# Flora and Fauna Assessment 161 Marsh Court, 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 161 Marsh Court, Woodend. 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

161 Marsh Court is approximately eight hectares in size and is part of a large patch of bushland that extends west from the Campaspe River. The entire property supports bushland with the exception of a small clearing for the house and garden in the south. The property contains two dams, located to the east of the house and in the north-western section.

#### 1.3 Methods

161 Marsh Court was assessed for approximately three hours on the 15<sup>th</sup> of December 2021. All areas of the property 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. 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 71 flora species were recorded at 161 Marsh Court (see Appendix 1). Of these, 58 are indigenous species and 13 are introduced. Although no FFG-listed or regionally significant flora were observed, three of the species are considered to be of local significance, including Purple Beard-orchid (*Calochilus robertsonii*), Tall Greenhood (*Pterostylis melagramma*) and Showy Violet (*Viola betonicifolia*).

#### 2.2 Vegetation description

Most of the property is dominated by a relatively young cohort of Narrow-leaf Peppermint (*Eucalyptus radiata*) and Candlebark (*Eucalyptus rubida*) with occasional Messmate (*Eucalyptus obliqua*) and Manna Gum (*Eucalyptus viminalis*). The north-eastern section was cleared more recently (by the previous landowner) and has been colonised by scattered Silver Wattle (*Acacia dealbata*).

The understorey throughout the property varies between open areas dominated by Wallaby-grass (*Rytidosperma* spp.), Grey Tussock-grass (*Poa sieberiana* ssp. *siebrriana*) and Weeping-grass (*Microlaena stipoides*) to denser areas containing Austral Bracken (*Pteridium esculentum*) and shrubs such as Common Cassinia (*Cassinia aculeata*). A wide variety of forbs are scattered throughout including Twining Fringe-lily (*Thysanotus patersonii*), Showy Violet (*Viola betonicifolia*), Tall Greenhood (*Pterostylis melagramma*), Small St John's Wort (*Hypericum gramineum*) and Common Raspwort (*Gonocarpus tetragynus*). The dams and a small scrape in the northern section support a variety of wetland species such as Hollow Rush (*Juncus amabilis*), Floating Club-sedge (*Isolepis fluitans*) and Matted Pratia (*Lobelia pedunculata*).



Plate 1 Silver Wattles that have colonised the previously cleared area in the north-eastern section



Plate 2 the dam in the northern portion supports a narrow fringe of native rushes and sedges

#### 2.3 High threat weeds

Of the weeds recorded within the property, six are considered to be high threat species that are recommended for control. These species are listed in Table 1 below. All of these species are restricted to scattered individuals at low density.

Table 1 High threat weeds recorded at 101 Marsh Court in Detember 2021			
Scientific Name	Common Name		
Acacia baileyana	Cootamundra Wattle		
Acacia floribunda	White Sallow-wattle		
Acacia howittii	Sticky Wattle		
Billardiera heterophylla	Bluebell Creeper		
Rubus anglocandicans	Common Blackberry		
Ulex europaeus	Gorse		

Table 1 High threat weeds recorded at 161 Marsh Court in December 2021

#### 2.4 Fauna

During the December 2021 survey, a total of 25 fauna species were recorded, including 20 bird, two frog and three mammal species. Five additional species previously observed on the property by the landowner have also been added to the list, including the regionally significant Feathertail Glider (*Acrobates pygmaeus*) (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:

- Scattered small logs. These are important for fauna that live or feed at ground level to provide cover from predators.
- Healthy litter layer, including sticks, leaves, bark and humus. A healthy litter lay 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 dams provide habitat for frog species which rely on water for breeding, as well as a small range of water-bugs. These features are also a source of drinking water for mammals and birds.

The property is also connected to a large patch 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 1. 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.
- Some areas of the property support a low cover and diversity of understorey species. The landowner could consider replanting a range of forbs and small shrubs such as Blue Pincushions (*Brunonia australis*), Common Everlasting (*Coronidium gunnianum*), Clustered Everlasting (*Chrysocephalum semipapposum*), Glycine (Glycine *spp.*), Murrnong (*Microseris walteri*), Tall Daisy (*Brachyscome diversifolia*), Common Trigger-plant (*Stylidium graminifolium*), Trailing Shaggy-pea (*Podolobium procumbens*) and Golden Bush-pea (*Pultenaea gunnii*). These would ideally be planted in a fenced area to prevent grazing by native and introduced herbivores.

## 3.0 CONCLUSION

A total of 71 flora species and 25 fauna species were recorded during the brief assessment at 161 Marsh Court, including several locally significant plant species. The property also supports habitat for a wide variety of fauna species.

Maintaining and enhancing the ecological values of the property will require ongoing protection of native vegetation and controlling high threat weeds.

