

# Vascular Flora of the South East Forests region, Eden, New South Wales

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## Abstract

Keith, David A.<sup>1</sup>, Miles, Jackie<sup>2</sup>, and Mackenzie, Berin, D. E.<sup>1</sup> (<sup>1</sup>NSW National Parks and Wildlife Service, PO Box 1967, Hurstville, NSW, Australia 2220; <sup>2</sup>Hawkshead Road, Brogo, NSW, Australia 2550) 1999. *Vascular flora of the South East Forests region, Eden, New South Wales*. *Cunninghamia* 6(1): 219–281. An exhaustive review of available information revealed 1522 native vascular plant taxa with confirmed records in the Eden region. A further 136 taxa potentially occur in the region, but these remain to be confirmed. Families represented by large numbers of taxa in the indigenous flora include the Fabaceae, Poaceae, Asteraceae, Myrtaceae and Orchidaceae. Species frequencies were highly skewed with 74% of the flora represented in less than 1% of survey samples and only three taxa represented in more than 40% of samples. A large number of records (350 taxa) were evaluated and refuted, emphasising the importance of critical validation when compiling biological inventory data from multiple sources. Errors are most likely to arise from nomenclatural synonymy and other duplications, misidentifications and erroneous locality information.

The confirmed vascular flora of the Eden region is relatively species-rich compared with other regions in tropical, temperate and semi-arid Australia, although these regions are less well-known botanically. However, the proportion of endemism (1%) is comparatively low, with 18 taxa unique to the region and a further 14 taxa with distributions extending just beyond the region. The Eden region includes 32 taxa listed as endangered or vulnerable in Australia and a further six taxa listed as endangered in New South Wales but not throughout Australia. Thirty-eight taxa were listed as rare in Australia and a further 39 were considered to be uncommon throughout their distribution. Four hundred and sixty-six taxa were considered to be uncommon within the Eden region. Two hundred and seventy-six taxa reached their distributional limits in the Eden region, about three quarters of these reaching their southern limits. Fifty taxa were represented in the region by disjunct populations.

Introduced taxa accounted for approximately 20% of the total regional vascular flora, although this proportion is likely to underestimate the introduced flora given the limitations of available data. The introduced flora is dominated by Poaceae, Asteraceae, Fabaceae and Caryophyllaceae. Very few introduced taxa were widespread in native vegetation. The most common introduced taxa were herbs with long-distance propagule dispersal mechanisms.

## Introduction

Botanical exploration of the South East Forests region of New South Wales probably began with Ferdinand von Mueller's expedition to Twofold Bay and the upper Genoa River in 1860. However, the flora of the region remained poorly known until 1980 when there was a sustained increase in botanical exploration and vegetation survey within the region. A checklist of vascular plants in the South East Forests region was first compiled by Binns (1987) and this was subsequently updated by Doherty (1996). In the last twenty years, the region has become one of the best botanically known in Australia, with the discovery of approximately twenty plant species new to science, most of which are largely restricted to the region, and the development of a comprehensive floristic data base and vegetation map (Keith & Bedward 1999).

Our principal aim in this paper was to compile a validated checklist of the region's indigenous and introduced vascular flora by critically reviewing all available information. Sources of information, including herbarium specimens, references in the scientific literature, survey records, unpublished accounts and anecdotal observations varied widely in their coverage and reliability. Although herbarium collections and treatments in the taxonomic literature were the most reliable sources, their coverage was generally patchy, biased and unrepresentative relative to the coverage of survey records. Furthermore, in the absence of complete data bases, herbarium collections are relatively inaccessible and costly to search fully for a given region. We therefore sought to validate or refute survey records, unpublished accounts and anecdotal records either by locating specimens held in herbarium collections, or by our own direct observations and collections from the field. To assist future work, we documented all unresolved records for the region.

A secondary aim of this study was to document the relative abundance and conservation significance of plant taxa in the region. These factors were assessed using the floristic data base, reference to schedules of threatened species and assessment against conservation criteria described previously by Keith (1990).

## Methods

### Study Area

The study area corresponds to the Eden Forest Management Area (State Forests of NSW 1996) and lies between latitudes 36°05'–37°35'S and longitudes 148°40'–150°10'E. (Fig. 1) in far south-eastern New South Wales. It is bounded by the Tasman Sea to the east, the NSW-Victorian border in the south, the Monaro Tableland to the west and a line following watercourses and ridgelines between Kybean and Bermagui in the north. The region rises from sea level in the east to over 1200 m elevation in the north-west and is dominated by a granitoid batholith and sedimentary rocks that are metamorphosed to varying degrees. For a more detailed description of the region's landscape, geology, climate, vegetation and land use history, see Keith & Bedward (1999).

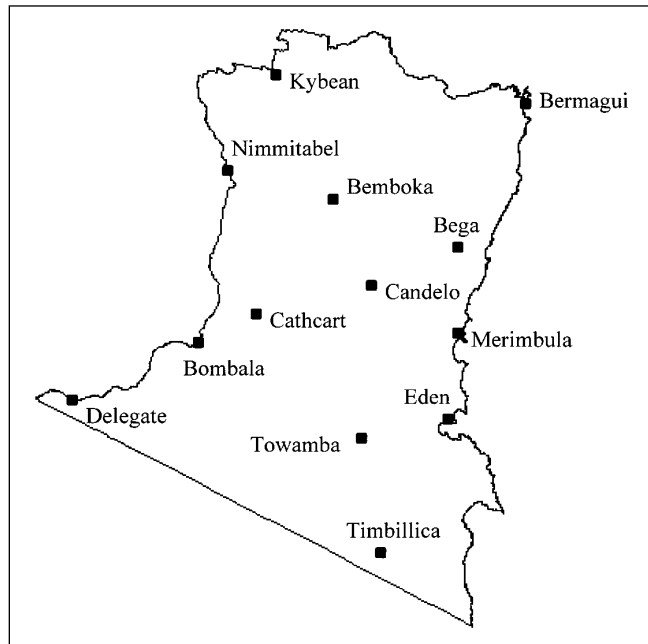


Fig. 1. South East Forests region study area.

### Data compilation

A preliminary list of species was extracted from vegetation sample data compiled by Keith & Bedward (1999). This data set comprised 2906 samples of full floristic composition within quadrats mostly in the range 0.01–0.1 ha. The frequency of occurrence of each species among samples was recorded. Other species recorded previously by Binns (1987) and Keith & Ashby (1992) were added to this preliminary list.

Searches of herbarium collections held at Sydney (NSW), Canberra (ANBG) and Melbourne (MEL) were carried out to confirm survey records of each taxon on the preliminary list. Initially, the electronic databases held by NSW and ANBG were searched for all collections within the Eden region. The NSW database query was carried out on a minimal rectangle enclosing the study area bounded by latitudes 36°05'–37°35'S and longitudes 148°40'–150°10'E. The ANBG data base query was carried out on the NSW South Coast and Southern Tablelands botanical subdivisions (Anderson 1961). Records located within these query areas but outside the study area boundary were removed manually. Taxa on the preliminary list that were represented in the study area by a herbarium collection were transferred to a list of confirmed taxa. Searches of the herbarium data bases revealed numerous taxa that had not been recorded in the field survey and these were added to the confirmed list. Some other taxa that had been recorded during our field survey and verified with a specimen collection that was not retained in a public herbarium were also transferred to the confirmed list.

Herbarium collections held at NSW, ANBG and MEL were then searched manually for non databased records of taxa remaining on the preliminary list. While comprehensive herbarium searches for all taxa were precluded by constraints on time and resources, searches were carried out for most taxa on the residual list. As taxa were confirmed by herbarium collections, they were transferred to the confirmed list. For some taxa that remained unconfirmed by herbarium collections or other verified specimens, we consulted the taxonomic literature, taxonomic specialists and in some cases, the field botanists responsible for the original records. This yielded some hitherto unknown specimens or other convincing evidence that warranted transfer of some previously unresolved taxa to the confirmed list. Limited searches carried out in the field resulted in a small number of additional confirmations.

The origin and conservation significance of all listed taxa were assessed. Plants were determined as indigenous or introduced by consulting Harden (1990–1993). Australian native taxa were regarded as introduced if the study area was outside their known natural range and they were recorded only from disturbed habitats (e.g. wasteland, roadsides, regrowth) within the study area. Regional patterns of abundance were examined by calculating the frequency of occurrence of each taxon in the survey data set comprising 2906 samples.

The conservation significance of indigenous plant taxa was assessed using criteria described in Table 1 by updating the list in Keith & Ashby (1992) with newly available data. These criteria refer to varying levels of extinction risk (threat), habitat depletion, varying levels of rarity and endemism, and biogeographical phenomena such as distributional limits and disjunct populations (Table 1). The definitions of Criteria 2 and 3 were modified from earlier applications to accommodate schedules under the Commonwealth Endangered Species Protection Act (1992) and the NSW Threatened Species Conservation Act (1995). Criterion 2 now includes only taxa listed on one or both schedules. Criterion 3 now includes taxa listed in categories R (rare but not threatened in Australia) and K (poorly known) of Rare or Threatened Australian Plants (ROTAP, Briggs & Leigh 1996), as well as some additional taxa considered to be uncommon throughout their range. In previous applications of the criteria (Keith 1990, Keith & Ashby 1992), all taxa listed on ROTAP were included under Criterion 2, while only those considered uncommon throughout their range were included under Criterion 3. The definition of Criterion 5 has also been modified from previous applications to take advantage of the larger set of systematic survey data that is now available. Species were listed as regionally uncommon if present in less than  $\leq 0.1\%$  of the survey records or if known to be represented only as very small populations scattered across the region. The identification of taxa presumed to be extinct within the region (Criterion 5X) is a further modification to previous applications of the criteria. There were too few collections of such taxa to permit statistical evaluation (e.g. Burgman et al. 1996), so taxa were presumed extinct in the region if they were not recorded for at least 50 years or if all known populations were known to be destroyed.

**Table 1. Criteria for identification of plant taxa of conservation significance (modified from Keith 1990).**

<b>Criterion</b>	<b>Definition</b>
1	Endemic to the region (i.e. found nowhere else).
2	Listed as threatened in Australia (E: endangered, V: vulnerable) on schedules of the Commonwealth Endangered Species Protection Act (1992) and/or in New South Wales (e: endangered, v: vulnerable) on schedules of the NSW Threatened Species Conservation Act (1995).
3	Rare (i.e. listed under category R by Briggs & Leigh 1996), poorly known and potentially rare or threatened (i.e. listed under category K by Briggs & Leigh 1996), or uncommon throughout range, but not threatened.
4	Restricted distribution outside region, but maybe locally common within region (i.e. majority of distribution falls within region).
5	Uncommon within region (occurring in 0.1% of samples unless otherwise known to be common, and/or in small populations).
5X	Presumed extinct within region if not recorded during last 50 years or if all populations known to be destroyed.
6	Habitat extensively depleted, or species harvested or collected, but not yet rare or threatened.
7	Geographic limit of distribution within the region (N: northern, S: southern limit, LN: local northern limit with disjunct population(s) known further north, LS: local southern limit with disjunct population(s) known further south).
8	Populations in the region disjunct from other occurrences of the taxon, usually separated by at least 100 km from other populations of the taxon.
9	Occupies habitat that is atypical relative to the majority of the taxon's distribution.

### **Botanical nomenclature**

Botanical nomenclature was reviewed and standardised across all data sets. The names applied here therefore follow Harden (1990–1993) and changes subsequently accepted by the National Herbarium of NSW (e.g. Hill & Johnson 1995, Jacobs & Everett 1996, Linder & Verboom 1996, Briggs & Johnson 1998). Given that the data were compiled from numerous sources dated from 1979 to present, particular care was taken to resolve confounded taxonomy. Where two or more synonyms were applied to the same taxon in different data sets, these were updated to reflect currently accepted nomenclature. Where subspecific or varietal taxa were not always specified, the records were updated by adding the appropriate epithet if possible (e.g. if only one subspecies or variety was known from the region and nearby) or by reducing all the relevant records to species level.

## **Results and Discussion**

### **Indigenous flora**

The indigenous flora of the Eden region comprises a minimum of 1522 vascular plant taxa that were represented by confirmed records within the region (Appendix 1). Records of a further 136 taxa remain to be confirmed or refuted (Appendix 2). These

included 86 taxa with potentially reliable but unconfirmed records within the region and 28 taxa not recorded within the region, but recorded nearby in habitats similar to those known to occur within the region. Almost half (47%) of the 86 taxa with unconfirmed records were monocots and most of these were orchids (15 taxa), grasses (9 taxa) and sedges (12 taxa). The taxonomic status of 19 of the unconfirmed taxa was uncertain, while the identifications of a further two taxa were uncertain. All except three of these uncertain taxa were dicots. Records of 350 taxa have been definitively refuted. The refuted taxa included many synonyms, other duplicated records and some erroneous identifications. For example, a specimen of *Acronychia wilcoxii* held at the National Herbarium of New South Wales was examined and redetermined as *Sarcomeliocope simplicifolia*.

The confirmed vascular flora comprised 79 (5%) pteridophytes, 5 (0.3%) gymnosperms, 997 (66%) dicots and 441 (29%) monocots, while the list of unconfirmed taxa had similar proportions. Plant families with high levels of representation in the confirmed regional flora included Fabaceae (141 taxa), Poaceae (129 taxa), Asteraceae (114 taxa), Myrtaceae (107 taxa) and Orchidaceae (100 taxa). Genera with high levels of representation include *Eucalyptus* (63 taxa), *Acacia* (50 taxa), *Pomaderris* (26 taxa), *Pultenaea* (20 taxa), *Juncus* (20 taxa), *Hibbertia* (18 taxa) and *Austrostipa* (18 taxa).

Hybrids or intermediate forms have been recorded between 35 pairs of taxa (Table 2). Fifteen of these were eucalypts, while 24 belonged to the families Myrtaceae, Proteaceae and Juncaceae, reflecting both the propensity for hybridisation and introgression, and the high level of taxonomic interest in these groups over many years. Some of the intermediate taxa have extensive distributions that extend beyond the occurrence of their parent taxa (e.g. *Eucalyptus botryoides-saligna*). Others are represented by sporadic individuals whose occurrence is restricted to the vicinity of the parent taxa (e.g. *Pomaderris aspera* × *cinerea*, syn. *P. sp. C*, Harden 1990). Some of the intermediate taxa have been formally described in the literature (e.g. *Persoonia* × *lucida*, *Acaena* × *anserovina*).

The frequency distribution of taxa amongst samples was highly skewed (Fig. 2a). Only three taxa were represented in more than 40% of samples (*Lomandra longifolia* subsp. *longifolia* 50.3%, *Pteridium esculentum* 50.0% and *Poa meionectes* 44.8%). Twenty-three taxa were represented in more than 20% of samples, while 1115 taxa (74% of total confirmed flora) were represented in less than 1% of samples (Fig. 2a). The 20 most frequently recorded taxa in the region included five grasses and graminoids, four herbs, four vines, three trees, three shrubs and one fern. The infrequent taxa included some whose distribution was marginal to the study area (e.g. *Schizomeria ovata*), some that were spatially restricted (e.g. *Grevillea acanthifolia* subsp. *paludosa*) or specific to highly restricted habitats (e.g. *Westringia davidii*), some that were distributed sparsely within widespread habitats (e.g. *Santalum obtusifolium*) and some that had conspicuous growth forms only after temporally rare events (e.g. *Prasophyllum brevialbre*). Geophytes, particularly Orchidaceae, were disproportionately represented in the tail of the species frequency distribution.

