



Revision of PATN analysis of grassland associations within the Natural Temperate Grassland Endangered Ecological Community in the Southern Tablelands of NSW

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Rainer Rehwinkel December 2007

Introduction

Natural Temperate Grassland (NTG) is a Commonwealth listed endangered ecological community. NTG is found within the Southern Tablelands region of NSW and ACT, in south-eastern Australia (Environment ACT, 2005). This community is characterised by a dominance of a suite of grasses and a diversity of forbs. Previous analyses have identified a number of distinct associations (Benson, 1994; Sharp, 1997), though these analyses were incomplete. Benson only analysed data from the Monaro and ACT, while Sharp's analysis was only of ACT site data.

The National Recovery Plan for Natural Temperate Grassland of the Southern Tablelands (NSW & ACT) (Environment ACT, 2005) has as an action the requirement for analysis of data to identify floristic associations, to ensure regional and sub-regional identification of all structural and compositional variation within the endangered ecological community (section 5 *Previous and Future Recovery Actions*, subsection 5.1 *Information base*). Funds were made available from Natural Temperate Grassland Recovery Team in 2006 to undertake a PATN analysis of available grassland data to derive a classification of the compositional variation with grasslands of the Southern Tablelands. This report is a revision of an earlier analysis and uses only data from the areas below 1200 m. It gives the results of the re-analysis of the data and including the dendrogram output of the PATN analysis.

Data collection

Grassland data have been collected in the South Eastern Highlands IBRA Bioregion, which includes the Southern Tablelands, since the early 1990's. The following datasets were collated for the PATN analysis:

- Benson's Monaro data which were used in the Benson (1994) analysis;
- Data mostly collected by Sarah Sharp in the ACT;
- Data from grassland sites that were used in the analysis that produced a forest and non-forest ecosystems classification for the Southern Comprehensive regional Assessment (Thomas *et al.*, 2000);
- Data collected by the author in the Southern Tablelands (including several sites in the Tumut region) by the author; and
- Data collected for the NTG Recovery Team by Greg Baines.

In excess of 437 datapoints were used in the final analysis. The majority of the datapoints were either 100 m² or 400 m² plots. However, a number of site data that were collected during previous site assessments within relatively uniform sites were used (i.e. where the vegetation was relatively homogeneous over the site), as were a number of 1 ha plots.

Methodology

Prior to analysis, some of the data required extensive “cleaning up”. Each datapoint required geology and topography attributes, and in cases where these did not accompany the data, this information had to be researched and the attributes added.

Cover-abundance codes were rectified where there were inconsistencies in the approaches used between the various datasets. The cover values used are the Braun-Blanquet scale. Duplications of species and spelling errors were removed.

Inconsistencies in nomenclature were rectified, and in cases where there was a possibility of confusion, the names were made consistent. For example, many datapoints had only genera identified for a number of taxa (e.g. *Austrodanthonia*, *Wahlenbergia*, *Geranium* and *Euchiton*) while others had full names for members within those genera. To ensure that data were consistent throughout the dataset, in datapoints that had species names for members of these genera, the specific epithets were dropped and names changed to the genus name only.

The combined dataset was then subject to PATN analysis.

PATN analysis takes an iterative approach. Initial attempts were inconclusive for a number of reasons. Initially, there were in excess of 1000 datapoints. Some datapoints were discarded because they represent sites of low quality. This apparently resulted in excessive noise in the early analyses. Later analyses relied on a set of some 420 datapoints.

The Kulczynski association measure was used in the analysis. The classification strategy used was the Agglomerative Hierarchical Fusion, using the Flexible UPGMA technique. The Beta value was set at -0.1000. In the final analysis, the number of groups to produce was set at 18. There were 10 random starts and a maximum of 50 iterations. The Random Seed Value was 1235. No ordination analysis has been attempted.

Only species and their cover/abundance scores were analysed using PATN. The other attribute data (geology, location, topography) were manually analysed separately, to assist in the description of the associations.

Results

The iterative process revealed that the most easily interpreted results are those in which there are roughly 10 or so clusters (associations). The final result of the PATN analysis has 8 major groups (associations). Throughout the iterative process, some clusters consistently and repeatedly came out as distinct groups.

The associations are easily interpreted, based on either:

- their dominant or co-dominant or minor species, or a combination of these;
- the site's parent geology;
- the site's topographical location;
- the association's fidelity to region; and / or
- combinations of two or more these attributes.

It is recognised that the classification could have had more power had species within the genera *Austrodanthonia*, *Wahlenbergia*, *Geranium*, *Euchiton* (and others) been identified to species. While it is acknowledged that some loss of detail in the potential analysis results may have resulted from this move, it is also recognised that very few people can effectively identify some of these species readily, either in the field or in the lab. Thus, the analysis result can be said to be useful for practitioners with limited identification skills. This also results in a classification that then does not require specific identification of these groups, either from vegetative material or from flowering material by non-specialists. While there is a trade-off between a higher-level classification that may take in subtle or perhaps not-too subtle differences in associations due to the correct identification of species within these groups, the resultant classification is thus considered to be useful for practitioners with limited skills in identification of these groups.

The result aligns well with previous analyses (i.e. Benson, 1994; Sharp, 1997). However, there are some previously unrecognised associations. The full details of each association are in Appendix 1. A summary of the results follows.

The 8 lowland associations are:

- **Group 1. Sub-montane Moist Grassland**
 - A newly recognised association
- **Group 2. Wet Tussock Grassland (River Tussock – Kangaroo Grass - Rush)**
 - Conforms with Benson's Community 8
- **Group 3. Wet Tussock Grassland (Wallaby Grass – Kangaroo Grass – Rush – Blown Grass)**
 - Intergrade between Benson's Communities 2 & 8
- **Group 4. Lacustrine Ephemeral Grassland**
 - A newly recognised association
- **Group 5. North-western & Eastern Wallaby Grass - Red-grass Tussock Grassland**
 - Conforms with Benson's Communities 1 and 5
- **Group 6. Monaro Dry Tussock Grassland**
 - Conforms with Benson's Communities 3a, 3b and 4
- **Group 7. Tablelands Moist Tussock Grassland**
 - Conforms with Benson's Community 2
- **Group 8. North-western & Eastern Kangaroo Grass - Wire-grass Dry Tussock Grassland**
 - A newly recognised association

Appendix 1 provides information about each group. The information headings and their explanations are as follows:

Title: A short name based on the longer common name of the association.

Number of plots/sites: Shows the number of plots or sites that fall into this association.

Common name: Shows the common name of the association.

Scientific name: Shows the scientific name of the association.

Dominants: Shows the most prominent species of the association, in descending order of dominance.

Group cover: This is a value derived by summing the cover values (Braun-Blanquet) for that species within the group and then dividing by the total number of sites in that group.

Sub-dominants: Shows other prominent species of the association, in descending order of dominance.

Geology: There are four major geology groups (basalt, granite, sedimentary and colluvium/alluvium) and one minor occurrence of limestone.

Topography: There are four topographical positions (flats, footslopes, midslopes, upperslopes/plateaux).

Regions: There are three major regions (Monaro, North-western and Eastern) and a minor region (South-western). The major regions are as in Environment ACT (2005), with the ACT region considered to be part of the North-western Region in this analysis. The South-western Region includes the part of the South Eastern Highlands that occur to the west of the Kosciuzko Range (i.e. the Tumut to Khancoban area).

Group frequency: This is a value derived by summing the number of occurrences for that species or attribute within the group and then dividing by the total number of sites in that group.

Range: This is where sites within the group can be expected to occur.

Outstanding examples: Lists outstanding examples of this association on public lands.

Total native species: This is the total number of species that occur in all sites analysed within this association.

The species tables: These present all species found in the association in alphabetical order, accompanied by their group cover and group frequency figures.

Unique species: Unique species are confined to one group. These species may be useful indicators for that association.

Species found in 4 associations or fewer (including unique species): These species may also be useful indicators for that association.

The dendrogram (Figure 1) shows the relationships of the eight associations.

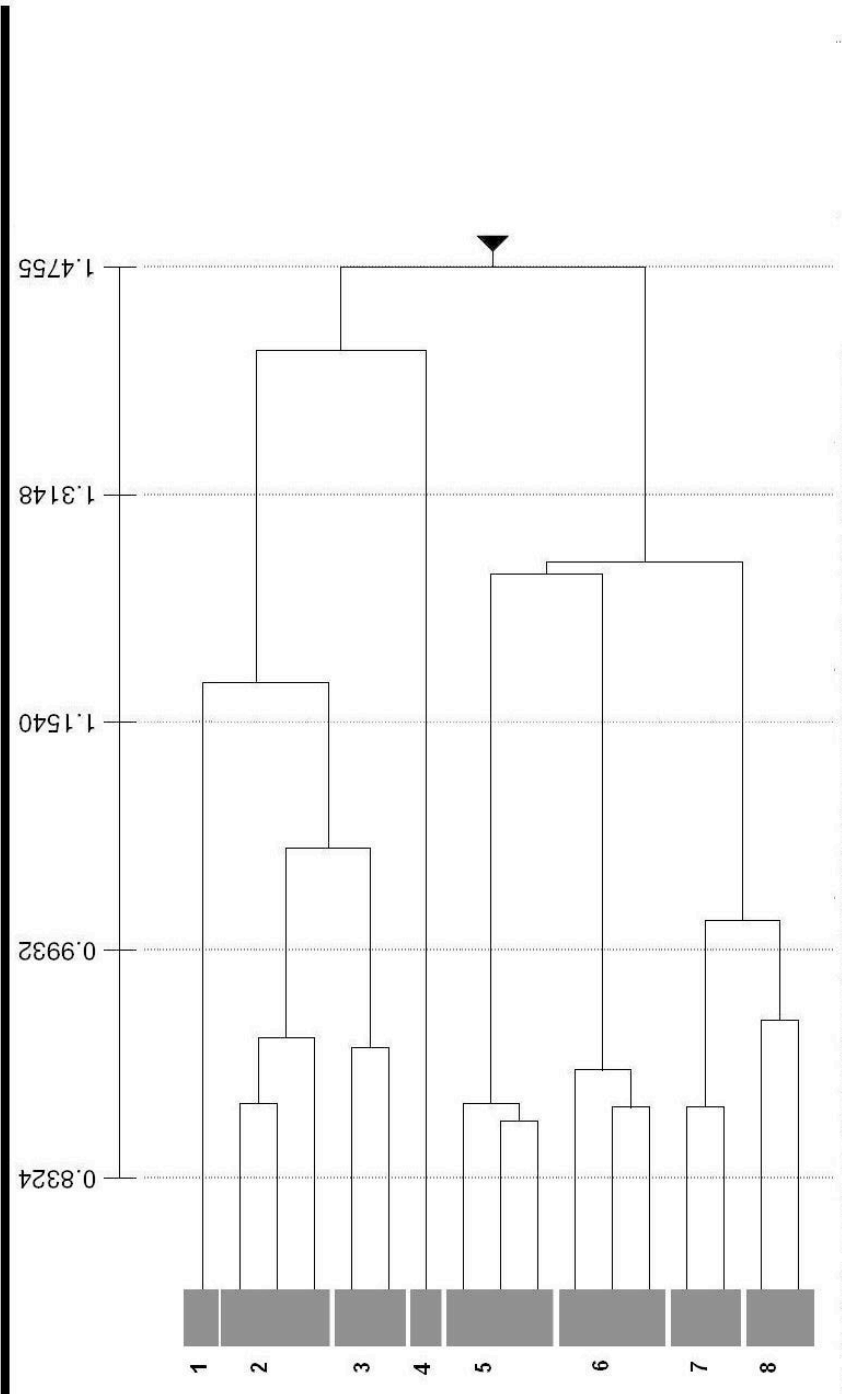
It is recognised that some of the names assigned to associations does not align with the format assigned by John Benson in his vegetation classification framework. It is suggested that these names be workshopped, with participants to such workshops including local experts, Commonwealth, NSW and ACT agency staff, and Friends of Grassland members.

This paper has not been peer-reviewed. It is proposed to formally publish this in a botanical journal.

Figure 1. The eight Natural Temperate Grassland associations

Fusion Type: Flexible UPGMA Beta = -0.10
 On Association: Kulczynski Rows Created on: 14:19, May 12, 2009

Row Fusion Dendrogram



Key: 1 = Sub-montane Moist Grassland; 2 = Wet Tussock Grassland (a) River Tussock, Kangaroo Grass & Rush; 3 = Wet Tussock Grassland (b) Wallaby Grass, Kangaroo Grass, Rush & Blown-grass; 4 = Lacustrine Ephemeral Grassland; 5 = North-western & Eastern Wallaby Grass - Red-grass Tussock Grassland; 6 = Monaro Dry Tussock Grassland; 7 = Tablelands Moist Tussock Grassland; 8 = North-western & Eastern Kangaroo Grass - Wire-grass Dry Tussock Grassland

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Appendix 1

Group 1. Sub-montane Moist Grassland

Number of plots/sites

22

Group name: Snow Tussock - Kangaroo Grass - Tufted Daisy - Woodruff - Pale Everlasting submontane moist tussock grassland of the southern Shoalhaven valley, outer fringe of the Monaro and southern ACT in the South Eastern Highlands Bioregion

Scientific name: *Poa sieberiana* - *Themeda australis* - *Asperula* spp. - *Helichrysum rutidolepis* submontane moist tussock grassland of the southern Shoalhaven valley, outer fringe of the Monaro and southern ACT in the South Eastern Highlands Bioregion

		Group cover		Group cover
Dominants	<i>Poa sieberiana</i>	3.73		<i>Geranium</i> spp.
	<i>Themeda australis</i>	3.18		<i>Hemarthria uncinata</i>
	<i>Brachycome scapigera</i>	2.00		<i>Plantago varia</i>
	<i>Asperula</i> spp. (<i>conferta</i> or <i>scoparia</i>)	1.45		<i>Veronica gracilis</i>
	<i>Helichrysum rutidolepis</i>	1.41		<i>Viola betonicifolia</i>
Sub-dominants				<i>Acaena novae-zelandiae</i>
	<i>Plantago antarctica</i>	1.23		<i>Carex</i> spp. (<i>breviculmis</i> or <i>inversa</i>)
	<i>Austrodanthonia</i> spp.	1.18		<i>Oreomyrrhis eriopoda</i>
	<i>Hydrocotyle algida</i>	1.09		<i>Poa labillardierei</i>
	<i>Ranunculus lappaceus</i>	1.09		<i>Epilobium</i> spp.
	<i>Carex</i> spp.	1.00		Group frequency
	<i>Geranium antrorsum</i>	1.00	Geology	Colluvium / alluvium
	<i>Leptorhynchos squamatus</i>	1.00		Granite
	<i>Rumex brownii</i>	1.00		Basalt
	<i>Juncus</i> spp.	0.95	Topography	Footslopes
	<i>Elymus scaber</i>	0.86		Flats
	<i>Styliidium graminifolium</i>	0.82		Upperslopes / plateaux
	<i>Lomandra longifolia</i>	0.77		Midslopes
	<i>Scleranthus biflorus</i>	0.73	Regions	Monaro
	<i>Craspedia</i> spp.	0.68		Eastern

Range: Occurs in sub-montane areas of the southern Eastern Sub-region, the outer fringe of the Monaro and the ACT.

Outstanding examples:

In NSW, grasslands in the Nunnock Swamp area of the South East Forests National Park and in the upper catchment of the Shoalhaven River at Gundillion Cemetery; in the ACT, grasslands at Bradleys Creek, Kennedys Rd, Orroral Valley and Sams Fire Trail.

