
Flora and Fauna Assessment 121 Walshes Road, Ashbourne

Prepared for Ashbourne Landcare Group



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TABLE OF CONTENTS

1.0	INTRODUCTION	3
1.1	Background.....	3
1.2	Study area.....	3
1.3	Methods	4
2.0	RESULTS.....	5
2.1	Flora species.....	5
2.2	Vegetation description.....	6
2.3	High threat weeds.....	10
2.4	Fauna	10
2.5	Management issues and recommendations.....	11
3.0	CONCLUSION.....	12

Appendices

Appendix 1 - Flora species recorded at 121 Walshes Road in November 2021.....	13
Appendix 2 - Fauna species recorded at 121 Walshes Road in November 2021.....	16

List of Tables

Table 1 Significant flora species recorded at 121 Walshes Road, November 2021.....	6
Table 2 High threat weeds recorded at 121 Walshes Road, November 2021	10

Plates

Plate 1 Significant flora species recorded at 121 Walshes Road, November 2021.....	7
Plate 2 Large Snow Gum (<i>Eucalyptus pauciflora</i> ssp. <i>pauciflora</i>) adjacent to the Campaspe River	8
Plate 3 small wetland that has formed in a former course of the Campaspe River, lined by the rare Black Gum (<i>Eucalyptus aggregata</i>).....	8
Plate 4 Riparian vegetation along the Campaspe River, showing the rare Yarra Gum (<i>Eucalyptus yarraensis</i>) in the background.....	9
Plate 5 Messmate and Candlebark dominated forest in the western portion of the property.....	9

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 121 Walshes 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 121 Walshes Road is approximately 17 hectares in size. The property includes forested vegetation in the western portion of the property and open floodplain in the east. The Campaspe River runs along the eastern border. A house and garden area are located in centre of the property and a dam is located to the south of the house.

1.3 Methods

121 Walshes Road was assessed for approximately three hours on the 21st of November 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 (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 November 2021 survey, a total of 117 flora species were recorded at 121 Walshes Road (see Appendix 1). Of these, 92 are indigenous species and 25 are introduced. Two of the recorded species are listed as threatened under the Flora and Fauna Guarantee Act 1988 and three are considered to be of regional significance (see Table 1 and Figure 1), including:

- A small stand of Yarra Gum (*Eucalyptus yarraensis*) near the entrance of the driveway and a more extensive population along the Campaspe River. This species 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 small stands of Black Gum (*Eucalyptus aggregata*) fringing old channels of the Campaspe River on the floodplain in the east of the property. This species is listed as a threatened species under the Victorian Flora and Fauna Guarantee (FFG) Act 1988. The main distribution of Black Gum is in NSW, with a number of disjunct populations in the Woodend area. In the Ashbourne area, the species is only known from one other site (south of the Campaspe Reservoir).
- Two Snow Gum (*Eucalyptus pauciflora* ssp. *pauciflora*) on the floodplain in the east of the property, including one very large and old individual adjacent to the Campaspe River. Snow Gum is scattered and uncommon in the region and is disjunct from larger populations in the eastern highlands.
- The regionally significant Wing Pennywort (*Hydrocotyle pterocarpa*) and Running Marsh-flower (*Ornduffia reniformis*) were recorded along the banks of Campaspe River, whilst Pointed Swamp Wallaby-grass (*Amphibromus archeri*) was recorded in a wet swale on the floodplain. All of these wetland plants are very uncommon in the region.