**Table 2: Pairs of taxa for which intermediate forms have been recorded in the South East Forests region.**

*Acaena novazelandiae* × *A. ovina* (*A.* × *anserovina*)

*Banksia marginata* × *B. paludosa*

*Corymbia gummifera* × *C. maculata*

*Cyathea australis* × *C. leichhardtiana* (*C.* × *marcescens*)

*Daviesia buxifolia* × *D. mimosoides*

*Derwentia derwentiana* subsp. *derwentiana* × *D. derwentiana* subsp. *maideniana*

*Eucalyptus agglomerata* × *E. globoidea*

*Eucalyptus baueriana* × *E. bosistoana*

*Eucalyptus bosistoana* × *E. paniculata*

*Eucalyptus botryoides* × *E. saligna*

*Eucalyptus camphora* subsp. *humeana* × *E. ovata*

*Eucalyptus camphora* subsp. *humeana* × *E. viminalis*

*Eucalyptus dives* × *E. radiata*

*Eucalyptus elata* × *E. radiata*

*Eucalyptus elata* × *E. sieberi*

*Eucalyptus globoidea* × *E. yangoura*

*Eucalyptus kybeanensis* × *E. latiuscula*

*Eucalyptus parvula* × *E. viminalis*

*Eucalyptus pauciflora* × *E. ?dives*

*Grevillea baueri* × *G. lanigera*

*Juncus australis* × *J. filicaulis*

*Juncus australis* × *J. melanobasis*

*Juncus filicaulis* × *J. subsecundus*

*Juncus fockei* × *J. holoschoenus*

*Juncus mollis* × *J. usitatus*

*Lomandra longifolia* × *L. confertifolia*

*Lomatia fraseri* × *L. myricoides*

*Olearia erubescens* × *O. megalophylla*

*Persoonia asperula* × *P. chamaepeuce*

*Persoonia levis* × *P. linearis* (*P.* × *lucida*)

*Phebalium squamulosum* subsp. *squamulosum* × *P. squamulosum* subsp. *argenteum*

*Pittosporum undulatum* × *P. bicolor*

*Pomaderris aspera* × *P. cinerea* (*P.* sp. C)

*Xanthorrhoea australis* × *X. resinifera*

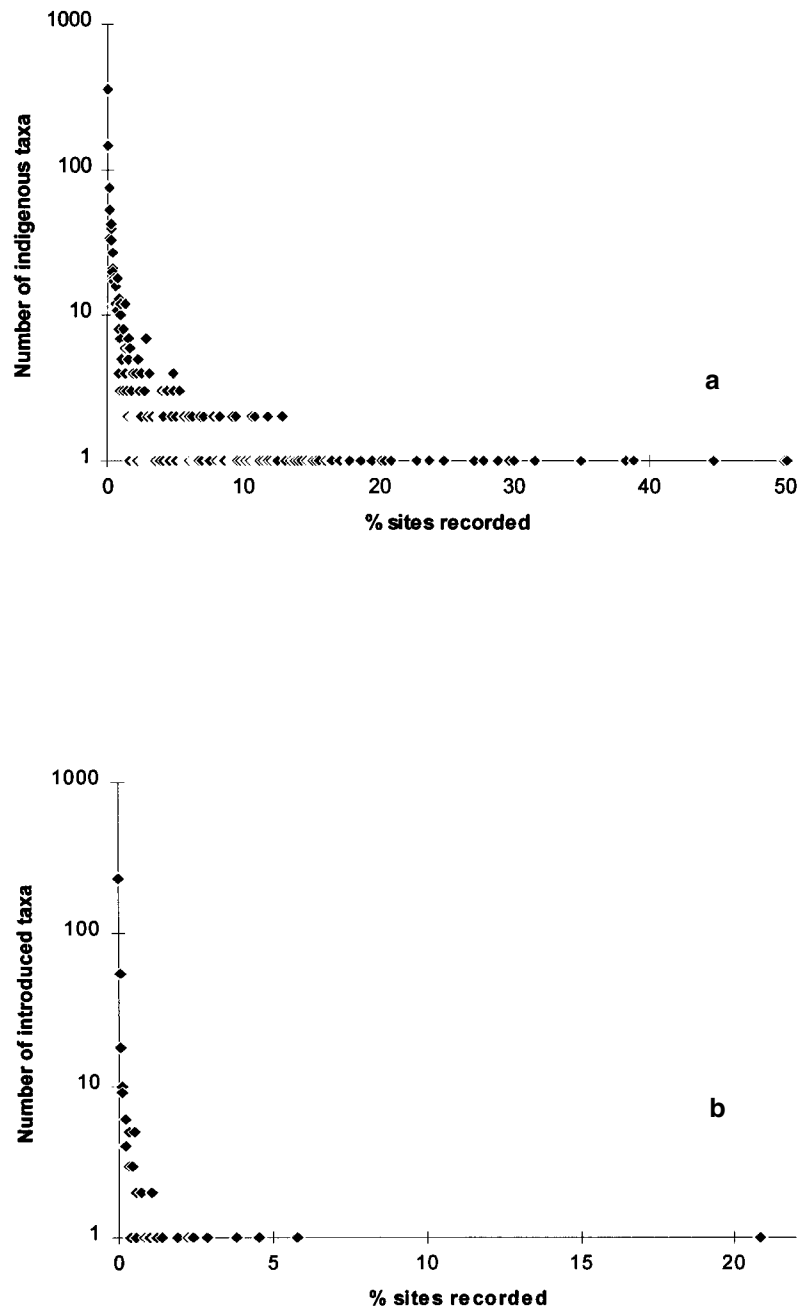


Fig. 2. Frequency distribution of species among 2906 samples: a, indigenous flora; and b, introduced flora.



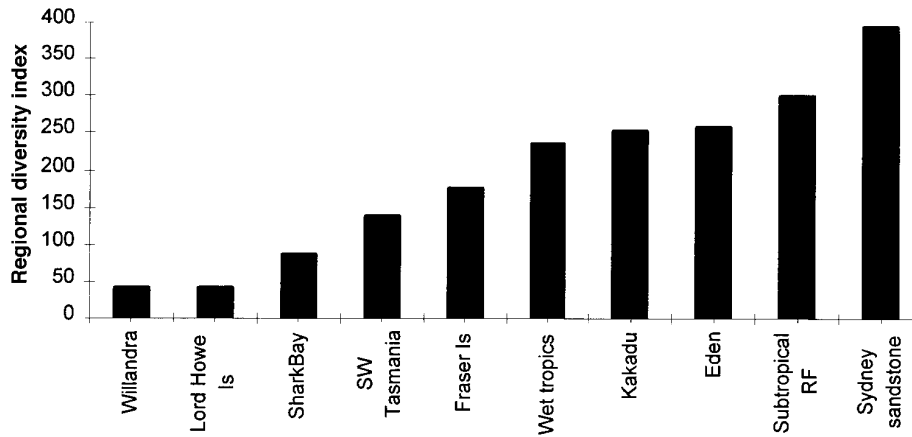


Fig. 3. Regional diversity index ( $D=S/\log A$ , see text) for vascular flora of ten regions (data from James (1994) except Eden, this study).

Comparisons with other regional floras must be made with caution, because Eden has had a higher level of botanical exploration than most other regions except the Sydney region, while tropical regions in particular, are poorly known. Nonetheless, the indigenous Eden regional flora is comparatively diverse, relative to other Australian regional floras (Fig. 3, James 1994). The floristic diversity of the Eden region was compared with that of other Australian regions assuming an exponential species-area relationship to calculate a regional diversity index  $D=S/\log A$ , where  $S$  is the number of taxa in the region and  $A$  is the area of the region in hectares. The Eden region has a comparatively rich flora (1522 spp.) for an area of its size (810 000 ha). Tropical regions such as north-east Queensland Wet Tropics (900 000 ha) and Kakadu National Park (2 000 000 ha) have similar diversity indices, with 1400 and 1600 vascular plant taxa, respectively, although the latter region is two and a half times the size of the Eden region. Semi-arid regions such as Willandra Lakes and Shark Bay World Heritage Areas have less diverse floras (240 spp. in 600 000 ha and 620 spp. in 15 000 000 ha, respectively), as does the cool temperate western Tasmanian wilderness (860 spp., 1 400 000 ha) and the Fraser Island/Coolooloola subtropical sand mass (920 spp., 160 000 ha). However, the flora of the Eden region is less diverse than that of the Sydney sandstone region (2500 spp., 1 900 000 ha), and the East Coast subtropical rainforest parks (1600 spp., although this latter 'region' comprises several disjunct areas totalling 270 000 ha).

The Eden region has a comparatively low level of floristic endemism (1.1% cf. 5–36% for all other regions except Kakadu and Willandra, Fig. 4). Island floras and rainforest floras had the highest proportion of endemic taxa.

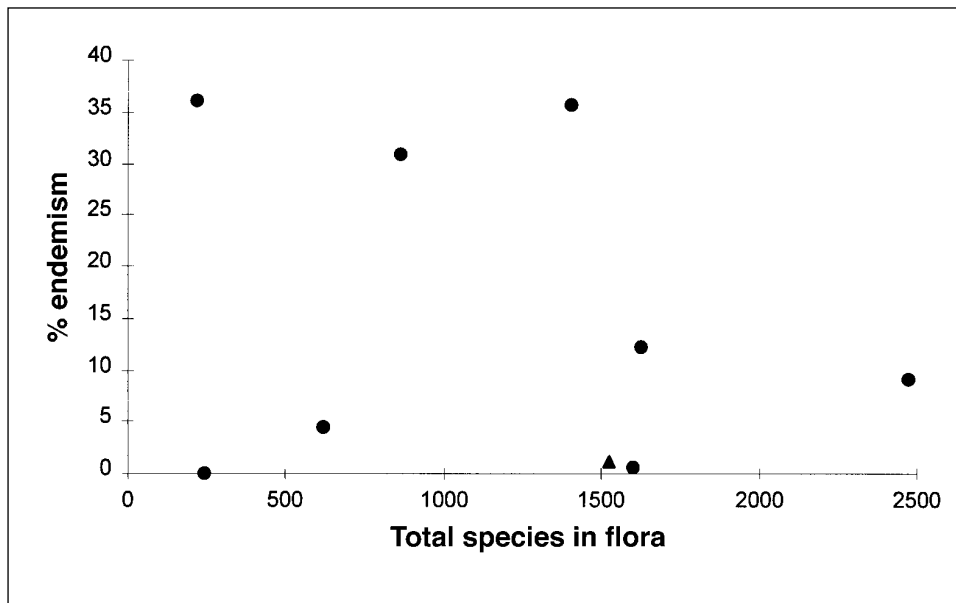


Fig. 4. Endemism in eight regional floras (round symbols, data from James 1994), compared with Eden (triangular symbol).

### Plant species of special conservation significance

Almost 700 taxa listed in Appendix 1 met one or more of the nine conservation criteria described in Table 1. Thirty-eight taxa (Tables 3 & 4) were listed as threatened on schedules of the Commonwealth Endangered Species Protection Act (1992), the NSW Threatened Species Conservation Act (1995) or both (Criterion 2). Several of these were either endemic (Category 1, 12 taxa) or largely restricted to the Eden region (Criterion 4, 3 taxa). Six additional endemic taxa and eleven further taxa largely confined to the region were not currently listed as threatened. Eleven of the 38 threatened taxa were endangered nationally, while a further six were endangered in New South Wales (Table 3). The remaining 21 threatened taxa were vulnerable, both in Australia and New South Wales.

Thirty-eight of the 77 taxa considered rare or uncommon throughout their range (Criterion 3, Table 4) were listed as nationally rare by Briggs & Leigh (1996), including three regional endemics (Criterion 1) and seven taxa largely restricted to the Eden region (Criterion 4, Table 4). Of the remaining 39 taxa listed under Category 3, a few are yet to be assessed for listing under state and commonwealth legislation (e.g. *Astrotricha* sp. (Nadgee), *Grevillea irrassa* subspecies). Four hundred and sixty-six taxa were considered uncommon within the region (Category 5, Table 4), although these may be common elsewhere.

Eighteen taxa persist as relict populations in depleted, fragmented habitats or have populations depleted by collecting or harvesting activities (Category 6, Table 4). Most of these taxa occur in widespread habitats that have been extensively cleared or modified, but they may still persist in reasonable numbers throughout their full range.

**Table 3. Threatened and rare taxa occurring in the South East Forests region. Aust. indicates status on the schedule of the Commonwealth Endangered Species Protection Act 1992 (E: Endangered and V: Vulnerable, respectively, in Australia); NSW indicates status on the schedule of the NSW Threatened Species Conservation Act 1995 (e: endangered and v: vulnerable, respectively, in NSW); and ROTAP indicates taxa considered rare in Australia but not threatened by Briggs & Leigh 1996 (2: distributional range < 100 km, 3: range > 100 km, R: rare but not threatened in Australia, C: represented in a conservation reserve, a: more than 1000 plants known from a conservation reserve, i: less than 1000 plants known from a conservation reserve, t: total distribution contained within a conservation reserve).**

	Conservation Status		
	Aust.	NSW	ROTAP
<i>Acacia blayana</i>			2RC-
<i>Acacia constablei</i>	V	v	
<i>Acacia costiniana</i>			3RCa
<i>Acacia covenyi</i>			2RCa
<i>Acacia georgensis</i>	V	v	
<i>Acacia kydrensis</i>			2RCa
<i>Acacia lucasii</i>			3RCa
<i>Acacia subtilinervis</i>			3RCa
<i>Asplenium obtusatum</i>	V		
<i>Baeckea denticulata</i>			3RCa
<i>Boronia deanei</i>	V	v	
<i>Burnettia cuneata</i>			3RC-
<i>Caladenia tessellata</i>	V	v	
<i>Calotis glandulosa</i>	V	v	
<i>Carex capillacea</i>			3RC-
<i>Correa baeuerlenii</i>	V	v	
<i>Cryptostylis hunteriana</i>	V	v	
<i>Dampiera fusca</i>			3RCi
<i>Daviesia suaveolens</i>			3RCa
<i>Deyeuxia talariata</i>			3RCi
<i>Dichelachne parva</i>	V		
<i>Discaria pubescens</i>			3RCa
<i>Diuris ochroma</i>	V		
<i>Diuris pedunculata</i>	E	e	
<i>Dodonaea procumbens</i>	V	v	
<i>Dodonaea rhombifolia</i>			3RCa
<i>Eucalyptus badjensis</i>			2RCi
<i>Eucalyptus baeuerlenii</i>			3RCa
<i>Eucalyptus gregsoniana</i>			3RCa
<i>Eucalyptus imlayensis</i>	E	e	
<i>Eucalyptus latiuscula</i>			3RC-
<i>Eucalyptus olsanii</i>			2RC-t
<i>Eucalyptus paliformis</i>			2RCat
<i>Eucalyptus parvula</i>	V	v	
<i>Eucalyptus spectatrix</i>			2RC-

Table 3. cont.

	Conservation Status		
	Aust.	NSW	ROTAP
<i>Eucalyptus wilcoxii</i>			2RCat
<i>Genoplesium rhyoliticum</i>	E	e	
<i>Grevillea acanthifolia</i> subsp. <i>paludosa</i>	E	e	
<i>Haloragodendron baeuerlenii</i>			3RCa
<i>Haloragodendron monospermum</i>			3RC-
<i>Hibbertia hermanniifolia</i>			3RCa
<i>Lepidium hyssopifolium</i>	E	e	
<i>Monotoca rotundifolia</i>		e	
<i>Myoporum bateae</i>			3RC-
<i>Persoonia brevifolia</i>			2RCa
<i>Phebalium carruthersii</i>			3RC-
<i>Phebalium ellipticum</i>			2RCa
<i>Phebalium ralstonii</i>	V	v	
<i>Phebalium rhytidophyllum</i>	V	v	
<i>Pomaderris brogoensis</i>			3RC-
<i>Pomaderris costata</i>			3RC-
<i>Pomaderris cotoneaster</i>	E	e	
<i>Pomaderris elachophylla</i>		e	
<i>Pomaderris pallida</i>	V	v	
<i>Pomaderris parrisiae</i>	V	v	
<i>Pomaderris pauciflora</i>			3RC-
<i>Pomaderris virgata</i>			3RC-
<i>Prasophyllum affine</i>	E	e	
<i>Prostanthera walteri</i>			3RCa
<i>Pseudanthus divaricatissimus</i>			3RCa
<i>Pseudanthus ovalifolius</i>		e	
<i>Pultenaea parrisiae</i> subsp. <i>parrisiae</i>	V	v	
<i>Pultenaea pedunculata</i>			
<i>Rulingia hermanniifolia</i>			3RCa
<i>Rutidosia leiolepis</i>	V	v	
<i>Senecio spathulatus</i>		e	
<i>Senecio squarrosus</i>		e	
<i>Spyridium cinereum</i>			3RCa
<i>Styphelia psiloclada</i>			3RC-
<i>Thesium australe</i>	V	v	
<i>Viola cleistogamoides</i>		e	
<i>Westringia davidii</i>	V	v	
<i>Westringia kydrensis</i>	E	e	
<i>Zieria</i> sp. D ( <i>citriodora</i> ms)	V	v	
<i>Zieria</i> sp. G ( <i>buxijugum</i> ms)	E	e	
<i>Zieria</i> sp. H ( <i>formosa</i> ms)	E	e	
<i>Zieria</i> sp. I ( <i>parrisiae</i> ms)	E	e	

**Table 4: Number of taxa meeting conservation criteria. Refer to Table 1 for explanations of criteria (note some taxa meet multiple criteria).**

Conservation criterion	Number of taxa meeting criterion
1. Regionally endemic	18
2. Threatened in Australia or NSW	38
3. Rare or uncommon throughout distribution	77
4. Restricted distribution outside region	14
5. Regionally uncommon	466
5X. Presumed regionally extinct	7
6. Depleted in the wild	18
7. Distributional limit	276
[northern limit 56]	
[southern limit 201]	
[local northern limit 12]	
[local southern limit 7]	
8. Disjunct population	50
9. Atypical habitat	9

The confirmed indigenous flora included seven species that have not been recorded for 50 or more years, despite recent survey effort and thus may now be extinct within the region. These were *Deschampsia caespitosa* last recorded at Nimmitabel in 1896, *Callitris muelleri* last recorded in 1901, *Acacia paradoxa* last recorded near Eden in 1913, *Eryngium rostratum* last recorded at Bombala in 1914, *Sebaea ovata* last recorded at Mt Imlay in 1916, *Ammobium alatum* last recorded near Bega and Cobargo c. 1920 and *Trochocarpa laurina* last recorded in 1952.