Group 1. Sub-montane Moist Grassland

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Acacia melanoxylon</i>	0.05	0.05	<i>Eragrostis</i> spp.	0.05	0.05
<i>Acaena novae-zelandiae</i>	0.59	0.45	<i>Eucalyptus dalrympleana</i>	0.05	0.05
<i>Acaena ovina</i>	0.55	0.27	<i>Eucalyptus ovata</i>	0.05	0.05
<i>Acrotriche serrulata</i>	0.14	0.05	<i>Eucalyptus pauciflora</i>	0.45	0.18
<i>Agrostis</i> spp.	0.18	0.14	<i>Euchiton involucratus</i>	0.05	0.05
<i>Ajuga australis</i>	0.14	0.14	<i>Euchiton</i> spp.	0.45	0.23
<i>Arthropodium milleflorum</i>	0.18	0.09	<i>Geranium antrorsum</i>	1.00	0.55
<i>Asperula</i> spp. (<i>conferta</i> or <i>scoparia</i>)	1.45	0.95	<i>Geranium</i> spp.	0.68	0.59
<i>Astroloma humifusum</i>	0.05	0.05	<i>Glycine clandestina</i>	0.09	0.09
<i>Austrodanthonia</i> spp.	1.18	0.59	<i>Glycine tabacina</i>	0.05	0.05
<i>Austrostipa scabra</i> var. <i>falcata</i>	0.05	0.05	<i>Gonocarpus tetragynus</i>	0.05	0.05
<i>Banksia marginata</i>	0.05	0.05	<i>Hake microcarpa</i>	0.27	0.18
<i>Bossiaea riparia</i>	0.05	0.05	<i>Helichrysum rutidolepis</i>	1.41	0.64
<i>Bothriochloa macra</i>	0.05	0.05	<i>Hemarthria uncinata</i>	0.64	0.23
<i>Brachycome graminea</i>	0.05	0.05	<i>Hydrocotyle laxiflora</i>	0.07	0.41
<i>Brachycome scapigera</i>	2.00	0.09	<i>Hypericum gramineum</i>	0.09	0.09
<i>Brachycome spathulata</i>	0.09	0.59	<i>Hypericum japonicum</i>	0.09	0.09
<i>Bulbine bulbosa</i>	0.05	0.05	<i>Hypoxis</i> spp.	0.50	0.05
<i>Bursaria spinosa</i> subsp. <i>lasiophylla</i>	0.05	0.05	<i>Hydrocotyle algida</i>	1.09	0.18
<i>Calotis scabiosifolia</i> var. <i>integrifolia</i>	0.05	0.05	<i>Isotoma fluviatilis</i>	0.14	0.09
<i>Carex appressa</i>	0.05	0.05	<i>Juncus</i> spp.	0.95	0.73
<i>Carex</i> spp.	1.00	0.77	<i>Lepidosperma laterale</i>	0.05	0.05
<i>Carex</i> spp. (<i>breviculmis</i> or <i>inversa</i>)	0.59	0.23	<i>Leptorhynchus squamatus</i>	1.00	0.55
<i>Centella asiatica</i>	0.05	0.05	<i>Lomandra longifolia</i>	0.77	0.32
<i>Centipeda minima</i>	0.05	0.05	<i>Lomandra</i> spp. (<i>bracteata</i> or <i>filiformis</i>)	0.14	0.14
<i>Chloris truncata</i>	0.05	0.05	<i>Luzula</i> spp.	0.45	0.23
<i>Chrysocephalum apiculatum</i>	0.27	0.27	<i>Microlaena stipoides</i>	0.50	0.27
<i>Convolvulus angustissimus</i>	0.05	0.05	<i>Microtis</i> spp.	0.14	0.05
<i>Cotula alpina</i>	0.14	0.14	<i>Mirbelia oxylobioides</i>	0.05	0.05
<i>Craspedia</i> spp.	0.68	0.45	<i>Mitrasacme serpyllifolia</i>	0.05	0.05
<i>Cryptandra amara</i>	0.05	0.05	<i>Ophioglossum lusitanicum</i>	0.09	0.09
<i>Cullen microcephalum</i>	0.32	0.14	<i>Oreomyrrhis eriopoda</i>	0.59	0.32
<i>Cynoglossum suaveolens</i>	0.36	0.27	<i>Oxalis perennans</i>	0.41	0.36
<i>Deyeuxia quadriseta</i>	0.14	0.09	<i>Panicum effusum</i>	0.09	0.09
<i>Dichelachne</i> spp.	0.14	0.09	<i>Pelargonium</i> sp. 1	0.05	0.05
<i>Dichondra repens</i>	0.14	0.09	<i>Plantago antarctica</i>	1.23	0.45
<i>Dillwynia prostrata</i>	0.14	0.09	<i>Plantago gaudichaudii</i>	0.09	0.64
<i>Diplarrena moraea</i>	0.09	0.09	<i>Plantago varia</i>	0.64	0.05
<i>Discaria pubescens</i>	0.14	0.09	<i>Poa labillardierei</i>	0.59	0.23
<i>Diuris chryseopsis</i>	0.14	0.09	<i>Poa meionectes</i>	0.55	0.09
<i>Diuris monticola</i>	0.27	0.09	<i>Poa sieberiana</i>	3.73	1.00
<i>Diuris sulphurea</i>	0.09	0.09	<i>Podolepis jaceoides</i>	0.23	0.09
<i>Elymus scaber</i>	0.86	0.36	<i>Poranthera microphylla</i>	0.36	0.18
<i>Enneapogon nigricans</i>	0.09	0.05	<i>Prasophyllum wilkinsoniorum</i>	0.09	0.14
<i>Epacris</i> spp.	0.23	0.18	<i>Pterostylis</i> spp.	0.05	0.05
<i>Epilobium</i> spp.	0.55	0.41	<i>Pultenaea</i> spp.	0.05	0.05

Group 1. Sub-montane Moist Grassland

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Ranunculus lappaceus</i>	1.09	0.68	<i>Stellaria pungens</i>	0.23	0.09
<i>Rubus parvifolius</i>	0.09	0.09	<i>Stylidium graminifolium</i>	0.82	0.36
<i>Rumex brownii</i>	1.00	0.73	<i>Tasmannia</i> sp.	0.05	0.05
<i>Schoenus apogon</i>	0.18	0.09	<i>Themeda australis</i>	3.18	1.00
<i>Scleranthus biflorus</i>	0.73	0.45	<i>Thesium australe</i>	0.05	0.05
<i>Scleranthus fasciculatus</i>	0.36	0.18	<i>Thysanotus tuberosus</i>	0.14	0.09
<i>Senecio lautus</i>	0.05	0.05	<i>Veronica gracilis</i>	0.64	0.41
<i>Solenogyne gunnii</i>	0.50	0.36	<i>Viola betonicifolia</i>	0.64	0.32
<i>Sorghum leiocladum</i>	0.09	0.09	<i>Vittadinia cuneata</i>	0.09	0.05
<i>Stackhousia monogyna</i>	0.05	0.05	<i>Vittadinia muelleri</i>	0.32	0.18
<i>Stellaria angustifolia</i>	0.27	0.14	<i>Wahlenbergia</i> spp.	0.55	0.27

Total native species:

114

Unique species of Sub-montane Moist Grassland or those found in four associations or fewer (showing number of occurrences in other associations)

Unique spp:

6

Unique species as percentage of total species:

5.3%

Species found in 4 associations or fewer (including unique species):

38

Species found in 4 associations or fewer (including unique species) as percentage of total:

33.3%

Unique species of Sub-montane Moist Grassland

Cotula alpina
Diplarrena moraea
Diuris monticola
Pelargonium sp.1
Prasophyllum wilkinsoniorum
Tasmannia sp.

Species of Sub-montane Moist Grassland) found in four associations or fewer (showing number of occurrences in other associations)

Species	No of occurrences	Species	No of occurrences
<i>Acacia melanoxylon</i>	4	<i>Geranium antrorsum</i>	4
<i>Ajuga australis</i>	4	<i>Hypericum japonicum</i>	3
<i>Banksia marginata</i>	3	<i>Hypoxis</i> spp.	4
<i>Bossiaea riparia</i>	3	<i>Hydrocotyle algida</i>	2
<i>Brachycome graminea</i>	4	<i>Isotoma fluviatilis</i>	4
<i>Brachycome scapigera</i>	3	<i>Lepidosperma laterale</i>	3
<i>Brachycome spathulata</i>	3	<i>Mirbelia oxylobioides</i>	4
<i>Calotis scabiosifolia</i> var. <i>integrifolia</i>	4	<i>Mitrasacme serpyllifolia</i>	2
<i>Centipeda minima</i>	3	<i>Ophioglossum lusitanicum</i>	4
<i>Cotula alpina</i>	1	<i>Pelargonium</i> sp.1	1
<i>Cullen microcephalum</i>	4	<i>Plantago antarctica</i>	4
<i>Dillwynia prostrata</i>	3	<i>Podolepis jaceoides</i>	3
<i>Diplarrena moraea</i>	1	<i>Prasophyllum wilkinsoniorum</i>	1
<i>Discaria pubescens</i>	4	<i>Senecio lautus</i>	2
<i>Diuris monticola</i>	1	<i>Stackhousia monogyna</i>	4
<i>Diuris sulphurea</i>	2	<i>Stellaria angustifolia</i>	4
<i>Epacris</i> spp.	2	<i>Tasmannia</i> sp.	1
<i>Eucalyptus dalrympleana</i>	4	<i>Thesium australe</i>	2
<i>Eucalyptus ovata</i>	3	<i>Thysanotus tuberosus</i>	3

Group 2. Wet Tussock Grassland (River Tussock – Kangaroo Grass – Rush)

Number of plots/sites

35

Group name:

Scientific name:

		Group cover			Group cover
Dominants	<i>Poa labillardieri</i>	5.49		<i>Acaena nova-zelandiae</i>	0.60
	<i>Themeda australis</i>	2.83		<i>Oxalis perennans</i>	0.54
	<i>Juncus</i> spp.	2.49		<i>Scleranthus biflorus</i>	0.51
Sub-dominants	<i>Austrodanthonia</i> spp.	1.54		<i>Agrostis</i> spp.	0.51
	<i>Carex appressa</i>	1.14		<i>Hypericum gramineum</i>	0.43
	<i>Microlaena stipoides</i>	1.03		<i>Eucalyptus pauciflora</i>	0.43
	<i>Carex</i> spp. (<i>breviculmis</i> or <i>inversa</i>)	0.94		<i>Eucalyptus viminalis</i>	0.40
	<i>Rumex brownii</i>	0.91		<i>Persicaria prostrata</i>	0.37
	<i>Elymus scaber</i>	0.91			Group frequency
	<i>Asperula</i> spp. (<i>conferta</i> or <i>scoparia</i>)	0.89			
	<i>Acaena ovina</i>	0.86	Geology	Colluvium / alluvium	0.91
	<i>Epilobium</i> spp.	0.83		Basalt	0.03
	<i>Euchiton</i> spp.	0.83		Granite	0.03
	<i>Helichrysum rutidolepis</i>	0.80	Topography	Flats	0.66
	<i>Poa meionectes</i>	0.77		Footslopes	0.29
	<i>Hydrocotyle algida</i>	0.74		Midslopes	0.03
	<i>Geranium</i> spp.	0.71	Regions	North-western	0.17
	<i>Solenogyne gunnii</i>	0.69		Eastern	0.46
	<i>Craspedia</i> spp.	0.66		Monaro	0.34

Range: Widespread throughout the Southern Tablelands in drainage lines, flats and lower footslopes.

Outstanding examples:

Grasslands in flats adjacent to rivers or creeks at Sherlock River south of Captains Flat, Murrumbidgee River at Bolero, Bibbenluke Common, Snowball Creek at Deua National Park; O'Keefes Travelling Stock reserve (Tarago) and Laggan TSR near Crookwell,

Group 2. Wet Tussock Grassland (River Tussock – Kangaroo Grass – Rush)

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Acacia dealbata</i>	0.11	0.11	<i>Daviesia genistifolia</i>	0.03	0.03
<i>Acacia genistifolia</i>	0.03	0.03	<i>Daviesia leptophylla</i>	0.03	0.03
<i>Acacia mearnsii</i>	0.11	0.06	<i>Desmodium varians</i>	0.03	0.03
<i>Acacia melanoxylon</i>	0.09	0.09	<i>Deyeuxia quadriseta</i>	0.17	0.09
<i>Acaena novae-zelandiae</i>	0.60	0.31	<i>Dichelachne</i> spp.	0.23	0.11
<i>Acaena ovina</i>	0.86	0.40	<i>Dichondra repens</i>	0.31	0.17
<i>Agrostis</i> spp.	0.51	0.23	<i>Dichopogon fimbriatus</i>	0.03	0.03
<i>Alternanthera</i> sp.A	0.06	0.06	<i>Drosera peltata</i>	0.11	0.06
<i>Amphibromus</i> spp.	0.09	0.03	<i>Einadia nutans</i>	0.09	0.09
<i>Aristida ramosa</i>	0.40	0.11	<i>Elymus scaber</i>	0.91	0.43
<i>Arthropodium milleflorum</i>	0.14	0.03	<i>Enneapogon nigricans</i>	0.09	0.06
<i>Asperula</i> spp. (<i>conferta</i> or <i>scoparia</i>)	0.89	0.46	<i>Epacris</i> spp.	0.20	0.06
<i>Astroloma humifusum</i>	0.11	0.06	<i>Epilobium</i> spp.	0.82	0.06
<i>Austrodanthonia carphoides</i>	0.31	0.11	<i>Eragrostis</i> spp.	0.29	0.17
<i>Austrodanthonia</i> spp.	1.54	0.49	<i>Eriochilus cucullatus</i>	0.03	0.03
<i>Austrostipa bigeniculata</i>	0.31	0.09	<i>Eryngium ovinum</i>	0.06	0.06
<i>Austrostipa scabra</i> var. <i>falcata</i>	0.14	0.06	<i>Eucalyptus aggregata</i>	0.23	0.09
<i>Banksia marginata</i>	0.14	0.06	<i>Eucalyptus bridgesiana</i>	0.14	0.09
<i>Bothriochloa macra</i>	0.43	0.14	<i>Eucalyptus cinerea</i>	0.06	0.06
<i>Brachycome decipiens</i>	0.14	0.09	<i>Eucalyptus dalrympleana</i>	0.03	0.03
<i>Brachycome graminea</i>	0.03	0.03	<i>Eucalyptus melliodora</i>	0.09	0.06
<i>Brachycome ptychocarpa</i>	0.06	0.03	<i>Eucalyptus pauciflora</i>	0.43	0.23
<i>Brachycome scapigera</i>	0.03	0.03	<i>Eucalyptus rubida</i>	0.09	0.09
<i>Bursaria spinosa</i> subsp. <i>lasiophylla</i>	0.03	0.03	<i>Eucalyptus stellulata</i>	0.09	0.09
<i>Calotis scabiosifolia</i> var. <i>integrifolia</i>	0.06	0.03	<i>Eucalyptus viminalis</i>	0.40	0.20
<i>Carex appressa</i>	1.14	0.40	<i>Euchiton involucratus</i>	0.37	0.06
<i>Carex bichenoviana</i>	0.23	0.11	<i>Euchiton</i> spp.	0.83	0.40
<i>Carex</i> spp. (<i>breviculmis</i> or <i>inversa</i>)	0.94	0.40	<i>Geranium antrorsum</i>	0.20	0.09
<i>Carex</i> spp.	0.17	0.17	<i>Geranium</i> spp.	0.71	0.37
<i>Centella asiatica</i>	0.09	0.03	<i>Glycine clandestina</i>	0.09	0.03
<i>Centipeda cunninghamiana</i>	0.09	0.06	<i>Glycine tabacina</i>	0.11	0.06
<i>Centipeda minima</i>	0.09	0.03	<i>Gonocarpus micranthus</i>	0.03	0.03
<i>Chloris truncata</i>	0.11	0.03	<i>Gonocarpus tetragynus</i>	0.17	0.11
<i>Chrysocephalum apiculatum</i>	0.14	0.09	<i>Goodenia hederacea</i>	0.03	0.03
<i>Chrysocephalum semipapposum</i>	0.06	0.06	<i>Goodenia pinnatifida</i>	0.11	0.06
<i>Convolvulus angustissimus</i>	0.20	0.14	<i>Grevillea juniperina</i>	0.03	0.03
<i>Crassula sieberiana</i>	0.09	0.09	<i>Grevillea lanigera</i>	0.06	0.06
<i>Craspedia</i> spp.	0.66	0.29	<i>Hake microcarpa</i>	0.31	0.11
<i>Cullen microcephalum</i>	0.09	0.06	<i>Haloragis heterophyllus</i>	0.17	0.11
<i>Cymbonotus lawsonianus</i>	0.23	0.17	<i>Helichrysum rutidolepis</i>	0.80	0.31
<i>Cynodon dactylon</i>	0.29	0.09	<i>Hemarthria uncinata</i>	0.23	0.11
<i>Daucus glochidiatus</i>	0.06	0.03	<i>Hovea linearis</i>	0.11	0.06

Group 2. Wet Tussock Grassland (River Tussock – Kangaroo Grass – Rush)

