

**BushBlitz 2019 Little Desert National  
Park and surrounding areas**

***Fungi, Mosses, Liverworts and  
Vascular Plants***

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Nomenclature and taxonomy used in this report is consistent with:

The Australian Plant Name Index (APNI)

<http://www.anbg.gov.au/databases/apni-about/index.html>

The Australian Plant Census (APC)

<http://www.anbg.gov.au/chah/apc/about-APC.html>

AusMoss

<http://data.rbg.vic.gov.au/cat/mosscatalogue>

The Catalogue of Australian Liverworts and Hornworts

[http://www.anbg.gov.au/abrs/liverwortlist/liverworts\\_intro.html](http://www.anbg.gov.au/abrs/liverwortlist/liverworts_intro.html)

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## List of contributors

List of contributors to this report.			
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## Abstract

Five hundred and thirty-four specimens were collected during botanical surveys of Little Desert National Park and its surrounding areas which included Birdcage Nature Conservation Reserve, Box Swamp Wildlife Reserve, Foresters Spring Bushland Reserve, Lake Hindmarsh Lake Reserve, Mallee Dam Bushland Reserve, Miram Piram Bushland Reserve, Morea State Forest, Mount Arapiles-Tooan State Park, Red Plains Swamp Wildlife Reserve, Tallagiera Nature Conservation Reserve, Wail State Forest, West Wail Conservation Reserve and Yarrangook Nature Conservation Reserve. These collections included 303 vascular plant species, of which 34 taxa are State listed as rare or threatened. Additionally, 16 moss, two liverwort and five fungi species were also collected. Five of the angiosperm taxa are State or federally listed as endangered. *Levenhookia pusilla*, which in Victoria is known only from around Mount Moffat in Little Desert National Park, was known from two collections over 20 years ago was common at two recently burnt sites near Mount Moffat and was collected from these sites. Forty-one naturalised species were collected. No new species or State records were found, however, the collection of the grass *Anthosachne kingiana* subsp. *multiflora* is around 200 km from its closest previous collection, the collection of the moss *Bryobartramia novae-valesiae* is seldom collected and was around 120 km from its closest previous collection and the collection of the moss *Tayloria octoblepharum* was around 100 km from its closest previous collection and was in a much drier environment than is usually observed for this species. Previous visits by one of us (VS) to Foresters Spring Bushland Reserve identified high quality remnant mallee and woodland, but no survey was undertaken at the time. This reserve supports *Acrotriche depressa* (Wire Ground-berry) which was presumed to be extinct in Victoria until rediscovered in 2009. During the Bush Blitz survey other significant finds in the reserve include the Mallee Fowl (*Leipoa ocellata*). A nearby unreserved block of vegetation was also surveyed.

## 1. Introduction

The Lowan Mallee and surrounding Wimmera region has had a long history of botanical collection. The first substantial collections from the area took place in 1860 by J. Dallachy. The flora of the region continued to be collected throughout the 1800's. Notable contributors included F. Reader in the 1880's, who lived in Dimboola and amassed a large private collection of local specimens that were sold to the National Herbarium of Victoria (MEL), and to a lesser degree C. French Jnr. and C. Walter who ventured into the region to collect also in the 1880's. The flora of the region has continued to be surveyed up to recent times, with several recent collectors, such as A. C. Beaglehole, providing significant contributions. Prior to these Bush Blitz surveys 40 375 plants and 2202 fungi specimens have been collected from the region are housed in Australasian herbaria.

Little Desert National Park has a moderate diversity of plant species compared with other reserves in Victoria with around 670 species being recorded. The national park is important for protecting large tracts of mallee, heathland and woodland on deep sand. Several smaller reserves exist around the national park that protect similar vegetation. Most of the vegetation that originally occurred on heavier soils surrounding the national park, such as Black Box Woodlands, was cleared for agriculture from the 1870's to 1950's and areas of this vegetation that remain in the region tends to be largely degraded, being highly fragmented, infested by weeds and likely to have a depauperate set of diversity compared to its original composition. Some other smaller reserves in the region protect salt lakes and fringing vegetation and to the south of Little Desert National Park some reserves contain seasonally inundated woodlands and wetlands. There are four plant species that are endemic to this region and ten that are only known from this region in Victoria, including *Senecio helichrysoides* from Lake Hindmarsh that was last recorded over 100 years ago and is most likely extinct.

Based on the extensive history of botanical collection in this region and the degradation of the vegetation surrounding the national park it was considered unlikely that any new native plant species not previously recorded for Victoria would be encountered during this survey. There is

a greater likelihood of new fungi species being discovered in the region because fungi are far less thoroughly collected. However, the dry conditions around the time of the survey was not favourable for fungal discoveries, which are more likely to arise in times of the year that are moister and fungi are more frequently in reproductive condition. It was expected that range extensions might be recorded for some plants, especially introduces species.

## 2. Methods

### 2.1 Site selection

Numerous small reserves north of the Little Desert National Park were selected as study sites as these represent small islands of remnant vegetation in a sea of agricultural land in the Wimmera region. This area has largely been cleared due to its more fertile soils, and so vegetation is quite different to that of the near-by National Park which consists mainly of deeper-sands. These small remnants are therefore of high conservation value, and compared with the National Park are generally poorly surveyed and the flora under-collected.

Likewise, several reserves south of the Little Desert National Park were also selected as they occur in an area of relatively higher rainfall, and often consist of large ephemeral swamps, both fresh and saline. This vegetation is also quite distinct from the National Park. These areas are often quite inaccessible and are also relatively under collected.

Within the National Park sites were selected within the western, central and eastern blocks, covering much of the geographic range of the park and to cover a range of different vegetation types. In the Western block sites near Mt Moffatt were selected as this is the only accurate Victorian locality for *Levenhookia pusilla* and *Pomaderris obcordata*. The range of both these species extends further west into South Australia, and it is likely that other range extensions of western species may be found in this area. The far-eastern boundary of the park is delimited by the Wimmera River, and sites were selected to include *Eucalyptus camaldulensis* woodlands that fringe the riparian areas. More broadly across all three blocks sites were selected to include both heathy woodlands and Mallee on the sandy dune rises and grey box/yellow-gum woodlands that occur in the dune swales that occur on much heavier soils and are often very diverse annual herbaceous flora.

Sites were also selected at and around Lake Hindmarsh further to the north. The dry Lake Hindmarsh consists of large saline flats and quite a distinct vegetation compared to surrounding areas and is a possible site of species 're-discoveries', including *Senecio helichrysoides* which was recorded from Lake Hindmarsh once in the 1800's and has not been recorded since. Several unusual weed species have been recorded from this area, and so Lake Hindmarsh was considered to possibly be a good site to find new or very rarely encountered weed species. The mallee vegetation on sand hills north-west of Lake Hindmarsh is quite distinct to that of the Little Desert, and so sites were selected in these areas to include this vegetation.

### 2.2 Survey techniques

Collections were made of individuals bearing fertile structures (buds, flowers, fruits, sporangia, apothecia). Specimens were photographed in situ to record important features and habitat and to contribute to the online Victorian flora, VicFlora. Gatherings were made either of one or more entire individuals (small herbaceous plants) or portions of stems bearing representative foliage, flowers etc. Where possible, sufficient material was collected to prepare duplicate specimens to be sent to other herbaria. Bryophytes were collected by removing a portion of substrate including the specimen. Plant specimens and pathogenic fungi were dried in plant presses. In order to preserve 3-D structure of flowers, specimens of some groups (Orchidaceae) were preserved in alcohol (70% Ethanol with 5% Glycerol). When plants of phylogenetic interest were collected for research, portions of vegetative material were placed in silica gel so as to rapidly dry this tissue, increasing the likelihood of DNA being preserved.

## 2.2.1 Methods used at standard survey sites

A full vascular plant species inventory (appendix 2) was recorded within a 20m x 20m quadrat.

## 2.3 Identifying the collections

Specimens were identified using botanical and mycological literature – monographs, taxonomic revisions and flora treatments containing keys and descriptions for the groups collected - especially VicFlora. Identifications were confirmed by comparing collected specimens with reference specimens in the State Botanical Collection in the National Herbarium of Victoria (MEL).

## 3. Results and Discussion

Appendix 1 lists all plant and fungi collections made during the Bush Blitz. Collections made during this Bush Blitz will contribute 534 specimens to MEL (National Herbarium of Victoria), and an equivalent number of records added to publicly accessible databases such as the Australasian Virtual Herbarium (AVH) and Atlas of Living Australia (ALA). Additionally, several hundred duplicate collections will be distributed to herbaria around Australia, and overseas.

### 3.1 Un-named or not formalised taxa

Three collections of a well-known robust form of *Ajuga australis* were collected from along the Wimmera River in Wail State forest near Dimboola and Birdcage Nature Conservation Reserve near Lake Hindmarsh. Plants are quite distinctly erect in habit, often with a stout taproot, and with long inflorescences, large flowers and large, grey-green leaves. Samples of this putative taxon have been given to Liz James at the Royal Botanic Gardens Victoria, who is undertaking molecular work and further studies into the breeding system of this species and a common glasshouse experiment to establish if morphological distinctions are retained.