Eighteen taxa were endemic to the Eden region (Category 1, Table 4), while a further 14 taxa were largely restricted to the Eden region (Category 4, Table 4). Two hundred and seventy-six taxa reached their limit of distribution within the Eden region (Category 7, Table 4), including 201 southern limits and 56 northern limits. As noted elsewhere, this disparity suggests latitudinal species turnover and a trend of decreasing diversity with latitude (Keith 1990). For 19 taxa reaching local distributional limits, the Eden region was on the edge of major disjunctions in their range. A further 50 taxa were recorded from locations in the Eden region that were disjunct from their main area of distribution (Category 8, Table 4), while nine taxa were represented in habitats that were not typical of the majority of their distribution (Category 9, Table 4).

### Introduced flora

A total of 374 introduced taxa were recorded for the region, although a relatively high proportion of these were not represented in herbarium collections (Appendix 3). Three taxa (1%) were conifers, 98 (26%) were monocots, 273 (73%) were dicots and there were no introduced pteridophytes recorded. Introduced taxa accounted for 20% of the total

vascular flora of the region (c. 1900 taxa). The frequency distribution of introduced taxa was even more highly skewed than that of indigenous flora, with 83% of introduced taxa recorded in 0.1% of samples or less (Fig. 2b). This pattern may indicate a bias in survey and collection work against likely weed habitats such as wastelands and semi-natural pastures. If so, the available data are likely to underestimate the total introduced flora of the region and it is also likely that numerous unconfirmed introduced taxa will be confirmed with additional collection and survey effort.

The introduced flora was dominated by the families Poaceae (67 taxa), Asteraceae (46 taxa), Fabaceae (38 taxa) and Caryophyllaceae (15 taxa). Almost all of the introduced taxa originated from abroad. However, a small number of taxa indigenous to other parts of Australia are likely to have become naturalised in the region since European settlement. These include four *Acacia* species from drier parts of eastern Australia and one grass from coastal habitats (*Cynodon dactylon*).

The most widespread and frequently recorded introduced taxa were Asteraceous herbs found at low local abundance across large areas of forest. These included *Hypochoeris radicata* (21% of samples), *Cirsium vulgare* (6%) and *Conyza albida* (5%). Of 17 introduced taxa recorded in more than 1% of samples, 15 were herbs (including five in the family Asteraceae), one was a grass (*Paspalum dilatatum*) and one was a shrub (*Rubus ulmifolius*). These species have mechanisms for extensive seed dispersal and an ability to establish in disturbed habitats. Riparian zones in agricultural and urban areas support a diverse introduced flora including woody species such as *Salix* spp. and *Rubus* spp., and herbaceous species in the families Juncaceae and Poaceae.

## Conclusions

The confirmed indigenous vascular flora of the Eden region (1522 taxa) is relatively species-rich compared with other regions in tropical, temperate and semi-arid Australia, although these regions are less well-known botanically. However, the proportion of endemism (1%) is comparatively low, with 18 taxa unique to the region and a further 14 taxa with distributions extending just beyond the region. The region includes a moderately large number of rare and threatened plant taxa (Table 3) compared with other Australian regions (Briggs & Leigh 1996). A large number of additional taxa are of regional conservation significance because of distributional limits, disjunct populations, regional rarity or atypical habitat relationships. Introduced taxa make up a large proportion (20%) of the total regional vascular flora, but this may be typical of regions containing both large natural landscapes and modified landscapes.

Species frequencies within the indigenous flora were highly skewed with 74% of the flora represented in less than 1% of survey samples and only three taxa represented in more than 40% of samples. This conforms with patterns established in other regional biotas (Keith 1990). Many of the taxa in the tail of the ranked abundance distributions are likely to be abundant somewhere within their range (Murray et al. 1999). Nonetheless, restriction of such a high proportion of regional diversity to a small

number of locations presents a major challenge for conservation planners and managers charged with maintaining full regional biodiversity.

Despite an exhaustive review of available information, records of 136 indigenous taxa remain to be confirmed or refuted in the region. The large number of records (350 taxa) that were evaluated and refuted emphasise the importance of critical validation when compiling biological inventory data from multiple sources. Errors are most likely to arise from nomenclatural synonymy and other duplications, misidentifications and erroneous locality information.

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**Appendix 1: Indigenous vascular plant taxa with confirmed occurrences in the Eden region.** % Freq. is the percentage of 2906 floristic samples in which respective taxa were recorded. Columns labelled 1–9 indicates which conservation criteria (see Table 1) were met (+) by each taxon. For criterion 7: N: northern limit; S: southern limit; LN: local northern limit; and LS: local southern limit.

	Freq. (%)	1	2	3	4	5	5X	6	7	8	9
<b>PSILOPSIDA</b>											
<b>Psilotaceae</b>											
<i>Tmesipteris obliqua</i>	0	-	-	-	-	-	-	-	-	-	-
<i>Tmesipteris ovata</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Tmesipteris parva</i>	0.28	-	-	-	-	-	-	-	-	-	-
<i>Tmesipteris truncata</i>	0.14	-	-	+	-	-	-	-	S	-	-
<b>LYCOPSIDA</b>											
<b>Lycopodiaceae</b>											
<i>Huperzia myrtifolia</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Lycopodiella lateralis</i>	0.17	-	-	-	-	-	-	-	-	-	-
<i>Lycopodium deuterodensum</i>	0.65	-	-	-	-	-	-	-	-	-	-
<b>Selaginellaceae</b>											
<i>Selaginella uliginosa</i>	1.14	-	-	-	-	-	-	-	-	-	-
<b>FILICOPSIDA</b>											
<b>Adiantaceae</b>											
<i>Adiantum aethiopicum</i>	6.85	-	-	-	-	-	-	-	-	-	-
<i>Adiantum formosum</i>	0.86	-	-	-	-	-	-	-	-	-	-
<i>Adiantum hispidulum</i>	0.58	-	-	-	-	-	-	-	-	-	-
<b>Aspleniaceae</b>											
<i>Asplenium australasicum</i>	0.28	-	-	-	-	-	-	-	S	-	-
<i>Asplenium bulbiferum</i>	0.21	-	-	-	-	-	-	-	-	-	-
subsp. <i>gracillimum</i>											
<i>Asplenium flabellifolium</i>	10.05	-	-	-	-	-	-	-	-	-	-
<i>Asplenium flaccidum</i>	0.03	-	-	-	-	+	-	-	-	-	-
subsp. <i>flaccidum</i>											
<i>Asplenium obtusatum</i>	0	-	+	-	-	-	-	-	-	-	-
<i>Asplenium polydon</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Asplenium trichomanes</i>	0.03	-	-	-	-	+	-	-	-	-	-
subsp. <i>quadrivalens</i>											
<i>Pleurosorus rutifolius</i>	0	-	-	-	-	+	-	-	-	-	-
<b>Athyriaceae</b>											
<i>Diplazium australe</i>	0.14	-	-	-	-	-	-	-	-	-	-
<b>Azollaceae</b>											
<i>Azolla pinnata</i>	0	-	-	-	-	-	-	-	-	-	-
<b>Blechnaceae</b>											
<i>Blechnum cartilagineum</i>	9.84	-	-	-	-	-	-	-	-	-	-
<i>Blechnum minus</i>	0.86	-	-	-	-	-	-	-	-	-	-
<i>Blechnum nudum</i>	6.30	-	-	-	-	-	-	-	-	-	-
<i>Blechnum patersonii</i>	0.96	-	-	-	-	-	-	-	-	-	-
subsp. <i>patersonii</i>											
<i>Blechnum penna-marina</i>	0.03	-	-	-	-	-	-	+	-	-	-
subsp. <i>alpina</i>											
<i>Blechnum wattsi</i>	3.34	-	-	-	-	-	-	-	-	-	-
<i>Doodia aspera</i>	10.53	-	-	-	-	-	-	-	-	-	-
<i>Doodia caudata</i> var. <i>caudata</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Doodia media</i> subsp. <i>media</i>	0.07	-	-	-	-	+	-	-	-	-	-







Appendix 1 cont.	Freq. (%)	1	2	3	4	5	5X	6	7	8	9
<b>Cyperaceae cont.</b>											
<i>Gahnia radula</i>	8.50	-	-	-	-	-	-	-	-	-	-
<i>Gahnia sieberiana</i>	5.54	-	-	-	-	-	-	-	-	-	-
<i>Gahnia subaeuiglumis</i>	0.24	-	-	-	-	+	-	-	-	-	-
<i>Gymnoschoenus sphaerocephalus</i>	0.38	-	-	-	-	-	-	-	-	-	-
<i>Isolepis aucklandica</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Isolepis cernua</i>	0.10	-	-	-	-	-	-	-	-	-	-
<i>Isolepis crassiuscula</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Isolepis habra</i>	0.65	-	-	-	-	-	-	-	-	-	-
<i>Isolepis inundata</i>	1.31	-	-	-	-	-	-	-	-	-	-
<i>Isolepis nodosa</i>	2.06	-	-	-	-	-	-	-	-	-	-
<i>Isolepis platycarpa</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Isolepis producta</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Isolepis subtilissima</i>	0.28	-	-	-	-	-	-	-	-	-	-
<i>Lepidosperma concavum</i>	0.31	-	-	-	-	-	-	-	-	-	-
<i>Lepidosperma curtisiae</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Lepidosperma elatius</i>	0.10	-	-	-	-	-	-	-	-	-	-
<i>Lepidosperma filiforme</i>	1.14	-	-	-	-	+	-	-	-	-	-
<i>Lepidosperma forsythii</i>	0.31	-	-	-	-	+	-	-	-	-	-
<i>Lepidosperma gladiatum</i>	0.34	-	-	-	-	-	-	-	-	-	-
<i>Lepidosperma gunnii</i>	1.45	-	-	-	-	-	-	-	-	-	-
<i>Lepidosperma latens</i>	0	-	-	-	-	+	-	-	S	+	-
<i>Lepidosperma laterale</i>	34.96	-	-	-	-	-	-	-	-	-	-
<i>Lepidosperma limicola</i>	0.28	-	-	-	-	-	-	-	-	-	-
<i>Lepidosperma longitudinale</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Lepidosperma neesii</i>	0.86	-	-	-	-	-	-	-	-	-	-
<i>Lepidosperma semiteres</i>	0.03	-	-	-	-	+	-	-	LN	-	-
<i>Lepidosperma tortuosum</i>	0.62	-	-	-	-	-	-	-	-	-	-
<i>Lepidosperma urophorum</i>	8.40	-	-	-	-	-	-	-	-	-	-
<i>Ptilothrix deusta</i>	0.07	-	-	-	-	+	-	-	S	-	-
<i>Schoenoplectus mucronatus</i>	0	-	-	-	-	+	-	-	S	+	-
<i>Schoenoplectus validus</i>	0	-	-	-	-	-	-	-	-	-	-
<i>Schoenus apogon</i>	1.51	-	-	-	-	-	-	-	-	-	-
<i>Schoenus brevifolius</i>	0.72	-	-	-	-	-	-	-	-	-	-
<i>Schoenus ericetorum</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Schoenus imberbis</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Schoenus lepidosperma</i> subsp. <i>lepidosperma</i>	0.28	-	-	-	-	-	-	-	-	-	-
<i>Schoenus lepidosperma</i> subsp. <i>pachylepis</i>	0.14	-	-	-	-	-	-	-	S	-	-
<i>Schoenus maschalinus</i>	0.38	-	-	-	-	-	-	-	-	-	-
<i>Schoenus melanostachys</i>	0.62	-	-	-	-	-	-	-	-	-	-
<i>Schoenus moorei</i>	0.07	-	-	-	-	+	-	-	S	-	-
<i>Schoenus nitens</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Schoenus turbinatus</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Schoenus villosus</i>	0.03	-	-	-	-	+	-	-	S	+	-
<i>Scirpus polystachyus</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Scleria mackaviensis</i>	0.10	-	-	-	-	+	-	-	S	+	-
<i>Tetraria capillaris</i>	0.17	-	-	-	-	-	-	-	-	-	-
<i>Tricostularia pauciflora</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Uncinia nemoralis</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Uncinia tenella</i>	0.03	-	-	-	-	+	-	-	-	-	-
<b>Haemodoraceae</b>											
<i>Haemodorum planifolium</i>	0	-	-	-	-	+	-	-	S	-	-











## Appendix 1 cont.

	Freq. (%)	1	2	3	4	5	5X	6	7	8	9
<b>Poaceae cont.</b>											
<i>Cenchrus caliculatus</i>	0.38	-	-	-	-	-	-	-	S	-	-
<i>Chionochloa pallida</i>	11.63	-	-	-	-	-	-	-	-	-	-
<i>Chloris truncata</i>	0	-	-	-	-	-	-	-	-	-	-
<i>Chloris ventricosa</i>	0.03	-	-	-	-	-	-	-	-	-	-
<i>Cymbopogon refractus</i>	1.14	-	-	-	-	-	-	-	-	-	-
<i>Deschampsia caespitosa</i>	0	-	-	-	-	+	+	-	-	-	-
<i>Deyeuxia accedens</i>	0.07	-	-	+	-	-	-	-	N	-	-
<i>Deyeuxia angustifolia</i>	0	-	-	-	-	+	-	-	S	-	-
<i>Deyeuxia brachyathera</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Deyeuxia contracta</i>	0.34	-	-	-	-	-	-	-	-	-	-
<i>Deyeuxia crassiuscula</i>	0.14	-	-	-	-	+	-	-	-	-	-
<i>Deyeuxia gunniana</i>	0.31	-	-	-	-	-	-	-	-	-	-
<i>Deyeuxia microseta</i>	0	-	-	+	-	-	-	-	LN	-	-
<i>Deyeuxia monticola</i> var. <i>monticola</i>	1.65	-	-	-	-	-	-	-	-	-	-
<i>Deyeuxia nudiflora</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Deyeuxia parviseta</i> var. <i>boormanii</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Deyeuxia parviseta</i> var. <i>parviseta</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Deyeuxia quadriseta</i>	2.51	-	-	-	-	-	-	-	-	-	-
<i>Deyeuxia scaberula</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Deyeuxia</i> sp. aff. <i>brachyathera</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Deyeuxia</i> sp. aff. <i>crassiuscula</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Deyeuxia talariata</i>	0	-	-	+	+	-	-	-	S	+	-
<i>Dichanthium sericeum</i> subsp. <i>sericeum</i>	0.63								S		
<i>Dichelachne crinita</i>	0.55	-	-	-	-	-	-	-	-	-	-
<i>Dichelachne inaequiglumis</i>	0.17	-	-	-	-	-	-	-	-	-	-
<i>Dichelachne micrantha</i>	4.65	-	-	-	-	-	-	-	-	-	-
<i>Dichelachne parva</i>	0.10	-	+	-	-	-	-	-	-	-	-
<i>Dichelachne rara</i>	10.87	-	-	-	-	-	-	-	-	-	-
<i>Dichelachne sieberiana</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Digitaria parviflora</i>	0.69	-	-	-	-	-	-	-	-	-	-
<i>Digitaria ramularis</i>	0.76	-	-	-	-	-	-	-	S	-	-
<i>Dryopoa dives</i>	0	-	-	-	-	-	-	-	-	-	-
<i>Echinopogon caespitosus</i> var. <i>caespitosus</i>	2.37	-	-	-	-	-	-	-	-	-	-
<i>Echinopogon mckiei</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Echinopogon ovatus</i>	11.08	-	-	-	-	-	-	-	-	-	-
<i>Elymus scaber</i> var. <i>scaber</i>	2.34	-	-	-	-	-	-	-	-	-	-
<i>Enneapogon nigricans</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Entolasia marginata</i>	5.68	-	-	-	-	-	-	-	-	-	-
<i>Entolasia stricta</i>	19.48	-	-	-	-	-	-	-	-	-	-
<i>Eragrostis benthamii</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Eragrostis leptostachya</i>	2.44	-	-	-	-	-	-	-	-	-	-
<i>Eragrostis parviflora</i>	0	-	-	-	-	-	-	-	-	-	-
<i>Eragrostis trachycarpa</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Festuca asperula</i>	0.03	-	-	+	-	-	-	-	-	-	-
<i>Glyceria australis</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Hemarthria uncinata</i> var. <i>uncinata</i>	0.10	-	-	-	-	-	-	-	-	-	-
<i>Hierochloa rariflora</i>	12.46	-	-	-	-	-	-	-	-	-	-
<i>Imperata cylindrica</i> var. <i>major</i>	6.54	-	-	-	-	-	-	-	-	-	-
<i>Isachne globosa</i>	0.17	-	-	+	-	-	-	-	-	-	-
<i>Microlaena stipoides</i> var. <i>stipoides</i>	23.54	-	-	-	-	-	-	-	-	-	-
<i>Notodanthonia caespitosa</i>	0.07	-	-	-	-	-	-	-	-	-	-
<i>Notodanthonia eriantha</i>	0.03	-	-	-	-	+	-	-	-	-	-