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Hydrocotyle algida</i>	0.74	0.34	<i>Plantago varia</i>	0.23	0.17
<i>Hydrocotyle laxiflora</i>	0.09	0.09	<i>Poa labillardierei</i>	5.49	0.97
<i>Hypericum gramineum</i>	0.43	0.20	<i>Poa meionectes</i>	0.77	0.23
<i>Hypoxis</i> spp.	0.03	0.03	<i>Poa sieberiana</i>	0.31	0.09
<i>Isotoma fluviatilis</i>	0.29	0.17	<i>Poranthera microphylla</i>	0.14	0.09
<i>Juncus bufonius</i>	0.06	0.06	<i>Prunella vulgaris</i>	0.11	0.06
<i>Juncus</i> spp.	2.49	0.94	<i>Pultenaea</i> spp.	0.17	0.09
<i>Kunzea ericoides</i>	0.03	0.03	<i>Ranunculus lappaceus</i>	0.26	0.09
<i>Kunzea parvifolia</i>	0.11	0.03	<i>Ranunculus</i> spp.	0.40	0.14
<i>Leptorhynchus squamatus</i>	0.31	0.20	<i>Rubus parvifolius</i>	0.14	0.09
<i>Leucopogon fraseri</i>	0.09	0.03	<i>Rumex brownii</i>	0.91	0.49
<i>Lissanthe strigosa</i>	0.17	0.03	<i>Rumex dumosus</i>	0.09	0.03
<i>Lomandra longifolia</i>	0.11	0.11	<i>Schoenus apogon</i>	0.40	0.20
<i>Lomandra multiflora</i>	0.03	0.03	<i>Scleranthus biflorus</i>	0.51	0.31
<i>Lomandra</i> spp. (<i>bracteata</i> or <i>filiformis</i>)	0.23	0.11	<i>Scleranthus diander</i>	0.09	0.06
<i>Luzula</i> spp.	0.29	0.14	<i>Scleranthus fasciculatus</i>	0.06	0.06
<i>Lythrum hyssopifolia</i>	0.26	0.14	<i>Solenogyne dominii</i>	0.11	0.09
<i>Melaleuca parvistaminea</i>	0.14	0.09	<i>Solenogyne gunnii</i>	0.69	0.29
<i>Microlaena stipoides</i>	1.03	0.37	<i>Stellaria angustifolia</i>	0.03	0.03
<i>Microtis</i> spp.	0.09	0.06	<i>Stylidium graminifolium</i>	0.09	0.03
<i>Mirbelia oxylobioides</i>	0.14	0.06	<i>Themeda australis</i>	2.83	0.66
<i>Neopaxia australasica</i>	0.03	0.03	<i>Trachymene humilis</i>	0.11	0.06
<i>Ophioglossum lusitanicum</i>	0.03	0.03	<i>Tricoryne elatior</i>	0.17	0.11
<i>Oreomyrrhis eriopoda</i>	0.17	0.11	<i>Triptilodiscus pygmaeus</i>	0.03	0.03
<i>Oxalis perennans</i>	0.54	0.37	<i>Veronica gracilis</i>	0.06	0.06
<i>Ozothamnus thyrsoides</i>	0.03	0.03	<i>Viola betonicifolia</i>	0.14	0.09
<i>Panicum effusum</i>	0.40	0.17	<i>Vittadinia cuneata</i>	0.06	0.06
<i>Pennesetum alopecuroides</i>	0.23	0.06	<i>Vittadinia muelleri</i>	0.26	0.11
<i>Persicaria prostrata</i>	0.37	0.23	<i>Vittadinia triloba</i>	0.03	0.03
<i>Pimelea curviflora</i>	0.03	0.03	<i>Wahlenbergia</i> spp.	0.09	0.09
<i>Plantago antarctica</i>	0.06	0.03	<i>Wurmbea dioica</i>	0.14	0.06

Group 2. Wet Tussock Grassland (River Tussock – Kangaroo Grass – Rush)

Total native species:

146

Unique species of Wet Tussock Grassland (River Tussock – Kangaroo Grass – Rush) or those found in four associations or fewer (showing number of occurrences in other associations)

Unique spp:

2

Unique species as percentage of total species:

1.4%

Species found in 4 associations or fewer (including unique species):

42

Species found in 4 associations or fewer (including unique species) as percentage of total:

28.8%

Unique species of Wet Tussock Grassland (River Tussock – Kangaroo Grass – Rush)

Grevillea juniperina

Trachymene humilis

Species of Wet Tussock Grassland (River Tussock – Kangaroo Grass – Rush) found in four associations or fewer (showing number of occurrences in other associations)

Species	No of occurrences	Species	No of occurrences
<i>Acacia genistifolia</i>	4	<i>Eucalyptus viminalis</i>	3
<i>Acacia melanoxylon</i>	4	<i>Geranium antrorsum</i>	4
<i>Alternanthera sp.A</i>	4	<i>Gonocarpus micranthus</i>	2
<i>Banksia marginata</i>	3	<i>Grevillea juniperina</i>	1
<i>Brachycome decipiens</i>	3	<i>Grevillea lanigera</i>	3
<i>Brachycome graminea</i>	4	<i>Hydrocotyle algida</i>	4
<i>Brachycome ptychocarpa</i>	2	<i>Hypoxis spp.</i>	4
<i>Brachycome scapigera</i>	3	<i>Isotoma fluviatilis</i>	4
<i>Calotis scabiosifolia</i> var. <i>integrifolia</i>	4	<i>Lissanthe strigosa</i>	4
<i>Centipeda minima</i>	3	<i>Melaleuca parvistaminea</i>	4
<i>Cullen microcephalum</i>	4	<i>Mirbelia oxylobioides</i>	4
<i>Daucus glochidiatus</i>	3	<i>Neopaxia australasica</i>	3
<i>Daviesia genistifolia</i>	3	<i>Ophioglossum lusitanicum</i>	4
<i>Daviesia leptophylla</i>	3	<i>Ozothamnus thyrsoideus</i>	2
<i>Epacris spp.</i>	2	<i>Pennesetum alopecuroides</i>	3
<i>Eriochilus cucullatus</i>	4	<i>Plantago antarctica</i>	4
<i>Eucalyptus aggregata</i>	2	<i>Prunella vulgaris</i>	4
<i>Eucalyptus cinerea</i>	2	<i>Scleranthus diander</i>	3
<i>Eucalyptus dalrympleana</i>	4	<i>Stellaria angustifolia</i>	4
<i>Eucalyptus melliodora</i>	4	<i>Trachymene humilis</i>	1
<i>Eucalyptus stellulata</i>	3	<i>Vittadinia triloba</i>	4

Group 3. Wet Tussock Grassland (Wallaby Grass – Kangaroo Grass – Rush – Blown Grass)

Number of plots/sites

29

Group name:

Scientific name:

		Group cover			Group cover
Dominants	<i>Austrodanthonia</i> spp.	2.48		<i>Dichelachne</i> spp.	0.69
	<i>Juncus</i> spp.	2.34		<i>Wahlenbergia</i> spp.	0.69
	<i>Themeda australis</i>	2.28		<i>Cynodon dactylon</i>	0.69
	<i>Agrostis</i> spp.	1.41		<i>Calocephalus citreus</i>	0.66
Sub-dominants	<i>Hemarthria uncinata</i>	1.66		<i>Chrysocephalum apiculatum</i>	0.66
	<i>Microlaena stipoides</i>	1.41		<i>Rumex brownii</i>	0.66
	<i>Poa labillardierei</i>	1.38		<i>Acaena ovina</i>	0.48
	<i>Carex appressa</i>	1.34		<i>Hypericum gramineum</i>	0.45
	<i>Euchiton</i> spp.	1.24			Group frequency
	<i>Eragrostis</i> spp.	1.10	Geology	Colluvium / alluvium	0.55
	<i>Helichrysum rutidolepis</i>	1.10		Sediments	0.21
	<i>Hydrocotyle algida</i>	1.03		Granite	0.07
	<i>Schoenus apogon</i>	1.00	Topography	Flats	0.55
	<i>Elymus scaber</i>	0.97		Footslopes	0.24
	<i>Haloragus heterophyllus</i>	0.93		Midslopes	0.10
	<i>Eucalyptus pauciflora</i>	0.90			
	<i>Asperula</i> spp. (<i>conferta</i> or <i>scoparia</i>)	0.76	Regions	Eastern	0.45
	<i>Craspedia</i> spp.	0.72		North-western	0.45
	<i>Poa sieberiana</i>	0.72		South-western	0.10

Range: In the North-western and Eastern parts of the Southern Tablelands, and in the South-western Region near Rosewood, in drainage lines, flats and lower footslopes.

Outstanding examples:

Grasslands in flats or footslopes at Reedy Creek TSR near Braidwood, Logans TSR and Rosewood TSR near Tumbarumba, at Wet Lagoon, Breadalbane, and at Mulligans Flat, ACT.

Group 3. Wet Tussock Grassland (Wallaby Grass – Kangaroo Grass – Rush – Blown Grass)

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Acacia dealbata</i>	0.03	0.03	<i>Eucalyptus ovata</i>	0.31	0.10
<i>Acacia mearnsii</i>	0.28	0.14	<i>Eucalyptus pauciflora</i>	0.90	0.28
<i>Acaena novae-zelandiae</i>	0.03	0.03	<i>Eucalyptus rubida</i>	0.41	0.17
<i>Acaena ovina</i>	0.48	0.31	<i>Eucalyptus stellulata</i>	0.14	0.03
<i>Agrostis</i> spp.	1.41	0.45	<i>Eucalyptus viminalis</i>	0.03	0.03
<i>Ajuga australis</i>	0.03	0.03	<i>Euchiton involucratus</i>	0.07	0.07
<i>Amphibromus</i> spp.	0.41	0.14	<i>Euchiton</i> spp.	1.24	0.52
<i>Aristida ramosa</i>	0.52	0.21	<i>Geranium</i> spp.	0.14	0.14
<i>Asperula</i> spp. (<i>conferta</i> or <i>scoparia</i>)	0.76	0.34	<i>Gonocarpus micranthus</i>	0.28	0.07
<i>Astroloma humifusum</i>	0.14	0.07	<i>Gonocarpus tetragynus</i>	0.24	0.14
<i>Austroanthonia carphoides</i>	0.07	0.03	<i>Goodenia hederacea</i>	0.03	0.03
<i>Austroanthonia</i> spp.	2.48	0.55	<i>Goodenia pinnatifida</i>	0.10	0.03
<i>Austrostipa bigeniculata</i>	0.31	0.14	<i>Hake macrocarpa</i>	0.07	0.03
<i>Austrostipa scabra</i> var. <i>falcata</i>	0.10	0.03	<i>Haloragus heterophyllus</i>	0.93	0.45
<i>Bossiaea prostrata</i>	0.03	0.03	<i>Helichrysum rutidolepis</i>	1.10	0.41
<i>Bothriochloa macra</i>	0.38	0.14	<i>Hemarthria uncinata</i>	1.66	0.45
<i>Brachycome decipiens</i>	0.03	0.03	<i>Hibbertia obtusifolia</i>	0.07	0.03
<i>Brachycome ptychocarpa</i>	0.10	0.03	<i>Hovea linearis</i>	0.07	0.07
<i>Brachycome scapigera</i>	0.10	0.03	<i>Hydrocotyle algida</i>	1.03	0.34
<i>Bulbine bulbosa</i>	0.14	0.03	<i>Hydrocotyle laxiflora</i>	0.31	0.14
<i>Burchardia umbellata</i>	0.21	0.07	<i>Hypericum gramineum</i>	0.45	0.28
<i>Caesia calliantha</i>	0.03	0.03	<i>Hypericum japonicum</i>	0.28	0.10
<i>Calocephalus citreus</i>	0.66	0.24	<i>Hypoxis</i> spp.	0.45	0.17
<i>Calotis anthemoides</i>	0.41	0.14	<i>Isotoma fluviatilis</i>	0.34	0.14
<i>Carex appressa</i>	1.34	0.48	<i>Juncus bufonius</i>	0.34	0.14
<i>Carex bichenoviana</i>	0.21	0.10	<i>Juncus</i> spp.	2.34	0.93
<i>Carex</i> spp. (<i>breviculmis</i> or <i>inversa</i>)	0.48	0.21	<i>Kunzea parvifolia</i>	0.24	0.17
<i>Centella asiatica</i>	0.31	0.17	<i>Kunzea ericoides</i>	0.28	0.07
<i>Centipeda cunninghamiana</i>	0.10	0.03	<i>Leptorhynchos squamatus</i>	0.24	0.10
<i>Centipeda minima</i>	0.03	0.03	<i>Leucopogon fraseri</i>	0.07	0.03
<i>Chrysocephalum apiculatum</i>	0.66	0.21	<i>Lilaeopsis polyantha</i>	0.07	0.03
<i>Convolvulus angustissimus</i>	0.03	0.03	<i>Linum marginale</i>	0.21	0.07
<i>Craspedia</i> spp.	0.72	0.24	<i>Lomandra longifolia</i>	0.14	0.03
<i>Cullen tenax</i>	0.10	0.03	<i>Lomandra multiflora</i>	0.03	0.03
<i>Cymbonotus lawsonianus</i>	0.03	0.03	<i>Lomandra</i> spp. (<i>bracteata</i> or <i>filiformis</i>)	0.10	0.10
<i>Cynodon dactylon</i>	0.69	0.31	<i>Luzula</i> spp.	0.52	0.24
<i>Daviesia mimosoides</i>	0.07	0.03	<i>Lythrum hyssopifolia</i>	0.52	0.21
<i>Deyeuxia quadriseta</i>	0.24	0.10	<i>Melaleuca parvistaminea</i>	0.48	0.14
<i>Dianella longifolia</i>	0.07	0.07	<i>Melichrus urceolatus</i>	0.10	0.03
<i>Dianella revoluta</i>	0.07	0.03	<i>Mentha diemenica</i>	0.03	0.03
<i>Dichelachne</i> spp.	0.69	0.31	<i>Microleana stipoides</i>	1.41	0.41
<i>Dichondra repens</i>	0.34	0.14	<i>Microseris lanceolata</i>	0.07	0.03
<i>Dichopogon fimbriatus</i>	0.38	0.14	<i>Microtis</i> spp.	0.41	0.14
<i>Diuris chryseopsis</i>	0.21	0.10	<i>Neopaxia australasica</i>	0.45	0.17
<i>Drosera peltata</i>	0.66	0.21	<i>Oreomyrrhis eriopoda</i>	0.10	0.10
<i>Einadia nutans</i>	0.07	0.03	<i>Oxalis perennans</i>	0.38	0.17
<i>Elymus scaber</i>	0.97	0.34	<i>Panicum effusum</i>	0.41	0.14
<i>Epilobium</i> spp.	0.52	0.24	<i>Pentapogon quadrifidus</i>	0.10	0.03
<i>Eragrostis</i> spp.	1.10	0.41	<i>Persicaria prostrata</i>	0.24	0.17
<i>Eryngium ovinum</i>	0.14	0.07	<i>Plantago gaudichaudii</i>	0.10	0.03
<i>Eryngium vesiculosum</i>	0.03	0.03	<i>Plantago varia</i>	0.07	0.03
<i>Eucalyptus bridgesiana</i>	0.21	0.10	<i>Poa labillardierei</i>	1.38	0.45

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Poa meionectes</i>	0.17	0.07	<i>Stellaria angustifolia</i>	0.17	0.07
<i>Poa sieberiana</i>	0.72	0.31	<i>Stellaria pungens</i>	0.10	0.07
<i>Prunella vulgaris</i>	0.07	0.03	<i>Stylidium graminifolium</i>	0.10	0.03
<i>Ranunculus lappaceus</i>	0.38	0.17	<i>Thelymitra</i> sp.	0.14	0.07
<i>Ranunculus</i> spp.	0.24	0.10	<i>Themeda australis</i>	2.28	0.48
<i>Rubus parvifolius</i>	0.07	0.07	<i>Tricoryne elatior</i>	0.17	0.10
<i>Rumex brownii</i>	0.66	0.31	<i>Triptilodiscus pygmaeus</i>	0.24	0.10
<i>Rumex dumosus</i>	0.14	0.10	<i>Utricularia dichotoma</i>	0.24	0.07
<i>Schoenus apogon</i>	1.00	0.38	<i>Veronica gracilis</i>	0.07	0.07
<i>Scleranthus biflorus</i>	0.10	0.03	<i>Viola betonicifolia</i>	0.03	0.03
<i>Solenogyne dominii</i>	0.03	0.03	<i>Vittadinia cuneata</i>	0.10	0.03
<i>Sorghum leiocladum</i>	0.07	0.03	<i>Vittadinia muelleri</i>	0.10	0.03
<i>Spiranthes australis</i>	0.10	0.03	<i>Wahlenbergia</i> spp.	0.69	0.28
<i>Sporobolus</i> sp.	0.48	0.14	<i>Wurmbea dioica</i>	0.07	0.07