**Table 1. Putatively un-named or not formalised taxa**

Taxon	Comment
<i>Ajuga australis</i> 'robust'	<i>Ajuga australis</i> is a widespread and morphologically variable species. Botanist have long suspected that this variation may be better treated under more than one species. In north-west Victoria, particularly in mallee areas there is a robust form that may be better treated as a separate species. A taxonomic investigation of <i>Ajuga australis</i> using morphological and DNA characters is currently being undertaken at RBGV (L. James) which will incorporate samples collected during this trip.
<i>Cryptandra tomentosa</i> var. 1 (sensu N.G.Walsh & F.Udovicic Fl.Vic. 1999)	Two varieties have been acknowledged in <i>Cryptandra tomentosa</i> . Variety one collected during these surveys is equivalent to the type of the species and will be referred to as <i>C. tomentosa</i> var. <i>tomentosa</i> once the second variety has been named.
<i>Prasophyllum</i> sp. aff. <i>occidentale</i> C	This species closely resembles <i>Prasophyllum occidentale</i> . However, several forms that occur in Victoria, including sp. aff. <i>occidentale</i> C, which differ slightly from typical <i>P. occidentale</i> , may be worthy of taxonomic recognition. Previously unrepresented in MEL collections.

<i>Stackhousia aspericocca</i> subsp. One-sided inflorescence (W.R.Barker 697) W.R.Barker	Two subspecies have been acknowledged within <i>Stackhousia aspericocca</i> but both currently lack names.
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### 3.2 Putative new species (new to science)

No species of plant or fungi new to science were discovered as a direct result of this Bush Blitz. This was to be expected as the area surveyed has been well collected from and reasonably thoroughly surveyed in the past.

Species	Comment

### 3.3 Exotic and pest species

Exotic/pest species	Location sighted/observed	Indication of abundance	Comments
<i>Acacia iteaphylla</i>	Goroke. Along Goroke-Nurcoung Road, ca. 3.45 km (by road) NE of town.	Hundreds of plants of various age classes, spread over several hundred metres, on both sides of the road. Appear to have been originally planted, now naturalised.	A serious environmental weed at the site.
<i>Acacia saligna</i>	Tallageira Nature Conservation Reserve. Far north-west block, along unnamed north-south track, ca. 700 metres south-east from intersection of the unnamed road and Benayeo-Neuarpuir Road.	Common weed in the reserve.	A very serious environmental weed in the reserve. There appears to have been negligible attempt at eradication or prevention from invading 'clean' sites. Poses a threat to habitat of several threatened orchids including <i>Prasophyllum nitidum</i> and <i>P. spadiceum</i> .
<i>Acacia trineura</i>	Lake Hindmarsh. On west side of the lake. Ca. 530 metres ESE from the eastern end of Lake Hindmarsh School Road.	Millions of plants.	Although indigenous to the region and a VROT (rare), it appears to have been originally planted/directed-seeded, and now extensively self-established at the site. Plants self-seed and sucker extensively.
<i>Adonis microcarpa</i>	Lake Hindmarsh, on west side. Near the east end of Hiscock Road (or the section east of intersection	There are 6 plants at the first site and ca. 50 plants at the second site.	A rarely collected weed, in Victoria previously known from 5 collections.

	with Rainbow-Nhill Rd). On west side of track. & Lake Hindmarsh. On western side of the lake, beside track, ca. 1.27 km NNW (straight line) from the eastern end of Lake Hindmarsh School Road.		
<i>Amsinckia calycina</i>	Ca. 7 km NE (straight line) from Nhill township. 'Nhillbilly Farm', Uthmeyers Road (on west side of the road), 4.8 km north of intersection with Nhill-Jeparit Road.	Localised, ca. 20 plants.	A weed of pastures, cultivated land and other disturbed sites, mostly north of the Great Dividing Range.
<i>Avellinia festucoides</i>	Mallee Dam Bushland Reserve, ca. 550 ESE (straight line) from intersection of Mallee Dam Road and Western Highway.	Scattered plants.	An occasional weed of sandy soils chiefly in the west of the state with isolated occurrences in the north-east (e.g. Warby Ranges) and south-east (e.g. Wilsons Promontory, Gippsland Lakes).
<i>Brachypodium distachyon</i>	Lake Hindmarsh, on west side. Near the east end of Hiscock Road (or the section east of intersection with Rainbow-Nhill Rd). On west side of track.	Common.	MEL herbarium does not hold many collections from the Wimmera. In Victoria, occurs chiefly on sandy or rocky soils, particularly on basalt in the south near Melbourne and on seasonally wet ground in the north.
<i>Briza maxima</i>	Tallagiera Nature Conservation Reserve. On the south side of an unsealed track that forms a T-intersection with Haebichs Road at its north end, 1.7 km east of Haebichs Road.	Common.	Widespread throughout much of the state except the far north west. Common in disturbed sites, grassland and woodlands with a grassy understorey.
<i>Briza minor</i>	Mallee Dam Bushland Reserve, ca. 550 ESE (straight line) from intersection of Mallee Dam Road and Western Highway.	Scattered in the channels.	Common weed in Victoria, less often collected in the Wimmera.
<i>Buglossoides arvensis</i>	Birdcage Nature Conservation Reserve. South-eastern section	Ca. 20 plants.	In Victoria, a widespread weed, mostly of disturbed

	of the reserve, off unnamed SW-SE track, ca. 590 metres (direct line) from intersection of Amy Johnson Highway and Rainbow-Nhill Road.		places in drier parts of northern and western part of the State.
<i>Centaurea melitensis</i>	Birdcage Nature Conservation Reserve, beside unnamed track c. 700 m WSW of Amy Johnson Highway, c. 200 m W of main NW running track through reserve.	Rare at site.	Widespread throughout Victoria in disturbed sites, often in drier areas.
<i>Chrysanthemoides monilifera</i> subsp. <i>monilifera</i>	Birdcage Nature Conservation Reserve. On north side of Lake Hindmarsh, ca. 300 metres east of intersection of an unnamed west-east road and Amy Johnson Highway. & Lake Hindmarsh. Southern side, near Jeparit. Four Mile Beach, ca. 500 metres ENE (straight line) from the northern end of Four Mile Beach Road.	Scattered plants at the first site, and 10 plants at the Lake Hindmarsh site.	Serious environmental weed in parts of Victoria. Needs to be eradicated at all sites before it becomes more established.
<i>Cicendia filiformis</i>	Tallageira Nature Conservation Reserve, western part of reserve, around dam beside N-S running track c. 2 km S of northern boundary of reserve.	Rare at site.	Very widespread and abundant weed of wetlands.
<i>Cotula coronopifolia</i>	Jeparit area, Wimmera River at mouth of inlet to Lake Hindmarsh.  Little Desert National Park. Dry billabong between Horseshoe and Ackle Bend on th Wimmera River south of River Track.	Common.  Common.	
<i>Crassula natans</i> var. <i>minus</i>	Mallee Dam Bushland Reserve, ca. 550 ESE (straight line) from intersection of Mallee Dam Road and Western Highway.	Common at the site.	In Victoria, grows in moist soil often in clay-pans and in and around shallow standing water of dams and rock pools.

<p><i>Disa bracteata</i></p>	<p>Tallageira Nature Conservation Reserve. Far north-west block, along unnamed north-south track, ca. 700 metres south-east from intersection of the unnamed road and Benayeo-Neuarcurr Road.</p> <p>Morea State Forest, c. 30 m S of Natimuk - Frances Rd, c. 300 m E of Peter Mulraney Rd.</p>	<p>Common.</p> <p>Scattered plants at site.</p>	<p>A highly invasive and problematic species throughout western Victoria. Often invasive at sites that are diverse in native orchid species.</p>
<p><i>Ehrharta calycina</i></p>	<p>Lake Hindmarsh Lake Reserve. 80 metres west of Lake Road, 2.8 km north by road from its intersection with Nhill-Jeparit Road.</p>	<p>Abundant. Observed at almost all sites and often the most abundant species.</p>	<p>A widespread weed throughout Victoria, particularly in areas with sandy soil. Probably the most common weed species in the Wimmera.</p>
<p><i>Eragrostis curvula</i></p>	<p>Birdcage Nature Conservation Reserve. Amy Johnson Highway (on east side of the road), ca. 960 metres (by road) north from the intersection with Rainbow-Nhill Road.</p>	<p>Common along the road. Abundant in the paddock on the east side of the road.</p>	<p>A serious weed, needs to be eradicated both in the reserve and on adjacent private land.</p> <p>Formerly known from a few scattered localities in the State, the species has become an abundant weed along roadsides in many areas (very prominent along the Hume and Frankston freeways), and in pasture where particularly troublesome due to its ability to form a dense sward to the exclusion of other more desirable cropping or grazing species.</p>
<p><i>Hordeum marinum</i></p>	<p>Lake Hindmarsh, on south-east side of the lake. Ca. 800 metres NNW (straight line) from the mouth of the Wimmera River.</p>	<p>Common.</p>	<p>In Victoria, the species occurs near the coast and also on inland sites where soils are somewhat saline. It appears to have increased in range substantially in the past two decades as salination of the Murray irrigation areas has increased.</p>