Table 1 Significant flora species recorded at 121 Walshes Road, November 2021

Scientific Name	Common Name	Status
<i>Amphibromus archeri</i>	Pointed Swamp Wallaby-grass	Regional
<i>Eucalyptus aggregata</i>	Black Gum	FFG
<i>Eucalyptus pauciflora ssp. pauciflora</i>	Snow Gum	Regional
<i>Eucalyptus yarraensis</i>	Yarra Gum	FFG
<i>Hydrocotyle pterocarpa</i>	Wing Pennywort	Regional
<i>Ornduffia reniformis</i>	Running Marsh-flower	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

121 Walshes Road supports two very distinct vegetation types, including forest vegetation in the west and open floodplain vegetation in the east. The forested area is dominated by Messmate (*Eucalyptus obliqua*), Narrow-leaf Peppermint (*Eucalyptus radiata*) and Candlebark (*Eucalyptus rubida*) with a diverse understorey containing ferns, shrubs, sedges, grasses, orchids and forbs including Austral Bracken (*Pteridium esculentum*), Hazel Pomaderris (*Pomaderris aspera*), Silver Wattle (*Acacia dealbata*), Blackwood (*Acacia melanoxylon*), Weeping-grass (*Microlaena stipoides*), Red-anther Wallaby-grass (*Rytidosperma pallidum*), Ivy-leaf Violet (*Viola hederacea*), Common Bird-orchid (*Chiloglottis valida*) and Slender Speedwell (*Veronica gracilis*).

The floodplain in the east contains a number of depressions and swales that were formed by former courses of the Campaspe River. These areas contain extensive wetland vegetation that is of high ecological significance due to its high quality and intactness, as well as the general rarity of natural wetlands in the region. The wetlands are dominated by Water Ribbons (*Cycnogeton procerum*) in association with Fen Sedge (*Carex gaudichaudiana*), Tall Sedge (*Carex appressa*), Common Spike-sedge (*Eleocharis acuta*), Pointed Swamp Wallaby-grass (*Amphibromus archeri*), Austral Sweet-grass (*Glyceria australis*), Small River Buttercup (*Ranunculus amphitrichus*) and Shining Buttercup (*Ranunculus glabrifolius*). Several of the swales are lined by the rare Black Gum (*Eucalyptus aggregata*), with two Snow Gum (*Eucalyptus pauciflora ssp. pauciflora*) trees also occurring on the floodplain.

The riparian vegetation along the Campaspe River is also of high quality and significance. This area is dominated by the rare Yarra Gum (*Eucalyptus yarraensis*) with a shrub-layer of Woolly Tea-tree (*Leptospermum lanigerum*) along the river channel. The river flats support extensive patches of Common Tussock-grass (*Poa labillardierei*), while a variety of sedges, rushes and forbs grow in the river channel, including Water Ribbons (*Cycnogeton procerum*), Running Marsh-flower (*Ornduffia reniformis*), Common Spike-sedge (*Eleocharis acuta*) and Hollow Rush (*Juncus amabilis*).



Plate 1 Significant flora species recorded at 121 Walshes Road, November 2021.



Plate 2 Large Snow Gum (*Eucalyptus pauciflora* ssp. *pauciflora*) adjacent to the Campaspe River



Plate 3 a small wetland that has formed in a former course of the Campaspe River, lined by the rare Black Gum (*Eucalyptus aggregata*).



Plate 4 Riparian vegetation along the Campaspe River, showing the rare Yarra Gum (*Eucalyptus yarraensis*) in the background



Plate 5 Messmate and Candlebark dominated forest in the western portion of the property.

2.3 High threat weeds

Of the weeds recorded within the property, five are considered to be high threat species that are recommended for control. These species are listed in Table 2 below. Control works by the landowner have reduced all of these weeds to low density across the property. The larger individuals observed were all located on the border of the property along the Campaspe River corridor (e.g. Crack Willow and Hawthorn). Control of young willow plants that border some of the floodplain wetlands is of high priority.