Appendix 1 cont.	Freq. (%)	1	2	3	4	5	5X	6	7	8	9
<b>Restionaceae</b>											
<i>Baloskion australe</i>	0.41	-	-	-	-	-	-	-	-	-	-
<i>Baloskion tetraphyllum</i> subsp. <i>tetraphyllum</i>	0	-	-	-	-	+	-	-	N	-	-
<i>Calorophus elongatus</i>	0	-	-	-	-	+	-	-	N	-	-
<i>Empodisma minus</i>	1.55	-	-	-	-	-	-	-	-	-	-
<i>Eurychorda complanata</i>	0.21	-	-	-	-	-	-	-	-	-	-
<i>Hypolaena fastigiata</i>	0.69	-	-	-	-	-	-	-	-	-	-
<i>Leptocarpus tenax</i>	0.69	-	-	-	-	-	-	-	-	-	-
<i>Lepyrodia anarthria</i>	0.41	-	-	-	-	-	-	-	-	-	-
<i>Lepyrodia muelleri</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Lepyrodia scariosa</i>	0.45	-	-	-	-	-	-	-	S	-	-
<i>Lepyrodia verruculosa</i>	0	-	-	-	-	-	-	-	S	-	-
<b>Ripogonaceae</b>											
<i>Ripogonum album</i>	0.34	-	-	-	-	-	-	-	-	-	-
<b>Smilacaceae</b>											
<i>Smilax australis</i>	17.52	-	-	-	-	-	-	-	-	-	-
<i>Smilax glycyphylla</i>	0	-	-	-	-	+	-	-	S	-	-
<b>Sparganiaceae</b>											
<i>Sparganium subglobosum</i>	0	-	-	+	-	-	-	-	-	-	-
<b>Typhaceae</b>											
<i>Typha domingensis</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Typha orientalis</i>	0	-	-	-	-	-	-	-	-	-	-
<b>Uvulariaceae</b>											
<i>Schelhammera undulata</i>	5.99	-	-	-	-	-	-	-	-	-	-
<b>Xanthorrhoeaceae</b>											
<i>Xanthorrhoea australis</i>	2.51	-	-	-	-	-	-	-	-	-	-
<i>Xanthorrhoea concava</i>	3.96	-	-	-	-	-	-	-	S	-	-
<i>Xanthorrhoea minor</i> subsp. <i>lutea</i>	0.03	-	-	-	-	+	-	-	N	-	-
<i>Xanthorrhoea resinifera</i>	0.86	-	-	-	-	-	-	-	-	-	-
<b>Xyridaceae</b>											
<i>Xyris gracilis</i> subsp. <i>gracilis</i>	0.45	-	-	-	-	-	-	-	LN	-	-
<i>Xyris operculata</i>	0.69	-	-	-	-	-	-	-	-	-	-
<b>Zannichelliaceae</b>											
<i>Lepilaena bilocularis</i>	0	-	-	-	-	-	-	-	-	-	-
<b>Zosteraceae</b>											
<i>Zostera capricorni</i>	0	-	-	-	-	-	-	-	-	-	-
<i>Zostera muelleri</i>	0	-	-	-	-	-	-	-	-	-	-
<b>MAGNOLIOPSIDA (MAGNOLIIDAE)</b>											
<b>Acanthaceae</b>											
<i>Brunoniella pumilio</i>	0.21	-	-	-	-	-	-	-	-	-	-
<i>Pseuderanthemum variabile</i>	0.96	-	-	-	-	-	-	-	S	-	-
<b>Aizoaceae</b>											
<i>Carpobrotus glaucescens</i>	1.65	-	-	-	-	-	-	-	-	-	-
<i>Disphyma crassifolium</i> subsp. <i>clavellatum</i>	0.38	-	-	-	-	+	-	-	-	-	-
<i>Tetragonia tetragonoides</i>	0.41	-	-	-	-	-	-	-	-	-	-
<b>Amaranthaceae</b>											
<i>Alternanthera denticulata</i>	0.10	-	-	-	-	+	-	-	-	-	-
<i>Deeringia amaranthoides</i>	0.21	-	-	-	-	-	-	-	S	-	-

Appendix 1 cont.	Freq. (%)	1	2	3	4	5	5X	6	7	8	9
<b>Apiaceae</b>											
<i>Actinotus gibbonsii</i>	0	-	-	+	-	-	-	-	S	+	-
<i>Actinotus helianthi</i>	0	-	-	-	-	+	-	-	S	-	-
<i>Apium prostratum</i> subsp. <i>prostratum</i> var. <i>filiforme</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Apium prostratum</i> subsp. <i>prostratum</i> var. <i>prostratum</i>	0.79	-	-	-	-	-	-	-	-	-	-
<i>Centella asiatica</i>	0.58	-	-	-	-	-	-	-	-	-	-
<i>Centella cordifolia</i>	0.10	-	-	-	-	+	-	-	-	-	-
<i>Daucus glochidiatus</i>	0.93	-	-	-	-	-	-	-	-	-	-
<i>Eryngium rostratum</i>	0	-	-	-	-	+	+	+	-	-	-
<i>Hydrocotyle acutiloba</i>	10.87	-	-	-	-	-	-	-	-	-	-
<i>Hydrocotyle algida</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Hydrocotyle geraniifolia</i>	0.96	-	-	-	-	-	-	-	-	-	-
<i>Hydrocotyle laxiflora</i>	15.28	-	-	-	-	-	-	-	-	-	-
<i>Hydrocotyle peduncularis</i>	1.07	-	-	-	-	-	-	-	-	-	-
<i>Hydrocotyle tripartita</i>	1.14	-	-	-	-	-	-	-	-	-	-
<i>Lilaeopsis polyantha</i>	0.17	-	-	-	-	-	-	-	-	-	-
<i>Oreomyrrhis ciliata</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Oreomyrrhis eriopoda</i>	0.38	-	-	-	-	-	-	-	-	-	-
<i>Platysace ericoides</i>	0.03	-	-	-	-	-	-	-	-	-	-
<i>Platysace heterophylla</i>	0.03	-	-	-	-	+	-	-	N	-	-
<i>Platysace lanceolata</i>	29.94	-	-	-	-	-	-	-	-	-	-
<i>Trachymene anisocarpa</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Trachymene humilis</i> subsp. <i>humilis</i>	0.10	-	-	-	-	+	-	-	-	-	-
<i>Xanthosia atkinsoniana</i>	0.38	-	-	-	-	-	-	-	S	-	-
<i>Xanthosia dissecta</i>	0.31	-	-	-	-	-	-	-	-	-	-
<i>Xanthosia pilosa</i>	4.40	-	-	-	-	-	-	-	-	-	-
<i>Xanthosia pusilla</i>	0.14	-	-	-	-	-	-	-	N	-	-
<i>Xanthosia ternifolia</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Xanthosia tridentata</i>	1.27	-	-	-	-	-	-	-	-	-	-
<b>Apocynaceae</b>											
<i>Alyxia buxifolia</i>	0.17	-	-	-	-	-	-	-	-	-	-
<i>Parsonsia brownii</i>	2.00	-	-	-	-	-	-	-	-	-	-
<i>Parsonsia straminea</i>	0.55	-	-	-	-	-	-	-	S	-	-
<b>Araliaceae</b>											
<i>Astrotricha latifolia</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Astrotricha ledifolia</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Astrotricha</i> sp. 'Nadgee'	0	+	-	+	-	-	-	-	-	-	-
<i>Astrotricha</i> sp. 'Wallagaraugh'	0	-	-	+	-	-	-	-	N	-	-
<i>Polyscias murrayi</i>	0.31	-	-	-	-	-	-	-	-	-	-
<i>Polyscias sambucifolia</i> subsp. A	7.09	-	-	-	-	-	-	-	-	-	-
<i>Polyscias sambucifolia</i> subsp. C	7.09	-	-	-	-	-	-	-	-	-	-
<b>Asclepiadaceae</b>											
<i>Marsdenia flavescens</i>	0.52	-	-	-	-	-	-	-	-	-	-
<i>Marsdenia rostrata</i>	9.15	-	-	-	-	-	-	-	-	-	-
<i>Marsdenia suaveolens</i>	1.07	-	-	-	-	-	-	-	S	-	-
<i>Tylophora barbata</i>	22.75	-	-	-	-	-	-	-	-	-	-
<b>Asteraceae</b>											
<i>Actites megalocarpa</i>	0.76	-	-	-	-	-	-	-	-	-	-
<i>Ammobium alatum</i>	0	-	-	-	-	+	+	-	-	-	-
<i>Apalochlamys spectabilis</i>	0.07	-	-	-	-	+	-	-	N	-	-
<i>Argentipallium obtusifolium</i>	0.21	-	-	-	-	-	-	-	N	-	-

## Appendix 1 cont.

	Freq. (%)	1	2	3	4	5	5X	6	7	8	9
<b>Asteraceae cont.</b>											
<i>Arrhenechthites mixta</i>	1.86	-	-	-	-	-	-	-	-	-	-
<i>Bedfordia arborescens</i>	11.22	-	-	-	-	-	-	-	-	-	-
<i>Brachycome aculeata</i>	0.28	-	-	-	-	-	-	-	-	-	-
<i>Brachycome angustifolia</i> var. <i>angustifolia</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Brachycome angustifolia</i> var. <i>heterophylla</i>	0.86	-	-	-	-	-	-	-	-	-	-
<i>Brachycome cardiocarpa</i>	0.17	-	-	-	-	-	-	-	-	-	-
<i>Brachycome ciliaris</i> var. <i>ciliaris</i>	0.10	-	-	-	-	+	-	-	-	-	-
<i>Brachycome decipiens</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Brachycome graminea</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Brachycome obovata</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Brachycome radicans</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Brachycome rigidula</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Brachycome scapigera</i>	0.17	-	-	-	-	+	-	-	-	-	-
<i>Brachycome spathulata</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Bracteantha bracteata</i> species complex	4.78	-	-	-	-	-	-	-	-	-	-
<i>Bracteantha subundulata</i>	0.07	-	-	-	-	+	-	-	-	-	+
<i>Bracteantha viscosa</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Calocephalus lacteus</i>	0	-	-	-	-	+	-	-	N	-	-
<i>Calomeria amaranthoides</i>	0.31	-	-	-	-	-	-	-	-	-	-
<i>Calotis glandulosa</i>	0	-	+	-	-	-	-	-	S	-	-
<i>Calotis lappulacea</i>	0.10	-	-	-	-	+	-	-	-	-	-
<i>Cassinia aculeata</i>	11.84	-	-	-	-	-	-	-	-	-	-
<i>Cassinia aureonitens</i>	0	-	-	-	-	+	-	-	S	+	-
<i>Cassinia cunninghamii</i>	0	-	-	-	-	+	-	-	S	+	-
<i>Cassinia longifolia</i>	13.08	-	-	-	-	-	-	-	-	-	-
<i>Cassinia trinerva</i>	7.78	-	-	-	-	-	-	-	-	-	-
<i>Cassinia uncata</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Celmisia</i> sp. ( <i>pulchella</i> ms)	0.03	-	-	-	-	+	-	-	-	-	-
<i>Centipeda minima</i> var. <i>minima</i>	0.17	-	-	-	-	-	-	-	-	-	-
<i>Chrysocephalum apiculatum</i>	0.31	-	-	-	-	-	-	-	-	-	-
<i>Chrysocephalum baxteri</i>	0.31	-	-	-	-	-	-	-	N	-	-
<i>Chrysocephalum semipapposum</i>	0.65	-	-	-	-	-	-	-	-	-	-
<i>Cotula alpina</i>	0.10	-	-	-	-	+	-	-	-	-	-
<i>Cotula australis</i>	0.38	-	-	-	-	-	-	-	-	-	-
<i>Craspedia canens</i>	0.43	-	-	-	-	-	-	-	-	-	-
<i>Craspedia paludicola</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Craspedia variabilis</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Cymbonotus lawsonianus</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Cymbonotus preissianus</i>	1.79	-	-	-	-	-	-	-	-	-	-
<i>Euchiton sphaericus</i>	0.93	-	-	-	-	-	-	-	-	-	-
<i>Gnaphalium gymnocephalum</i>	10.84	-	-	-	-	-	-	-	-	-	-
<i>Gnaphalium involucreatum</i>	0.69	-	-	-	-	-	-	-	-	-	-
<i>Gnaphalium spicatum</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Helichrysum collinum</i>	0.03	-	-	-	-	+	-	-	S	+	-
<i>Helichrysum elatum</i>	3.54	-	-	-	-	-	-	-	-	-	-
<i>Helichrysum leucopsideum</i>	0.62	-	-	-	-	-	-	-	-	-	-
<i>Helichrysum rutidolepis</i>	0.89	-	-	-	-	-	-	-	-	-	-
<i>Helichrysum scorpioides</i>	9.08	-	-	-	-	-	-	-	-	-	-
<i>Lagenifera gracilis</i>	0.24	-	-	-	-	-	-	-	-	-	-
<i>Lagenifera stipitata</i>	24.60	-	-	-	-	-	-	-	-	-	-
<i>Leptinella filicula</i>	1.34	-	-	-	-	-	-	-	-	-	-
<i>Leptinella longipes</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Leptorhynchus nitidulus</i>	0.10	-	-	-	-	+	-	-	-	-	-

Appendix 1 cont.	Freq. (%)	1	2	3	4	5	5X	6	7	8	9
<b>Asteraceae cont.</b>											
<i>Leptorhynchus squamatus</i> subsp. A	0.10	-	-	-	-	+	-	-	-	-	-
<i>Leucochrysum albicans</i> subsp. <i>albicans</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Microseris lanceolata</i>	0	-	-	-	-	-	-	+	-	-	-
<i>Olearia alpicola</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Olearia argophylla</i>	7.78	-	-	-	-	-	-	-	-	-	-
<i>Olearia axillaris</i>	0.14	-	-	-	-	+	-	-	-	-	-
<i>Olearia erubescens</i>	5.75	-	-	-	-	-	-	-	-	-	-
<i>Olearia glandulosa</i>	0.17	-	-	-	-	-	-	-	-	-	-
<i>Olearia iodochroa</i>	0.41	-	-	-	-	-	-	-	-	-	-
<i>Olearia megalophylla</i>	1.14	-	-	-	-	-	-	-	-	-	-
<i>Olearia myrsinoides</i>	0.52	-	-	-	-	-	-	-	-	-	-
<i>Olearia phlogopappa</i>	0.79	-	-	-	-	-	-	-	-	-	-
<i>Olearia ramulosa</i> subsp. D	0.62	-	-	-	-	-	-	-	-	-	-
<i>Olearia rugosa</i>	0	-	-	-	-	+	-	-	N	-	-
<i>Olearia stellulata</i>	3.48	-	-	-	-	-	-	-	-	-	-
<i>Olearia tomentosa</i>	0.83	-	-	-	-	-	-	-	S	-	-
<i>Ozothamnus argophyllus</i>	5.30	-	-	-	-	-	-	-	-	-	-
<i>Ozothamnus conditus</i>	0.17	-	-	-	-	+	-	-	-	-	-
<i>Ozothamnus cuneifolius</i>	4.78	-	-	-	-	-	-	-	-	-	-
<i>Ozothamnus diosmifolius</i>	9.19	-	-	-	-	-	-	-	S	-	-
<i>Ozothamnus ferrugineus</i>	3.27	-	-	-	-	-	-	-	-	-	-
<i>Ozothamnus obcordatus</i> subsp. <i>major</i>	1.24	-	-	-	-	-	-	-	-	-	-
<i>Ozothamnus rosmarinifolius</i>	0.31	-	-	-	-	-	-	-	LN	-	-
<i>Ozothamnus thyrsoides</i>	0.41	-	-	-	-	-	-	-	-	-	-
<i>Ozothamnus turbinatus</i>	0	-	-	-	-	+	-	-	N	-	-
<i>Picris angustifolia</i> subsp. <i>angustifolia</i>	0.62	-	-	-	-	-	-	-	-	-	-
<i>Podolepis hieracioides</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Podolepis jaceoides</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Pseudognaphalium luteoalbum</i>	0.55	-	-	-	-	-	-	-	-	-	-
<i>Rutidosia leiolepis</i>	0	-	+	-	-	-	-	-	-	-	-
<i>Senecio bipinnatisectus</i>	0.21	-	-	-	-	-	-	-	S	-	-
<i>Senecio biserratus</i>	0.10	-	-	-	-	+	-	-	-	-	-
<i>Senecio diaschides</i>	0.03	-	-	-	-	-	-	-	-	-	-
<i>Senecio glomeratus</i>	1.27	-	-	-	-	-	-	-	S	-	-
<i>Senecio hispidulus</i> var. <i>dissectus</i>	0.17	-	-	-	-	-	-	-	-	-	-
<i>Senecio hispidulus</i> var. <i>hispidulus</i>	1.31	-	-	-	-	-	-	-	-	-	-
<i>Senecio lautus</i> subsp. <i>dissectifolius</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Senecio lautus</i> subsp. <i>maritimus</i>	0.72	-	-	-	-	-	-	-	-	-	-
<i>Senecio linearifolius</i>	18.58	-	-	-	-	-	-	-	-	-	-
<i>Senecio minimus</i>	2.62	-	-	-	-	-	-	-	-	-	-
<i>Senecio quadridentatus</i>	0.83	-	-	-	-	-	-	-	-	-	-
<i>Senecio spathulatus</i>	0	-	+	-	-	-	-	-	-	-	-
<i>Senecio</i> sp. E	13.39	-	-	-	-	-	-	-	-	-	-
<i>Senecio squarrosus</i>	0	-	+	-	-	-	-	-	N	-	-
<i>Senecio tenuiflorus</i>	0	-	-	-	-	-	-	-	-	-	-
<i>Senecio velleioides</i>	3.23	-	-	-	-	-	-	-	-	-	-
<i>Sigesbeckia orientalis</i> subsp. <i>orientalis</i>	5.64	-	-	-	-	-	-	-	-	-	-
<i>Solenogyne gunnii</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Sonchus hygrophilus</i>	0	-	-	-	-	+	-	-	S	-	-
<i>Triptilodiscus pygmaeus</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Vernonia cinerea</i> var. <i>cinerea</i>	3.92	-	-	-	-	-	-	-	S	-	-
<i>Vittadinia dissecta</i>	0.03	-	-	-	-	+	-	-	-	-	-