Group 3. Wet Tussock Grassland (Wallaby Grass – Kangaroo Grass – Rush – Blown Grass)

Total native species:

132

Unique species of Wet Tussock Grassland (Wallaby Grass – Kangaroo Grass – Rush – Blown Grass) or those found in four associations or fewer (showing number of occurrences in other associations)

Unique spp:

5

Unique species as percentage of total species:

3.8%

Species found in 4 associations or fewer (including unique species):

34

Species found in 4 associations or fewer (including unique species) as percentage of total:

25.8%

Unique species of Wet Tussock Grassland (Wallaby Grass – Kangaroo Grass – Rush – Blown Grass)

Eryngium vesiculosum

Lilaeopsis polyantha

Mentha diemenica

Spiranthes australis

Utricularia dichotoma

Species of Wet Tussock Grassland (Wallaby Grass – Kangaroo Grass – Rush – Blown Grass) found in four associations or fewer (showing number of occurrences in other associations)

Species	No of occurrences	Species	No of occurrences
<i>Ajuga australis</i>	4	<i>Hydrocotyle algida</i>	4
<i>Bossiaea prostrata</i>	4	<i>Hypericum japonicum</i>	3
<i>Brachycome decipiens</i>	3	<i>Hypoxis</i> spp.	4
<i>Brachycome ptychocarpa</i>	2	<i>Isotoma fluviatilis</i>	4
<i>Brachycome scapigera</i>	3	<i>Lilaeopsis polyantha</i>	1
<i>Burchardia umbellata</i>	2	<i>Linum marginale</i>	4
<i>Caesia calliantha</i>	2	<i>Melaleuca parvistaminea</i>	4
<i>Calocephalus citreus</i>	4	<i>Mentha diemenica</i>	1
<i>Centipeda minima</i>	3	<i>Microseris lanceolatus</i>	4
<i>Cullen tenax</i>	3	<i>Neopaxia australasica</i>	3
<i>Daviesia mimosoides</i>	4	<i>Pentapogon quadrifidus</i>	3
<i>Eryngium vesiculosum</i>	1	<i>Prunella vulgaris</i>	4
<i>Eucalyptus ovata</i>	3	<i>Spiranthes australis</i>	1
<i>Eucalyptus stellulata</i>	3	<i>Sporobolus</i> sp.	3
<i>Eucalyptus viminalis</i>	3	<i>Stellaria angustifolia</i>	4
<i>Gonocarpus micranthus</i>	2	<i>Thelymitra</i> sp.	4
<i>Hibbertia obtusifolia</i>	4	<i>Utricularia dichotoma</i>	1

Group 4. Lacustrine Ephemeral Grassland

Number of plots/sites

5

Group name: Blown Grass - Curly Sedge - Round-leaved Wilsonia - Fan-flower Mudwort - Rush ephemeral tussock grassland of the lacustrine deposits of Lake George and Lake Bathurst in the South Eastern Highlands Bioregions

Scientific name: *Agrostis* spp. - *Carex bichenoviana* - *Wilsonia rotundifolia* - *Selliera radicans* - *Juncus* spp. ephemeral tussock grassland of the lacustrine deposits of Lake George and Lake Bathurst in the South Eastern Highlands Bioregions

		Group cover			Group cover
Dominants	<i>Agrostis</i> spp.	4.60		<i>Convolvulus angustissimus</i>	0.60
	<i>Carex bichenoviana</i>	3.00		<i>Chloris truncata</i>	0.40
	<i>Wilsonia rotundifolia</i>	2.80		<i>Bothriochloa macra</i>	0.20
	<i>Selliera radicans</i>	2.00		<i>Brachycome graminea</i>	0.20
	<i>Juncus</i> spp.	1.80		<i>Pennesetum alopecuroides</i>	0.20
Sub-dominants	<i>Dichondra repens</i>	1.40		<i>Persicaria prostrata</i>	0.20
	<i>Ranunculus</i> spp.	1.20			Group frequency
	<i>Cynodon dactylon</i>	1.20	Geology	Colluvium / alluvium	1.00
	<i>Einadia trigonos</i>	1.20			
	<i>Austrodanthonia</i> spp.	1.20			
	<i>Epilobium</i> spp.	1.00	Topography	Flats	1.00
	<i>Lythrum hyssopifolia</i>	1.00			
	<i>Panicum effusum</i>	1.00			
	<i>Rumex brownii</i>	0.60	Regions	Eastern	1.00
	<i>Centella asiatica</i>	0.60			

Range: Confined to the beds of Lake George and Lake Bathurst in the Eastern Sub-region.

Outstanding examples:

Lake George bed can be accessed from Lake Road, near Bungendore.

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Agrostis</i> spp.	4.60	1.00	<i>Epilobium</i> spp.	1.00	0.40
<i>Austrodanthonia</i> spp.	1.20	0.40	<i>Juncus</i> spp.	1.80	0.60
<i>Bothriochloa macra</i>	0.20	0.20	<i>Lythrum hyssopifolia</i>	1.00	0.40
<i>Brachycome graminea</i>	0.20	0.20	<i>Panicum effusum</i>	1.00	0.20
<i>Carex bichenoviana</i>	3.00	0.80	<i>Pennesetum alopecuroides</i>	0.20	0.20
<i>Centella asiatica</i>	0.60	0.20	<i>Persicaria prostrata</i>	0.20	0.20
<i>Chloris truncata</i>	0.40	0.20	<i>Ranunculus</i> spp.	1.20	0.80
<i>Convolvulus angustissimus</i>	0.60	0.20	<i>Rumex brownii</i>	0.60	0.40
<i>Cynodon dactylon</i>	1.20	0.60	<i>Selliera radicans</i>	2.00	0.80
<i>Dichondra repens</i>	1.40	0.40	<i>Wilsonia rotundifolia</i>	2.80	1.00
<i>Einadia trigonos</i>	1.20	0.60			

Group 4. Lacustrine Ephemeral Grassland

Total native species: 21

Unique species of Lacustrine Ephemeral Grassland or those found in four associations or fewer (showing number of occurrences in other associations)

Unique spp: 2
 Unique species as percentage of total species: 9.5%
 Species found in 4 associations or fewer (including unique species): 5
 Species found in 4 associations or fewer (including unique species) as percentage of total: 23.8%

Unique species of Lacustrine Ephemeral Grassland

Einadia trigonos
Wilsonia rotundifolia

Species of Wet Tussock Grassland (Wallaby Grass – Kangaroo Grass – Rush – Blown Grass) found in four associations or fewer (showing number of occurrences in other associations)

Species	No of occurrences	Species	No of occurrences
<i>Brachycome graminea</i>	4	<i>Selliera radicans</i>	3
<i>Einadia trigonos</i>	1	<i>Wilsonia rotundifolia</i>	1
<i>Pennesetum alopecuroides</i>	3		

Group 5. North-western & Eastern Wallaby Grass - Red-grass Tussock Grassland

Number of plots/sites

81

Group name: Wallaby Grass - Red-grass - Tall Speargrass - Common Everlastings - Kangaroo Grass - Mat-rush tussock grassland of the North-western and Eastern Southern Tablelands in the South Eastern Highlands Bioregions

Scientific name: *Austrodanthonia* spp. - *Bothriochloa macra* - *Austrostipa bigeniculata* - *Chrysocephalum apiculatum* - *Themeda australis* - *Lomandra* spp. tussock grassland of the north-western and Eastern Southern Tablelands in the South Eastern Highlands Bioregions

		Group cover			Group cover
Dominants	<i>Austrodanthonia</i> spp.	3.95		<i>Asperula conferta</i>	0.78
	<i>Bothriochloa macra</i>	3.41		<i>Poa sieberiana</i>	0.74
	<i>Austrostipa bigeniculata</i>	3.25		<i>Chloris truncata</i>	0.62
	<i>Chrysocephalum apiculatum</i>	2.58		<i>Glycine tabacina</i>	0.62
	<i>Themeda australis</i>	2.36		<i>Juncus</i> spp.	0.51
	<i>Lomandra</i> spp. (<i>bracteata</i> or <i>filiformis</i>)	1.64		<i>Leptorhynchus squamatus</i>	0.51
	Sub-dominants	<i>Austrodanthonia carphoides</i>	1.91		<i>Euchiton involucreatus</i>
<i>Panicum effusum</i>		1.43		<i>Solenogyne dominii</i>	0.46
<i>Plantago varia</i>		1.42		<i>Aristida ramosa</i>	0.46
<i>Wahlenbergia</i> spp.		1.38		<i>Microlaena stipoides</i>	0.42
<i>Vittadinia muelleri</i>		1.37		<i>Hypericum gramineum</i>	0.41
<i>Eryngium ovinum</i>		1.32		<i>Enneapogon nigricans</i>	0.40
<i>Austrostipa scabra</i> var. <i>falcata</i>		1.30			Group frequency
<i>Elymus scaber</i>		1.20	Geology	Sediments	0.41
<i>Goodenia pinnatifida</i>		1.16		Colluvium / alluvium	0.27
<i>Triptilodiscus pygmaeus</i>		1.12		Granite	0.17
<i>Calocephalus citreus</i>		1.04		Basalt	0.01
<i>Convolvulus angustissimus</i>		1.00	Topography	Footslopes	0.31
<i>Rumex brownii</i>		0.89		Midslopes	0.31
<i>Oxalis perennans</i>		0.86		Flats	0.30
<i>Schoenus apogon</i>	0.85		Upperslopes / plateaux	0.06	
<i>Acaena ovina</i>	0.84	Regions	North-western	0.70	
<i>Desmodium varians</i>	0.83		Eastern	0.30	
<i>Tricoryne elatior</i>	0.79				

Range: Occurs on moist or dry sites in the North-western and Eastern regions of the Southern Tablelands.

Outstanding examples:

Grasslands at Queanbeyan Nature Reserve, eastern section of O'Keefes TSR near Tarago, Days Hill Reserve at Bungendore, Six Mile TSR south of Bungendore, and grasslands at Evatt and Campbell Park in the ACT.

Group 5. North-western & Eastern Wallaby Grass - Red-grass Tussock Grassland

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Acacia dealbata</i>	0.07	0.07	<i>Daviesia leptophylla</i>	0.01	0.01
<i>Acacia genistifolia</i>	0.02	0.02	<i>Daviesia mimosoides</i>	0.02	0.02
<i>Acacia gunnii</i>	0.01	0.01	<i>Desmodium varians</i>	0.83	0.42
<i>Acacia mearnsii</i>	0.01	0.01	<i>Deyeuxia quadriseta</i>	0.05	0.02
<i>Acaena ovina</i>	0.84	0.54	<i>Dianella longifolia</i>	0.01	0.01
<i>Acrotriche serrulata</i>	0.01	0.01	<i>Dianella revoluta</i>	0.04	0.04
<i>Agrostis</i> spp.	0.07	0.04	<i>Dichelachne</i> spp.	0.25	0.14
<i>Allocasuarina nana</i>	0.01	0.01	<i>Dichopogon fimbriatus</i>	0.28	0.14
<i>Alternanthera</i> sp.A	0.01	0.01	<i>Dichondra repens</i>	0.32	0.20
<i>Amphibromus</i> spp.	0.04	0.02	<i>Dillwynia sericea</i>	0.01	0.01
<i>Aphanes australiana</i>	0.07	0.02	<i>Drosera peltata</i>	0.19	0.10
<i>Aristida behriana</i>	0.02	0.02	<i>Einadia nutans</i>	0.01	0.01
<i>Aristida ramosa</i>	0.46	0.22	<i>Elymus scaber</i>	1.20	0.58
<i>Arthropodium minus</i>	0.02	0.02	<i>Enneapogon nigricans</i>	0.40	0.16
<i>Asperula conferta</i>	0.78	0.43	<i>Epilobium</i> spp.	0.09	0.09
<i>Astroloma humifusum</i>	0.02	0.02	<i>Eragrostis</i> spp.	0.33	0.19
<i>Austrodanthonia carphoides</i>	1.91	0.46	<i>Eriochilus cucullatus</i>	0.01	0.01
<i>Austrodanthonia</i> spp.	3.95	0.96	<i>Erodium crinitum</i>	0.02	0.02
<i>Austrostipa bigeniculata</i>	3.25	0.85	<i>Eryngium ovinum</i>	1.32	0.68
<i>Austrostipa densiflora</i>	0.05	0.02	<i>Eucalyptus blakelyi</i>	0.05	0.05
<i>Austrostipa scabra</i> var. <i>falcata</i>	1.30	0.43	<i>Eucalyptus bridgesiana</i>	0.04	0.04
<i>Bossiaea buxifolia</i>	0.01	0.01	<i>Eucalyptus dives</i>	0.06	0.04
<i>Bossiaea prostrata</i>	0.05	0.02	<i>Eucalyptus mannifera</i>	0.01	0.01
<i>Bothriochloa macra</i>	3.41	0.84	<i>Eucalyptus melliodora</i>	0.09	0.09
<i>Brachycome heterodonta</i>	0.04	0.04	<i>Eucalyptus pauciflora</i>	0.02	0.02
<i>Brachycome rigidula</i>	0.01	0.01	<i>Eucalyptus rubida</i>	0.05	0.05
<i>Bulbine bulbosa</i>	0.12	0.07	<i>Euchiton involucratus</i>	0.48	0.26
<i>Calocephalus citreus</i>	1.04	0.36	<i>Glycine clandestina</i>	0.05	0.05
<i>Calotis anthemoides</i>	0.15	0.07	<i>Glycine tabacina</i>	0.62	0.27
<i>Carex bichenoviana</i>	0.01	0.01	<i>Gonocarpus tetragynus</i>	0.12	0.07
<i>Carex</i> spp. (<i>breviculmis</i> or <i>inversa</i>)	0.31	0.19	<i>Goodenia hederacea</i>	0.04	0.02
<i>Centipeda cunninghamiana</i>	0.01	0.01	<i>Goodenia pinnatifida</i>	1.16	0.58
<i>Chamaecyce drummondii</i>	0.19	0.12	<i>Gyposphylla tubulosa</i>	0.01	0.01
<i>Cheilanthes</i> spp. (<i>austrotenuifolia</i> or <i>sieberi</i>)	0.11	0.11	<i>Haloragis heterophyllus</i>	0.37	0.19
<i>Chloris truncata</i>	0.62	0.35	<i>Helichrysum rutidolepis</i>	0.11	0.06
<i>Chrysocephalum apiculatum</i>	2.58	0.80	<i>Hemarthria uncinata</i>	0.07	0.04
<i>Chrysocephalum semipapposum</i>	0.11	0.05	<i>Hydrocotyle algida</i>	0.05	0.01
<i>Convolvulus angustissimus</i>	1.00	0.52	<i>Hydrocotyle laxiflora</i>	0.07	0.04
<i>Craspedia</i> spp.	0.10	0.05	<i>Hypericum gramineum</i>	0.41	0.21
<i>Crassula sieberiana</i>	0.38	0.15	<i>Isoetopsis graminifolia</i>	0.05	0.02
<i>Cryptandra amara</i>	0.01	0.01	<i>Joycea pallida</i>	0.02	0.02
<i>Cymbonotus lawsonianus</i>	0.23	0.17	<i>Juncus bufonius</i>	0.05	0.05
<i>Cynodon dactylon</i>	0.16	0.10	<i>Juncus</i> spp.	0.51	0.27
<i>Cynoglossum suaveolens</i>	0.11	0.05	<i>Kunzea ericoides</i>	0.02	0.02
<i>Daviesia genistifolia</i>	0.10	0.05	<i>Kunzea parvifolia</i>	0.01	0.01
<i>Daviesia latifolia</i>	0.01	0.01	<i>Lepidium hyssopifolium</i>	0.02	0.02