<i>Isolepis hystrix</i>	Lawloit 150 Bushland Reserve. Mallee Dam Road, ca. 640 metres west from intersection with Lavertys Road.	Hundreds of plants.	In Victoria, widespread and locally abundant in areas prone to seasonal inundation chiefly in the west of the State, typically occurring within mixed populations of short-lived annual species.
<i>Juncus capitatus</i>	Mallee Dam Bushland Reserve, ca. 550 ESE (straight line) from intersection of Mallee Dam Road and Western Highway.	Only a few plants seen.	A widespread annual, occurring in a range of vegetation communities, usually in open areas which are permanently or seasonally damp.
<i>Lagurus ovatus</i>	Tallageira Nature Conservation Reserve. Far north-west block, along unnamed north-south track, ca. 700 metres south-east from intersection of the unnamed road and Benayeo-Neuarpuir Road. & Morea State Forest. Blocks Track, ca. 280 metres ESE from intersection with Peter Mulraneys Road.	Common in some areas at both sites/	Locally common on coastal sand dunes and sandy soils of drier lowlands.
<i>Limonium lobatum</i>	Lake Hindmarsh. On western side of the lake, beside track, ca. 1.27 km NNW (straight line) from the eastern end of Lake Hindmarsh School Road.	Several patches up to 10 metres x 10 metres across.	Occasional, or sometimes locally abundant, in the northwest of the Victoria, particularly in the Ouyen-Hattah area. Usually occurring in slight depressions or fringing lakes.
<i>Lolium rigidum</i>	Horsham area, Wimmera River, at crossing of Noradjuha Rd, N of Three Bridges Rd.	Common.	Very common and widespread throughout Victoria, including the Wimmera.
<i>Marrubium vulgare</i>	Birdcage Nature Conservation Reserve. South-eastern section of the reserve, off unnamed SW-SE track, ca. 590 metres (direct line) from intersection of Amy Johnson Highway and Rainbow-Nhill Road.	1 plant, but area not searched.	In Victoria, a widespread and troublesome weed, particularly on alkaline soils and degraded or overgrazed pasture, sometimes colonizing bare, eroded ground.

<i>Medicago minima</i>	Lake Hindmarsh, on west side. Near the east end of Hiscock Road (or the section east of intersection with Rainbow-Nhill Rd). On west side of track.	Very common weed.	Scattered mostly across northern and western Victoria on a variety of soils, in pastures, disturbed ground and along watercourses and road verges.
<i>Medicago polymorpha</i>	Lake Hindmarsh, on west side. In creek bed, beside lake track. Ca. 1.3 km NE from the intersection of Hiscock Road and Rainbow-Jeparit Road.	2 plants, but area not searched.	Distributed widely throughout most of Victoria where found mainly in pastures, disturbed ground and along road verges.
<i>Medicago truncatula</i>	Lake Hindmarsh, on west side. In creek bed, beside lake track. Ca. 1.3 km NE from the intersection of Hiscock Road and Rainbow-Jeparit Road.	Common.	Scattered widely across northern and western Victoria on a variety of soils, in pastures, disturbed ground and along road verges.
<i>Mesembryanthemum nodiflorum</i>	Lake Hindmarsh. Southern side, near Jeparit. Four Mile Beach, ca. 500 metres ENE (straight line) from the northern end of Four Mile Beach Road.	Common, thousands of plants.	Previously uncollected in the Wimmera.  Common to abundant on saline flats and depressions in the north-west of the State, often associated with samphire communities.
<i>Nicotiana glauca</i>	On the south side of the Wimmera River billabong closest to Picnic Bend Road, accessed by the continuation of that road, 1.1 km from its intersection with Nursery Road.	Scattered along the billabong.	Occasional in disturbed sites along railway lines, waterways and roadsides particularly in the north-west of the state.
<i>Parapholis incurva</i>	Lake Hindmarsh. Southern side, near Jeparit. Four Mile Beach, ca. 500 metres ENE (straight line) from the northern end of Four Mile Beach Road.	Abundant.	Primarily a grass of coastal salt-marshes and low sea-terraces, but becoming widespread on salted land away from the sea, particularly in the north-west.
<i>Parentucellia latifolia</i>	Mallee Dam Bushland Reserve, ca. 550 ESE (straight line) from intersection of Mallee Dam Road and Western Highway.	Scattered.	In Victoria, a widespread weed of pasture and sometimes native bushland, usually in seasonally moist sites.
<i>Pentameris airoides</i> subsp. <i>airoides</i>	Lawloit 150 Bushland Reserve. Mallee Dam	Scattered.	In Victoria, it occurs on sand or dry, skeletal

	Road, ca. 540 metres west from intersection with Lavertys Road.		soils, predominantly in the west but with a few eastern disjunctions in rain-shadow areas.
<i>Petrorhagia dubia</i>	West Wail Nature Conservation Reserve. North-central section of reserve. Growing beside the northernmost main track, just above the Quantong Channel.  Tallagiera NCR. Intersection of the first unsealed track encountered on an unsealed track that runs southeast from Benayeo-Neuarcurr Rd in the northwest corner of the reserve, 950 metres from its intersection with Benayeo-Neuarcurr Rd.	Common at both sites.	A widespread weed of disturbed, dry places and semi-natural grassland in Victoria.
<i>Phalaris paradoxa</i>	Wail State Forest. Barbours Lake/Reedy Swamp, ca. 1.2 km S of junction of Wimmera Track and Middleton Track.	Vast stands over lake bed.	Occasionally grown for fodder, and a weed in irrigated and seasonally wet areas.
<i>Plantago bellardii</i>	Morea State Park, West Boundary Tk, c. 400 m N of Swamp Tk.  Goroke. Along Goroke-Nurcoung Road, ca. 3.45 km (by road) NE of town.	Common at both sites.	Very common and widespread species in the Wimmera and nearby areas of western Victoria.
<i>Rostraria cristata</i>	Lake Hindmarsh, on south-east side of the lake. Ca. 800 metres NNW (straight line) from the mouth of the Wimmera River.	Scattered.	Widespread in western Victoria where commonest in the drier regions, largely confined to rain-shadow areas in the east of the State.
<i>Scorzonera laciniata</i> var. <i>calcitrapifolia</i>	Mitre Lake Nature Conservation Reserve. At the north side of the lake, beside lake track, ca. 600 metres SSE (straight line) from the intersection of Mitre-Grass Flat Road and Schmidts Road.	Scattered plants.	Widespread in drier inland parts of northern and western Victoria, in pasture, on roadsides and other disturbed sites.

<i>Trifolium glomeratum</i>	Birdcage Nature Conservation Reserve. South-eastern section of the reserve, off unnamed SW-SE track, ca. 590 metres (direct line) from intersection of Amy Johnson Highway and Rainbow-Nhill Road.	Common.	Common and well-established weed throughout most of Victoria.
<i>Trifolium hirtum</i>	Lake Hindmarsh, on west side. Near the east end of Hiscock Road (or the section east of intersection with Rainbow-Nhill Rd). On west side of track.	Common.	Rarely collected species, with only a few collections from Victoria.  Established near Maryborough, Kaniva, and Lake Hindmarsh near Jeparit.
<i>Trifolium scabrum</i>	Miram. Rideout Road, 800 metres north from intersection with Western Highway.	Common.	Recorded for a few sites in Victoria, mostly in the western half of the State.
<i>Tribolium acutiflorum</i>	Jeparit area, Wimmera River, immediately upstream of mouth of Lake Hindmarsh.	Locally common but restricted to saline areas.	Relatively uncommon in Victoria and usually in moister sites in drier areas.

### 3.4 Threatened species

Species	Listing status and level (EBPC, State/Territory)	Location sighted/observed	Indication of abundance
<i>Acacia dodonaeifolia</i>	VROT(R)	Goroke. Along Goroke-Nurcoung Road, ca. 3.45 km (by road) NE of town.	
<i>Acacia glandulicarpa</i>	EPBC (VU)	Foresters Spring Bushland Reserve	Scattered plants in reserve.
<i>Acacia simmonsiana</i>	VROT(R)	Foresters Spring Bushland Reserve, on west side of Smiths Road. Ca. halfway between Telopea Downs and Western Highway. Along main north-south (powerline access) track, 1.25 kms north from the intersection with H. Kuchels Road.	About 20 plants.