Appendix 1 cont.	Freq. (%)	1	2	3	4	5	5X	6	7	8	9
<b>Casuarinaceae</b>											
<i>Allocasuarina diminuta</i> subsp. <i>annectens</i>	0	-	-	-	-	+	-	-	S	+	-
<i>Allocasuarina distyla</i>	0.03	-	-	-	-	+	-	-	S	-	-
<i>Allocasuarina littoralis</i>	20.82	-	-	-	-	-	-	-	-	-	-
<i>Allocasuarina nana</i>	2.06	-	-	-	-	-	-	-	-	-	-
<i>Allocasuarina paludosa</i>	1.65	-	-	-	-	-	-	-	-	-	-
<i>Allocasuarina verticillata</i>	0.28	-	-	-	-	-	-	-	-	-	-
<i>Casuarina cunninghamiana</i>	0.48	-	-	-	-	-	-	-	S	-	-
subsp. <i>cunninghamiana</i>											
<i>Casuarina glauca</i>	0.14	-	-	-	-	-	-	-	S	-	-
<b>Celastraceae</b>											
<i>Celastrus australis</i>	0.76	-	-	-	-	-	-	-	-	-	-
<i>Celastrus subspicata</i>	0	-	-	-	-	+	-	-	S	+	-
<b>Chenopodiaceae</b>											
<i>Atriplex australasica</i>	0.48	-	-	-	-	-	-	-	-	-	-
<i>Atriplex cinerea</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Atriplex semibaccata</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Chenopodium carinatum</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Chenopodium glaucum</i>	0.07	-	-	-	-	-	-	-	-	-	-
<i>Chenopodium pumilio</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Einadia hastata</i>	0.93	-	-	-	-	-	-	-	-	-	-
<i>Einadia nutans</i> subsp. <i>nutans</i>	1.24	-	-	-	-	-	-	-	-	-	-
<i>Einadia trigonos</i> subsp. <i>trigonos</i>	0.21	-	-	-	-	-	-	-	-	-	-
<i>Enchylaena tomentosa</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Rhagodia candolleana</i> subsp. <i>candolleana</i>	1.58	-	-	-	-	-	-	-	-	-	+
<i>Sarcocornia quinqueflora</i>	3.96	-	-	-	-	-	-	-	-	-	-
subsp. <i>quinqueflora</i>											
<i>Sclerostegia arbuscula</i>	0.86	-	-	-	-	-	-	-	-	-	-
<i>Suaeda australis</i>	0.86	-	-	-	-	-	-	-	-	-	-
<b>Chloanthaceae</b>											
<i>Chloanthes parviflora</i>	0.14	-	-	-	-	-	-	-	-	-	-
<b>Clusiaceae</b>											
<i>Hypericum gramineum</i>	17.72	-	-	-	-	-	-	-	-	-	-
<i>Hypericum japonicum</i>	4.16	-	-	-	-	-	-	-	-	-	-
<b>Convolvulaceae</b>											
<i>Calystegia marginata</i>	0.45	-	-	-	-	-	-	-	-	-	-
<i>Calystegia sepium</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Calystegia soldanella</i>	0.52	-	-	-	-	-	-	-	-	-	-
<i>Convolvulus erubescens</i>	0.34	-	-	-	-	-	-	-	-	-	-
<i>Dichondra repens</i>	18.62	-	-	-	-	-	-	-	-	-	-
<i>Polymeria calycina</i>	0	-	-	-	-	+	-	-	S	-	-
<i>Wilsonia backhousei</i>	0.38	-	-	+	-	-	-	-	-	+	-
<b>Crassulaceae</b>											
<i>Crassula helmsii</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Crassula peduncularis</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Crassula sieberiana</i> subsp. <i>sieberiana</i>	1.93	-	-	-	-	-	-	-	-	-	-
<b>Cucurbitaceae</b>											
<i>Sicyos australis</i>	0.45	-	-	-	-	+	-	-	-	-	-
<b>Cunoniaceae</b>											
<i>Aphanopetalum resinum</i>	1.82	-	-	-	-	-	-	-	-	-	-
<i>Schizomeria ovata</i>	0.03	-	-	-	-	+	-	-	S	-	-

Appendix 1 cont.	Freq. (%)	1	2	3	4	5	5X	6	7	8	9
<b>Dilleniaceae</b>											
<i>Hibbertia acicularis</i>	0.41	-	-	-	-	-	-	-	-	-	-
<i>Hibbertia aspera</i>	12.08	-	-	-	-	-	-	-	-	-	-
<i>Hibbertia astrotricha</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Hibbertia circumdans</i>	0.31	-	-	-	-	-	-	-	S	-	-
<i>Hibbertia dentata</i>	9.19	-	-	-	-	-	-	-	-	-	-
<i>Hibbertia diffusa</i>	0.96	-	-	-	-	-	-	-	-	-	-
<i>Hibbertia empetrifolia</i>	5.13	-	-	-	-	-	-	-	-	-	-
<i>Hibbertia fasciculata</i> var. <i>fasciculata</i>	0.10	-	-	-	-	+	-	-	S	-	-
<i>Hibbertia hermanniifolia</i>	0.10	-	-	+	-	-	-	-	-	-	-
<i>Hibbertia linearis</i>	1.34	-	-	-	-	-	-	-	S	-	-
<i>Hibbertia obtusifolia</i>	8.05	-	-	-	-	-	-	-	-	-	-
<i>Hibbertia pedunculata</i>	0.62	-	-	-	-	-	-	-	-	-	-
<i>Hibbertia prostrata</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Hibbertia riparia</i>	0.17	-	-	-	-	-	-	-	-	-	-
<i>Hibbertia saligna</i>	0.03	-	-	-	-	+	-	-	S	+	-
<i>Hibbertia serpyllifolia</i>	0.24	-	-	-	-	+	-	-	-	-	-
<i>Hibbertia virgata</i> subsp. <i>virgata</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Hibbertia</i> sp. aff. <i>hermanniifolia</i>	0.07	+	-	-	-	+	-	-	-	-	-
<b>Droseraceae</b>											
<i>Drosera auriculata</i>	0.69	-	-	-	-	-	-	-	-	-	-
<i>Drosera binata</i>	0.24	-	-	-	-	-	-	-	-	-	-
<i>Drosera glanduligera</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Drosera peltata</i>	0.79	-	-	-	-	-	-	-	-	-	-
<i>Drosera pygmaea</i>	0.10	-	-	-	-	+	-	-	-	-	-
<i>Drosera spathulata</i>	0.28	-	-	-	-	-	-	-	-	-	-
<b>Elaeocarpaceae</b>											
<i>Elaeocarpus holopetalus</i>	1.20	-	-	-	-	-	-	-	-	-	-
<i>Elaeocarpus reticulatus</i>	8.29	-	-	-	-	-	-	-	-	-	-
<b>Elatinaceae</b>											
<i>Elatine gratioloides</i>	0	-	-	-	-	+	-	-	-	-	-
<b>Epacridaceae</b>											
<i>Acrotriche leucocarpa</i>	0.28	-	-	+	-	-	-	-	-	-	-
<i>Acrotriche serrulata</i>	5.85	-	-	-	-	-	-	-	-	-	-
<i>Astroloma humifusum</i>	4.58	-	-	-	-	-	-	-	-	-	-
<i>Astroloma pinifolium</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Brachyloma daphnoides</i> subsp. <i>daphnoides</i>	3.17	-	-	-	-	-	-	-	-	-	-
<i>Epacris breviflora</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Epacris impressa</i>	16.24	-	-	-	-	-	-	-	-	-	-
<i>Epacris lanuginosa</i>	0	-	-	-	-	+	-	-	N	-	-
<i>Epacris microphylla</i> var. <i>microphylla</i>	0.93	-	-	-	-	-	-	-	-	-	-
<i>Epacris microphylla</i> var. <i>rhombifolia</i>	0.14	-	-	+	-	-	-	-	S	-	-
<i>Epacris obtusifolia</i>	0.48	-	-	-	-	-	-	-	-	-	-
<i>Epacris paludosa</i>	0.76	-	-	-	-	-	-	-	-	-	-
<i>Epacris petrophila</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Epacris robusta</i>	0.14	-	-	-	-	+	-	-	S	-	-
<i>Leucopogon attenuatus</i>	0.28	-	-	-	-	+	-	-	-	-	-
<i>Leucopogon collinus</i>	0	-	-	-	-	+	-	-	LN	-	-
<i>Leucopogon ericoides</i>	0.69	-	-	-	-	-	-	-	-	-	-
<i>Leucopogon esquamatus</i>	0.28	-	-	-	-	-	-	-	-	-	-
<i>Leucopogon fletcheri</i> subsp. <i>brachysepalus</i>	0	-	-	-	-	+	-	-	-	-	-

Appendix 1 cont.	Freq. (%)	1	2	3	4	5	5X	6	7	8	9
<b>Epacridaceae cont.</b>											
<i>Leucopogon fraseri</i>	0.28	-	-	-	-	-	-	-	-	-	-
<i>Leucopogon gelidus</i>	0.38	-	-	-	-	-	-	-	-	-	-
<i>Leucopogon hookeri</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Leucopogon juniperinus</i>	3.13	-	-	-	-	-	-	-	-	-	-
<i>Leucopogon lanceolatus</i> var. <i>lanceolatus</i>	38.82	-	-	-	-	-	-	-	-	-	-
<i>Leucopogon microphyllus</i> var. <i>pilibundus</i>	0.41	-	-	-	-	-	-	-	-	-	-
<i>Leucopogon parviflorus</i>	1.10	-	-	-	-	-	-	-	-	-	-
<i>Leucopogon pilifer</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Leucopogon setiger</i>	0.31	-	-	-	-	+	-	-	S	+	-
<i>Leucopogon virgatus</i>	0.45	-	-	-	-	-	-	-	-	-	-
<i>Lissanthe strigosa</i> subsp. <i>subulata</i>	1.31	-	-	-	-	-	-	-	-	-	-
<i>Melichrus urceolatus</i>	0.28	-	-	-	-	-	-	-	-	-	-
<i>Monotoca albens</i>	0.24	-	-	-	-	+	-	-	-	-	-
<i>Monotoca elliptica</i>	1.55	-	-	-	-	-	-	-	-	-	-
<i>Monotoca rotundifolia</i>	0	-	+	-	-	-	-	-	-	-	-
<i>Monotoca scoparia</i>	11.01	-	-	-	-	-	-	-	-	-	-
<i>Sprengelia incarnata</i>	0.58	-	-	-	-	-	-	-	-	-	-
<i>Styphelia adscendens</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Styphelia psiloclada</i>	0.28	-	-	+	-	-	-	-	-	-	-
<i>Trochocarpa laurina</i>	0	-	-	-	-	+	+	-	S	+	-
<b>Ericaceae</b>											
<i>Gaultheria appressa</i>	0.34	-	-	-	-	+	-	-	-	-	-
<b>Eucryphiaceae</b>											
<i>Eucryphia moorei</i>	0.41	-	-	+	-	-	-	-	-	-	-
<b>Euphorbiaceae</b>											
<i>Adriana glabrata</i> var. <i>subglabra</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Amperea xiphoclada</i> var. <i>xiphoclada</i>	5.92	-	-	-	-	-	-	-	-	-	-
<i>Bertya rosmarinifolia</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Beyeria lasiocarpa</i>	4.40	-	-	-	-	-	-	-	-	-	-
<i>Beyeria viscosa</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Breynia oblongifolia</i>	3.99	-	-	-	-	-	-	-	S	-	-
<i>Claoxylon australe</i>	0.69	-	-	-	-	-	-	-	S	-	-
<i>Micranthium hexandrum</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Omalanthus populifolius</i>	0.24	-	-	-	-	-	-	-	S	-	-
<i>Omalanthus stillingifolius</i>	0	-	-	-	-	+	-	-	S	-	-
<i>Phyllanthus gasstroemii</i>	0.79	-	-	-	-	-	-	-	-	-	-
<i>Phyllanthus gunnii</i>	1.03	-	-	-	-	-	-	-	-	-	-
<i>Phyllanthus hirtellus</i>	1.89	-	-	-	-	-	-	-	-	-	-
<i>Phyllanthus similis</i>	0.24	-	-	-	-	-	-	-	-	-	-
<i>Poranthera corymbosa</i>	0.41	-	-	-	-	-	-	-	-	-	-
<i>Poranthera ericifolia</i>	0.07	-	-	-	-	+	-	-	S	-	-
<i>Poranthera microphylla</i>	16.55	-	-	-	-	-	-	-	-	-	-
<i>Pseudanthus divaricatissimus</i>	0.21	-	-	+	-	-	-	-	-	-	-
<i>Pseudanthus ovalifolius</i>	0	-	+	-	-	+	-	-	N	+	-
<i>Ricinocarpos pinifolius</i>	0.62	-	-	-	-	-	-	-	-	-	-
<b>Eupomatiaceae</b>											
<i>Eupomatia laurina</i>	1.55	-	-	-	-	-	-	-	-	-	-
<b>Fabaceae (Caesalpinioideae)</b>											
<i>Senna aciphylla</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Senna odorata</i>	0.03	-	-	-	-	+	-	-	S	-	-