Group 5. North-western & Eastern Wallaby Grass - Red-grass Tussock Grassland

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Leptorhynchos squamatus</i>	0.51	0.25	<i>Pterostylis</i> spp.	0.01	0.01
<i>Leucopogon fraseri</i>	0.02	0.02	<i>Ptilotis</i> sp.	0.02	0.02
<i>Linum marginale</i>	0.01	0.01	<i>Pultenaea</i> spp.	0.01	0.01
<i>Lissanthe strigosa</i>	0.26	0.12	<i>Rumex brownii</i>	0.89	0.59
<i>Lomandra longifolia</i>	0.01	0.01	<i>Rumex dumosus</i>	0.33	0.21
<i>Lomandra multiflora</i>	0.33	0.19	<i>Rutidosis leptorrhynchoides</i>	0.16	0.05
<i>Lomandra</i> spp. (<i>bracteata</i> or <i>filiformis</i>)	1.64	0.80	<i>Schoenus apogon</i>	0.85	0.33
<i>Luzula</i> spp.	0.05	0.05	<i>Scleranthus biflorus</i>	0.02	0.01
<i>Lythrum hyssopifolia</i>	0.19	0.12	<i>Scleranthus fasciculatus</i>	0.02	0.02
<i>Melichrus urceolatus</i>	0.07	0.05	<i>Selliera radicans</i>	0.01	0.01
<i>Microlaena stipoides</i>	0.42	0.26	<i>Solenogyne dominii</i>	0.46	0.23
<i>Microseris lanceolata</i>	0.01	0.01	<i>Solenogyne gunnii</i>	0.11	0.06
<i>Microtis</i> spp.	0.28	0.15	<i>Stackhousia monogyna</i>	0.05	0.04
<i>Oxalis perennans</i>	0.86	0.48	<i>Stuartina muelleri</i>	0.02	0.02
<i>Panicum effusum</i>	1.43	0.64	<i>Themeda australis</i>	2.36	0.64
<i>Pentapogon quadrifidus</i>	0.05	0.02	<i>Tricoryne elatior</i>	0.79	0.44
<i>Persicaria prostrata</i>	0.15	0.09	<i>Triptilodiscus pygmaeus</i>	1.12	0.46
<i>Pimelea curviflora</i>	0.22	0.17	<i>Velleia paradoxa</i>	0.01	0.01
<i>Pimelea glauca</i>	0.05	0.02	<i>Vittadinia cuneata</i>	0.32	0.16
<i>Plantago gaudichaudii</i>	0.17	0.10	<i>Vittadinia muelleri</i>	1.37	0.59
<i>Plantago varia</i>	1.42	0.56	<i>Vittadinia triloba</i>	0.05	0.02
<i>Poa labillardierei</i>	0.31	0.11	<i>Wahlenbergia</i> spp.	1.38	0.73
<i>Poa meionectes</i>	0.04	0.01	<i>Wurmbea dioica</i>	0.26	0.16
<i>Poa sieberiana</i>	0.74	0.32	<i>Xerochrysum viscosum</i>	0.05	0.05
<i>Polygala japonica</i>	0.01	0.01	<i>Zornia dyctiocarpa</i>	0.01	0.01

Group 5. North-western & Eastern Wallaby Grass - Red-grass Tussock Grassland

Total native species:

142

Unique species of North-western & Eastern Wallaby Grass - Red-grass Tussock Grassland or those found in four associations or fewer (showing number of occurrences in other associations)

Unique spp:

4

Unique species as percentage of total species:

2.8%

Species found in 4 associations or fewer (including unique species):

46

Species found in 4 associations or fewer (including unique species) as percentage of total:

32.4%

Unique species of North-western & Eastern Wallaby Grass - Red-grass Tussock Grassland

Lepidium hyssopifolium

Ptilotis sp.

Xerochrysum viscosum

Zornia dyctiocarpa

Species of North-western & Eastern Wallaby Grass - Red-grass Tussock Grassland found in four associations or fewer (showing number of occurrences in other associations)

Species	No of occurrences	Species	No of occurrences
<i>Acacia genistifolia</i>	4	<i>Eucalyptus dives</i>	2
<i>Acacia gunnii</i>	3	<i>Eucalyptus mannifera</i>	2
<i>Allocasuarina nana</i>	2	<i>Eucalyptus melliodora</i>	4
<i>Alternanthera</i> sp.A	4	<i>Gyposphylla tubulosa</i>	2
<i>Aphanes australiana</i>	3	<i>Hydrocotyle algida</i>	4
<i>Aristida behriana</i>	3	<i>Isoetopsis graminifolia</i>	3
<i>Arthropodium minus</i>	2	<i>Joycea pallida</i>	3
<i>Austrostipa densiflora</i>	4	<i>Lepidium hyssopifolium</i>	1
<i>Bossiaea buxifolia</i>	4	<i>Linum marginale</i>	4
<i>Bossiaea prostrata</i>	4	<i>Lissanthe strigosa</i>	4
<i>Brachycome heterodonta</i>	3	<i>Microseris lanceolata</i>	4
<i>Brachycome rigidula</i>	3	<i>Pentapogon quadrifidus</i>	3
<i>Calocephalus citreus</i>	4	<i>Pimelea glauca</i>	4
<i>Chamaecyce drummondii</i>	4	<i>Polygala japonica</i>	3
<i>Cheilanthes</i> spp. (<i>austrotenuifolia</i> or <i>sieberi</i>)	4	<i>Ptilotis</i> sp.	1
<i>Daviesia genistifolia</i>	3	<i>Rutidosis leptorrhynchoides</i>	2
<i>Daviesia latifolia</i>	3	<i>Selliera radicans</i>	3
<i>Daviesia leptophylla</i>	3	<i>Stackhousia monogyna</i>	4
<i>Daviesia mimosoides</i>	4	<i>Stuartina muelleri</i>	2
<i>Dillwynia sericea</i>	4	<i>Velleia paradoxa</i>	3
<i>Eriochilus cucullatus</i>	4	<i>Vittadinia triloba</i>	4
<i>Erodium crinitum</i>	4	<i>Xerochrysum viscosum</i>	1
<i>Eucalyptus blakelyi</i>	3	<i>Zornia dyctiocarpa</i>	1

Group 6. Monaro Dry Tussock Grassland

Number of plots/sites

113

Group name: Snow Grass - Wallaby Grass - Kangaroo Grass - Common Everlasting - Corkscrew-grass - Sheep's-burr - Common Woodruff dry tussock grassland on the Monaro in the South Eastern Highlands Bioregions

Scientific name: *Poa sieberiana* - *Austrodanthonia* spp. - *Themeda australis* - *Austrostipa scabra* var. *falcata* - *Acaena ovina* - *Asperula conferta* dry tussock grassland on the Monaro in the South Eastern Highlands Bioregions

		Group cover			Group cover
Dominants	<i>Poa sieberiana</i>	4.13		<i>Dichondra</i> sp.A	0.77
	<i>Austrodanthonia</i> spp.	3.44		<i>Rumex dumosus</i>	0.74
	<i>Themeda australis</i>	2.99		<i>Swainsona sericea</i>	0.72
	<i>Chrysocephalum apiculatum</i>	2.55		<i>Solenogyne gunnii</i>	0.67
	<i>Austrostipa scabra</i> var. <i>falcata</i>	2.39		<i>Epilobium</i> spp.	0.67
	<i>Acaena ovina</i>	1.82		<i>Vittadinia triloba</i>	0.63
	<i>Asperula conferta</i>	1.80		<i>Scleranthus biflorus</i>	0.62
Sub-dominants	<i>Wahlenbergia</i> spp.	1.65		<i>Dichelachne</i> spp.	0.60
	<i>Scleranthus diander</i>	1.60		<i>Oxalis perennans</i>	0.58
	<i>Elymus scaber</i>	1.60		<i>Vittadinia cuneata</i>	0.52
	<i>Plantago varia</i>	1.58			Group frequency
	<i>Vittadinia muelleri</i>	1.55	Geology	Basalt	0.50
	<i>Poa meionectes</i>	1.42		Sediments	0.38
	<i>Austrostipa bigeniculata</i>	1.40		Granite	0.10
	<i>Convolvulus angustissimus</i>	1.38		Colluvium / alluvium	0.01
	<i>Bothriochloa macra</i>	1.25	Topography	Midslopes	0.65
	<i>Brachycome heterodonta</i>	1.09		Upperslopes / plateaux	0.27
	<i>Enneapogon nigricans</i>	1.08		Footslopes	0.05
	<i>Leptorhynchos squamatus</i>	1.07		Flats	0.03
	<i>Carex</i> spp. (<i>breviculmis</i> or <i>inversa</i>)	1.07	Regions		
	<i>Geranium</i> spp.	1.06		Monaro	1.00

Range: Occurs on dry sites in the Monaro Sub-region.

Outstanding examples:

Grasslands at 15 Mile Bobundara TSR (Ravensworth TSR) south of Cooma, Old Cooma Common, Kuma Nature Reserve, Dartmoor TSR east of Cooma, Lake Williams Reserve near Nimmitabel, McLaughlan TSR, Avon Lake TSR, Maffra TSR and Bibbenluke Common south of Nimmitabel, Top Hut TSR and Adaminaby TSRs near Adaminaby, Lake Jindabyne foreshores and Ingelara TSR near Bredbo.

Group 6. Monaro Dry Tussock Grassland

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Acacia dealbata</i>	0.10	0.06	<i>Carex appressa</i>	0.08	0.04
<i>Acacia gunnii</i>	0.01	0.01	<i>Carex bichenoviana</i>	0.03	0.02
<i>Acacia melanoxylon</i>	0.01	0.01	<i>Carex</i> spp.	0.03	0.03
<i>Acacia rubida</i>	0.06	0.04	<i>Carex</i> spp. (<i>breviculmis</i> or <i>inversa</i>)	1.07	0.57
<i>Acacia siculiformis</i>	0.03	0.03	<i>Centipeda cunninghamiana</i>	0.02	0.01
<i>Acaena novae-zelandiae</i>	0.03	0.03	<i>Chamaecybe drummondii</i>	0.26	0.17
<i>Acaena ovina</i>	1.82	0.87	<i>Cheilanthes</i> spp. (<i>austrotenuifolia</i> or <i>sieberi</i>)	0.21	0.12
<i>Acrotriche serrulata</i>	0.01	0.01	<i>Chloris truncata</i>	0.06	0.03
<i>Agrostis</i> spp.	0.02	0.02	<i>Chrysocephalum apiculatum</i>	2.55	0.81
<i>Ajuga australis</i>	0.27	0.15	<i>Chrysocephalum semipapposum</i>	0.23	0.13
<i>Ammobium alatum</i>	0.04	0.03	<i>Convolvulus angustissimus</i>	1.38	0.75
<i>Amphibromus</i> spp.	0.01	0.01	<i>Craspedia</i> spp.	0.29	0.14
<i>Aphanes australiana</i>	0.07	0.05	<i>Crassula sieberiana</i>	0.39	0.30
<i>Aristida ramosa</i>	0.32	0.12	<i>Cryptandra amara</i>	0.52	0.24
<i>Arthropodium milleflorum</i>	0.10	0.04	<i>Cullen microcephalum</i>	0.02	0.02
<i>Asperula ambleia</i>	0.02	0.01	<i>Cullen tenax</i>	0.31	0.23
<i>Asperula conferta</i>	1.80	0.81	<i>Cymbonotus lawsonianus</i>	0.51	0.35
<i>Asplenium flabellifolium</i>	0.12	0.07	<i>Cymbopogon refractus</i>	0.04	0.03
<i>Australopyrum pectinatum</i>	0.13	0.07	<i>Cynodon dactylon</i>	0.07	0.04
<i>Austrodanthonia carphoides</i>	0.01	0.01	<i>Cynoglossum suaveolens</i>	0.04	0.04
<i>Austrodanthonia</i> spp.	3.44	0.96	<i>Daucus glochidiatus</i>	0.20	0.13
<i>Austrostipa bigeniculata</i>	1.40	0.44	<i>Daviesia mimosoides</i>	0.05	0.04
<i>Austrostipa densiflora</i>	0.07	0.04	<i>Daviesia ulicifolia</i>	0.19	0.07
<i>Austrostipa scabra</i> var. <i>falcata</i>	2.39	0.70	<i>Desmodium varians</i>	0.49	0.28
<i>Bossiaea buxifolia</i>	0.15	0.10	<i>Dianella longifolia</i>	0.11	0.06
<i>Bossiaea foliosa</i>	0.15	0.05	<i>Dianella revoluta</i>	0.05	0.03
<i>Bossiaea prostrata</i>	0.11	0.07	<i>Dichanthium sericeum</i>	0.09	0.03
<i>Bossiaea riparia</i>	0.16	0.07	<i>Dichelachne</i> spp.	0.60	0.29
<i>Bothriochloa macra</i>	1.25	0.42	<i>Dichondra repens</i>	0.41	0.25
<i>Brachycome aculeata</i>	0.05	0.03	<i>Dichondra</i> sp.A	0.77	0.39
<i>Brachycome graminea</i>	0.01	0.01	<i>Dichopogon fimbriatus</i>	0.01	0.01
<i>Brachycome heterodonta</i>	1.09	0.60	<i>Dillwynia prostrata</i>	0.11	0.04
<i>Brachycome rigidula</i>	0.49	0.25	<i>Dillwynia sericea</i>	0.05	0.02
<i>Brachycome spathulata</i>	0.01	0.01	<i>Discaria pubescens</i>	0.33	0.19
<i>Brachyloma daphnoides</i>	0.10	0.09	<i>Diuris chryseopsis</i>	0.15	0.05
<i>Bulbine bulbosa</i>	0.01	0.01	<i>Diuris semilunulata</i>	0.01	0.01
<i>Bulbine glauca</i>	0.02	0.01	<i>Dodonaea procumbens</i>	0.46	0.14
<i>Bursaria spinosa</i> subsp. <i>lasiophylla</i>	0.07	0.04	<i>Dodonaea viscosa</i>	0.01	0.01
<i>Callitris endlicheri</i>	0.04	0.03	<i>Einadia nutans</i>	0.36	0.27
<i>Calotis anthemoides</i>	0.10	0.05	<i>Elymus scaber</i>	1.60	0.72
<i>Calotis glandulosa</i>	0.30	0.13	<i>Enneapogon nigricans</i>	1.08	0.52
<i>Calotis lappulacea</i>	0.01	0.01	<i>Epilobium</i> spp.	0.67	0.37
<i>Calotis scabiosifolia</i> var. <i>integrifolia</i>	0.19	0.09	<i>Eragrostis</i> spp.	0.05	0.03