<i>Asperula wimmerana</i>	VROT(R)	Birdcage Nature Conservation Reserve. On north side of Lake Hindmarsh, on east side of Amy Johnson Highway, ca. 400 metres (by car) from intersection with Rainbow-Nhill Road.	Forming extensive cover over several square metres.
<i>Atriplex pseudocampanulata</i>	VROT(R)	Lake Hindmarsh, south-west side of the lake. At the ski club (looks disused), above Wimmera River, ca. 940 metres NNW (straight line) from Jeparit Weir.	Common.
<i>Boronia filifolia</i>	VROT(V)	Little Desert National Park, far NW block. Mt Moffat Track, ca. 820 metres south from the intersection with Northern Break Track.	Only 1 plant seen, not seen anywhere else.
<i>Brachyscome readeri</i>	VROT(R)	Tallageira Nature Conservation Reserve. Western block, along unnamed north-south track.	Common at the site, hundreds of plants.
<i>Caladenia colorata</i>	EPBC (EN)	Tallageira Nature Conservation Reserve. Far north-west block, along unnamed west-east track, ca. 700 metres south from intersection of the unnamed road and Benayeo-Neuarpuir Road.	Occasional.
<i>Centipeda crateriformis</i> subsp. <i>compacta</i>	VROT(R)	Morea State Forest. On north side of a lake, off Swamp Track, ca. 900 metres east from the intersection with W Boundary Track  Tallageira Nature Conservation Reserve, western part of reserve, around dam beside N-S running track c. 2 km S of northern boundary of reserve.	Common.

<i>Choretrum glomeratum</i> var. <i>chrysanthum</i>	VROT(R)	Foresters Spring Bushland Reserve, on west side of Smiths Road. Ca. halfway between Telopea Downs and Western Highway. Along main north-south (powerline access) track, ca. 450 metres NNW from the intersection of Smiths Road and H. Kuchels Road.	1 plant.
<i>Choretrum glomeratum</i> var. <i>glomeratum</i>	VROT(R)	Kiata South Rd, c. 500 m NE of Northern Break, on southern edge of Kiata Lowan Sanctuary.	1 plant seen.
<i>Daviesia pectinata</i>	VROT(R)	Kiata South Rd, c. 500 m NE of Northern Break, on southern edge of Kiata Lowan Sanctuary.	Locally common, 100s of plants in area.
<i>Eremophila gibbifolia</i>	VROT(R)	Ten metres north of Kiata South Road, 1.7 km from its intersection with Jordan Road.	1 plant seen
<i>Eucalyptus diversifolia</i> subsp. <i>diversifolia</i>	VROT(E)	Peronne. Morea State Forest. Ca. 240 metres ESE (straight line) from intersection of Natimuk-Frances Road, and Peter Mulraneys Road, and 65 metres south of Natimuk-Frances Road.	A single plant was discovered in Victoria in 2018 (V.Stajsic & A. Messina). The Victorian occurrence falls within the geographic range of <i>Eucalyptus diversifolia</i> subsp. <i>diversifolia</i> , with the nearest known occurrence being ca. 40 km further west in South Australia.
<i>Eucalyptus wimmerensis</i> subsp. <i>grata</i>	VROT (E)	Lawloit 150 Bushland Reserve. Mallee Dam Road, ca. 540 metres west from intersection with Lavertys Road.	Co-dominant.
<i>Goodenia benthamiana</i>	VROT(R)	Kiata South Rd, c. 500 m NE of Northern Break, on southern edge of Kiata Lowan Sanctuary.	Scattered plants.
<i>Leucopogon virgatus</i> var. <i>brevifolius</i>	VROT(R)	Little Desert National Park, central block. Fenceline Track,	Uncommon.

		immediately south of Koonik Track.	
<i>Levenhookia pusilla</i>	VROT (V)	Little Desert National Park, Mt Moffit Tk, at junction with E-W running boundary Tk, c. 800 m S of Cooks Rd. & Little Desert National Park. Far NW section, Mt Moffat Track, 50 metres north of Elliot Track.	Locally common following ecological burn.
<i>Melaleuca halmaturorum</i>	VROT (V) listed in Flora and Fauna Guarantee Act 1988	Lake Wyn Wyn Wildlife Reserve, southern end. Ca. 7.6 km (straight line) NW from Natimuk.	Dominant, forming a woodland
<i>Nicotiana suaveolens</i>	VROT(R)	Lake Hindmarsh, dune on SW side of lake c. 500 m ESE of track to Lake Hindmarsh School Rd.	Restricted to narrow sand dune, c. 50 plants seen.
<i>Phebalium stenophyllum</i>	VROT(R)	Miram South Rd, c. 1.6 km N of boundary of Little Desert National Park.	Scattered plants.
<i>Phylota remota</i>	VROT(R)	Foresters Spring Bushland Reserve, on west side of Smiths Road. Ca. halfway between Telopea Downs and Western Highway. Along main north-south (powerline access) track, ca. 450 metres NNW from the intersection of Smiths Road and H. Kuchels Road.	1 plant seen, but area not searched.
<i>Prasophyllum nitidum</i>	VROT (V)	Tallageira Nature Conservation Reserve. Far north-west block, along unnamed north-south track, ca. 700 metres south-east from intersection of the unnamed road and Benayeo-Neuarpuur Road.	6 plants.
<i>Prasophyllum spadiceum</i>	VROT (V)	Tallageira Nature Conservation Reserve. Far north-west block, along	Widely scattered in this section of the park.

		unnamed north-south track, ca. 700 metres south-east from intersection of the unnamed road and Benayeo-Neuarpuir Road.	
<i>Prasophyllum</i> sp. aff. <i>occidentale</i> C	VROT (E)	Miram Piram 138 Bushland Reserve, bounded by Sanders Maddern Road and Old Diapur Road.	Very rare (6 plants).
<i>Pterostylis pusilla</i>	VROT(R)	Foresters Spring Bushland Reserve, on west side of Smiths Road. Ca. halfway between Telopea Downs and Western Highway. Along main north-south (powerline access) track, 2.09 kms north from the intersection with H. Kuchels Road.	6 plants
<i>Senecio halophilus</i>	VROT(R)	Lake Wyn Wyn, southern end, ca. 7.5 km NNW (straight line) from Natimuk.	Common.
<i>Senecio hispidissimus</i>	VROT (R)	Tallageira Nature Conservation Reserve. Far north-west block, along unnamed north-south track, ca. 700 metres south-east from intersection of the unnamed road and Benayeo-Neuarpuir Road.	Common.
<i>Tecticornia syncarpa</i>	VROT (V)	Lake Wyn Wyn, southern end, ca. 7.5 km NNW (straight line) from Natimuk.	Common at the site, hundreds of plants.
<i>Thelymitra alcockiae</i>	VROT (R)	Lawloit 150 Bushland Reserve. Mallee Dam Road, ca. 540 metres west from intersection with Lavertys Road.  Tallageira Nature Conservation Reserve. Far north-west block, along unnamed north-south track, ca. 700 metres south-east from intersection of the	Common at both sites.

		unnamed road and Benayeo-Neuarcurr Road.	
<i>Thomasia petalocalyx</i>	VROT(R)	Morea Bushland Reserve, 60 metres east of West Boundary Track, 350 metres by road north of its intersection with Swamp Track.	Common at site.
<i>Vittadinia cuneata</i> var. <i>morrisii</i>	VROT(R)	Miram. Rideout Road, 800 metres north from intersection with Western Highway.	Scattered.
<i>Vittadinia megacephala</i>	VROT (V)	Mitre Lake Nature Conservation Reserve. At the north side of the lake, beside lake track, ca. 600 metres SSE (straight line) from the intersection of Mitre-Grass Flat Road and Schmidts Road.	Very rare, only scattered plants.
<i>Zieria veronicea</i> subsp. <i>veronicea</i>	VROT(R)	Little Desert National Park. On the northwest side of the corner of Mount Moffat Track and the track that forms the northern boundary of the national park, 800 metres south of Cooks Road.	Common at both sites.