Appendix 1 cont.	Freq. (%)	1	2	3	4	5	5X	6	7	8	9
<b>Fabaceae (Faboideae) cont.</b>											
<i>Lespedeza juncea</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Lotus australis</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Mirbelia oxylobioides</i>	0.24	-	-	-	-	-	-	-	-	-	-
<i>Mirbelia platylobioides</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Mirbelia pungens</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Mirbelia rubiifolia</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Oxylobium arborescens</i>	0.96	-	-	-	-	-	-	-	-	-	-
<i>Oxylobium ellipticum</i>	1.17	-	-	-	-	-	-	-	-	-	-
<i>Platylobium formosum</i>	2.68	-	-	-	-	-	-	-	-	-	-
<i>Podolobium alpestre</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Podolobium ilicifolium</i>	9.43	-	-	-	-	-	-	-	-	-	-
<i>Podolobium procumbens</i>	0.89	-	-	-	-	-	-	-	-	-	-
<i>Podolobium scandens</i> var. <i>scandens</i>	0	-	-	+	-	+	-	-	S	-	-
<i>Pultenaea altissima</i>	0.07	-	-	-	-	+	-	-	-	-	+
<i>Pultenaea benthamii</i>	0.76	-	-	-	-	-	-	-	N	-	-
<i>Pultenaea blakelyi</i>	0.03	-	-	-	-	+	-	-	S	-	-
<i>Pultenaea capitellata</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Pultenaea daphnoides</i>	6.99	-	-	-	-	-	-	-	-	-	-
<i>Pultenaea dentata</i>	0.21	-	-	-	-	-	-	-	-	-	-
<i>Pultenaea elliptica</i>	0	-	-	-	-	+	-	-	S	-	-
<i>Pultenaea hispidula</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Pultenaea linophylla</i>	1.10	-	-	-	-	-	-	-	-	-	-
<i>Pultenaea paleacea</i> var. <i>sericea</i>	0.03	-	-	-	-	+	-	-	N	-	-
<i>Pultenaea parrisiae</i> subsp. <i>parrisiae</i>	0	-	+	-	+	-	-	-	-	-	-
<i>Pultenaea pedunculata</i>	0	-	-	-	-	+	-	-	LN	-	-
<i>Pultenaea polifolia</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Pultenaea retusa</i>	1.58	-	-	-	-	-	-	-	-	-	-
<i>Pultenaea scabra</i> var. <i>biloba</i>	0.65	-	-	-	-	-	-	-	-	-	-
<i>Pultenaea scabra</i> var. <i>scabra</i>	1.27	-	-	-	-	-	-	-	-	-	-
<i>Pultenaea subspicata</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Pultenaea villifera</i>	0.31	-	-	+	-	-	-	-	S	+	-
<i>Pultenaea villosa</i>	0	-	-	-	-	-	-	-	-	-	-
<i>Pultenaea viscosa</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Swainsona behriana</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Swainsona lessertiiifolia</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Sphaerolobium minus</i>	0.24	-	-	-	-	-	-	-	-	-	-
<i>Sphaerolobium vimineum</i>	0.24	-	-	-	-	-	-	-	-	-	-
<i>Viminaria juncea</i>	0.10	-	-	-	-	-	-	-	-	-	-
<i>Zornia dyctiocarpa</i> var. <i>dyctiocarpa</i>	0.03	-	-	-	-	+	-	+	S	-	-
<b>Fabaceae (Mimosoideae)</b>	0										
<i>Acacia aculeatissima</i>	0.21	-	-	-	-	-	-	-	N	-	-
<i>Acacia binervia</i>	0.21	-	-	-	-	-	-	-	-	-	-
<i>Acacia blayana</i>	0.14	+	-	+	-	-	-	-	-	-	-
<i>Acacia brownii</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Acacia cognata</i>	2.89	-	-	-	-	-	-	-	-	-	-
<i>Acacia constablei</i>	0	+	+	-	-	-	-	-	-	-	-
<i>Acacia costiniana</i>	0.10	-	-	+	+	-	-	-	S	+	-
<i>Acacia coventyi</i>	0	-	-	+	-	-	-	-	S	+	-
<i>Acacia dawsonii</i>	0.03	-	-	-	-	-	-	+	-	-	-
<i>Acacia dealbata</i> subsp. <i>dealbata</i>	10.08	-	-	-	-	-	-	-	-	-	-
<i>Acacia dealbata</i> subsp. <i>subalpina</i>	0	-	-	-	-	-	-	-	-	-	-
<i>Acacia deanei</i> subsp. <i>paucijuga</i>	0.07	-	-	-	-	+	-	-	-	-	-



Appendix 1 cont.	Freq. (%)	1	2	3	4	5	5X	6	7	8	9
<b>Gesneriaceae</b>											
<i>Fieldia australis</i>	1.48	-	-	-	-	-	-	-	-	-	-
<b>Goodeniaceae</b>											
<i>Cooperookia barbata</i>	1.75	-	-	-	-	-	-	-	-	-	-
<i>Dampiera fusca</i>	0.14	-	-	+	-	-	-	-	LN	+	-
<i>Dampiera stricta</i>	3.06	-	-	-	-	-	-	-	-	-	-
<i>Goodenia bellidifolia</i> subsp. <i>bellidifolia</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Goodenia elongata</i>	0.17	-	-	-	-	-	-	-	N	-	-
<i>Goodenia hederacea</i> var. <i>alpestris</i>	0.45	-	-	-	-	+	-	-	-	-	-
<i>Goodenia hederacea</i> var. <i>hederacea</i>	0.10	-	-	-	-	+	-	-	S	-	-
<i>Goodenia heterophylla</i> subsp. <i>eglandulosa</i>	0.03	-	-	-	-	+	-	-	S	-	-
<i>Goodenia humilis</i>	0.03	-	-	-	-	+	-	-	N	-	-
<i>Goodenia ovata</i>	17.86	-	-	-	-	-	-	-	-	-	-
<i>Goodenia paniculata</i>	0.14	-	-	-	-	+	-	-	-	-	-
<i>Goodenia stelligera</i>	0.10	-	-	-	-	+	-	-	-	-	-
<i>Scaevola aemula</i>	0.28	-	-	-	-	-	-	-	-	-	-
<i>Scaevola albida</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Scaevola calendulacea</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Scaevola hookeri</i>	0	-	-	-	-	-	-	-	-	-	-
<i>Scaevola ramosissima</i>	2.00	-	-	-	-	-	-	-	-	-	-
<i>Selliera radicans</i>	1.07	-	-	-	-	-	-	-	-	-	-
<i>Velleia montana</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Velleia paradoxa</i>	0	-	-	-	-	+	-	-	-	-	-
<b>Haloragaceae</b>											
<i>Gonocarpus humilis</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Gonocarpus micranthus</i>	1.03	-	-	-	-	-	-	-	-	-	-
<i>Gonocarpus tetragynus</i>	11.67	-	-	-	-	-	-	-	-	-	-
<i>Gonocarpus teucroides</i>	28.53	-	-	-	-	-	-	-	-	-	-
<i>Haloragis heterophylla</i>	0.17	-	-	-	-	+	-	-	-	-	-
<i>Haloragodendron baeuerlenii</i>	0.03	-	-	+	-	-	-	-	-	-	-
<i>Haloragodendron monospermum</i>	0.28	-	-	+	-	-	-	-	S	-	-
<i>Myriophyllum caput-medusae</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Myriophyllum pedunculatum</i> subsp. <i>pedunculatum</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Myriophyllum propinquum</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Myriophyllum simulans</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Myriophyllum variifolium</i>	0.07	-	-	-	-	-	-	-	-	-	-
<i>Myriophyllum verrucosum</i>	0	-	-	-	-	+	-	-	-	-	-
<b>Lamiaceae</b>											
<i>Ajuga australis</i>	3.13	-	-	-	-	-	-	-	-	-	-
<i>Lycopus australis</i>	0.21	-	-	-	-	-	-	-	-	-	-
<i>Mentha diemenica</i>	0.58	-	-	-	-	-	-	-	-	-	-
<i>Mentha laxiflora</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Mentha satureioides</i>	0.28	-	-	-	-	-	-	-	-	-	-
<i>Plectranthus graveolens</i>	0.55	-	-	-	-	-	-	-	S	+	-
<i>Plectranthus parviflorus</i>	6.06	-	-	-	-	-	-	-	-	-	-
<i>Prostanthera decussata</i>	0	-	-	-	-	+	-	-	N	-	-
<i>Prostanthera denticulata</i> s.lat.	0	-	-	-	-	+	-	-	-	-	-
<i>Prostanthera hirtula</i>	0	-	-	-	-	-	-	-	S	-	-
<i>Prostanthera incana</i>	0.34	-	-	-	-	-	-	-	-	-	-
<i>Prostanthera incisa</i>	1.89	-	-	-	-	-	-	-	S	-	-
<i>Prostanthera lasianthos</i>	4.85	-	-	-	-	-	-	-	-	-	-
<i>Prostanthera linearis</i>	0	-	-	-	-	+	-	-	S	-	-





Appendix 1 cont.	Freq. (%)	1	2	3	4	5	5X	6	7	8	9
<b>Malvaceae</b>											
<i>Abutilon oxycarpum</i>	0.14	-	-	-	-	-	-	-	-	-	-
<i>Gynatrix pulchella</i>	0.10	-	-	-	-	-	-	-	-	-	-
<i>Howittia trilocularis</i>	0.48	-	-	-	-	-	-	-	-	-	-
<b>Meliaceae</b>											
<i>Synoum glandulosum</i>	2.37	-	-	-	-	-	-	-	S	-	-
<b>Menispermaceae</b>											
<i>Sarcopetalum harveyanum</i>	3.30	-	-	-	-	-	-	-	-	-	-
<i>Stephania japonica</i> var. <i>discolor</i>	2.55	-	-	-	-	-	-	-	S	-	-
<b>Menyanthaceae</b>											
<i>Nymphoides montana</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Villarsia exaltata</i>	0.10	-	-	-	-	+	-	-	-	-	-
<i>Villarsia reniformis</i>	0.17	-	-	-	-	+	-	-	-	-	-
<b>Monimiaceae</b>											
<i>Atherosperma moschatum</i>	0.10	-	-	-	-	+	-	-	-	-	-
<i>Doryphora sassafras</i>	0.69	-	-	-	-	-	-	-	S	-	-
<i>Hedycarya angustifolia</i>	3.06	-	-	-	-	-	-	-	-	-	-
<b>Moraceae</b>											
<i>Ficus coronata</i>	0.52	-	-	-	-	-	-	-	-	-	-
<i>Ficus obliqua</i>	0	-	-	-	-	+	-	-	S	-	-
<i>Ficus rubiginosa</i>	0.89	-	-	-	-	-	-	-	S	-	-
<b>Myoporaceae</b>											
<i>Myoporum acuminatum</i>	0.48	-	-	-	-	-	-	-	S	-	-
<i>Myoporum boninense</i> subsp. <i>australe</i>	0	-	-	-	-	+	-	-	S	-	-
<i>Myoporum bateae</i>	0.03	-	-	+	-	-	-	-	S	-	-
<i>Myoporum montanum</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Myoporum insulare</i>	0.21	-	-	-	-	-	-	-	-	-	-
<b>Myrsinaceae</b>											
<i>Aegiceras corniculatum</i>	0.31	-	-	-	-	+	-	-	S	-	-
<i>Rapanea howittiana</i>	3.03	-	-	-	-	-	-	-	-	-	-
<b>Myrtaceae</b>											
<i>Acmena smithii</i>	3.75	-	-	-	-	-	-	-	-	-	-
<i>Angophora floribunda</i>	11.80	-	-	-	-	-	-	-	-	-	-
<i>Backhousia myrtifolia</i>	0.76	-	-	-	-	-	-	-	S	-	-
<i>Baeckea denticulata</i>	0.28	-	-	+	-	-	-	-	S	-	-
<i>Baeckea linifolia</i>	0.31	-	-	-	-	-	-	-	-	-	-
<i>Baeckea ramosissima</i> subsp. <i>prostrata</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Baeckea utilis</i>	0.79	-	-	-	-	-	-	-	-	-	-
<i>Babingtonia virgata</i>	2.82	-	-	-	-	-	-	-	-	-	-
<i>Callistemon citrinus</i>	0.69	-	-	-	-	-	-	-	-	-	-
<i>Callistemon pallidus</i>	0.55	-	-	-	-	-	-	-	S	-	-
<i>Callistemon pityoides</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Callistemon sieberi</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Callistemon subulatus</i>	0.45	-	-	-	-	-	-	-	-	-	-
<i>Calytrix tetragona</i>	0.41	-	-	-	-	-	-	-	-	-	-
<i>Corymbia gummifera</i>	6.30	-	-	-	-	-	-	-	-	-	-
<i>Corymbia maculata</i>	0.41	-	-	-	-	-	-	-	LS	-	-
<i>Darwinia camptostylis</i>	0.28	-	-	-	-	-	-	-	-	-	-
<i>Eucalyptus agglomerata</i>	12.80	-	-	-	-	-	-	-	-	-	-
<i>Eucalyptus amplifolia</i> subsp. <i>amplifolia</i>	0	-	-	-	-	+	-	-	S	+	-
<i>Eucalyptus angophoroides</i>	5.92	-	-	-	-	-	-	-	-	-	-
<i>Eucalyptus badjensis</i>	0.58	-	-	+	+	-	-	-	S	-	-





Appendix 1 cont.	Freq. (%)	1	2	3	4	5	5X	6	7	8	9
<b>Oxalidaceae</b>											
<i>Oxalis chnoodes</i>	2.20	-	-	-	-	-	-	-	-	-	-
<i>Oxalis exilis</i>	0.65	-	-	-	-	-	-	-	-	-	-
<i>Oxalis perennans</i>	14.66	-	-	-	-	-	-	-	-	-	-
<i>Oxalis rubens</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Oxalis thompsoniae</i>	0	-	-	-	-	-	-	-	-	-	-
<b>Passifloraceae</b>											
<i>Passiflora cinnabarina</i>	1.00	-	-	-	-	-	-	-	-	-	-
<b>Pittosporaceae</b>											
<i>Billardiera longiflora</i>	0.21	-	-	-	-	-	-	-	-	-	-
<i>Billardiera scandens</i> var. <i>scandens</i>	27.67	-	-	-	-	-	-	-	-	-	-
<i>Bursaria lasiophylla</i>	3.06	-	-	-	-	-	-	-	-	-	-
<i>Bursaria spinosa</i>	9.29	-	-	-	-	-	-	-	-	-	-
<i>Citriobatus pauciflorus</i>	0.83	-	-	-	-	-	-	-	S	-	-
<i>Pittosporum bicolor</i>	0.72	-	-	-	-	-	-	-	-	-	-
<i>Pittosporum revolutum</i>	4.75	-	-	-	-	-	-	-	-	-	-
<i>Pittosporum undulatum</i>	9.74	-	-	-	-	-	-	-	-	-	-
<i>Rhytidosporum procumbens</i>	2.10	-	-	-	-	-	-	-	-	-	-
<b>Plantaginaceae</b>											
<i>Plantago debilis</i>	8.29	-	-	-	-	-	-	-	-	-	-
<i>Plantago hispida</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Plantago varia</i>	2.27	-	-	-	-	-	-	-	-	-	-
<b>Plumbaginaceae</b>											
<i>Limonium australe</i>	0.89	-	-	+	-	-	-	-	-	-	-
<b>Polygalaceae</b>											
<i>Comesperma defoliatum</i>	0.21	-	-	-	-	-	-	-	-	-	-
<i>Comesperma ericinum</i>	1.14	-	-	-	-	-	-	-	-	-	-
<i>Comesperma retusum</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Comesperma sphaerocarpa</i>	0	-	-	-	-	+	-	-	S	-	-
<i>Comesperma volubile</i>	4.71	-	-	-	-	-	-	-	-	-	-
<i>Polygala japonica</i>	0.03	-	-	-	-	+	-	+	-	-	-
<b>Polygonaceae</b>											
<i>Muehlenbeckia adpressa</i>	0.86	-	-	-	-	-	-	-	N	-	-
<i>Muehlenbeckia gracillima</i>	0.07	-	-	-	-	+	-	-	S	-	-
<i>Muehlenbeckia rhyticarya</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Persicaria decipiens</i>	0.31	-	-	-	-	-	-	-	-	-	-
<i>Persicaria hydropiper</i>	0.03	-	-	-	-	-	-	-	-	-	-
<i>Persicaria lapathifolia</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Persicaria praetermissa</i>	0.10	-	-	-	-	+	-	-	-	-	-
<i>Persicaria prostrata</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Persicaria subsessilis</i>	0	-	-	-	-	+	-	-	-	-	-
<i>Rumex brownii</i>	3.44	-	-	-	-	-	-	-	-	-	-
<i>Rumex tenax</i>	0	-	-	-	-	+	-	-	-	-	-
<b>Portulacaceae</b>											
<i>Calandrinia calyptata</i>	0.07	-	-	-	-	+	-	-	-	-	-
<i>Calandrinia pickeringii</i>	0	-	-	-	-	+	-	-	S	-	-
<i>Neopaxia australasica</i>	0.07	-	-	-	-	-	-	-	-	-	+
<b>Primulaceae</b>											
<i>Lysimachia japonica</i>	0.03	-	-	-	-	+	-	-	-	-	-
<i>Samolus repens</i>	1.86	-	-	-	-	-	-	-	-	-	-
<i>Samolus valerandii</i>	0	-	-	-	-	+	-	-	-	-	-















**Appendix 2: Unconfirmed vascular plant taxa in or near the Eden region.****FILICOPSIDA****Blechnaceae**

*Blechnum chambersii* Unconfirmed record in Eden region

**Dennstaedtiaceae**

*Hypolepis amaurobachis* Unconfirmed record in Eden region

**Marsileaceae**

*Marsilea drummondii* Confirmed record nearby Eden region

**LYCOPSIDA****Lycopodiaceae**

*Huperzia australiana* Unconfirmed record in Eden region

*Lycopodiella serpentina* Unconfirmed record in Eden region

**MAGNOLIOPSIDA (LILIIDAE)****Convallariaceae**

*Polygonatum multiflorum* Unconfirmed record in Eden region. Introduced

**Cyperaceae**

*Baumea arthrophylla* Unconfirmed record in Eden region

*Bolboschoenus caldwellii* Confirmed record nearby Eden region

*Bulbostylis barbata* Unconfirmed record in Eden region

*Chorizandra sphaerocephala* Unconfirmed record in Eden region

*Cyperus laevis* Unconfirmed record in Eden region

*Eleocharis pusilla* Confirmed record nearby Eden region

*Gahnia trifida* Unconfirmed record in Eden region

*Lepidosperma canescens* Unconfirmed record in Eden region

*Lipocarpha microcephala* Unconfirmed record in Eden region

*Uncinia* sp. aff. *flaccida* Taxonomic status uncertain

**Iridaceae**

*Patersonia occidentalis* Unconfirmed record in Eden region & confirmed record nearby Eden region