Table 2 High threat weeds recorded at 121 Walshes Road, November 2021

Scientific Name	Common Name
<i>Crataegus monogyna</i>	Hawthorn
<i>Rubus anglocandicans</i>	Common Blackberry
<i>Salix fragilis</i>	Crack Willow
<i>Ulex europaeus</i>	Gorse
<i>Vinca major</i>	Blue Periwinkle

2.4 Fauna

During the November 2021 survey, a total of 26 fauna species were recorded, including 16 bird, four frog and six mammal species. Two additional species previously observed on the property by the landowner have also been added to the list, including Koala and the threatened Powerful Owl (*Ninox strenua*) (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 wetlands, dam and river provide habitat for frog species which rely on water for breeding, as well as a wide variety of water-bugs. These features are also a source of drinking water for mammals and birds.

The property is also connected to other areas of bushland and is therefore an important part of a network of corridors that allow fauna to move across the landscape. Many fauna species would rely on the Campaspe River riparian corridor for dispersal between the north and south.

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.
- The wetlands are a feature of high ecological significance and should continue to be protected from excessive disturbance.
- Revegetation of previously cleared areas of the floodplain could be considered, using species adapted to seasonal water-logging such as Yarra Gum (*Eucalyptus yarraensis*), Swamp Gum (*Eucalyptus ovata*), Black Gum (*Eucalyptus aggregata*) and River Tea-tree (*Leptospermum lanigerum*). However, the areas close to the wetlands (e.g. within 20 metres) should not be planted too densely to avoid shading wetland vegetation, and ideally any planting should be confined to the more open areas dominated by pasture species. This would contribute to strengthening the Campaspe River habitat corridor.

3.0 CONCLUSION

The property at 121 Walshes Road contains bushland of high ecological significance. A total of 117 flora species and 26 fauna species were recorded during the brief assessment, including several FFG-listed and regionally significance plant species. The property also supports important habitat for a wide variety of fauna species. The wetlands of the floodplain area a special highlight, as there are very few natural floodplain wetlands remaining in such good condition across the region.

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

Appendix 1 - Flora species recorded at 121 Walshes Road in November 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>Acaena agnipila</i>	Hairy Sheep's Burr	
	<i>Acaena novae-zelandiae</i>	Bidgee-widgee	
*	<i>Acetosella vulgaris</i>	Sheep Sorrel	
	<i>Acrotriche serrulata</i>	Honey-pots	
	<i>Agrostis stolonifera</i>	Creeping Bent	
*	<i>Aira elegantissima</i>	Delicate Hair-grass	
	<i>Amphibromus archeri</i>	Pointed Swamp Wallaby-grass	
	<i>Anthosachne scabra</i> s.s.	Common Wheat-grass	
*	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	
	<i>Arthropodium milleflorum</i> s.s.	Pale Vanilla-lily	
	<i>Arthropodium strictum</i> s.s.	Chocolate Lily	
	<i>Blechnum minus</i>	Soft Water-fern	
*	<i>Briza maxima</i>	Large Quaking-grass	
*	<i>Bromus diandrus</i>	Great Brome	
	<i>Brunonia australis</i>	Blue Pincushion	
	<i>Callistemon sieberi</i>	River Tea-tree	
	<i>Carex appressa</i>	Tall Sedge	
	<i>Carex gaudichaudiana</i>	Fen Sedge	
	<i>Carex inversa</i>	Knob Sedge	
	<i>Cassinia aculeata</i> subsp. <i>aculeata</i>	Common Cassinia	
	<i>Centipeda elatinoidea</i>	Elatine Sneezeweed	
	<i>Chiloglottis valida</i>	Common Bird-orchid	
	<i>Coronidium scorpioides</i> s.s.	Button Everlasting	
	<i>Crassula helmsii</i>	Swamp Crassula	
*	<i>Crataegus monogyna</i>	Hawthorn	
	<i>Cynnogeton procerum</i> s.s.	Common Water-ribbons	
	<i>Cyperus gunnii</i>	Flecked Flat-sedge	
	<i>Cyperus lucidus</i>	Leafy Flat-sedge	
	<i>Dichondra repens</i>	Kidney-weed	
	<i>Drosera auriculata</i>	Tall Sundew	
	<i>Eleocharis acuta</i>	Common Spike-sedge	
	<i>Eleocharis sphacelata</i>	Tall Spike-sedge	