### 3.5 Range extensions

Species	Location sighted/observed	Distance from nearest known record (km)	Comments
<i>Anthosachne kingiana</i> subsp. <i>multiflora</i>	About 7.1 km WSW (by road) from Horsham (measured from Curran Road), SE side of the Horsham-Noradjuha Road crossing of the Wimmera River.	Ca. 200 km	Only the second collection for western Victoria.  Scattered and rather uncommon, associated to some extent with temporary or permanent swamps, lagoons, floodplains and banks of watercourses, but also recorded from near-coastal sandy ground in east Gippsland and a dry, stony slope above the Macalister River, north of Licola.
<i>Bryobartramia novae-valesiae</i>	Lake Hindmarsh Lake Reserve. 180 metres east of the vehicle track that follows the west edge of the lake, 250 metres south by road of its intersection with Lake Hindmarsh School Road.	Ca. 120 km	A small and rarely collected moss species of soil crusts mostly in north west Victoria. Most collections are old (only one other collection in Victoria in the last 20 years) and the closest collection was near Wycheproof and was made in 1918.
<i>Mairena appressa</i>	Lake Hindmarsh. Southern side, near Jeparit. Four Mile Beach, ca. 500 metres ENE (straight line) from the northern end of Four Mile Beach Road.	Ca. 100 km	1 plant only. Not seen elsewhere. Previously unrecorded in the Wimmera.  Locally common in Victoria on subsaline flats and depressions and margins of salt lakes north and west from about Ouyen, with outlying occurrences to the south-east near Sea Lake (Lake Tyrell). Occasionally

			colonizing disturbed ground.
<i>*Mesembryanthemum nodiflorum</i>	Lake Hindmarsh. Southern side, near Jeparit. Four Mile Beach, ca. 500 metres ENE (straight line) from the northern end of Four Mile Beach Road.	Ca. 100 km	Previously uncollected in the Wimmera.
<i>Tayloria octoblepharum</i>	Lawloit 150 Bushland Reserve, 20 metres south of Mallee Dam Road, 1.63 km east of its intersection with the Western Highway.	Ca. 100 km	Previously unrecorded in Victoria northwest of the Grampians and an unusually dry environment for this species.
<i>Tilletia ehrhartae</i>	<p>1. Tallageira Nature Conservation Reserve. Far north-west block, along unnamed north-south track, ca. 700 metres south-east from intersection of the unnamed road and Benayeo-Neuarpur Road.</p> <p>2. Lake Hindmarsh. Southern side, near Jeparit. Four Mile Beach, ca. 500 metres ENE (straight line) from the northern end of Four Mile Beach Road.</p> <p>3. Birdcage Nature Conservation Reserve. On north side of Lake Hindmarsh, ca. 300 metres east of intersection of an unnamed west-east road and Amy Johnson Highway.</p>		A common smut-fungus, but previously known in Victoria from 3 collections, 2 from Kaniva.

### 3.6 Genetic information

Leaf samples were taken for DNA extraction from a total of 53 of the 534 collections made. This included samples from 51 different species, covering 22 plant families. This sampling was aimed to cover a wide range of plant diversity, but also focused on species and genera that are currently under taxonomic revision (e.g. *Ajuga australis*, *Hibbertia sericea*, *Lomandra collina*) and may be directly used in such studies.

## 4. Information on species lists

A list of all species collected is provided in Appendix 1 and a list of species recorded in standard survey sites 1 and 2 is given in Appendix 2. Most species could be confidently identified to species. Five collections (*Albugo*, *Gemmabryum*, *Riccia*, *Stemodia*, *Uromycladium*) could only be identified to genus because of a lack of key diagnostic characters that were missing at the time of collection.

## 5. Information for land managers

High quality remnant mallee and woodland largely undisturbed by weeds or human habitation was found in Foresters Spring Bushland Reserve and the adjoining unreserved block of vegetation. Several rare and threatened plant species were recorded including *Acacia glandulicarpa*, *Acacia simmonsiana*, *Acrotriche depressa*, *Choretrum glomeratum* var. *chrysanthum*, *Phylota remota*, and *Pterostylis pusilla*. *Acrotriche depressa* is only known from this block of vegetation in Victoria. In addition to the presence of significant flora, a Mallee Fowl (*Leipoa ocellata*) was sighted as well as several inactive Mallee Fowl nests. The vast majority of this block of vegetation appears to be unreserved. Its significant conservation value would make the unreserved portion of the vegetation an excellent purchase for extension to the reserve or for conversations with the landholder regarding applying a conservation covenant on the land.

Two large populations of *Levenhookia pusilla* were observed near Mount Moffat on the side of the Mount Moffat Track. This species had been recorded only twice before in Victoria, with both occasions being near Mount Moffat. Populations appeared in burnt vegetation patches and have responded positively to the frequency and severity of fire that has occurred in this area.

High plant diversity, notably orchid species (11 species collected, 1 endangered and 2 vulnerable) was observed in Tallageira Nature Conservation Reserve beside an unsealed track that runs southeast from Benayeo-Neuarpuir Road in the northwest corner of the reserve. This reserve, including around this area of noted high diversity is being invaded by introduced *Acacia saligna*. *Acacia* species have the potential to produce thickets and outcompete many smaller species that contribute much of the diversity in the reserve, including orchids. The outcompeting of herbs such as orchids by *Acacia* species has been an issue at other sites of high orchid diversity in Victoria including Inverleigh Nature Conservation Reserve. Eradication of *Acacia saligna* through manual removal should be a priority at least at sites of high orchid diversity.

African Boneseed, *Chrysanthemoides monilifera*, was an infrequent weed in Birdcage Nature Conservation Reserve and in the Lake Hindmarsh Lakeside Reserve. In other parts of Victoria, (e.g. Arthurs Seat, Mornington Peninsula; You Yangs) this species has become highly invasive to the extent that it has become the dominant species within the vegetation and has displaced many native species. This species has the potential to form similarly extensive populations in the survey area if not acted upon soon. Given that this species is currently still infrequent priority should be given to attempt to eradicate this species now by manual removal before it become much more common and more troublesome to control.

## 6. Other significant findings

Soil crusts in the Lake Hindmarsh Lake Reserve and Birdcage Nature Conservation Reserve were diverse in small moss species. At the site where the rarely collected *Bryobartramia* was collected (see Appendix 1) at least 10 species of moss were regularly present in small portions of the soil crust.

## 7. Conclusions

Results were consistent with expectations based on botanical exploration of the area. No new species to science or even species that had not been previously recorded in Victoria were

discovered during this survey. Five hundred and thirty-four collections were made, comprising 326 species (303 vascular plant species), of which 34 are State listed rare or threatened taxa. This has helped to better document the distribution of plant and fungi species in the region surveyed as some species distributions in this region are largely based on old records that provide imprecise location and habitat details. Five species records were also significant range extensions and had not been previously recorded in the region surveyed. Areas of high conservation value that contained high plant diversity and the presence of localised species were identified outside of Little Desert National Park, including a block of vegetation continuous with Forester Spring Bushland Reserve and the north-west portion of Tallagiera Nature Conservation Reserve. To maintain the high conservation value of these sites efforts should be made to seek protection of the unreserved vegetation around Forester Spring Bushland Reserve and more extensive weed management should take place in the north-west portion of Tallagiera Nature Conservation Reserve. Forty-one naturalised species were recorded during the survey, several of which occurred in low numbers and should be eradicated promptly before the incursions reach the stage that is beyond extirpation.

## **Acknowledgements**

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## References

VicFlora, Flora of Victoria. <https://vicflora.rbg.vic.gov.au/> [last accessed 26 February 2020].

<b>Appendix 1. List of fungi, mosses, liverworts and vascular plants recorded during the Little Desert Bush Blitz</b>						
<b>Higher Taxon (Class)</b>	<b>Family</b>	<b>Species</b>	<b>Putative new</b>	<b>Threatened (EPBC Act)</b>	<b>Threatened (State/Territory Act)</b>	<b>Exotic/pest</b>
Bryopsida	Ditrichaceae	Pleurozium nervosum	No			
Bryopsida	Bartramiaceae	Bartramia hampeana subsp. hampei	No			
Bryopsida	Bryaceae	Gemmabryum	No			
Bryopsida	Bryaceae	Rosulabryum billardierii	No			
Bryopsida	Bryobartramiaceae	Bryobartramia novae-valesiae	No			
Bryopsida	Fissidentaceae	Fissidens megalotis	No			
Bryopsida	Funariaceae	Funaria hygrometrica	No			
Bryopsida	Funariaceae	Goniomitrium acuminatum subsp. enerve	No			
Bryopsida	Gigaspermaceae	Gigaspermum repens	No			
Bryopsida	Pottiaceae	Acaulon integrifolium	No			
Bryopsida	Pottiaceae	Didymodon torquatus	No			
Bryopsida	Pottiaceae	Pseudocrossidium crinitum	No			
Bryopsida	Pottiaceae	Syntrichia antarctica	No			
Bryopsida	Pottiaceae	Tetrapterum cylindricum	No			
Bryopsida	Pottiaceae	Triquetrella papillata	No			
Bryopsida	Splachnaceae	Tayloria octoblepharum	No			
Exobasidiomycetes	Tilletiaceae	Tilletia ehrhartae	No			
Jungermanniopsida	Cephaloziellaceae	Cephaloziella exiliflora	No			
Magnoliopsida	Aizoaceae	Carpobrotus modestus	No			
Magnoliopsida	Aizoaceae	Mesembryanthemum nodiflorum	No			yes
Magnoliopsida	Amaranthaceae	Ptilotus semilanatus	No			
Magnoliopsida	Amaranthaceae	Ptilotus spathulatus	No			
Magnoliopsida	Apiaceae	Apium annuum	No			
Magnoliopsida	Apiaceae	Daucus glochidiatus	No			
Magnoliopsida	Araliaceae	Hydrocotyle hirta	No			
Magnoliopsida	Araliaceae	Hydrocotyle medicaginoides	No			
Magnoliopsida	Araliaceae	Trachymene pilosa	No			
Magnoliopsida	Asparagaceae	Arthropodium strictum	No			
Magnoliopsida	Asparagaceae	Chamaescilla corymbosa var. corymbosa	No			
Magnoliopsida	Asparagaceae	Laxmannia orientalis	No			
Magnoliopsida	Asparagaceae	Lomandra collina	No			