**Juncaceae**

*Juncus brevibracteus* Unconfirmed record in Eden region

*Juncus caespiticus* Unconfirmed record in Eden region

*Juncus remotiflorus* Unconfirmed record in Eden region

*Juncus thompsonianus* Unconfirmed record in Eden region

**Lomandraceae**

*Lomandra micrantha* subsp. *tuberculata* Unconfirmed record in Eden region

**Orchidaceae**

*Caladenia tentaculata* Unconfirmed record in Eden region

*Corybas pruinosis* Unconfirmed record in Eden region

*Diuris brevissima* Unconfirmed record in Eden region

*Diuris semilunulata* Confirmed record nearby Eden region

*Prasophyllum frenchii* Unconfirmed record in Eden region

*Prasophyllum gracile* Taxonomic status uncertain

*Prasophyllum odoratum* s. lat. Taxonomic status uncertain & unconfirmed record in Eden region

*Prasophyllum rogersii* Unconfirmed record in Eden region

*Prasophyllum rostratum* Unconfirmed record in Eden region

*Prasophyllum striatum* Unconfirmed record in Eden region

*Pterostylis acuminata* Unconfirmed record in Eden region

*Pterostylis aestiva* Unconfirmed record in Eden region

*Pterostylis coccinea* Unconfirmed record in Eden region

*Pterostylis grandiflora* Unconfirmed record in Eden region

**Orchidaceae cont.**

<i>Pterostylis longipetala</i>	Unconfirmed record in Eden region
<i>Pterostylis</i> sp. aff. <i>rufa</i>	Unconfirmed record in Eden region
<i>Thelymitra aristata</i>	Unconfirmed record in Eden region & confirmed record nearby Eden region
<i>Thelymitra chasmogama</i>	Unconfirmed record in Eden region & taxonomic status uncertain

**Poaceae**

<i>Austrostipa ?nitida</i>	Unconfirmed record in Eden region
<i>Notodanthonia linkii</i> var. <i>linkii</i>	Confirmed record nearby Eden region
<i>Notodanthonia nudiflora</i>	Unconfirmed record in Eden region
<i>Notodanthonia procera</i>	Unconfirmed record in Eden region
<i>Deyeuxia rodwayi</i>	Unconfirmed record in Eden region
<i>Deyeuxia</i> sp. D (aff. <i>parviseta</i> )	Unconfirmed record in Eden region
<i>Eragrostis brownii</i>	Unconfirmed record in Eden region
<i>Hierochloe redolens</i>	Confirmed record nearby Eden region
<i>Paspalidium criniforme</i>	Unconfirmed record in Eden region
<i>Paspalidium radiatum</i>	Unconfirmed record in Eden region
<i>Poa petrophila</i>	Unconfirmed record in Eden region
<i>Puccinellia stricta</i>	Confirmed record nearby Eden region

**Polygonaceae**

<i>Muehlenbeckia axillaris</i>	Confirmed record nearby Eden region
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**Restionaceae**

<i>Lepidobolis drapetioides</i>	Unconfirmed record in Eden region
<i>Leptocarpus brownii</i>	Unconfirmed record in Eden region

**MAGNOLIOPSIDA (MAGNOLIIDAE)****Aizoaceae**

<i>Tetragonia implexicoma</i>	Confirmed record nearby Eden region
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**Apiaceae**

<i>Hydrocotyle hirta</i>	Taxonomic status uncertain
<i>Hydrocotyle pterocarpa</i>	Taxonomic status uncertain
<i>Hydrocotyle rivularis</i>	Taxonomic status uncertain
<i>Hydrocotyle sibthorpioides</i>	Taxonomic status uncertain
<i>Trachymene incisa</i> subsp. <i>incisa</i>	Unconfirmed record in Eden region
<i>Trachymene procumbens</i>	Unconfirmed record in Eden region

**Araliaceae**

<i>Astrotricha</i> sp. B	Taxonomic status uncertain
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**Asteraceae**

<i>Centipeda cunninghamii</i>	Confirmed record nearby Eden region
<i>Craspedia coolaminica</i>	Confirmed record nearby Eden region
<i>Gnaphalium spicatum</i>	Taxonomic status uncertain
<i>Leptorhynchus linearis</i>	Taxonomic status uncertain
<i>Picris burbridgei</i>	Confirmed record nearby Eden region
<i>Podolepis robusta</i>	Unconfirmed record in Eden region
<i>Senecio gunnii</i>	Unconfirmed record in Eden region
<i>Senecio lautus</i> subsp. <i>lautus</i>	Uncertain identification
<i>Senecio vagus</i>	Unconfirmed record in Eden region
<i>Solenogyne bellioides</i>	Unconfirmed record in Eden region

**Brassicaceae**

<i>Cardamine tenuifolia</i>	Confirmed record nearby Eden region
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**Campanulaceae**

<i>Wahlenbergia gracilentia</i>	Unconfirmed record in Eden region
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**Caryophyllaceae**

- Spergularia augustifolia* Taxonomic status uncertain  
*Stellaria filiformis* Unconfirmed record in Eden region

**Chenopodiaceae**

- Sarcocornia blackiana* Unconfirmed record in Eden region  
*Scleranthus singuliflorus* Unconfirmed record in Eden region

**Dilleniaceae**

- Hibbertia monogyna* Unconfirmed record in Eden region  
*Hibbertia scandens* Unconfirmed record in Eden region

**Elaeocarpaceae**

- Elaeocarpus kirtonii* Unconfirmed record in Eden region

**Epacridaceae**

- Epacris calvertiana* var. *calvertiana* Confirmed record nearby Eden region

**Fabaceae (Faboideae)**

- Daviesia genitifolia* Unconfirmed record in Eden region  
*Daviesia squarrosa* Unconfirmed record in Eden region  
*Dillwynia floribunda* var. *floribunda* Unconfirmed record in Eden region  
*Dillwynia retorta* species complex Unconfirmed record in Eden region  
*Phyllota phyllicoides* Unconfirmed record in Eden region  
*Pultenaea amoena* Taxonomic status uncertain  
*Pultenaea ferruginea* var. *ferruginea* Unconfirmed record in Eden region  
*Pultenaea flexilis* Unconfirmed record in Eden region  
*Pultenaea planifolia* Taxonomic status uncertain  
*Pultenaea procumbens* Confirmed record nearby Eden region  
*Swainsona galegifolia* Confirmed record nearby Eden region  
*Swainsona monticola* Confirmed record nearby Eden region

**Fabaceae (Mimosoideae)**

- Acacia buxifolia* subsp. *buxifolia* Confirmed record nearby Eden region

**Gentianaceae**

- Gentiana baeuerlenii* Confirmed record nearby Eden region

**Geraniaceae**

- Geranium obtusisepalum* Unconfirmed record in Eden region

**Geraniaceae**

- Geranium potentilloides* var. *abditum* Confirmed record nearby Eden region

**Goodeniaceae**

- Brunonia australis* Unconfirmed record in Eden region

**Haloragaceae**

- Myriophyllum verrucosum* Confirmed record nearby Eden region

**Lamiaceae**

- Prostanthera porcata* Confirmed record nearby Eden region

**Loganiaceae**

- Mitrasacme paludosa* Possible misidentification

**Loranthaceae**

- Muellerina celastroides* Unconfirmed record in Eden region

**Myoporaceae**

- Myoporum floribundum* Unconfirmed record in Eden region

**Myrtaceae**

- Callistemon salignus* Unconfirmed record in Eden region  
*Eucalyptus delegatensis* Confirmed record nearby Eden region  
*Eucalyptus dixonii* Taxonomic status uncertain  
*Eucalyptus permixta* Taxonomic status uncertain

**Myrtaceae cont.**

<i>Eucalyptus bosistoana</i> × <i>poylanthemos</i> subsp. <i>vestita</i> hybrid OR <i>E. poyanthemos</i> subsp. <i>longior</i>	Possible misidentification
<i>Eucalyptus rossii</i>	Confirmed record nearby Eden region
<i>Kunzea capitata</i>	Possible misidentification
<i>Leptospermum glabrescens</i>	Unconfirmed record in Eden region
<i>Leptospermum parvifolium</i>	Possible misidentification
<i>Leptospermum squarrosum</i>	Uncertain identification

**Onagraceae**

<i>Epilobium hirtigerum</i>	Unconfirmed record in Eden region
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**Pittosporaceae**

<i>Rhytidosporum inconspicuum</i>	Taxonomic status uncertain
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**Polygonaceae**

<i>Persicaria strigosa</i>	Unconfirmed record in Eden region
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**Proteaceae**

<i>Hakea salicifolia</i>	Unconfirmed record in Eden region
<i>Persoonia mollis</i> subsp. <i>caleyi</i>	Confirmed record nearby Eden region
<i>Symphionema palustris</i>	Taxonomic status uncertain

**Rhamnaceae**

<i>Cryptandra spinescens</i>	Unconfirmed record in Eden region
<i>Pomaderris aurea</i>	Unconfirmed record in Eden region
<i>Pomaderris velutina</i>	Unconfirmed record in Eden region

**Rubiaceae**

<i>Galium australe</i>	Unconfirmed record in Eden region
<i>Galium ciliare</i>	Unconfirmed record in Eden region
<i>Nertera granadensis</i>	Unconfirmed record in Eden region

**Rutaceae**

<i>Eriostemon australasius</i> subsp. <i>australasius</i>	Unconfirmed record in Eden region
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**Scrophulariaceae**

<i>Gratiola pubescens</i>	Unconfirmed record in Eden region
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**Solanaceae**

<i>Solanum laciniatum</i>	Unconfirmed record in Eden region
<i>Solanum triflorum</i>	Confirmed record nearby Eden region

**Stackhousiaceae**

<i>Stackhousia nuda</i>	Unconfirmed record in Eden region
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**Sterculiaceae**

<i>Rulingia rugosa</i>	Unconfirmed record in Eden region
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**Tremandraceae**

<i>Tetratheca ericifolia</i>	Unconfirmed record in Eden region
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**Urticaceae**

<i>Australina muelleri</i>	Taxonomic status uncertain
<i>Rostranthus suaveolens</i>	Taxonomic status uncertain

**Appendix 3: Introduced vascular plant taxa of the Eden region. Frequency is the percentage of 2906 floristic samples in which respective taxa were recorded. + indicates herbarium specimen held at NSW, ANBG or MEL.**

	Frequency (%)	Herbarium specimen
<b>CONIFEROPSIDA</b>		
<b>Pinaceae</b>		
<i>Pinus nigra</i> var. <i>maritima</i>	0	
<i>Pinus pinaster</i>	0	
<i>Pinus radiata</i>	0.34	
<b>MAGNOLIOPSIDA (LILIIDAE)</b>		
<b>Agavaceae</b>		
<i>Agave americana</i>	0	
<b>Alismataceae</b>		
<i>Sagittaria graminea</i>	0	+
<b>Alliaceae</b>		
<i>Agapanthus africanus</i>	0	
<b>Alstroemeriaceae</b>		
<i>Alstroemeria pulchella</i>	0.03	
<b>Araceae</b>		
<i>Zantedeschia aethiopica</i>	0	
<b>Asparagaceae</b>		
<i>Asparagus officinalis</i>	0	
<i>Myrsiphyllum asparagoides</i>	0.10	+
<i>Protoasparagus aethiopicus</i>	0	
<b>Commelinaceae</b>		
<i>Tradescantia albiflora</i>	0.34	
<b>Cyperaceae</b>		
<i>Cyperus congestus</i>	0.10	+
<i>Cyperus eragrostis</i>	0.03	+
<i>Eleocharis minuta</i>	0	
<i>Isolepis marginata</i>	0.03	+
<i>Isolepis prolifera</i>	0.03	+
<i>Isolepis sepulcralis</i>	0	
<b>Iridaceae</b>		
<i>Crocasmia</i> × <i>crocosmiiflora</i>	0	
<i>Gladiolus gueinzii</i>	0.03	
<i>Romulea rosea</i> var. <i>australis</i>	0	+
<i>Sisyrinchium iridifolium</i>	0	
<i>Sisyrinchium</i> sp. A	0	
<i>Tritonia lineata</i>	0	+
<i>Watsonia meriana</i>	0.03	
<b>Juncaceae</b>		
<i>Juncus acutiflorus</i>	0	+
<i>Juncus articulatus</i>	0.10	+
<i>Juncus bufonius</i>	0.07	+
<i>Juncus bulbosus</i>	0.03	+
<i>Juncus cognatus</i>	0	+
<i>Juncus flavidus</i>	0	+
<i>Juncus microcephalus</i>	0	+

Appendix 3 cont.	Frequency (%)	Herbarium specimen
<b>Liliaceae</b>		
<i>Lilium formosanum</i>	0	
<b>Poaceae</b>		
<i>Agrostis capillaris</i>	0	
<i>Agrostis stolonifera</i>	0	+
<i>Aira caryophyllea</i>	0.31	+
<i>Aira elegans</i>	0	
<i>Aira elegantissima</i>	0.10	
<i>Aira praecox</i>	0	
<i>Ammophila arenaria</i>	0.55	+
<i>Andropogon virginicus</i>	0	
<i>Anthoxanthum odoratum</i>	0.03	+
<i>Avena fatua</i>	0	
<i>Axonopis affinis</i>	0	
<i>Briza maxima</i>	0.17	
<i>Briza minor</i>	0.10	
<i>Bromus catharticus</i>	0.07	+
<i>Bromus diandrus</i>	0	
<i>Bromus hordeaceus</i>	0.14	+
<i>Bromus tectorum</i>	0	+
<i>Cenchrus longispinus</i>	0	+
<i>Chloris gayana</i>	0.03	+
<i>Cortaderia selloana</i>	0	
<i>Cynodon dactylon</i>	0.48	+
<i>Cynosurus cristatus</i>	0	+
<i>Cynosurus echinatus</i>	0	
<i>Dactylis glomerata</i>	0.17	+
<i>Digitaria sanguinalis</i>	0	
<i>Digitaria velutina</i>	0.03	+
<i>Echinochloa crus-galli</i>	0	
<i>Ehrharta calycina</i>	0	+
<i>Ehrharta erecta</i>	0	+
<i>Ehrharta longiflora</i>	0	
<i>Eleusine indica</i>	0	
<i>Eleusine tristachya</i>	0	
<i>Festuca elatior</i>	0	+
<i>Festuca nigrescens</i>	0	+
<i>Festuca pratensis</i>	0	+
<i>Festuca rubra</i> subsp. <i>rubra</i>	0	+
<i>Glyceria declinata</i>	0	+
<i>Holcus lanatus</i>	0.86	+
<i>Hordeum glaucum</i>	0	+
<i>Hordeum marinum</i>	0	+
<i>Lagurus ovatus</i>	0.03	
<i>Lolium perenne</i>	0.21	
<i>Nassella neesiana</i>	0.03	
<i>Nassella trichotoma</i>	0	+
<i>Panicum capillare</i> var. <i>capillare</i>	0	
<i>Panicum gilvum</i>	0	
<i>Paspalum dilatatum</i>	1.07	
<i>Paspalum urvillei</i>	0.03	
<i>Pennisetum clandestinum</i>	0.58	+
<i>Pennisetum villosum</i>	0	



