

Edition 2 *From Forest to Fjældmark*

The Vegetation Communities

Native grassland



Native grassland

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General description

Native grasslands are defined as areas of native vegetation dominated by native grasses with few or no emergent woody species. Different types of native grassland can be found in a variety of habitats, including coastal fore-dunes, dry slopes and valley bottoms, rock plates and subalpine flats. The lowland temperate grassland types have been recognised as some of the most threatened vegetation communities in Australia.

Some areas of native grassland are human-induced and exist as a result of heavy burning, tree clearing or dieback of the tree layer in grassy woodlands.

There are seven grassland communities recognised by TASVEG: one is coastal, four are lowland, one is highland, and one is found in both highland and lowland areas. Floristic differences, altitudinal distribution and environmental situation are used to define the communities.

Minor revision

Minor changes to the description of Highland *Poa* grassland (GPH) were made in 2015 to reflect a minor revision of the section re-named as *Modified land*. The description of GPH was adjusted to include highland grasslands that have been sown with exotic pasture species but which have had significant reversion to a native state, improving the differentiation of this unit from Agricultural land (FAG) and Regenerating cleared land (FRG). A minor modification to the sectional key was made to

align the key and the description of Lowland grassland complex (GCL) with respect to the required cover of native grass species. In 2017 further minor revisions were made to improve information for general management issues, and to improve the description of Coastal grass and herbfield (GHC) and its differentiation from Lowland *Poa labillardierei* grassland (GPL). This is reflected in the key to this Section.

General management issues

Most lowland native grassland in Tasmania has been cleared for agriculture since European settlement (Barker 1999, Gilfedder 1990, Kirkpatrick et al. 1988, Kirkpatrick 1991, Williams et al. 2007).

Native grassland has management challenges (Mokany et al. 2006, Williams et al. 2015), which vary with the type of grassland. The impacts of livestock grazing can be positive or negative, or positive for some aspects of the community while negative for others. Some of the variables that can affect this impact are: type of livestock, stocking rate, stocking period, site fertility, grassland type and the relationship between the grazing and fire regimes. It is generally accepted that in non-alpine grassland where native herbivore populations have been reduced some stock grazing is desirable (Kirkpatrick et al. 1988, Kirkpatrick 1991). Fire is considered to be an important management tool for native grassland as it impedes the establishment of woody species and provides disturbance that maintains high species diversity. Appropriate fire regimes vary

depending on the grassland type, the grazing regime, the species present and their conservation value (Kirkpatrick et al. 1988, Kirkpatrick 1991). A combination of burning followed by stock grazing in Highland *Poa* grassland (**GPH**) has in some cases resulted in the establishment of unpalatable shrubs and the conversion to species-poor heathland (Kirkpatrick 1991). More critical is when the fire interval exceeds 10 years, with prescribed burning at intervals of less than 10 years between fires recommended to maintain grassy ecosystems and keep the cover of invasive native shrubs at less than 20% (Gilfedder et al. 2017).

The effects of fertilisers are not fully understood, but fertiliser application and associated grazing are observed to result in a change in grassland composition and an increase in exotic species (Kirkpatrick et al. 1988, Kirkpatrick 1991).

Threatened species are a significant component of native grasslands. At the national level there are about 25 species associated with grasslands listed as threatened under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC), and approximately 60 flora and fauna species associated with grasslands are listed under state environmental law; the *Tasmanian Threatened Species Protection Act 1995* (Gilfedder 1990, Barker 1999, Australian Government 2009). All of these have particular management requirements. The EPBC act also lists 'Lowland Native Grasslands of Tasmania' as critically endangered (Australian Government 2009).

Coastal grass and herbfield (**GHC**) is susceptible to erosion and degradation from human activities such as use of recreational vehicles, stock grazing and in some instances burning (Harris 1991, Barnes et al. 2002). *Austrofestuca* and *Spinifex* dominated communities are particularly susceptible to displacement by weed species such as *Ammophila arenaria*, *Euphorbia paralias* and *Thinopyrum junceiforme* (Rudman 2003). Weeds also threaten Lowland *Poa labillardierei* grassland (**GPL**), particularly on fertile river flats. Gorse, willows and exotic grasses invade some areas on river flats (Kirkpatrick 1991).