Higher Taxon (Class)	Family	Species	Putative new	Threatened (EPBC Act)	Threatened (State/Territory Act)	Exotic/pest
Magnoliopsida	Asparagaceae	Tricoryne elatior	No			
Magnoliopsida	Asparagaceae	Tricoryne tenella	No			
Magnoliopsida	Asphodelaceae	Dianella revoluta var. revoluta	No			
Magnoliopsida	Asteraceae	Actinobole uliginosum	No			
Magnoliopsida	Asteraceae	Argentipallium obtusifolium	No			
Magnoliopsida	Asteraceae	Blennospora drummondii	No			
Magnoliopsida	Asteraceae	Brachyscome ciliaris	No			
Magnoliopsida	Asteraceae	Brachyscome ciliaris var. subintegrifolia	No			
Magnoliopsida	Asteraceae	Brachyscome parvula	No			
Magnoliopsida	Asteraceae	Brachyscome readeri	No		VROT(R)	
Magnoliopsida	Asteraceae	Calocephalus sonderi	No			
Magnoliopsida	Asteraceae	Calotis scabiosifolia var. scabiosifolia	No			
Magnoliopsida	Asteraceae	Centaurea melitensis	No			yes
Magnoliopsida	Asteraceae	Centipeda crateriformis subsp. compacta	No		VROT(R)	
Magnoliopsida	Asteraceae	Chrysanthemoides monilifera subsp. monilifera	No			yes
Magnoliopsida	Asteraceae	Chrysocephalum apiculatum subsp. apiculatum	No			
Magnoliopsida	Asteraceae	Chrysocephalum apiculatum subsp. congestum	No			
Magnoliopsida	Asteraceae	Coronidium scorpioides	No			
Magnoliopsida	Asteraceae	Cotula coronopifolia	No			yes
Magnoliopsida	Asteraceae	Helichrysum leucopsidium	No			
Magnoliopsida	Asteraceae	Hyalosperma demissum	No			
Magnoliopsida	Asteraceae	Lagenophora gunniana	No			
Magnoliopsida	Asteraceae	Laphangium luteoalbum	No			
Magnoliopsida	Asteraceae	Leptorhynchus squamatus subsp. squamatus	No			
Magnoliopsida	Asteraceae	Leptorhynchus tetrachaetus	No			
Magnoliopsida	Asteraceae	Microseris walteri	No			
Magnoliopsida	Asteraceae	Millotia myosotidifolia	No			
Magnoliopsida	Asteraceae	Minuria leptophylla	No			
Magnoliopsida	Asteraceae	Myriocephalus rhozocephalus	No			
Magnoliopsida	Asteraceae	Olearia ciliata var. ciliata	No			
Magnoliopsida	Asteraceae	Podolepis decipiens	No			
Magnoliopsida	Asteraceae	Podotricha angustifolia	No			

Higher Taxon (Class)	Family	Species	Putative new	Threatened (EPBC Act)	Threatened (State/Territory Act)	Exotic/pest
Magnoliopsida	Asteraceae	Pogonolepis muelleriana	No			
Magnoliopsida	Asteraceae	Rhodanthe corymbiflora	No			
Magnoliopsida	Asteraceae	Scorzonera laciniata var. calcitrapifolia	No			yes
Magnoliopsida	Asteraceae	Senecio glossanthus	No			
Magnoliopsida	Asteraceae	Senecio halophilus	No		VROT(R)	
Magnoliopsida	Asteraceae	Senecio hispidissimus	No		VROT (R)	
Magnoliopsida	Asteraceae	Senecio picridioides	No			
Magnoliopsida	Asteraceae	Senecio prenanthoides	No			
Magnoliopsida	Asteraceae	Senecio quadridentatus	No			
Magnoliopsida	Asteraceae	Senecio spanomerus	No			
Magnoliopsida	Asteraceae	Senecio squarrosus	No			
Magnoliopsida	Asteraceae	Vittadinia cervicularis	No			
Magnoliopsida	Asteraceae	Vittadinia cuneata var. cuneata	No			
Magnoliopsida	Asteraceae	Vittadinia cuneata var. morrisii	No		VROT(R)	
Magnoliopsida	Asteraceae	Vittadinia dissecta var. hirta	No			
Magnoliopsida	Asteraceae	Vittadinia gracilis	No			
Magnoliopsida	Asteraceae	Vittadinia megacephala	No		VROT (V)	
Magnoliopsida	Boraginaceae	Amsinckia calycina	No			yes
Magnoliopsida	Boraginaceae	Buglossoides arvensis	No			yes
Magnoliopsida	Boraginaceae	Cynoglossum australe	No			
Magnoliopsida	Boraginaceae	Cynoglossum suaveolens	No			
Magnoliopsida	Brassicaceae	Stenopetalum lineare	No			
Magnoliopsida	Campanulaceae	Wahlenbergia gracilentia	No			
Magnoliopsida	Campanulaceae	Wahlenbergia graniticola	No			
Magnoliopsida	Campanulaceae	Wahlenbergia luteola	No			
Magnoliopsida	Caryophyllaceae	Petrorhagia dubia	No			yes
Magnoliopsida	Caryophyllaceae	Spergularia brevifolia	No			
Magnoliopsida	Caryophyllaceae	Spergularia tasmanica	No			
Magnoliopsida	Casuarinaceae	Allocasuarina mackliniana subsp. xerophila	No			
Magnoliopsida	Casuarinaceae	Allocasuarina muelleriana subsp. muelleriana	No			
Magnoliopsida	Casuarinaceae	Allocasuarina pusilla	No			

Higher Taxon (Class)	Family	Species	Putative new	Threatened (EPBC Act)	Threatened (State/Territory Act)	Exotic/pest
Magnoliopsida	Celastraceae	Stackhousia aspericocca subsp. One-sided inflorescence (W.R.Barker 697) W.R.Barker	No			
Magnoliopsida	Celastraceae	Stackhousia subterranea	No			
Magnoliopsida	Chenopodiaceae	Atriplex australasica	No			
Magnoliopsida	Chenopodiaceae	Atriplex pseudocampanulata	No		VROT(R)	
Magnoliopsida	Chenopodiaceae	Chenopodium desertorum subsp. microphyllum	No			
Magnoliopsida	Chenopodiaceae	Dysphania glomulifera subsp. glomulifera	No			
Magnoliopsida	Chenopodiaceae	Maireana appressa	No			
Magnoliopsida	Chenopodiaceae	Maireana excavata	No			
Magnoliopsida	Chenopodiaceae	Sarcocornia quinqueflora subsp. quinqueflora	No			
Magnoliopsida	Chenopodiaceae	Sclerolaena diacantha	No			
Magnoliopsida	Chenopodiaceae	Tecticornia halocnemoides subsp. halocnemoides	No			
Magnoliopsida	Chenopodiaceae	Tecticornia pergranulata subsp. pergranulata	No			
Magnoliopsida	Chenopodiaceae	Tecticornia syncarpa	No		VROT (V)	
Magnoliopsida	Colchicaceae	Burchardia umbellata	No			
Magnoliopsida	Convolvulaceae	Convolvulus angustissimus subsp. angustissimus	No			
Magnoliopsida	Convolvulaceae	Convolvulus angustissimus subsp. fililobus	No			
Magnoliopsida	Convolvulaceae	Wilsonia rotundifolia	No			
Magnoliopsida	Crassulaceae	Crassula colligata subsp. lamprosperma	No			
Magnoliopsida	Crassulaceae	Crassula natans var. minus	No			yes
Magnoliopsida	Cyperaceae	Bolboschoenus caldwellii	No			
Magnoliopsida	Cyperaceae	Carex inversa	No			
Magnoliopsida	Cyperaceae	Chorizandra enodis	No			
Magnoliopsida	Cyperaceae	Cyperus gymnocaulos	No			
Magnoliopsida	Cyperaceae	Isolepis cernua	No			
Magnoliopsida	Cyperaceae	Isolepis hystrix	No			yes
Magnoliopsida	Cyperaceae	Lepidosperma laeve	No			
Magnoliopsida	Cyperaceae	Lepidosperma viscidum	No			
Magnoliopsida	Cyperaceae	Schoenoplectus pungens	No			
Magnoliopsida	Dilleniaceae	Hibbertia fasciculata var. prostrata	No			
Magnoliopsida	Dilleniaceae	Hibbertia riparia	No			
Magnoliopsida	Dilleniaceae	Hibbertia sericea	No			

