow-leaf Peppermint	
	<i>Eucalyptus rubida</i> subsp. <i>rubida</i>	Candlebark	
	<i>Eucalyptus yarraensis</i>	Yarra Gum	Critically Endangered
	<i>Exocarpos cupressiformis</i>	Cherry Ballart	
	<i>Glyceria australis</i>	Australian Sweet-grass	
	<i>Gratiola peruviana</i>	Austral Brooklime	
	<i>Hardenbergia violacea</i>	Purple Coral-pea	
*	<i>Hedera hibernica</i>	Atlantic Ivy	
	<i>Hemarthria uncinata</i> var. <i>uncinata</i>	Mat Grass	
*	<i>Holcus lanatus</i>	Yorkshire Fog	
	<i>Hovea heterophylla</i>	Common Hovea	
	<i>Hydrocotyle laxiflora</i>	Stinking Pennywort	
*	<i>Hypochaeris radicata</i>	Flatweed	
	<i>Isolepis fluitans</i>	Floating Club-sedge	
	<i>Juncus bufonius</i>	Toad Rush	
	<i>Lagenophora stipitata</i> s.l.	Common Bottle-daisy	
	<i>Lobelia pedunculata</i> s.s.	Matted Pratia	
	<i>Lomandra filiformis</i> subsp. <i>coriacea</i>	Wattle Mat-rush	
	<i>Lomandra filiformis</i> subsp. <i>filiformis</i>	Wattle Mat-rush	
	<i>Lomandra longifolia</i> subsp. <i>exilis</i>	Cluster-headed Mat-rush	
	<i>Lythrum hyssopifolia</i>	Small Loosestrife	
	<i>Monotoca scoparia</i>	Prickly Broom-heath	
	<i>Montia australasica</i>	White Purslane	
	<i>Montia fontana</i> subsp. <i>chondrosperma</i>	Water Blinks	
*	<i>Myosotis arvensis</i>	Field Forget-me-not	
	<i>Opercularia varia</i>	Variable Stinkweed	
	<i>Oxalis exilis</i>	Shade Wood-sorrel	
	<i>Oxalis perennans</i>	Grassland Wood-sorrel	
	<i>Ozothamnus ferrugineus</i>	Tree Everlasting	
*	<i>Paspalum distichum</i>	Water Couch	
#	<i>Pittosporum undulatum</i>	Sweet Pittosporum	
*	<i>Plantago lanceolata</i>	Ribwort	
	<i>Platylobium rotundum</i>	Penny-leaf Flat-pea	Endangered
	<i>Poranthera microphylla</i> s.s.	Small Poranthera	
	<i>Potamogeton cheesemanii</i>	Red Pondweed	
	<i>Potamogeton ochreatus</i>	Blunt Pondweed	

Status	Scientific Name	Common Name	FFG Status
	<i>Pteridium esculentum subsp. esculentum</i>	Austral Bracken	
	<i>Ranunculus amphitrichus</i>	Small River Buttercup	
	<i>Ranunculus repens</i>	Creeping Buttercup	
*	<i>Rubus anglocandicans</i>	Common Blackberry	
	<i>Rumex brownii</i>	Slender Dock	
*	<i>Rumex conglomeratus</i>	Clustered Dock	
*	<i>Rumex crispus</i>	Curled Dock	
*	<i>Salix X fragilis</i>	Crack Willow	
	<i>Senecio campylocarpus</i>	Floodplain Fireweed	Endangered
*	<i>Stellaria media</i>	Chickweed	
*	<i>Trifolium dubium</i>	Suckling Clover	
*	<i>Trifolium repens var. repens</i>	White Clover	
*	<i>Trifolium subterraneum</i>	Subterranean Clover	
	<i>Typha domingensis</i>	Narrow-leaf Cumbungi	
*	<i>Ulex europaeus</i>	Gorse	

Appendix 2 - - Fauna species recorded at 44 Daniels 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	
	Australian White Ibis	<i>Threskiornis molucca</i>	Bird	
	Australian Wood Duck	<i>Chenonetta jubata</i>	Bird	
	Banjo Frog	<i>Limnodynastes dumerilii</i>	Frog	
	Black Wallaby	<i>Wallabia bicolor</i>	Mammal	
	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	
*	European Hare	<i>Lepus europaeus</i>	Mammal	
	Grey Currawong	<i>Strepera versicolor</i>	Bird	
	Grey Fantail	<i>Rhipidura albiscapa</i>	Bird	
	Grey Teal	<i>Anas gracilis</i>	Bird	
	Laughing Kookaburra	<i>Dacelo novaeguineae</i>	Bird	
	Little Raven	<i>Corvus mellori</i>	Bird	
	Masked Lapwing	<i>Vanellus miles</i>	Bird	
	Pacific Black Duck	<i>Anas superciliosa</i>	Bird	
	Plains Froglet	<i>Crinia parasignifera</i>	Frog	
	Rufous Whistler	<i>Pachycephala rufiventris</i>	Bird	
	Spotted Marsh Frog	<i>Limnodynastes tasmaniensis</i>	Frog	
	Striated Pardalote	<i>Pardalotus striatus</i>	Bird	
	Superb Fairy-wren	<i>Malurus cyaneus</i>	Bird	
	Welcome Swallow	<i>Hirundo neoxena</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	
	Yellow-rumped Thornbill	<i>Acanthiza chrysorrhoa</i>	Bird	
	Yellow-tailed Black-Cockatoo	<i>Calyptorhynchus funereus</i>	Bird	