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Key to Native grassland

	Page
1 Grassland vegetation associated with shallow soils on rockplates	
2 Vegetation dominated by <i>Rytidosperma</i> species, <i>Themeda triandra</i> or <i>Poa rodwayi</i> , rich in herbaceous species, and associated with shallow soils on rockplates	
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1 Grassland vegetation not associated with shallow soils on rockplates	
2 Vegetation dominated by <i>Poa labillardierei</i> , <i>P. gunnii</i> , <i>P. rodwayi</i> , <i>P. clivicola</i> or <i>P. costiniana</i>	
3 Tussock grassland above 600 m in elevation	
	Highland Poa grassland (GPH) 7
3 Tussock grassland below 600 m in elevation	
4 Grassland in coastal vegetation	
	Coastal grass and herbfield (GHC) 5
4 Grassland not in coastal vegetation	
	Lowland Poa labillardierei grassland (GPL) 12
2 Vegetation dominated by <i>Themeda triandra</i>	
	Lowland Themeda triandra grassland (GTL) 14
2 Vegetation with a minimum cover of 25% of native grasses, dominated by <i>Rytidosperma</i> species, or without a clear dominant, but commonly with <i>Rytidosperma</i> , <i>Poa</i> , <i>Themeda</i> and/or <i>Austrostipa</i> species	
	Lowland grassland complex (GCL) 9
2 Coastal grassland dominated by <i>Poa poiformis</i> or <i>Austrostipa stipoides</i> and/or various native sand-binding grasses	
	Coastal grass and herbfield (GHC) 5
2 Vegetation below 600 m where <i>Lomandra longifolia</i> and <i>Lepidosperma</i> species are interspersed with <i>Poa</i> species and other grasses	
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Coastal grass and herbfield (GHC)

General description

Coastal grass and herbfield communities are found on sand dunes; sand plains behind dunes; flat, rocky and occasionally sandy shores and cliffs in coastal areas. **GHC** includes grasslands dominated by *Spinifex sericeus*, *Austrofestuca littoralis*, *Austrostipa stipoides*, *Poa poiiformis*, and occasionally *Poa labillardierei*.



Coastal grassland facies. Prime Seal Island, Furneaux Group. Micah Visoiu

Example localities

Long Spit Private Nature Reserve, Great Dog Island, Furneaux Group.

Distinguishing features and similar communities

Coastal grasslands are typically dominated by *Spinifex sericeus*, *Austrofestuca littoralis*, *Austrostipa stipoides*, *Poa poiiformis* and in certain situations *Poa labillardierei*. The communities in this unit also include grassy sedgeland and closed herbfield or marsupial lawn, which occurs in the swales behind dunes or on the margins of saltmarsh.

Juncus kraussii can be present but when it is dominant, alone or with *Gahnia filum*, it is mapped as **ARS**.

Succulent saltmarsh with emergent *Puccinellia stricta* is mapped as **ASS**.

Deschampsia cespitosa can dominate in coastal wetlands but these are often mapped with the predominant wetland community (**ASS** or **ARS**).

This unit may include small dune swale patches dominated by *Phragmites australis*, however

extensive areas of this species, such as those along the Tamar Estuary should be mapped as **ASF**.

Spartina anglica dominated grassland should be mapped as **FSM**.

The exotic grass *Ammophila arenaria* is often present and communities dominated by *A. arenaria* have been mapped in this unit. However, where *A. arenaria* dominated grasslands can be discriminated from native coastal grassland communities they are mapped as Marram (*A. arenaria*) grasslands (**FMG**).

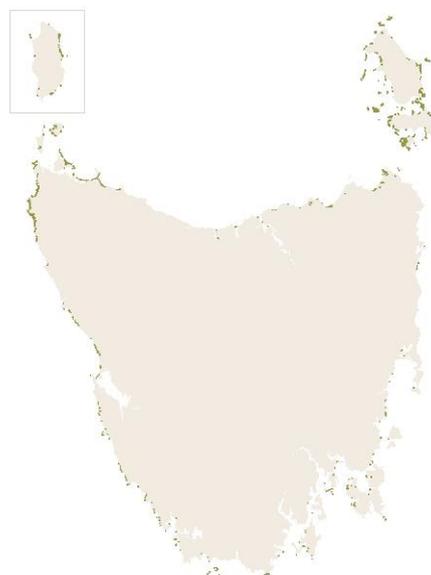
Where *Poa labillardierei* occurs within associated vegetation types that are distinctly coastal it is mapped as **GHC**, in some situations this includes *Poa* tussocks which are intermediate between *Poa poiiformis* and *Poa labillardierei* e.g. Long Spit Private Nature Reserve, Marion Bay.

RFA mapping unit

Not covered by RFA mapping.

Distribution

Coastal Tasmania.



Bioregional occurrence

FUR, KIN, TSE, TSR, TWE.

Site characteristics, habitat and ecology

Coastal grasslands occur on sand dunes, sand plains behind dunes and adjoining saltmarsh, and on flat, rocky shores and cliffs in coastal regions around Tasmania and its islands. They grow on a range of rock types, including granite, dolerite, mudstone, sandstone and calcarenite. Sand-binding facies of **GHC** occur over deep sands along the back of beaches or on coastal dune fields where they may intergrade with coastal scrub.