Higher Taxon (Class)	Family	Species	Putative new	Threatened (EPBC Act)	Threatened (State/Territory Act)	Exotic/pest
Magnoliopsida	Dilleniaceae	Hibbertia virgata	No			
Magnoliopsida	Droseraceae	Drosera glanduligera	No			
Magnoliopsida	Droseraceae	Drosera hookeri	No			
Magnoliopsida	Elaeocarpaceae	Tetratheca ciliata	No			
Magnoliopsida	Ericaceae	Brachyloma daphnoides	No			
Magnoliopsida	Ericaceae	Brachyloma ericoides subsp. ericoides	No			
Magnoliopsida	Ericaceae	Leucopogon cordifolius	No			
Magnoliopsida	Ericaceae	Leucopogon virgatus var. brevifolius	No		VROT(R)	
Magnoliopsida	Ericaceae	Leucopogon virgatus var. virgatus	No			
Magnoliopsida	Fabaceae	Acacia brachybotrya	No			
Magnoliopsida	Fabaceae	Acacia cupularis	No			
Magnoliopsida	Fabaceae	Acacia dodonaeifolia	No		VROT(R)	
Magnoliopsida	Fabaceae	Acacia euthycarpa subsp. euthycarpa	No			
Magnoliopsida	Fabaceae	Acacia glandulicarpa	No	EPBC (VU)		
Magnoliopsida	Fabaceae	Acacia iteaphylla	No			yes
Magnoliopsida	Fabaceae	Acacia provincialis	No			
Magnoliopsida	Fabaceae	Acacia pycnantha	No			
Magnoliopsida	Fabaceae	Acacia saligna	No			yes
Magnoliopsida	Fabaceae	Acacia simmonsiana	No		VROT(R)	
Magnoliopsida	Fabaceae	Acacia spinescens	No			
Magnoliopsida	Fabaceae	Acacia trineura	No			
Magnoliopsida	Fabaceae	Daviesia brevifolia	No			
Magnoliopsida	Fabaceae	Daviesia genistifolia	No			
Magnoliopsida	Fabaceae	Daviesia pectinata	No		VROT(R)	
Magnoliopsida	Fabaceae	Dillwynia glaberrima	No			
Magnoliopsida	Fabaceae	Dillwynia hispida	No			
Magnoliopsida	Fabaceae	Dillwynia sericea	No			
Magnoliopsida	Fabaceae	Dillwynia uncinata	No			
Magnoliopsida	Fabaceae	Eutaxia microphylla var. diffusa	No			
Magnoliopsida	Fabaceae	Eutaxia microphylla var. microphylla	No			
Magnoliopsida	Fabaceae	Goodia medicaginea	No			
Magnoliopsida	Fabaceae	Kennedia prostrata	No			

Higher Taxon (Class)	Family	Species	Putative new	Threatened (EPBC Act)	Threatened (State/Territory Act)	Exotic/pest
Magnoliopsida	Fabaceae	Lotus cruentus	No			
Magnoliopsida	Fabaceae	Medicago minima	No			yes
Magnoliopsida	Fabaceae	Medicago polymorpha	No			yes
Magnoliopsida	Fabaceae	Medicago truncatula	No			yes
Magnoliopsida	Fabaceae	Phyllota remota	No		VROT(R)	
Magnoliopsida	Fabaceae	Pultenaea laxiflora	No			
Magnoliopsida	Fabaceae	Pultenaea prostrata	No			
Magnoliopsida	Fabaceae	Pultenaea tenuifolia	No			
Magnoliopsida	Fabaceae	Senna artemisioides subsp. zygophylla	No			
Magnoliopsida	Fabaceae	Swainsona procumbens	No			
Magnoliopsida	Fabaceae	Templetonia stenophylla	No			
Magnoliopsida	Fabaceae	Trifolium glomeratum	No			yes
Magnoliopsida	Fabaceae	Trifolium hirtum	No			yes
Magnoliopsida	Fabaceae	Trifolium scabrum	No			yes
Magnoliopsida	Fabaceae	Viminaria juncea	No			
Magnoliopsida	Gentianaceae	Cicendia filiformis	No			yes
Magnoliopsida	Geraniaceae	Geranium sp. 2 sensu Fl. Victoria 4:224 (1999)	No			
Magnoliopsida	Geraniaceae	Pelargonium australe	No			
Magnoliopsida	Geraniaceae	Pelargonium littorale	No			
Magnoliopsida	Goodeniaceae	Brunonia australis	No			
Magnoliopsida	Goodeniaceae	Dampiera dysantha	No			
Magnoliopsida	Goodeniaceae	Dampiera marifolia	No			
Magnoliopsida	Goodeniaceae	Goodenia benthamiana	No		VROT(R)	
Magnoliopsida	Goodeniaceae	Goodenia blackiana	No			
Magnoliopsida	Goodeniaceae	Goodenia geniculata	No			
Magnoliopsida	Goodeniaceae	Goodenia pinnatifida	No			
Magnoliopsida	Goodeniaceae	Goodenia robusta	No			
Magnoliopsida	Goodeniaceae	Goodenia varia	No			
Magnoliopsida	Goodeniaceae	Velleia paradoxa	No			
Magnoliopsida	Haloragaceae	Glischrocaryon behrii	No			
Magnoliopsida	Haloragaceae	Gonocarpus elatus	No			
Magnoliopsida	Haloragaceae	Haloragis aspera	No			

Higher Taxon (Class)	Family	Species	Putative new	Threatened (EPBC Act)	Threatened (State/Territory Act)	Exotic/pest
Magnoliopsida	Haloragaceae	Myriophyllum verrucosum	No			
Magnoliopsida	Juncaceae	Juncus capitatus	No			yes
Magnoliopsida	Juncaceae	Luzula meridionalis var. meridionalis	No			
Magnoliopsida	Juncaginaceae	Triglochin nana	No			
Magnoliopsida	Lamiaceae	Ajuga australis	No			
Magnoliopsida	Lamiaceae	Marrubium vulgare	No			yes
Magnoliopsida	Lamiaceae	Prostanthera aspalathoides	No			
Magnoliopsida	Lamiaceae	Westringia eremicola	No			
Magnoliopsida	Loganiaceae	Logania linifolia	No			
Magnoliopsida	Lythraceae	Lythrum hyssopifolia	No			
Magnoliopsida	Malvaceae	Lasiopetalum baueri	No			
Magnoliopsida	Malvaceae	Lawrenzia glomerata	No			
Magnoliopsida	Malvaceae	Lawrenzia squamata	No			
Magnoliopsida	Malvaceae	Malva weinmanniana	No			
Magnoliopsida	Malvaceae	Thomasia petalocalyx	No		VROT(R)	
Magnoliopsida	Myrtaceae	Baeckea ericaea	No			
Magnoliopsida	Myrtaceae	Calytrix alpestris	No			
Magnoliopsida	Myrtaceae	Calytrix tetragona	No			
Magnoliopsida	Myrtaceae	Eucalyptus behriana	No			
Magnoliopsida	Myrtaceae	Eucalyptus calycogona subsp. trachybasis	No			
Magnoliopsida	Myrtaceae	Eucalyptus costata subsp. murrayana	No			
Magnoliopsida	Myrtaceae	Eucalyptus diversifolia subsp. diversifolia	No		VROT(E)	
Magnoliopsida	Myrtaceae	Eucalyptus dumosa	No			
Magnoliopsida	Myrtaceae	Eucalyptus leptophylla	No			
Magnoliopsida	Myrtaceae	Eucalyptus leucoxydon subsp. stephaniae	No			
Magnoliopsida	Myrtaceae	Eucalyptus wimmerensis subsp. grata	No		VROT (E)	
Magnoliopsida	Myrtaceae	Leptospermum coriaceum	No			
Magnoliopsida	Myrtaceae	Leptospermum myrsinoides	No			
Magnoliopsida	Myrtaceae	Melaleuca acuminata subsp. acuminata	No			