Group 6. Monaro Dry Tussock Grassland

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Eriochilus cucullatus</i>	0.06	0.03	<i>Luzula</i> spp.	0.11	0.07
<i>Erodium crinitum</i>	0.06	0.05	<i>Melichrus urceolatus</i>	0.18	0.10
<i>Eryngium ovinum</i>	0.19	0.12	<i>Microlaena stipoides</i>	0.08	0.05
<i>Eucalyptus bridgesiana</i>	0.04	0.02	<i>Microseris lanceolata</i>	0.01	0.01
<i>Eucalyptus dalrympleana</i>	0.02	0.02	<i>Mirbelia oxylobioides</i>	0.41	0.15
<i>Eucalyptus lacrimans</i>	0.12	0.04	<i>Microtis</i> spp.	0.05	0.03
<i>Eucalyptus pauciflora</i>	0.19	0.12	<i>Oreomyrrhis argentea</i>	0.03	0.01
<i>Eucalyptus rubida</i>	0.01	0.01	<i>Oreomyrrhis eriopoda</i>	0.21	0.15
<i>Euchiton involucratus</i>	0.04	0.04	<i>Oxalis perennans</i>	0.58	0.47
<i>Euchiton</i> spp.	0.30	0.20	<i>Ozothamnus thrysoideus</i>	0.03	0.02
<i>Galium gaudichaudii</i>	0.21	0.14	<i>Panicum effusum</i>	0.32	0.19
<i>Geranium antrorsum</i>	0.17	0.47	<i>Persicaria prostrata</i>	0.04	0.03
<i>Geranium</i> spp.	1.06	0.09	<i>Pimelea curviflora</i>	0.45	0.21
<i>Glycine clandestina</i>	0.28	0.21	<i>Pimelea glauca</i>	0.49	0.22
<i>Glycine tabacina</i>	0.46	0.22	<i>Pimelea pauciflora</i>	0.08	0.04
<i>Gonocarpus tetragynus</i>	0.19	0.11	<i>Plantago antarctica</i>	0.01	0.60
<i>Goodenia hederacea</i>	0.04	0.02	<i>Plantago gaudichaudii</i>	0.14	0.01
<i>Goodenia pinnatifida</i>	0.40	0.22	<i>Plantago hispida</i>	0.12	0.06
<i>Grevillea lanigera</i>	0.07	0.04	<i>Plantago varia</i>	1.58	0.06
<i>Gyposphylla tubulosa</i>	0.04	0.04	<i>Poa labillardierei</i>	0.23	0.08
<i>Hake microcarpa</i>	0.02	0.02	<i>Poa meionectes</i>	1.42	0.51
<i>Haloragus heterophyllus</i>	0.03	0.03	<i>Poa sieberiana</i>	4.13	0.94
<i>Helichrysum rutidolepis</i>	0.14	0.09	<i>Podolepis hieracioides</i>	0.02	0.01
<i>Hibbertia obtusifolia</i>	0.04	0.02	<i>Podolepis jaceoides</i>	0.12	0.06
<i>Hovea linearis</i>	0.28	0.15	<i>Poranthera microphylla</i>	0.14	0.07
<i>Hydrocotyle laxiflora</i>	0.27	0.14	<i>Prunella vulgaris</i>	0.01	0.01
<i>Hymenanthera dentata</i>	0.48	0.27	<i>Pterostylis</i> spp.	0.03	0.01
<i>Hypericum gramineum</i>	0.20	0.16	<i>Pultenaea</i> spp.	0.36	0.14
<i>Isoetopsis graminifolia</i>	0.13	0.07	<i>Ranunculus lappaceus</i>	0.19	0.02
<i>Joycea pallida</i>	0.17	0.07	<i>Ranunculus</i> spp.	0.04	0.11
<i>Juncus bufonius</i>	0.01	0.01	<i>Rhodanthe anthemoides</i>	0.15	0.04
<i>Juncus</i> spp.	0.28	0.19	<i>Rubus parvifolius</i>	0.02	0.01
<i>Kunzea ericoides</i>	0.02	0.02	<i>Rumex brownii</i>	0.24	0.49
<i>Leptorhynchus elongatus</i>	0.19	0.08	<i>Rumex dumosus</i>	0.74	0.19
<i>Leptorhynchus squamatus</i>	1.07	0.40	<i>Rutidosia leiolepis</i>	0.19	0.06
<i>Lespedeza juncea</i>	0.01	0.01	<i>Schoenus apogon</i>	0.02	0.01
<i>Leucochrysum albicans</i>	0.42	0.15	<i>Scleranthus biflorus</i>	0.62	0.33
<i>Leucopogon fraseri</i>	0.19	0.11	<i>Scleranthus diander</i>	1.60	0.65
<i>Linum marginale</i>	0.05	0.02	<i>Scleranthus fasciculatus</i>	0.02	0.02
<i>Lomandra longifolia</i>	0.09	0.04	<i>Solenogyne dominii</i>	0.38	0.19
<i>Lomandra multiflora</i>	0.02	0.02	<i>Solenogyne gunnii</i>	0.67	0.30
<i>Lomandra</i> spp. (<i>bracteata</i> or <i>filiformis</i>)	0.12	0.07	<i>Sorghum leiocladum</i>	0.03	0.02
<i>Lomatia myricoides</i>	0.02	0.01	<i>Sporobolus</i> sp.	0.01	0.01

Group 6. Monaro Dry Tussock Grassland

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Stackhousia monogyna</i>	0.43	0.20	<i>Tricoryne elatior</i>	0.03	0.01
<i>Stellaria multiflora</i>	0.06	0.02	<i>Triptilodiscus pygmaeus</i>	0.12	0.04
<i>Stellaria pungens</i>	0.03	0.01	<i>Velleia paradoxa</i>	0.31	0.12
<i>Stylidium graminifolium</i>	0.19	0.09	<i>Veronica gracilis</i>	0.03	0.02
<i>Swainsona behriana</i>	0.25	0.18	<i>Viola betonicifolia</i>	0.31	0.15
<i>Swainsona monticola</i>	0.23	0.18	<i>Vittadinia cuneata</i>	0.52	0.37
<i>Swainsona sericea</i>	0.72	0.33	<i>Vittadinia muelleri</i>	1.55	0.73
<i>Thelymitra</i> spp.	0.02	0.02	<i>Vittadinia triloba</i>	0.63	0.39
<i>Themeda australis</i>	2.99	0.71	<i>Wahlenbergia</i> spp.	1.65	0.82

Total native species: 190

Unique species of Monaro Dry Tussock Grassland or those found in four associations or fewer (showing number of occurrences in other associations)

Unique spp:	13
Unique species as percentage of total species:	6.8%
Species found in 4 associations or fewer (including unique species):	41
Species found in 4 associations or fewer (including unique species) as percentage of total:	21.6%

Unique species of Monaro Dry Tussock Grassland

Ammobium alatum
Asplenium flabellifolium
Australopyrum pectinatum
Bossiaea foliosa
Dichondra sp.A
Diuris semilunulata
Dodonaea procumbens
Dodonaea viscosa
Oreomyrrhis argentea
Rutidosis leiolepis
Stellaria multiflora
Swainsona behriana
Swainsona sericea

Group 6. Monaro Dry Tussock Grassland

Species of Monaro Dry Tussock Grassland found in four associations or fewer (showing number of occurrences in other associations)

Species	No of occurrences	Species	No of occurrences
<i>Acacia gunnii</i>	3	<i>Dodonaea viscosa</i>	1
<i>Acacia melanoxylon</i>	4	<i>Eriochilus cucullatus</i>	4
<i>Acacia rubida</i>	4	<i>Erodium crinitum</i>	4
<i>Acacia siculiformis</i>	2	<i>Eucalyptus dalrympleana</i>	4
<i>Ajuga australis</i>	4	<i>Eucalyptus lacrimans</i>	2
<i>Ammobium alatum</i>	1	<i>Galium gaudichaudii</i>	3
<i>Aphanes australiana</i>	3	<i>Geranium antrorsum</i>	4
<i>Asperula ambleia</i>	2	<i>Grevillea lanigera</i>	3
<i>Asplenium flabellifolium</i>	1	<i>Gyposphylla tubulosa</i>	2
<i>Australopyrum pectinatum</i>	1	<i>Hibbertia obtusifolia</i>	4
<i>Austrostipa densiflora</i>	4	<i>Hymenantha dentata</i>	2
<i>Bossiaea buxifolia</i>	4	<i>Isoetopsis graminifolia</i>	3
<i>Bossiaea foliosa</i>	1	<i>Joycea pallida</i>	3
<i>Bossiaea prostrata</i>	4	<i>Leptorhynchus elongatus</i>	2
<i>Bossiaea riparia</i>	3	<i>Lespedeza juncea</i>	2
<i>Brachycome aculeata</i>	2	<i>Leucochrysum albicans</i>	2
<i>Brachycome graminea</i>	4	<i>Linum marginale</i>	4
<i>Brachycome heterodonta</i>	3	<i>Lomatia myricoides</i>	2
<i>Brachycome rigidula</i>	3	<i>Microseris lanceolata</i>	4
<i>Brachycome spathulata</i>	3	<i>Mirbelia oxylobioides</i>	4
<i>Brachyloma daphnoides</i>	3	<i>Oreomyrrhis argentea</i>	1
<i>Bulbine glauca</i>	2	<i>Ozothamnus thyrsoideus</i>	2
<i>Callitris endlicheri</i>	2	<i>Pimelea glauca</i>	4
<i>Calotis glandulosa</i>	2	<i>Pimelea pauciflora</i>	2
<i>Calotis lappulacea</i>	2	<i>Plantago antarctica</i>	4
<i>Calotis scabiosifolia</i> var. <i>integrifolia</i>	4	<i>Plantago hispida</i>	2
<i>Chamaecyce drummondii</i>	4	<i>Podolepis hieracioides</i>	2
<i>Cheilanthes</i> spp. (<i>austrotenuifolia</i> or <i>sieberi</i>)	4	<i>Podolepis jaceoides</i>	3
<i>Cullen microcephalum</i>	4	<i>Prunella vulgaris</i>	4
<i>Cullen tenax</i>	3	<i>Rhodanthe anthemoides</i>	2
<i>Cymbopogon refractus</i>	2	<i>Rutidosia leiolepis</i>	1
<i>Daucus glochidiatus</i>	3	<i>Scleranthus diander</i>	3
<i>Daviesia mimosoides</i>	4	<i>Sporobolus</i> sp.	3
<i>Daviesia ulicifolia</i>	2	<i>Stackhousia monogyna</i>	4
<i>Dichanthium sericeum</i>	2	<i>Stellaria multiflora</i>	1
<i>Dichondra</i> sp.A	1	<i>Swainsona behriana</i>	1
<i>Dillwynia prostrata</i>	3	<i>Swainsona monticola</i>	2
<i>Dillwynia sericea</i>	4	<i>Swainsona sericea</i>	1
<i>Discaria pubescens</i>	4	<i>Thelymitra</i> spp.	4
<i>Diuris semilunulata</i>	1	<i>Velleia paradoxa</i>	3
<i>Dodonaea procumbens</i>	1	<i>Vittadinia triloba</i>	4

Group 7. Tablelands Moist Tussock Grassland

Number of plots/sites

137

Group name: Kangaroo Grass - Wallaby Grass - Snow Grass - Common Everlasting - Scaly Buttons moist tussock grassland in the Southern Tablelands and Monaro regions of the South Eastern Highlands Bioregion

Scientific name: *Themeda australis* - *Austrodanthonia* spp. - *Poa sieberiana* - *Chrysocephalum apiculatum* - *Leptorhynchos squamatus* moist tussock grassland in the Southern Tablelands and Monaro regions of the South Eastern Highlands Bioregion

		Group cover			Group cover
Dominants	<i>Themeda australis</i>	6.51		<i>Drosera peltata</i>	0.57
	<i>Austrodanthonia</i> spp.	2.49		<i>Pimelea curviflora</i>	0.55
	<i>Poa sieberiana</i>	2.40		<i>Solenogyne dominii</i>	0.54
	<i>Chrysocephalum apiculatum</i>	2.20		<i>Vittadinia muelleri</i>	0.54
	<i>Leptorhynchos squamatus</i>	1.81		<i>Panicum effusum</i>	0.52
Sub-dominants	<i>Microlaena stipoides</i>	1.45		<i>Microtis</i> spp.	0.52
	<i>Euchiton</i> spp.	1.41		<i>Haloragis heterophyllus</i>	0.51
	<i>Wahlenbergia</i> spp.	1.39		<i>Solenogyne gunnii</i>	0.50
	<i>Asperula</i> spp.	1.21		<i>Bothriochloa macra</i>	0.49
	<i>Juncus</i> spp.	1.17		<i>Luzula</i> spp.	0.49
	<i>Acaena ovina</i>	1.17		<i>Epilobium</i> spp.	0.46
	<i>Elymus scaber</i>	1.10		<i>Hydrocotyle laxiflora</i>	0.44
	<i>Schoenus apogon</i>	1.08			Group frequency
	<i>Plantago varia</i>	1.06	Geology	Sediments	0.54
	<i>Triptilodiscus pygmaeus</i>	0.94		Colluvium / alluvium	0.25
	<i>Gonocarpus tetragynus</i>	0.86		Granite	0.16
	<i>Rumex brownii</i>	0.81		Basalt	0.09
	<i>Oxalis perennans</i>	0.81	Topography	Midslopes	0.38
	<i>Hypericum gramineum</i>	0.75		Footslopes	0.37
	<i>Tricoryne elatior</i>	0.74		Flats	0.20
	<i>Convolvulus angustissimus</i>	0.71		Upperslopes / plateaux	0.05
	<i>Lomandra</i> spp. (<i>bracteata</i> or <i>filiformis</i>)	0.68	Regions	Eastern	0.53
	<i>Poa labillardierei</i>	0.66		North-west	0.28
	<i>Carex</i> spp. (<i>breviculmis</i> or <i>inversa</i>)	0.64		Monaro	0.17
	<i>Geranium</i> spp.	0.63		South-western	0.04

Range: Widespread on moist sites in the North-western and Eastern Sub-regions of the Southern Tablelands, and in moist sites in the outer rim of the Monaro Sub-region. Also occurs in the south-western region near Tumbarumba.

Outstanding examples:

In the Monaro region, grasslands at Yaouk, Round Plain TSR near Berridale, Beloko Cemetery near Dalgety, Steves TSR near Delegate; in the eastern region, grasslands at Turallo Nature Reserve, Gundry TSR, Cowpers Creek TSR and Millers TSR near Goulburn, Collector TSR, Collector, the eastern parts of O'Keefes TSR near Tarago, Gilberts Creek, Back Creek and Reedy Creek TSRs near Braidwood; in the north-west, Tarengo TSR, Boorowa and Gundaroo Common, Gundaroo and Bedulluck TSR near Murrumbateman; and in the south-west, Mundaroo TSR and Rosewood Cemetery.

Group 7. Tablelands Moist Tussock Grassland

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Acacia dealbata</i>	0.17	0.11	<i>Calotis glandulosa</i>	0.09	0.06
<i>Acacia genistifolia</i>	0.01	0.01	<i>Calotis scabiosifolia</i> var. <i>integrifolia</i>	0.07	0.04
<i>Acacia gunnii</i>	0.01	0.01	<i>Carex appressa</i>	0.26	0.14
<i>Acacia mearnsii</i>	0.12	0.07	<i>Carex bichenoviana</i>	0.15	0.05
<i>Acacia melanoxylon</i>	0.01	0.01	<i>Carex</i> spp.	0.01	0.01
<i>Acacia rubida</i>	0.01	0.01	<i>Carex</i> spp. (<i>breviculmis</i> or <i>inversa</i>)	0.64	0.35
<i>Acacia siculiformis</i>	0.01	0.01	<i>Centella asiatica</i>	0.01	0.01
<i>Acaena novae-zelandiae</i>	0.05	0.04	<i>Centipeda cunninghamiana</i>	0.01	0.01
<i>Acaena ovina</i>	1.17	0.61	<i>Chamaecybe drummondii</i>	0.01	0.01
<i>Acrotriche serrulata</i>	0.09	0.04	<i>Cheilanthes</i> spp. (<i>austrotenuifolia</i> or <i>sieberi</i>)	0.14	0.09
<i>Agrostis</i> spp.	0.23	0.11	<i>Chloris truncata</i>	0.01	0.01
<i>Ajuga australis</i>	0.18	0.11	<i>Chrysocephalum apiculatum</i>	2.20	0.79
<i>Allocasuarina nana</i>	0.01	0.01	<i>Chrysocephalum</i> <i>semipapposum</i>	0.12	0.06
<i>Alternanthera</i> sp.A	0.02	0.01	<i>Convolvulus angustissimus</i>	0.71	0.40
<i>Amphibromus</i> spp.	0.09	0.06	<i>Craspedia</i> spp.	0.47	0.19
<i>Aphanes australiana</i>	0.20	0.10	<i>Crassula sieberiana</i>	0.35	0.16
<i>Aristida behriana</i>	0.01	0.01	<i>Cryptandra amara</i>	0.14	0.08
<i>Aristida ramosa</i>	0.21	0.13	<i>Cullen microcephalum</i>	0.02	0.01
<i>Arthropodium milleflorum</i>	0.04	0.01	<i>Cullen tenax</i>	0.01	0.01
<i>Arthropodium minus</i>	0.01	0.01	<i>Cymbonotus lawsonianus</i>	0.31	0.18
<i>Asperula</i> spp.	1.21	0.59	<i>Cynodon dactylon</i>	0.12	0.06
<i>Astroloma humifusum</i>	0.13	0.07	<i>Cynoglossum suaveolens</i>	0.13	0.10
<i>Austrodanthonia carphoides</i>	0.25	0.10	<i>Daucus glochidiatus</i>	0.05	0.03
<i>Austrodanthonia</i> spp.	2.49	0.87	<i>Daviesia genistifolia</i>	0.04	0.03
<i>Austrostipa bigeniculata</i>	0.49	0.21	<i>Daviesia latifolia</i>	0.16	0.09
<i>Austrostipa densiflora</i>	0.16	0.06	<i>Daviesia leptophylla</i>	0.04	0.03
<i>Austrostipa scabra</i> var. <i>falcata</i>	0.37	0.19	<i>Daviesia mimosoides</i>	0.12	0.09
<i>Banksia marginata</i>	0.01	0.01	<i>Daviesia ulicifolia</i>	0.05	0.02
<i>Bossiaea buxifolia</i>	0.11	0.08	<i>Desmodium varians</i>	0.28	0.19
<i>Bossiaea prostrata</i>	0.14	0.07	<i>Deyeuxia quadriseta</i>	0.05	0.02
<i>Bossiaea riparia</i>	0.01	0.01	<i>Dianella longifolia</i>	0.17	0.17
<i>Bothriochloa macra</i>	0.49	0.21	<i>Dianella revoluta</i>	0.16	0.11
<i>Brachycome aculeata</i>	0.06	0.03	<i>Dichelachne</i> spp.	0.43	0.26
<i>Brachycome decipiens</i>	0.04	0.01	<i>Dichopogon fimbriatus</i>	0.28	0.14
<i>Brachycome diversifolia</i>	0.01	0.01	<i>Dichondra repens</i>	0.16	0.11
<i>Brachycome heterodonta</i>	0.01	0.01	<i>Dillwynia prostrata</i>	0.01	0.01
<i>Brachycome rigidula</i>	0.06	0.04	<i>Dillwynia sericea</i>	0.06	0.02
<i>Brachycome spathulata</i>	0.02	0.01	<i>Discaria pubescens</i>	0.06	0.04
<i>Brachyloma daphnoides</i>	0.05	0.04	<i>Diuris chryseopsis</i>	0.27	0.12
<i>Bulbine bulbosa</i>	0.32	0.18	<i>Diuris punctata</i>	0.01	0.01
<i>Burchardia umbellata</i>	0.06	0.03	<i>Diuris sulphurea</i>	0.06	0.02
<i>Bursaria spinosa</i> subsp. <i>lasiophylla</i>	0.05	0.05	<i>Drosera peltata</i>	0.57	0.26
<i>Caesia calliantha</i>	0.02	0.01	<i>Einadia nutans</i>	0.04	0.04
<i>Callitris endlicheri</i>	0.01	0.01	<i>Elymus scaber</i>	1.10	0.50
<i>Calocephalus citreus</i>	0.46	0.24	<i>Enneapogon nigricans</i>	0.08	0.05
<i>Calotis anthemoides</i>	0.11	0.06	<i>Epilobium</i> spp.	0.46	0.29