Status	Scientific Name	Common Name	FFG Status
	<i>Eryngium vesiculosum</i>	Prickfoot	
	<i>Eucalyptus aggregata</i>	Black Gum	Vulnerable
	<i>Eucalyptus obliqua</i>	Messmate Stringybark	
	<i>Eucalyptus ovata</i> subsp. <i>ovata</i>	Swamp Gum	
	<i>Eucalyptus pauciflora</i> ssp. <i>pauciflora</i>	Snow Gum	
	<i>Eucalyptus radiata</i> subsp. <i>radiata</i>	Narrow-leaf Peppermint	
	<i>Eucalyptus rubida</i> subsp. <i>rubida</i>	Candlebark	
	<i>Eucalyptus viminalis</i> subsp. <i>viminalis</i>	Manna Gum	
	<i>Eucalyptus yarraensis</i>	Yarra Gum	Critically Endangered
	<i>Euchiton japonicus</i> s.s.	Creeping Cudweed	
	<i>Geranium potentilloides</i>	Soft Crane's-bill	
	<i>Geranium</i> sp. 2	Variable Crane's-bill	
	<i>Geranium</i> sp. 5	Naked Crane's-bill	
	<i>Glyceria australis</i>	Australian Sweet-grass	
	<i>Gonocarpus tetragynus</i>	Common Raspwort	
	<i>Hardenbergia violacea</i>	Purple Coral-pea	
*	<i>Holcus lanatus</i>	Yorkshire Fog	
	<i>Hydrocotyle hirta</i>	Hairy Pennywort	
	<i>Hydrocotyle pterocarpa</i>	Wing Pennywort	
*	<i>Hypochaeris radicata</i>	Flatweed	
	<i>Isolepis fluitans</i>	Floating Club-sedge	
	<i>Isolepis hookeriana</i>	Grassy Club-sedge	
*	<i>Isolepis levynsiana</i>	Tiny Flat-sedge	
	<i>Isolepis marginata</i>	Little Club-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>Leptospermum lanigerum</i>	Woolly Tea-tree	
	<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>Lotus corniculatus</i>	Bird's-foot Trefoil	
	<i>Luzula meridionalis</i> var. <i>flaccida</i>	Common Woodrush	
	<i>Lythrum hyssopifolia</i>	Small Loosestrife	
	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass	
	<i>Montia australasica</i>	White Purslane	
*	<i>Myosotis arvensis</i>	Field Forget-me-not	
	<i>Myriophyllum crispatum</i>	Upright Water-milfoil	
*	<i>Nymphaea alba</i>	White Water-lily	
#	<i>Olearia phlogopappa</i> (purple flower variant)	Dusty Daisy-bush	
	<i>Opercularia varia</i>	Variable Stinkweed	