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

Status	Scientific Name	Common Name	FFG Status
#	Acacia baileyana	Cootamundra Wattle	
	Acacia dealbata subsp. dealbata	Silver Wattle	
#	Acacia floribunda	White Sallow-wattle	
#	Acacia howittii	Sticky Wattle	
	Acacia melanoxylon	Blackwood	
	Acacia verticillata subsp. verticillata	Prickly Moses	
*	Acetosella vulgaris	Sheep Sorrel	
*	Aira elegantissima	Delicate Hair-grass	
	Amyema pendula	Drooping Mistletoe	
*	Anthoxanthum odoratum	Sweet Vernal-grass	
	Arthropodium strictum s.s.	Chocolate Lily	
	Austrostipa rudis	Veined Spear-grass	
*	Billardiera heterophylla	Bluebell Creeper	
*	Briza maxima	Large Quaking-grass	
	Brunonia australis	Blue Pincushion	
	Calochilus robertsonii s.l.	Purple Beard-orchid	
	Cassinia aculeata subsp. aculeata	Common Cassinia	
	Cassinia sifton	Drooping Cassinia	
	Chiloglottis valida	Common Bird-orchid	
	Coronidium scorpioides s.s.	Button Everlasting	
	Daviesia leptophylla	Narrow-leaf Bitter-pea	
	Dianella revoluta var. revoluta s.l.	Black-anther Flax-lily	
	Dichelachne rara	Common Plume-grass	
	Dillwynia cinerascens s.s.	Grey Parrot-pea	
	Drosera auriculata	Tall Sundew	
	Drosera peltata s.l.	Pale Sundew	
	Eucalyptus obliqua	Messmate Stringybark	
	Eucalyptus radiata subsp. radiata	Narrow-leaf Peppermint	
	Eucalyptus rubida	Candlebark	
	Eucalyptus viminalis subsp. viminalis	Manna Gum	
	Gonocarpus tetragynus	Common Raspwort	
	Hardenbergia violacea	Purple Coral-pea	
*	Holcus lanatus	Yorkshire Fog	
	Hydrocotyle foveolata	Yellow Pennywort	

Status	Scientific Name	Common Name	FFG Status
	Hypericum gramineum	Small St John's Wort	
	Isolepis fluitans	Floating Club-sedge	
*	Isolepis levynsiana	Tiny Flat-sedge	
	Isotoma fluviatilis subsp. australis	Swamp Isotome	
	Juncus amabilis	Hollow Rush	
	Juncus holoschoenus	Joint-leaf Rush	
	Lagenophora stipitata s.l.	Common Bottle-daisy	
	Leptospermum continentale	Prickly Tea-tree	
	Lobelia pedunculata s.s.	Matted Pratia	
	Lomandra filiformis subsp. coriacea	Wattle Mat-rush	
	Luzula meridionalis var. flaccida	Common Woodrush	
	Lythrum hyssopifolia	Small Loosestrife	
	Microlaena stipoides var. stipoides	Weeping Grass	
	Opercularia varia	Variable Stinkweed	
	Oxalis perennans	Grassland Wood-sorrel	
	Poa sieberiana	Grey Tussock-grass	
	Poranthera microphylla s.s.	Small Poranthera	
	Pteridium esculentum subsp. esculentum	Austral Bracken	
	Pterostylis melagramma	Tall Greenhood	
*	Rubus anglocandicans	Common Blackberry	
	Rytidosperma geniculatum	Kneed Wallaby-grass	
	Rytidosperma laeve	Smooth Wallaby-grass	
	Rytidosperma spp.	Wallaby Grass	
	Senecio glomeratus	Annual Fireweed	
	Senecio hispidulus s.l.	Rough Fireweed	
	Senecio phelleus	Stony Fireweed	
	Solenogyne dominii	Smooth Solenogyne	
	Stellaria pungens	Prickly Starwort	
	Thelymitra spp.	Sun Orchid	
	Themeda triandra	Kangaroo Grass	
	Thysanotus patersonii	Twining Fringe-lily	
*	Ulex europaeus	Gorse	
	Veronica calycina	Hairy Speedwell	
	Viola betonicifolia	Showy Violet	
	Viola hederacea sensu Entwisle (1996)	Ivy-leaf Violet	
*	Vulpia bromoides	Squirrel-tail Fescue	
	Wahlenbergia stricta subsp. stricta	Tall Bluebell	

#### Appendix 2 - - Fauna species recorded at 161 Marsh Court in December 2021

Key to symbols			
	Introduced species		
*			
L	Previously recorded by the landowner		

Status	Common name	Scientific Name	Туре	FFG Status
	Australian King-Parrot	Alisterus scapularis	Bird	
	Australian Magpie	Cracticus tibicen	Bird	
	Banjo Frog	Limnodynastes dumerilii	Frog	
L	Bare-nosed Wombat	Vombatus ursinus	Mammal	
	Black Wallaby	Wallabia bicolor	Mammal	
	Black-faced Cuckoo-shrike	Coracina novaehollandiae	Bird	
	Brown Thornbill	Acanthiza pusilla	Bird	
	Common Froglet	Crinia signifera	Frog	
	Crimson Rosella	Platycercus elegans	Bird	
L	Eastern Brown Snake	Pseudonaja textilis	Reptile	
	Eastern Grey Kangaroo	Macropus giganteus	Mammal	
	Eastern Yellow Robin	Eopsaltria australis	Bird	
L	Feathertail Glider	Acrobates pygmaeus	Mammal	
	Grey Fantail	Rhipidura albiscapa	Bird	
L	Krefft's Glider	Petaurus notatus	Mammal	
	Laughing Kookaburra	Dacelo novaeguineae	Bird	
L	Lowland Copperhead	Austrelaps superbus	Reptile	
	Pallid Cuckoo	Cacomantis pallidus	Bird	
	Pied Currawong	Strepera graculina	Bird	
	Rufous Whistler	Pachycephala rufiventris	Bird	
	Sacred Kingfisher	Todiramphus sanctus	Bird	
	Shining Bronze-Cuckoo	Chalcites lucidus	Bird	
	Short-beaked Echidna	Tachyglossus aculeatus	Mammal	
	Striated Pardalote	Pardalotus striatus	Bird	
	Striated Thornbill	Acanthiza lineata	Bird	
	Sulphur-crested Cockatoo	Cacatua galerita	Bird	
	Superb Fairy-wren	Malurus cyaneus	Bird	
	White-naped Honeyeater	Melithreptus lunatus	Bird	
	White-throated Treecreeper	Cormobates leucophaea	Bird	
	Yellow-faced Honeyeater	Lichenostomus chrysops	Bird	