Group 7. Tablelands Moist Tussock Grassland

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Eragrostis</i> spp.	0.24	0.14	<i>Juncus</i> spp.	1.17	0.63
<i>Erodium crinitum</i>	0.01	0.01	<i>Kunzea ericoides</i>	0.05	0.02
<i>Eryngium ovinum</i>	0.37	0.21	<i>Kunzea parvifolia</i>	0.14	0.08
<i>Euchiton involuocratus</i>	0.10	0.06	<i>Laxmannia gracilis</i>	0.04	0.02
<i>Eucalyptus aggregata</i>	0.09	0.09	<i>Lepidosperma laterale</i>	0.03	0.01
<i>Eucalyptus blakelyi</i>	0.07	0.04	<i>Leptorhynchos elongatus</i>	0.02	0.01
<i>Eucalyptus bridgesiana</i>	0.14	0.05	<i>Leptorhynchos squamatus</i>	1.81	0.70
<i>Eucalyptus camaldulensis</i>	0.01	0.01	<i>Lespedeza juncea</i>	0.01	0.01
<i>Eucalyptus cinerea</i>	0.02	0.02	<i>Leucochrysum albicans</i>	0.15	0.08
<i>Eucalyptus dalrympleana</i>	0.01	0.01	<i>Leucopogon fraseri</i>	0.18	0.09
<i>Eucalyptus dives</i>	0.06	0.04	<i>Linum marginale</i>	0.06	0.02
<i>Eucalyptus lacrimans</i>	0.02	0.01	<i>Lissanthe strigosa</i>	0.19	0.10
<i>Eucalyptus mannifera</i>	0.04	0.03	<i>Lomandra longifolia</i>	0.06	0.03
<i>Eucalyptus melliodora</i>	0.10	0.06	<i>Lomandra multiflora</i>	0.26	0.16
<i>Eucalyptus ovata</i>	0.06	0.05	<i>Lomandra</i> spp. (<i>bracteata</i> or <i>filiformis</i>)	0.68	0.40
<i>Eucalyptus pauciflora</i>	0.41	0.21	<i>Lomatia myricoides</i>	0.02	0.01
<i>Eucalyptus rubida</i>	0.31	0.19	<i>Luzula</i> spp.	0.49	0.36
<i>Eucalyptus stellulata</i>	0.06	0.05	<i>Lythrum hyssopifolia</i>	0.09	0.06
<i>Eucalyptus viminalis</i>	0.03	0.02	<i>Melaleuca parvistaminea</i>	0.02	0.02
<i>Euchiton involuocratus</i>	0.04	0.04	<i>Melichrus urceolatus</i>	0.16	0.09
<i>Euchiton</i> spp.	1.41	0.64	<i>Microlaena stipoides</i>	1.45	0.49
<i>Galium gaudichaudii</i>	0.09	0.06	<i>Microseris lanceolata</i>	0.04	0.03
<i>Geranium antrorsum</i>	0.09	0.32	<i>Microtis</i> spp.	0.52	0.26
<i>Geranium</i> spp.	0.63	0.05	<i>Mirbelia oxylobioides</i>	0.15	0.06
<i>Glycine clandestina</i>	0.08	0.06	<i>Mitrasacme serpyllifolia</i>	0.02	0.01
<i>Glycine tabacina</i>	0.26	0.20	<i>Neopaxia australasica</i>	0.02	0.01
<i>Gonocarpus tetragynus</i>	0.86	0.42	<i>Opercularia hispida</i>	0.06	0.05
<i>Goodenia hederacea</i>	0.19	0.13	<i>Ophioglossum lusitanicum</i>	0.05	0.03
<i>Goodenia pinnatifida</i>	0.22	0.12	<i>Oreomyrrhis eriopoda</i>	0.13	0.08
<i>Grevillea lanigera</i>	0.03	0.01	<i>Oxalis perennans</i>	0.81	0.46
<i>Hake microcarpa</i>	0.06	0.04	<i>Panicum effusum</i>	0.52	0.29
<i>Haloragus heterophyllus</i>	0.51	0.26	<i>Pennesetum alopecuroides</i>	0.03	0.01
<i>Hardenbergia violacea</i>	0.01	0.01	<i>Pentapogon quadrifidus</i>	0.10	0.06
<i>Helichrysum rutidolepis</i>	0.26	0.17	<i>Persicaria prostrata</i>	0.02	0.02
<i>Hemarthria uncinata</i>	0.11	0.05	<i>Pimelea curviflora</i>	0.55	0.32
<i>Hibbertia obtusifolia</i>	0.11	0.07	<i>Pimelea glauca</i>	0.23	0.12
<i>Hibbertia riparia</i>	0.01	0.01	<i>Pimelea pauciflora</i>	0.01	0.01
<i>Hovea linearis</i>	0.19	0.12	<i>Plantago antarctica</i>	0.01	0.49
<i>Hydrocotyle laxiflora</i>	0.44	0.04	<i>Plantago gaudichaudii</i>	0.24	0.01
<i>Hymenanthera dentata</i>	0.06	0.30	<i>Plantago hispida</i>	0.01	0.13
<i>Hypericum gramineum</i>	0.75	0.03	<i>Plantago varia</i>	1.06	0.01
<i>Hypericum japonicum</i>	0.01	0.39	<i>Poa labillardierei</i>	0.66	0.25
<i>Hypoxis</i> spp.	0.06	0.01	<i>Poa meionectes</i>	0.44	0.16
<i>Hydrocotyle algida</i>	0.05	0.04	<i>Poa sieberiana</i>	2.40	0.77
<i>Isoetopsis graminifolia</i>	0.02	0.02	<i>Podolepis hieracioides</i>	0.06	0.03
<i>Isotoma fluviatilis</i>	0.04	0.01	<i>Podolepis jaceoides</i>	0.10	0.05
<i>Juncus bufonius</i>	0.11	0.07	<i>Polygala japonica</i>	0.04	0.04

Group 7. Tablelands Moist Tussock Grassland

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Poranthera microphylla</i>	0.14	0.07	<i>Sporobolus</i> sp.	0.04	0.02
<i>Prasophyllum petilum</i>	0.03	0.01	<i>Stackhousia monogyna</i>	0.36	0.18
<i>Pratia purpurascens</i>	0.01	0.01	<i>Stellaria angustifolia</i>	0.01	0.01
<i>Pterostylis</i> spp.	0.07	0.04	<i>Stellaria pungens</i>	0.01	0.01
<i>Pultenaea</i> spp.	0.11	0.11	<i>Stuartina muelleri</i>	0.02	0.01
<i>Ranunculus lappaceus</i>	0.47	0.19	<i>Stylidium graminifolium</i>	0.18	0.08
<i>Ranunculus</i> spp.	0.05	0.03	<i>Swainsona monticola</i>	0.04	0.02
<i>Rhodanthe anthemoides</i>	0.01	0.01	<i>Swainsona recta</i>	0.01	0.01
<i>Rubus parvifolius</i>	0.03	0.03	<i>Thelymitra</i> spp.	0.06	0.04
<i>Rumex brownii</i>	0.81	0.13	<i>Themeda australis</i>	6.51	1.00
<i>Rumex dumosus</i>	0.24	0.54	<i>Thesium australe</i>	0.01	0.01
<i>Rutidosis leptorrhynchoides</i>	0.07	0.03	<i>Thysanotus tuberosus</i>	0.09	0.05
<i>Schoenus apogon</i>	1.08	0.41	<i>Tricoryne elatior</i>	0.74	0.39
<i>Scleranthus biflorus</i>	0.34	0.21	<i>Triptilodiscus pygmaeus</i>	0.94	0.39
<i>Scleranthus diander</i>	0.04	0.02	<i>Velleia paradoxa</i>	0.07	0.04
<i>Scleranthus fasciculatus</i>	0.29	0.20	<i>Veronica gracilis</i>	0.09	0.06
<i>Sebaea ovata</i>	0.04	0.02	<i>Viola betonicifolia</i>	0.13	0.09
<i>Selliera radicans</i>	0.01	0.01	<i>Vittadinia cuneata</i>	0.05	0.04
<i>Senecio lautus</i>	0.01	0.01	<i>Vittadinia muelleri</i>	0.54	0.27
<i>Solenogyne dominii</i>	0.54	0.30	<i>Vittadinia triloba</i>	0.06	0.04
<i>Solenogyne gunnii</i>	0.50	0.24	<i>Wahlenbergia</i> spp.	1.39	0.69
<i>Sorghum leiocladum</i>	0.19	0.07	<i>Wurmbea dioica</i>	0.34	0.18

Total native species:

229

Unique species of Tablelands Moist Tussock Grassland or those found in four associations or fewer (showing number of occurrences in other associations)

Unique spp:

5

Unique species as percentage of total species:

2.2%

Species found in 4 associations or fewer (including unique species):

111

Species found in 4 associations or fewer (including unique species) as percentage of total:

48.5%

Unique species of Tablelands Moist Tussock Grassland

Brachycome diversifolia

Prasophyllum petilum

Pratia purpurascens

Sebaea ovata

Swainsona recta

Species of Tablelands Moist Tussock Grassland found in four associations or fewer (showing number of occurrences in other associations)

Species	No of occurrences	Species	No of occurrences
<i>Acacia genistifolia</i>	4	<i>Aphanes australiana</i>	3
<i>Acacia gunnii</i>	3	<i>Aristida behriana</i>	3
<i>Acacia melanoxydon</i>	4	<i>Arthropodium minus</i>	2
<i>Acacia rubida</i>	4	<i>Austrostipa densiflora</i>	4
<i>Acacia siculiformis</i>	2	<i>Banksia marginate</i>	3
<i>Ajuga australis</i>	4	<i>Bossiaea buxifolia</i>	4
<i>Allocasuarina nana</i>	2	<i>Bossiaea prostrata</i>	4
<i>Alternanthera</i> sp.A	4	<i>Bossiaea riparia</i>	3

Group 7. Tablelands Moist Tussock Grassland

Species of Tablelands Moist Tussock Grassland found in four associations or fewer (showing number of occurrences in other associations), continued

Species	No of occurrences	Species	No of occurrences
<i>Aphanes australiana</i>	3	<i>Hibbertia obtusifolia</i>	4
<i>Aristida behriana</i>	3	<i>Hibbertia riparia</i>	2
<i>Arthropodium minus</i>	2	<i>Hymenanchera dentata</i>	2
<i>Austrostipa densiflora</i>	4	<i>Hypericum japonicum</i>	3
<i>Banksia marginate</i>	3	<i>Hypoxis</i> spp.	4
<i>Bossiaea buxifolia</i>	4	<i>Hyrdocotyle algida</i>	2
<i>Bossiaea prostrata</i>	4	<i>Isoetopsis graminifolia</i>	3
<i>Bossiaea riparia</i>	3	<i>Isotoma fluviatilis</i>	4
<i>Brachycome aculeata</i>	2	<i>Laxmannia gracilis</i>	2
<i>Brachycome decipiens</i>	3	<i>Lepidosperma laterale</i>	3
<i>Brachycome diversifolia</i>	1	<i>Leptorhynchos elongatus</i>	2
<i>Brachycome heterodonta</i>	3	<i>Lespedeza juncea</i>	2
<i>Brachycome rigidula</i>	3	<i>Leucochrysum albicans</i>	2
<i>Brachycome spathulata</i>	3	<i>Linum marginale</i>	4
<i>Brachyloma daphnoides</i>	3	<i>Lissanthe strigosa</i>	4
<i>Burchardia umbellata</i>	2	<i>Lomatia myricoides</i>	2
<i>Caesia calliantha</i>	2	<i>Melaleuca parvistaminea</i>	4
<i>Callitris endlicheri</i>	2	<i>Microseris lanceolata</i>	4
<i>Calocephalus citreus</i>	4	<i>Mirbelia oxylobioides</i>	4
<i>Calotis glandulosa</i>	2	<i>Mitrasacme serpyllifolia</i>	2
<i>Calotis scabiosifolia</i> var. <i>integrifolia</i>	4	<i>Neopaxia australasica</i>	3
<i>Chamaecyce drummondii</i>	4	<i>Opercularia hispida</i>	2
<i>Cheilanthes</i> spp. (<i>austrotenuifolia</i> or <i>sieberi</i>)	4	<i>Ophioglossum lusitanicum</i>	4
<i>Cullen microcephalum</i>	4	<i>Pennesetum alopecuroides</i>	3
<i>Cullen tenax</i>	3	<i>Pentapogon quadrifidus</i>	3
<i>Daucus glochidiatus</i>	3	<i>Pimelea glauca</i>	4
<i>Daviesia genistifolia</i>	3	<i>Pimelea pauciflora</i>	2
<i>Daviesia latifolia</i>	3	<i>Plantago antarctica</i>	4
<i>Daviesia leptophylla</i>	3	<i>Plantago hispida</i>	2
<i>Daviesia mimosoides</i>	4	<i>Podolepis hieracioides</i>	2
<i>Daviesia ulicifolia</i>	2	<i>Podolepis jaceoides</i>	3
<i>Dillwynia prostrata</i>	3	<i>Polygala japonica</i>	3
<i>Dillwynia sericea</i>	4	<i>Prasophyllum petilum</i>	1
<i>Discaria pubescens</i>	4	<i>Pratia purpurascens</i>	1
<i>Diuris punctata</i>	2	<i>Rhodanthe anthemoides</i>	2
<i>Diuris sulphurea</i>	2	<i>Rutidosia leptorrhynchoides</i>	2
<i>Erodium crinitum</i>	4	<i>Scleranthus diander</i>	3
<i>Eucalyptus aggregata</i>	2	<i>Sebaea ovata</i>	1
<i>Eucalyptus blakelyi</i>	3	<i>Selliera radicans</i>	3
<i>Eucalyptus camaldulensis</i>	2	<i>Senecio lautus</i>	2
<i>Eucalyptus cinerea</i>	2	<i>Sporobolus</i> sp.	3
<i>Eucalyptus dalrympleana</i>	4	<i>Stackhousia monogyna</i>	4
<i>Eucalyptus dives</i>	2	<i>Stellaria angustifolia</i>	4
<i>Eucalyptus lacrimans</i>	2	<i>Stuartina muelleri</i>	2
<i>Eucalyptus mannifera</i>	2	<i>Swainsona monticola</i>	2
<i>Eucalyptus melliodora</i>	4	<i>Swainsona recta</i>	1
<i>Eucalyptus ovata</i>	3	<i>Thelymitra</i> spp.	4
<i>Eucalyptus stellulata</i>	3	<i>Thesium australe</i>	2
<i>Eucalyptus viminalis</i>	3	<i>Thysanotus tuberosus</i>	3
<i>Galium gaudichaudii</i>	3	<i>Velleia paradoxa</i>	3
<i>Geranium antrorsum</i>	4	<i>Vittadinia triloba</i>	4
<i>Grevillea lanigera</i>	3		