Higher Taxon (Class)	Family	Species	Putative new	Threatened (EPBC Act)	Threatened (State/Territory Act)	Exotic/pest
					VROT (V) listed in Flora and Fauna Guarantee Act 1988	
Magnoliopsida	Myrtaceae	Melaleuca halmaturorum	No			
Magnoliopsida	Myrtaceae	Melaleuca wilsonii	No			
Magnoliopsida	Myrtaceae	Micromyrtus ciliata	No			
Magnoliopsida	Orchidaceae	Caladenia cardiochila	No			
Magnoliopsida	Orchidaceae	Caladenia colorata	No	EPBC (EN)		
Magnoliopsida	Orchidaceae	Caladenia tentaculata	No			
Magnoliopsida	Orchidaceae	Calochilus robertsonii	No			
Magnoliopsida	Orchidaceae	Disa bracteata	No			yes
Magnoliopsida	Orchidaceae	Diuris sulphurea	No			
Magnoliopsida	Orchidaceae	Prasophyllum nitidum	No		VROT (V)	
Magnoliopsida	Orchidaceae	Prasophyllum odoratum	No			
Magnoliopsida	Orchidaceae	Prasophyllum sp. aff. occidentale C	No		VROT (E)	
Magnoliopsida	Orchidaceae	Prasophyllum spadiceum	No		VROT (V)	
Magnoliopsida	Orchidaceae	Pterostylis aciculiformis	No			
Magnoliopsida	Orchidaceae	Pterostylis pusilla	No		VROT(R)	
Magnoliopsida	Orchidaceae	Thelymitra alcockiae	No		VROT (R)	
Magnoliopsida	Orchidaceae	Thelymitra antennifera	No			
Magnoliopsida	Orchidaceae	Thelymitra rubra	No			
Magnoliopsida	Orobanchaceae	Parentucellia latifolia	No			yes
Magnoliopsida	Oxalidaceae	Oxalis perennans	No			
Magnoliopsida	Phyllanthaceae	Poranthera microphylla	No			
Magnoliopsida	Pittosporaceae	Billardiera cymosa subsp. cymosa	No			
Magnoliopsida	Pittosporaceae	Pittosporum angustifolium	No			
Magnoliopsida	Plantaginaceae	Plantago bellardii	No			yes
Magnoliopsida	Plantaginaceae	Plantago gaudichaudii	No			
Magnoliopsida	Plantaginaceae	Plantago hispida	No			
Magnoliopsida	Plantaginaceae	Plantago varia	No			
Magnoliopsida	Plantaginaceae	Stemodia	No			

Higher Taxon (Class)	Family	Species	Putative new	Threatened (EPBC Act)	Threatened (State/Territory Act)	Exotic/pest
Magnoliopsida	Plantaginaceae	Stemodia florulenta	No			
Magnoliopsida	Plumbaginaceae	Limonium lobatum	No			yes
Magnoliopsida	Poaceae	Anthosachne kingiana subsp. multiflora	No			
Magnoliopsida	Poaceae	Anthosachne scabra	No			
Magnoliopsida	Poaceae	Aristida behriana	No			
Magnoliopsida	Poaceae	Austrostipa curticomma	No			
Magnoliopsida	Poaceae	Austrostipa elegantissima	No			
Magnoliopsida	Poaceae	Austrostipa nodosa	No			
Magnoliopsida	Poaceae	Avellinia festucoides	No			yes
Magnoliopsida	Poaceae	Brachypodium distachyon	No			yes
Magnoliopsida	Poaceae	Briza maxima	No			yes
Magnoliopsida	Poaceae	Briza minor	No			yes
Magnoliopsida	Poaceae	Ehrharta calycina	No			yes
Magnoliopsida	Poaceae	Enteropogon acicularis	No			
Magnoliopsida	Poaceae	Eragrostis curvula	No			yes
Magnoliopsida	Poaceae	Eragrostis dielsii	No			
Magnoliopsida	Poaceae	Hordeum marinum	No			yes
Magnoliopsida	Poaceae	Lachnagrostis filiformis	No			
Magnoliopsida	Poaceae	Lagurus ovatus	No			yes
Magnoliopsida	Poaceae	Lolium rigidum	No			yes
Magnoliopsida	Poaceae	Neurachne alopecuroidea	No			
Magnoliopsida	Poaceae	Parapholis incurva	No			yes
Magnoliopsida	Poaceae	Pentameris airoides subsp. airoides	No			yes
Magnoliopsida	Poaceae	Phalaris paradoxa	No			yes
Magnoliopsida	Poaceae	Poa sieberiana var. hirtella	No			
Magnoliopsida	Poaceae	Puccinellia perlaxa	No			
Magnoliopsida	Poaceae	Puccinellia stricta	No			
Magnoliopsida	Poaceae	Rostraria cristata	No			yes
Magnoliopsida	Poaceae	Rytidosperma geniculatum	No			
Magnoliopsida	Poaceae	Rytidosperma setaceum	No			
Magnoliopsida	Poaceae	Tribolium acutiflorum	No			yes
Magnoliopsida	Poaceae	Walwhalleya proluta	No			

Higher Taxon (Class)	Family	Species	Putative new	Threatened (EPBC Act)	Threatened (State/Territory Act)	Exotic/pest
Magnoliopsida	Polygalaceae	Comesperma calymega	No			
Magnoliopsida	Polygonaceae	Duma florulenta	No			
Magnoliopsida	Polygonaceae	Rumex brownii	No			
Magnoliopsida	Polygonaceae	Rumex dumosus	No			
Magnoliopsida	Proteaceae	Adenanthos terminalis	No			
Magnoliopsida	Proteaceae	Grevillea ilicifolia	No			
Magnoliopsida	Proteaceae	Grevillea ilicifolia subsp. ilicifolia	No			
Magnoliopsida	Proteaceae	Grevillea ilicifolia subsp. lobata	No			
Magnoliopsida	Proteaceae	Grevillea lavandulacea subsp. lavandulacea	No			
Magnoliopsida	Proteaceae	Hakea mitchellii	No			
Magnoliopsida	Proteaceae	Hakea rostrata	No			
Magnoliopsida	Proteaceae	Isopogon ceratophyllus	No			
Magnoliopsida	Ranunculaceae	Adonis microcarpa	No			yes
Magnoliopsida	Ranunculaceae	Myosurus australis	No			
Magnoliopsida	Ranunculaceae	Ranunculus pumilio var. pumilio	No			
Magnoliopsida	Ranunculaceae	Ranunculus sessiliflorus var. pilulifer	No			
Magnoliopsida	Restionaceae	Apodasmia brownii	No			
Magnoliopsida	Rhamnaceae	Cryptandra tomentosa var. 1 (sensu N.G.Walsh & F.Udovicic Fl.Vic. 1999)	No			
Magnoliopsida	Rhamnaceae	Spyridium eriocephalum var. eriocephalum	No			
Magnoliopsida	Rhamnaceae	Spyridium subochreatum	No			
Magnoliopsida	Rosaceae	Aphanes australiana	No			
Magnoliopsida	Rubiaceae	Asperula conferta	No			
Magnoliopsida	Rubiaceae	Asperula wimmerana	No		VROT(R)	
Magnoliopsida	Rubiaceae	Galium gaudichaudii subsp. gaudichaudii	No			
Magnoliopsida	Rutaceae	Boronia coerulescens subsp. coerulescens	No			
Magnoliopsida	Rutaceae	Boronia filifolia	No		VROT(V)	
Magnoliopsida	Rutaceae	Phebalium stenophyllum	No		VROT(R)	
Magnoliopsida	Rutaceae	Philothea angustifolia subsp. angustifolia	No			
Magnoliopsida	Rutaceae	Philothea pungens	No			
Magnoliopsida	Rutaceae	Zieria veronicea	No		VROT(R)	
Magnoliopsida	Santalaceae	Choretrum glomeratum var. chrysanthum	No		VROT(R)	

Higher Taxon (Class)	Family	Species	Putative new	Threatened (EPBC Act)	Threatened (State/Territory Act)	Exotic/pest
Magnoliopsida	Santalaceae	Choretrum glomeratum var. glomeratum	No		VROT(R)	
Magnoliopsida	Santalaceae	Exocarpos strictus	No			
Magnoliopsida	Santalaceae	Leptomeria aphylla	No			
Magnoliopsida	Sapindaceae	Dodonaea bursariifolia	No			
Magnoliopsida	Scrophulariaceae	Eremophila gibbifolia	No		VROT(R)	
Magnoliopsida	Scrophulariaceae	Limosella australis	No			
Magnoliopsida	Scrophulariaceae	Myoporum parvifolium	No			
Magnoliopsida	Solanaceae	Nicotiana glauca	No			yes
Magnoliopsida	Solanaceae	Nicotiana suaveolens	No		VROT(R)	
Magnoliopsida	Solanaceae	Solanum simile	No			
Magnoliopsida	Stylidiaceae	Levenhookia dubia	No			
Magnoliopsida	Stylidiaceae	Levenhookia pusilla	No		VROT (V)	
Magnoliopsida	Stylidiaceae	Stylidium graminifolium	No			
Magnoliopsida	Thymelaeaceae	Pimelea curviflora var. subglabrata	No			
Magnoliopsida	Thymelaeaceae	Pimelea glauca	No			
Magnoliopsida	Thymelaeaceae	Pimelea humilis	No			
Magnoliopsida	Thymelaeaceae	Pimelea octophylla	No			
Magnoliopsida	Thymelaeaceae	Pimelea phyllicoides	No			
Magnoliopsida	Violaceae	Hybanthus floribundus subsp. floribundus	No			
Marchantiopsida	Ricciaceae	Riccia	No			
Oomycota	Albuginaceae	Albugo	No			
Pinopsida	Cupressaceae	Callitris gracilis	No			
Pinopsida	Cupressaceae	Callitris verrucosa	No			
Polypodiopsida	Marsileaceae	Marsilea drummondii	No			
Pucciniomycetes	Pileolariaceae	Uromycladium	No			
Pucciniomycetes	Pucciniaceae	Puccinia saccardoii	No			
Ustilaginomycetes	Ustilaginaceae	Ustilago comburens	No			