Appendix 3 cont.	Frequency (%)	Herbarium specimen
<b>Poaceae cont.</b>		
<i>Pentaschistis airoides</i>	0	+
<i>Phalaris aquatica</i>	0.07	
<i>Phalaris paradoxa</i>	0	
<i>Phleum pratense</i>	0	+
<i>Phyllostachys aurea</i>	0	
<i>Poa annua</i>	0.07	+
<i>Poa bulbosa</i>	0	+
<i>Poa pratensis</i>	0.07	+
<i>Polypogon monspeliensis</i>	0.03	
<i>Rostraria cristata</i>	0.45	
<i>Sclerochloa dura</i>	0	+
<i>Setaria gracilis</i>	0.31	
<i>Sporobolus indicus</i> var. <i>capensis</i>	0.93	+
<i>Stenotaphrum secundatum</i>	0.17	
<i>Vulpia bromoides</i>	0.03	+
<i>Vulpia megalura</i>	0	
<i>Vulpia myuros</i>	0.07	
<b>MAGNOLIOPSIDA/MAGNOLIIDAE</b>		
<b>Aceraceae</b>		
<i>Acer negundo</i>	0	
<b>Aizoaceae</b>		
<i>Aptenia cordifolia</i>	0	+
<i>Carpobrotus aequilaterus</i>	0.03	
<i>Carpobrotus edulis</i>	0.03	
<i>Tetragonia nigrescens</i>	0.07	
<b>Amaranthaceae</b>		
<i>Alternanthera pungens</i>	0	
<b>Amygdalaceae</b>		
<i>Prunus cerasifera</i>	0.03	
<i>Prunus laurocerasus</i>	0	
<i>Prunus persica</i>	0	
<b>Anacardiaceae</b>		
<i>Schinus molle</i> var. <i>areira</i>	0.03	
<b>Apiaceae</b>		
<i>Berula erecta</i>	0	
<i>Ciclospermum leptophyllum</i>	0	
<i>Conium maculatum</i>	0.14	+
<i>Daucus carota</i>	0	
<i>Foeniculum vulgare</i>	0	
<i>Hydrocotyle bonariensis</i>	0	
<b>Apocynaceae</b>		
<i>Vinca major</i>	0.14	
<b>Araliaceae</b>		
<i>Hedera helix</i>	0	
<b>Asclepiadaceae</b>		
<i>Araujia sericiflora</i>	0.17	+
<i>Gomphocarpus fruiticosus</i>	0	
<i>Tweedia coerulea</i>	0.03	

Appendix 3 cont.	Frequency (%)	Herbarium specimen
<b>Asteraceae</b>		
<i>Ageratina adenophora</i>	0	
<i>Arctotheca calendula</i>	0	
<i>Arctotheca populifolia</i>	0.28	
<i>Artemisia verlotiorum</i>	0	+
<i>Aster subulatus</i>	0.34	
<i>Bidens pilosa</i>	0.48	+
<i>Bidens tripartita</i>	0	
<i>Carduus pycnocephalus</i>	0	
<i>Carduus tenuiflorus</i>	0	
<i>Chrysanthemoides monilifera</i> subsp. <i>rotundata</i>	0.03	
<i>Cichorium intybus</i>	0	+
<i>Cirsium vulgare</i>	5.78	+
<i>Conyza albida</i>	4.58	
<i>Conyza bonariensis</i>	0.21	+
<i>Conyza canadensis</i> var. <i>canadensis</i>	0	+
<i>Cotula coronopifolia</i>	0.24	+
<i>Crassocephalum crepidioides</i>	0	
<i>Crepis capillaris</i>	0.03	
<i>Delairea odorata</i>	0.10	+
<i>Dimorphotheca pluvialis</i>	0.03	
<i>Dittrichia graveolens</i>	0	+
<i>Facelis retusa</i>	0.07	
<i>Galinsoga parviflora</i>	0	
<i>Gazania rigens</i>	0	
<i>Gnaphalium americanum</i>	0.07	
<i>Gnaphalium calviceps</i>	0.07	
<i>Gnaphalium coarctatum</i>	0.38	+
<i>Gnaphalium pennsylvanicum</i>	0	
<i>Helminthotheca echioides</i>	0	+
<i>Hypochoeris glabra</i>	0.28	
<i>Hypochoeris radicata</i>	20.82	+
<i>Lactuca serriola</i>	0	
<i>Leontodon taraxacoides</i> subsp. <i>taraxacoides</i>	0	
<i>Onopordum acanthium</i> subsp. <i>acanthium</i>	0	
<i>Roldana petasitis</i>	0	
<i>Senecio elegans</i>	0	
<i>Senecio jacobaea</i>	0	
<i>Senecio madagascariensis</i>	0.24	
<i>Senecio vulgaris</i>	0.03	
<i>Silybum marianum</i>	0.03	
<i>Sonchus asper</i> subsp. <i>glaucescens</i>	0	+
<i>Sonchus oleraceus</i>	2.41	
<i>Tagetes minuta</i>	0.14	+
<i>Taraxicum officinale</i>	0.03	+
<i>Tolpis umbellata</i>	0.14	
<i>Vellereophyton dealbatum</i>	0	+
<b>Basellaceae</b>		
<i>Anredera cordifolia</i>	0	
<b>Boraginaceae</b>		
<i>Echium plantagineum</i>	0	
<i>Echium vulgare</i>	0.03	+
<i>Myosotis caespitosa</i>	0	+
<i>Myosotis discolor</i>	0	+

Appendix 3 cont.	Frequency (%)	Herbarium specimen
<b>Brassicaceae</b>		
<i>Cakile edentula</i>	1.41	
<i>Cakile maritima</i>	0	+
<i>Capsella bursa-pastoris</i>	0	
<i>Erophila verna</i>	0.03	
<i>Hirschfeldia incana</i>	0.07	
<i>Lepidium africanum</i>	0.10	
<i>Lepidium virginicum</i>	0.14	
<i>Rorippa nasturtium-aquaticum</i>	0	+
<i>Rorippa palustris</i>	0	+
<i>Sisymbrium officinale</i>	0	
<i>Sisymbrium orientale</i>	0	
<b>Buddlejaceae</b>		
<i>Buddleja davidii</i>	0	
<b>Cactaceae</b>		
<i>Opuntia aurantiaca</i>	0	
<i>Opuntia stricta</i>	0	
<b>Callitrichaceae</b>		
<i>Callitriche stagnalis</i>	0.07	
<b>Cannabaceae</b>		
<i>Cannabis sativa</i>	0.03	
<b>Caprifoliaceae</b>		
<i>Lonicera japonica</i>	0.07	
<b>Caryophyllaceae</b>		
<i>Arenaria leptoclados</i>	0	+
<i>Cerastium fontanum</i> subsp. <i>vulgare</i>	0	
<i>Cerastium glomeratum</i>	1.00	+
<i>Moenchia erecta</i>	0.03	
<i>Paronychia brasiliiana</i>	0.31	
<i>Petrorhagia nanteuillii</i>	0.03	
<i>Polycarpon tetraphyllum</i>	0.45	
<i>Sagina apetala</i>	0	+
<i>Sagina procumbens</i>	0	
<i>Saponaria officinalis</i>	0	
<i>Silene gallica</i>	0.55	+
<i>Spergula arvensis</i>	0	
<i>Spergularia marina</i>	0	
<i>Spergularia rubra</i>	0.03	
<i>Stellaria media</i>	0.28	
<b>Chenopodiaceae</b>		
<i>Atriplex patula</i>	0	+
<i>Atriplex prostrata</i>	0.03	+
<i>Chenopodium album</i>	0	
<i>Chenopodium ambrosioides</i>	0	
<i>Chenopodium detestans</i>	0	+
<i>Chenopodium murale</i>	0	+
<i>Chenopodium vulvaria</i>	0	+
<b>Clusiaceae</b>		
<i>Hypericum perforatum</i>	0.03	

Appendix 3 cont.	Frequency (%)	Herbarium specimen
<b>Crassulaceae</b>		
<i>Crassula multicava</i>	0	+
Convolvulaceae		
<i>Convolvulus arvensis</i>	0	+
<i>Cuscuta campestris</i>	0	+
<b>Ericaceae</b>		
<i>Erica lusitanica</i>	0	
<b>Euphorbiaceae</b>		
<i>Euphorbia helioscopia</i>	0	+
<i>Euphorbia lathyris</i>	0.03	+
<i>Euphorbia paralius</i>	0	+
<i>Euphorbia peplus</i>	0.21	+
<b>Fabaceae (Caesalpinioideae)</b>		
<i>Gleditsia triacanthos</i>	0	+
<i>Senna pendula</i> var. <i>glabrata</i>	0	+
<i>Senna septemtrionalis</i>	0	+
<i>Senna</i> × <i>floribunda</i>	0	+
<b>Fabaceae (Faboideae)</b>		
<i>Astragalus hamosus</i>	0	+
<i>Coronilla varia</i>	0.07	
<i>Cytisus scoparius</i>	0	+
<i>Dipogon lignosus</i>	0	+
<i>Genista linifolia</i>	0	
<i>Genista monspessulana</i>	0	
<i>Lotus corniculatus</i>	0.03	+
<i>Lotus suaveolens</i>	0	+
<i>Lotus uliginosus</i>	0	+
<i>Medicago arabica</i>	0	
<i>Psoralea pinnata</i>	0	+
<i>Robinia pseudoacacia</i>	0	+
<i>Trifolium arvense</i>	0.21	
<i>Trifolium campestre</i>	0.14	
<i>Trifolium dubium</i>	0.45	+
<i>Trifolium fragiferum</i>	0	+
<i>Trifolium glomeratum</i>	0.03	
<i>Trifolium pratense</i>	0.03	
<i>Trifolium repens</i>	1.07	+
<i>Trifolium striatum</i>	0.03	
<i>Trifolium subterraneum</i>	0.03	
<i>Ulex europaeus</i>	0	
<i>Vicia hirsuta</i>	0	
<i>Vicia sativa</i> subsp. <i>angustifolia</i>	0	+
<i>Vicia tetrasperma</i>	0.03	
<i>Vicia villosa</i>	0	
<b>Fabaceae (Mimosoideae)</b>		
<i>Acacia baileyana</i>	0.03	
<i>Acacia baileyana</i> × <i>decurrens</i>	0	+
<i>Acacia decurrens</i>	0	+
<i>Acacia podalyriifolia</i>	0	
<i>Acacia pravissima</i>	0	+
<i>Acacia saligna</i>	0	
<i>Acacia vestita</i>	0	
<i>Paraserianthes lophantha</i> subsp. <i>lophantha</i>	0	+

Appendix 3 cont.	Frequency (%)	Herbarium specimen
<b>Fumariaceae</b>		
<i>Fumaria bastardii</i>	0	
<i>Fumaria officinalis</i>	0.03	
<b>Gentianaceae</b>		
<i>Centaurium erythraea</i>	3.82	+
<i>Centaurium pulchella</i>	0	+
<i>Centaurium tenuiflorum</i>	0.03	+
<b>Geraniaceae</b>		
<i>Erodium cicutarium</i>	0	
<i>Geranium molle</i> subsp. <i>molle</i>	0	
<b>Hydrangeaceae</b>		
<i>Hydrangea macrophylla</i>	0	
<b>Lamiaceae</b>		
<i>Leonotis leonurus</i>	0	+
<i>Mentha pulegium</i>	0.07	
<i>Mentha</i> × <i>piperita</i>	0	+
<i>Mentha</i> × <i>spicata</i>	0	+
<i>Mentha</i> × <i>piperita</i> nothomorph <i>citrata</i>	0	
<i>Prunella vulgaris</i>	1.93	+
<i>Salvia verbenaca</i>	0.03	
<i>Stachys arvensis</i>	0	+
<b>Linaceae</b>		
<i>Linum trigynum</i>	0	
<b>Lythraceae</b>		
<i>Cuphea</i> aff. <i>hyssopifolia</i>	0	+
<b>Malaceae</b>		
<i>Cotoneaster franchetii</i>	0.07	
<i>Cotoneaster glaucophyllus</i>	0	
<i>Cotoneaster microphyllus</i>	0	+
<i>Crataegus monogyna</i> subsp. <i>nordica</i>	0.24	
<i>Malus</i> × <i>domestica</i>	0	
<i>Pyracantha angustifolia</i>	0	
<b>Malvaceae</b>		
<i>Lagunaria patersonii</i>	0	
<i>Malva parviflora</i>	0	
<i>Modiola caroliniana</i>	0.34	
<i>Sida rhombifolia</i>	0.24	
<b>Meliaceae</b>		
<i>Melia azedarach</i>	0	
<b>Moraceae</b>		
<i>Maclura pomifera</i>	0	
<b>Myrtaceae</b>		
<i>Leptospermum laevigatum</i>	0.72	
<b>Oleaceae</b>		
<i>Ligustrum sinense</i>	0.10	
<i>Ligustrum vulgare</i>	0.03	
<i>Olea europaea</i> subsp. <i>africana</i>	0	
<b>Onagraceae</b>		
<i>Oenothera affinis</i>	0	
<i>Oenothera stricta</i> subsp. <i>stricta</i>	0	

**Oxalidaceae**

<i>Oxalis corniculatus</i>	0	
<i>Oxalis pes-caprae</i>	0	
<i>Oxalis purpurea</i>	0	+
<i>Oxalis articulata</i>	0	
<i>Oxalis incarnata</i>	0.03	

**Papaveraceae**

<i>Argemone ochroleuca</i> subsp. <i>ochroleuca</i>	0	
<i>Eschscholzia californica</i>	0	
<i>Papaver hybridum</i>	0	+
<i>Papaver somniferum</i> subsp. <i>somniferum</i>	0	+

**Passifloraceae**

<i>Passiflora edulis</i>	0.03	
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**Phytolacaceae**

<i>Phytolacca octandra</i>	0.48	
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**Pittosporaceae**

<i>Sollya heterophylla</i>	0	
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**Plantaginaceae**

<i>Plantago coronopus</i>	0	
<i>Plantago lanceolata</i>	2.27	+
<i>Plantago major</i>	0.10	

**Polygalaceae**

<i>Polygala myrtifolia</i>	0	
Polygonaceae		
<i>Acetosa sagittata</i>	0.07	+
<i>Acetosella vulgaris</i>	0.48	+
<i>Fallopia japonica</i>	0	+
<i>Persicaria maculosa</i>	0.03	+
<i>Polygonum aviculare</i>	0.03	
<i>Rumex conglomeratus</i>	0	
<i>Rumex crispus</i>	0.10	

**Primulaceae**

<i>Anagallis arvensis</i>	2.37	+
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**Ranunculaceae**

<i>Batrachium trichophyllum</i>	0	+
<i>Ranunculus repens</i>	0	
<i>Ranunculus scleratus</i>	0	+

**Rosaceae**

<i>Potentilla recta</i>	0	+
<i>Rosa rubiginosa</i>	0.72	+
<i>Rubus fruticosus</i>	0.14	
<i>Rubus laciniatus</i>	0	+
<i>Rubus ulmifolius</i>	2.89	
<i>Rubus vestitus</i>	0	+

**Rubiaceae**

<i>Coprosma repens</i>	0.03	
<i>Galium aparine</i>	0	
<i>Galium tricornatum</i>	0	
<i>Sherardia arvensis</i>	0.03	

**Salicaceae**

<i>Populus alba</i>	0	
<i>Populus nigra</i>	0	
<i>Salix alba</i>	0.14	+

**Salicaceae cont.**

<i>Salix alba</i> var <i>vittelina</i>	0	
<i>Salix babylonica</i>	0	
<i>Salix cinerea</i>	0	+
<i>Salix fragilis</i>	0	
<i>Salix matsudana</i> × <i>alba</i>	0	
<i>Salix viminalis</i>	0	+
<i>Salix</i> × <i>calodendron</i>	0	+
<i>Salix</i> × <i>reichardtii</i>	0	+
<i>Salix</i> × <i>rubens</i>	0	

**Sambucaceae**

<i>Sambucus nigra</i>	0	
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**Scrophulariaceae**

<i>Linaria arvensis</i>	0	+
<i>Mimulus moschatus</i>	0	+
<i>Orobanche minor</i>	0	
<i>Verbascum blattaria</i>	0	+
<i>Verbascum thapsus</i> subsp. <i>thapsus</i>	0	+
<i>Verbascum virgatum</i>	0.21	+
<i>Veronica anagallis-aquatica</i>	0	+
<i>Veronica catenata</i>	0	+
<i>Veronica persica</i>	0.07	
<i>Veronica serpyllifolia</i>	0	

**Simaroubaceae**

<i>Ailanthus altissima</i>	0.03	+
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**Solanaceae**

<i>Cestrum parqui</i>	0	+
<i>Datura stramonium</i>	0	+
<i>Lycium barbarum</i>	0	
<i>Lycium ferocissimum</i>	0.03	
<i>Nicandra physalodes</i>	0	
<i>Physalis ixocarpa</i>	0	+
<i>Physalis peruviana</i>	0.21	+
<i>Solanum chenopodioides</i>	0.34	+
<i>Solanum mauritianum</i>	0	
<i>Solanum nigrum</i>	1.24	+
<i>Solanum pseudocapsicum</i>	0.48	+

**Urticaceae**

<i>Urtica urens</i>	0	
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**Verbenaceae**

<i>Lantana camara</i> var. <i>camara</i>	0	+
<i>Verbena bonariensis</i>	1.20	
<i>Verbena incompta</i>	0	+
<i>Verbena officinalis</i>	0	+
<i>Verbena rigida</i>	0.41	+

**Violaceae**

<i>Viola odorata</i>	0.03	
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**Zygophyllaceae**

<i>Tribulus terrestris</i>	0	+
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