Group 8. North-western & Eastern Kangaroo Grass - Wire-grass Dry Tussock Grassland

Number of plots/sites

9

Group name: Kangaroo Grass - Purple Wire-grass - Mat-rush - Wallaby Grass - Common Everlasting - dry tussock grassland in the north-western and Eastern Southern Tablelands of the South Eastern Highlands Bioregion

Scientific name: *Themeda australis* - *Aristida ramosa* - *Lomandra* spp. - *Austrodanthonia* spp. - *Chrysocephalum apiculatum* dry tussock grassland in the north-western and Eastern Southern Tablelands of the South Eastern Highlands Bioregion

		Group cover			Group cover
Dominants	<i>Themeda australis</i>	5.11		<i>Oxalis perennans</i>	0.74
	<i>Aristida ramosa</i>	2.42		<i>Melichrus urceolatus</i>	0.74
	<i>Lomandra</i> spp. (<i>bracteata</i> or <i>filiformis</i>)	2.32		<i>Panicum effusum</i>	0.74
	<i>Austrodanthonia</i> spp.	1.95		<i>Triptilodiscus pygmaeus</i>	0.74
	<i>Chrysocephalum apiculatum</i>	1.79		<i>Dianella revoluta</i>	0.68
Sub-dominants	<i>Microlaena stipoides</i>	1.68		<i>Lomandra longifolia</i>	0.68
	<i>Wahlenbergia</i> spp.	1.63		<i>Hibbertia obtusifolia</i>	0.63
	<i>Austrostipa densiflora</i>	1.53		<i>Glycine tabacina</i>	0.58
	<i>Euchiton</i> spp.	1.47		<i>Bulbine glauca</i>	0.58
	<i>Pimelea curviflora</i>	1.37		<i>Cymbopogon refractus</i>	0.58
	<i>Goodenia hederacea</i>	1.32		<i>Dillwynia sericea</i>	0.58
	<i>Lomandra multiflora</i>	1.26		<i>Elymus scaber</i>	0.58
	<i>Austrostipa scabra</i> var. <i>falcata</i>	1.16			Group frequency
	<i>Gonocarpus tetragynus</i>	1.05	Geology	Sediments	0.68
	<i>Poa sieberiana</i>	1.05		Granite	0.26
	<i>Bothriochloa macra</i>	1.00		Basalt	0.05
	<i>Cheilanthes</i> spp. (<i>austrotenuifolia</i> or <i>sieberi</i>)	0.89		Limestone	0.05
	<i>Tricoryne elatior</i>	0.84	Topography	Midslopes	0.58
	<i>Lissanthe strigosa</i>	0.84		Flats	0.21
	<i>Leptorhynchos squamatus</i>	0.84		Upperslopes / plateaux	0.16
	<i>Solenogyne dominii</i>	0.79		Footslopes	0.05
	<i>Stylidium graminifolium</i>	0.79	Regions	Eastern	0.58
	<i>Schoenus apogon</i>	0.79		North-western	0.42

Range: Occurs in dry and sometimes steeply sloping sites in the North-western and Eastern Sub-regions of the Southern Tablelands, sometimes in riparian or upperslope situations on shallow or skeletal soils.

Outstanding examples:

Occurs on the highest slopes at Gundry TSR, Goulburn, and in Yass Gorge and Hattons Reserve at Yass.

Group 8. North-western & Eastern Kangaroo Grass - Wire-grass Dry Tussock Grassland

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Acacia brownii</i>	0.05	0.05	<i>Dianella longifolia</i>	0.42	0.26
<i>Acacia dealbata</i>	0.21	0.05	<i>Dianella revoluta</i>	0.68	0.42
<i>Acacia genistifolia</i>	0.05	0.05	<i>Dichanthium sericeum</i>	0.11	0.05
<i>Acacia mearnsii</i>	0.21	0.11	<i>Dichelachne</i> spp.	0.26	0.16
<i>Acacia rubida</i>	0.21	0.21	<i>Dichopogon fimbriatus</i>	0.21	0.11
<i>Acaena ovina</i>	0.26	0.21	<i>Dichondra repens</i>	0.05	0.05
<i>Acrotriche serrulata</i>	0.05	0.05	<i>Dillwynia sericea</i>	0.58	0.26
<i>Allocasuarina littoralis</i>	0.16	0.05	<i>Discaria pubescens</i>	0.05	0.05
<i>Alternanthera</i> sp.A	0.05	0.05	<i>Diuris chryseopsis</i>	0.26	0.11
<i>Aristida behriana</i>	0.11	0.11	<i>Diuris punctata</i>	0.47	0.21
<i>Aristida ramosa</i>	2.42	0.58	<i>Dodonaea boroniifolia</i>	0.47	0.26
<i>Arthropodium milleflorum</i>	0.47	0.16	<i>Drosera peltata</i>	0.47	0.16
<i>Asperula ambleia</i>	0.11	0.05	<i>Einadia nutans</i>	0.05	0.05
<i>Asperula conferta</i>	0.26	0.16	<i>Elymus scaber</i>	0.58	0.26
<i>Astroloma humifusum</i>	0.53	0.26	<i>Enneapogon nigricans</i>	0.58	0.26
<i>Austrodanthonia carphoides</i>	0.05	0.05	<i>Eragrostis</i> spp.	0.47	0.26
<i>Austrodanthonia</i> spp.	1.95	0.68	<i>Eriochilus cucullatus</i>	0.11	0.05
<i>Austrostipa bigeniculata</i>	0.42	0.21	<i>Erodium crinitum</i>	0.05	0.05
<i>Austrostipa densiflora</i>	1.53	0.47	<i>Eryngium ovinum</i>	0.37	0.16
<i>Austrostipa scabra</i> var. <i>falcata</i>	1.16	0.47	<i>Eucalyptus blakelyi</i>	0.11	0.05
<i>Boerhavia dominii</i>	0.47	0.32	<i>Eucalyptus camaldulensis</i>	0.11	0.11
<i>Bossiaea buxifolia</i>	0.32	0.11	<i>Eucalyptus melliodora</i>	0.11	0.11
<i>Bothriochloa macra</i>	1.00	0.37	<i>Eucalyptus pauciflora</i>	0.32	0.16
<i>Brachyloma daphnoides</i>	0.37	0.21	<i>Euchiton involucratus</i>	0.05	0.05
<i>Bulbine bulbosa</i>	0.26	0.16	<i>Euchiton</i> spp.	1.47	0.53
<i>Bulbine glauca</i>	0.58	0.26	<i>Eutaxia diffusa</i>	0.05	0.05
<i>Bursaria spinosa</i> subsp. <i>lasiophylla</i>	0.37	0.26	<i>Galium gaudichaudii</i>	0.47	0.16
<i>Calocephalus citreus</i>	0.21	0.11	<i>Glycine clandestina</i>	0.21	0.11
<i>Calotis anthemoides</i>	0.05	0.05	<i>Glycine tabacina</i>	0.58	0.37
<i>Calotis lappulacea</i>	0.11	0.11	<i>Gonocarpus tetragynus</i>	1.05	0.42
<i>Calytrix tetragona</i>	0.11	0.05	<i>Goodenia hederacea</i>	1.32	0.53
<i>Carex appressa</i>	0.05	0.05	<i>Goodenia pinnatifida</i>	0.11	0.11
<i>Carex bichenoviana</i>	0.05	0.05	<i>Helichrysum scorpioides</i>	0.32	0.11
<i>Carex</i> spp. (<i>breviculmis</i> or <i>inversa</i>)	0.42	0.21	<i>Hibbertia obtusifolia</i>	0.63	0.42
<i>Chamaecyce drummondii</i>	0.21	0.11	<i>Hibbertia riparia</i>	0.16	0.05
<i>Cheilanthes</i> spp. (<i>austrotenuifolia</i> or <i>sieberi</i>)	0.89	0.37	<i>Hovea linearis</i>	0.26	0.21
<i>Chloris truncata</i>	0.42	0.16	<i>Hydrocotyle algida</i>	0.05	0.05
<i>Chrysocephalum apiculatum</i>	1.79	0.63	<i>Hydrocotyle laxiflora</i>	0.21	0.11
<i>Chrysocephalum semipapposum</i>	0.05	0.05	<i>Hypericum gramineum</i>	0.47	0.21
<i>Convolvulus angustissimus</i>	0.47	0.21	<i>Imperata cylindrica</i>	0.05	0.05
<i>Crassula sieberiana</i>	0.26	0.21	<i>Indigofera adesmiifolia</i>	0.11	0.11
<i>Cryptandra amara</i>	0.47	0.21	<i>Jacksonia scoparia</i>	0.47	0.16
<i>Cymbopogon refractus</i>	0.58	0.26	<i>Joycea pallida</i>	0.63	0.21
<i>Cynoglossum suaveolens</i>	0.16	0.16	<i>Juncus</i> spp.	0.21	0.11
<i>Daviesia latifolia</i>	0.21	0.11	<i>Kunzea ericoides</i>	0.05	0.11
<i>Desmodium varians</i>	0.26	0.16	<i>Kunzea parvifolia</i>	0.26	0.11

Group 8. North-western & Eastern Kangaroo Grass - Wire-grass Dry Tussock Grassland

Species	Group cover	Group frequency	Species	Group cover	Group frequency
<i>Laxmannia gracilis</i>	0.26	0.21	<i>Prunella vulgaris</i>	0.05	0.05
<i>Lepidosperma laterale</i>	0.05	0.05	<i>Pterostylis</i> spp.	0.11	0.05
<i>Leptorhynchus squamatus</i>	0.84	0.32	<i>Pultenaea</i> spp.	0.21	0.11
<i>Leucopogon fraseri</i>	0.16	0.11	<i>Rubus parvifolius</i>	0.11	0.11
<i>Lissanthe strigosa</i>	0.84	0.47	<i>Rumex brownii</i>	0.47	0.26
<i>Lomandra longifolia</i>	0.68	0.32	<i>Rumex dumosus</i>	0.05	0.05
<i>Lomandra multiflora</i>	1.26	0.58	<i>Schoenus apogon</i>	0.79	0.26
<i>Lomandra</i> spp. (<i>bracteata</i> or <i>filiformis</i>)	2.32	1.00	<i>Scutellaria humilis</i>	0.05	0.05
<i>Luzula</i> spp.	0.42	0.26	<i>Sida corrugata</i>	0.11	0.11
<i>Lythrum hyssopifolia</i>	0.05	0.05	<i>Solenogyne dominii</i>	0.79	0.42
<i>Melaleuca parvistaminea</i>	0.16	0.05	<i>Sorghum leiocladum</i>	0.32	0.16
<i>Melichrus urceolatus</i>	0.74	0.37	<i>Stellaria pungens</i>	0.21	0.11
<i>Microlaena stipoides</i>	1.68	0.63	<i>Stylidium graminifolium</i>	0.79	0.32
<i>Microtis</i> spp.	0.47	0.21	<i>Thelymitra</i> spp.	0.58	0.21
<i>Opercularia hispida</i>	0.16	0.21	<i>Themeda australis</i>	5.11	0.95
<i>Ophioglossum lusitanicum</i>	0.11	0.05	<i>Thysanotus patersonii</i>	0.16	0.05
<i>Oxalis perennans</i>	0.74	0.42	<i>Thysanotus tuberosus</i>	0.21	0.11
<i>Panicum effusum</i>	0.74	0.37	<i>Tricoryne elatior</i>	0.84	0.53
<i>Persicaria prostrata</i>	0.05	0.05	<i>Triptilodiscus pygmaeus</i>	0.74	0.26
<i>Pimelea curviflora</i>	1.37	0.63	<i>Veronica gracilis</i>	0.05	0.05
<i>Pimelea glauca</i>	0.05	0.05	<i>Viola betonicifolia</i>	0.05	0.05
<i>Plantago gaudichaudii</i>	0.32	0.11	<i>Vittadinia cuneata</i>	0.05	0.05
<i>Plantago varia</i>	0.26	0.21	<i>Vittadinia muelleri</i>	0.32	0.26
<i>Poa meionectes</i>	0.05	0.05	<i>Wahlenbergia</i> spp.	1.63	0.74
<i>Poa sieberiana</i>	1.05	0.42	<i>Westringia eremicola</i>	0.37	0.21
<i>Polygala japonica</i>	0.05	0.05	<i>Wurmbea dioica</i>	0.26	0.11
<i>Poranthera microphylla</i>	0.05	0.05			

Group 8. North-western & Eastern Kangaroo Grass - Wire-grass Dry Tussock Grassland

Total native species: 145

Unique species of North-western & Eastern Kangaroo Grass - Wire-grass Dry Tussock Grassland or those found in four associations or fewer (showing number of occurrences in other associations)

Unique spp: 14
Unique species as percentage of total species: 9.7%
Species found in 4 associations or fewer (including unique species): 54
Species found in 4 associations or fewer (including unique species) as percentage of total: 37.2%

Unique species of North-western & Eastern Kangaroo Grass - Wire-grass Dry Tussock Grassland

Acacia brownii
Allocasuarina littoralis
Boerhavia dominii
Calytrix tetragona
Dodonaea boroniifolia
Eutaxia diffusa
Helichrysum scorpioides
Imperata cylindrica
Indigofera adesmiifolia
Jacksonia scoparia
Scutellaria humilis
Sida corrugata
Thysanotus patersonii
Westringia eremicola

Group 8. North-western & Eastern Kangaroo Grass - Wire-grass Dry Tussock Grassland

Species of North-western & Eastern Kangaroo Grass - Wire-grass Dry Tussock Grassland) found in four associations or fewer (showing number of occurrences in other associations)

Species	No of occurrences	Species	No of occurrences
<i>Acacia brownii</i>	1	<i>Eucalyptus melliodora</i>	4
<i>Acacia genistifolia</i>	4	<i>Eutaxia diffusa</i>	1
<i>Acacia rubida</i>	4	<i>Galium gaudichaudii</i>	3
<i>Allocasuarina littoralis</i>	1	<i>Helichrysum scorpioides</i>	1
<i>Alternanthera sp.A</i>	4	<i>Hibbertia obtusifolia</i>	4
<i>Aristida behriana</i>	3	<i>Hibbertia riparia</i>	2
<i>Asperula ambleia</i>	2	<i>Hydrocotyle algida</i>	4
<i>Austrostipa densiflora</i>	4	<i>Imperata cylindrica</i>	1
<i>Boerhavia dominii</i>	1	<i>Indigofera adesmiifolia</i>	1
<i>Bossiaea buxifolia</i>	4	<i>Jacksonia scoparia</i>	1
<i>Brachyloma daphnoides</i>	3	<i>Joycea pallida</i>	3
<i>Bulbine glauca</i>	2	<i>Laxmannia gracilis</i>	2
<i>Calocephalus citreus</i>	4	<i>Lepidosperma laterale</i>	3
<i>Calotis lappulacea</i>	2	<i>Lissanthe strigosa</i>	4
<i>Calytrix tetragona</i>	1	<i>Melaleuca parvistaminea</i>	4
<i>Chamaecyce drummondii</i>	4	<i>Opercularia hispida</i>	2
<i>Cheilanthes spp. (austrotenuifolia or sieberi)</i>	4	<i>Ophioglossum lusitanicum</i>	4
<i>Cymbopogon refractus</i>	2	<i>Pimelea glauca</i>	4
<i>Daviesia latifolia</i>	3	<i>Polygala japonica</i>	3
<i>Dichanthium sericeum</i>	2	<i>Prunella vulgaris</i>	4
<i>Dillwynia sericea</i>	4	<i>Scutellaria humilis</i>	1
<i>Discaria pubescens</i>	4	<i>Sida corrugata</i>	1
<i>Diuris punctata</i>	2	<i>Thelymitra spp.</i>	4
<i>Dodonaea boroniifolia</i>	1	<i>Thysanotus patersonii</i>	1
<i>Eriochilus cucullatus</i>	4	<i>Thysanotus tuberosus</i>	3
<i>Erodium crinitum</i>	4	<i>Westringia eremicola</i>	1
<i>Eucalyptus blakelyi</i>	3		