Status	Scientific Name	Common Name	FFG Status
	<i>Ornithoglossum reniformis</i>	Running Marsh-flower	
	<i>Oxalis perennans</i>	Grassland Wood-sorrel	
	<i>Ozothamnus ferrugineus</i>	Tree Everlasting	
*	<i>Paspalum distichum</i>	Water Couch	
	<i>Persicaria decipiens</i>	Slender Knotweed	
	<i>Persicaria prostrata</i>	Creeping Knotweed	
	<i>Phragmites australis</i>	Common Reed	
*	<i>Plantago lanceolata</i>	Ribwort	
	<i>Poa labillardierei</i> var. <i>labillardierei</i>	Common Tussock-grass	
	<i>Poa sieberiana</i> var. <i>sieberiana</i>	Grey Tussock-grass	
	<i>Poa sieberiana</i> var. <i>hirtella</i>	Grey Tussock-grass	
	<i>Pomaderris aspera</i>	Hazel Pomaderris	
	<i>Poranthera microphylla</i> s.s.	Small Poranthera	
	<i>Pteridium esculentum</i> subsp. <i>esculentum</i>	Austral Bracken	
	<i>Ranunculus amphitrichus</i>	Small River Buttercup	
	<i>Ranunculus glabrifolius</i>	Shining Buttercup	
	<i>Ranunculus inundatus</i>	River Buttercup	
*	<i>Rubus anglocandicans</i>	Common Blackberry	
*	<i>Rumex conglomeratus</i>	Clustered Dock	
	<i>Rytidosperma pallidum</i>	Silvertop Wallaby-grass	
	<i>Rytidosperma</i> spp.	Wallaby Grass	
*	<i>Salix X fragilis</i>	Crack Willow	
	<i>Schoenus apogon</i>	Common Bog-sedge	
	<i>Senecio glomeratus</i>	Annual Fireweed	
	<i>Senecio linearifolius</i>	Fireweed Groundsel	
	<i>Senecio phelleus</i>	Stony Fireweed	
	<i>Senecio prenanthoides</i>	Beaked Fireweed	
	<i>Senecio quadridentatus</i>	Cotton Fireweed	
	<i>Stellaria pungens</i>	Prickly Starwort	
	<i>Themeda triandra</i>	Kangaroo Grass	
*	<i>Trifolium dubium</i>	Suckling Clover	
*	<i>Trifolium glomeratum</i>	Cluster Clover	
*	<i>Trifolium subterraneum</i>	Subterranean Clover	
	<i>Typha domingensis</i>	Narrow-leaf Cumbungi	
*	<i>Ulex europaeus</i>	Gorse	
	<i>Veronica calycina</i>	Hairy Speedwell	
	<i>Veronica gracilis</i>	Slender Speedwell	
*	<i>Vinca major</i>	Blue Periwinkle	
	<i>Viola hederacea</i> sensu Entwisle (1996)	Ivy-leaf Violet	
*	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	
	<i>Wahlenbergia gracilis</i>	Sprawling Bluebell	
	<i>Wahlenbergia stricta</i> subsp. <i>stricta</i>	Tall Bluebell	

Appendix 2 - Fauna species recorded at 121 Walshes Road in November 2021

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

Status	Common name	Scientific Name	Type	FFG Status
	Australian Magpie	<i>Cracticus tibicen</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	
	Bare-nosed Wombat	<i>Vombatus ursinus</i>	Mammal	
	Crimson Rosella	<i>Platycercus elegans</i>	Bird	
	Eastern Grey Kangaroo	<i>Macropus giganteus</i>	Mammal	
*	European Hare	<i>Lepus europaeus</i>	Mammal	
	Grey Fantail	<i>Rhipidura albiscapa</i>	Bird	
	Grey Shrike-thrush	<i>Colluricincla harmonica</i>	Bird	
L	Koala	<i>Phascolarctos cinereus</i>	Mammal	
	Laughing Kookaburra	<i>Dacelo novaeguineae</i>	Bird	
	Pacific Black Duck	<i>Anas superciliosa</i>	Bird	
	Plains Froglet	<i>Crinia parasignifera</i>	Frog	
L	Powerful Owl	<i>Ninox strenua</i>	Bird	Vulnerable
	Red Fox	<i>Vulpes vulpes</i>	Mammal	
	Sacred Kingfisher	<i>Todiramphus sanctus</i>	Bird	
	Scarlet Robin	<i>Petroica boodang</i>	Bird	
	Short-beaked Echidna	<i>Tachyglossus aculeatus</i>	Mammal	
	Spotted Marsh Frog	<i>Limnodynastes tasmaniensis</i>	Frog	
	Striated Pardalote	<i>Pardalotus striatus</i>	Bird	
	Superb Fairy-wren	<i>Malurus cyaneus</i>	Bird	
	White-faced Heron	<i>Egretta novaehollandiae</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	