Vegetation composition and structure

There are two main facies of native sand-binding grassland. *Spinifex sericeus* dominated grassland is most common growing in dunes rich in calcium carbonate predominantly on the north and east coasts. *Austrofestuca littoralis* dominated grassland extends around the entire coast of Tasmanian but has its stronghold in forming grasslands in the south and west of the State.

Austrostipa stipoides tussock grassland occurs occasionally on sand, but more commonly on rocky shores close to the high-water mark.

Poa poiformis tussock grassland is the most common coastal grassland on offshore islands and is particularly widespread on the Bass Strait islands, often maintained by frequent burning. It occurs inland of *A. stipoides* grassland, and on sand dunes inland of *S. sericeus* grassland. It may also occur inland of saltmarsh communities where it can at times integrate with *P. labillardierei*.

Poa poiformis can also occur as an emergent in closed herbfield and grassy sedgeland dominated by *Distichlis distichophylla*, *Schoenus nitens* and *Ficinia nodosa*.

Common non-dominant grasses include *Distichlis distichophylla*, *Deschampsia caespitosa*, *Puccinellia stricta* and *Austrostipa flavescens*, with sedges *Ficinia nodosa* and *Schoenus* spp.

Herbs include *Acaena* spp., *Carpobrotus rossii*, *Centaurium erythraea*, *Pelargonium* spp., *Atriplex* spp., *Ranunculus lappaceus*, *Samolus repens*, *Apium prostratum*, *Leptinella reptans*, *Disphyma crassifolium*, *Dichondra repens*, *Oxalis* spp., *Tetragonia implexicoma*, *T. tetragonioides*, *Rhagodia candolleana*, *Selliera radicans* and native species of *Senecio*.

Note that sand-binding grasslands may be severely degraded by weed invasion. They may at times be completely displaced or structurally modified by

weeds such as *Ammophila arenaria*, *Euphorbia paralia*, *Cakile edentula*, *C. maritima* and *Thinopyrum junceiforme*.

Other weeds that may be locally common include grasses such *Vulpia* spp. and *Ehrharta villosa*, and dicots such as *Lupinus arboreus* and exotic species of *Senecio*.

Floristic communities known to occur in this mapping unit

Dry coastal communities:

- 1 *Atriplex billardierei* ephemeral herbland; also occurs in **ASS**
- 6 *Atriplex cinerea* shrubland; also occurs in **SCA & ASS**
- 7 *Spinifex sericeus*–*Austrofestuca littoralis* grassland
- 8 *Austrofestuca littoralis* grassland
- 9 *Austrofestuca littoralis*–*Calocephalus brownii* grassland
- 11 *Spinifex sericeus*–*Leucopogon parviflorus* grassland/shrubland; also occurs in **SSC**
- 15 *Austrostipa stipoides*–*Disphyma crassifolium* tussock grassland; also occurs in **SSZ**
- 16 *Poa poiformis*–*Austrostipa stipoides*–*Dichondra repens* tussock grassland
- 17 *Austrostipa stipoides*–*Leucopogon parviflorus* tussock grassland
- 28 *Samolus repens*–*Schoenus nitens* herbland
- 29 *Schoenus nitens*–*Cotula reptans* sedgeland

Saltmarsh:

- 7 *Austrostipa stipoides* tussock grassland
- 8 *Distichlis distichophylla* closed grassland
- 9 *Puccinellia stricta* open grassland
- 15 *Deschampsia caespitosa* tussock grassland

Highland *Poa* grassland (GPH)

General description

Highland *Poa* grasslands (above 600 m altitude) are dominated by large tussock grasses (*Poa gunnii* and/or *P. labillardierei*) that may form a closed or open cover, with a variety of smaller inter-tussock grasses and herbs.



GPH – closed tussock facies. Lees Paddocks. Micah Visoiu.

Example localities

White Marsh, Murchison Highway; Surrey Hills Private Reserve.

Distinguishing features and similar communities

Highland *Poa* grassland (GPH) is distinguished from Highland grassy sedgeland (MGH), with which it commonly intergrades, by the absence of *Lepidosperma filiforme* and the dominance of *Poa* species.

Grassy heathlands dominated by *Richea acerosa*, *Epacris gunnii* or *Leucopogon montana* are mapped as part of Eastern alpine heathland (HHE), but may become GPH at high altitudes.

GPH may be successional to, and is mapped as, *Leptospermum lanigerum* scrub (SLL) where the cover of *Hakea microcarpa* or *Leptospermum lanigerum* exceeds grass cover due to fire and grazing regimes. However, where species of *Poa* are still important, the vegetation is better mapped as Highland *Poa* grassland (GPH).

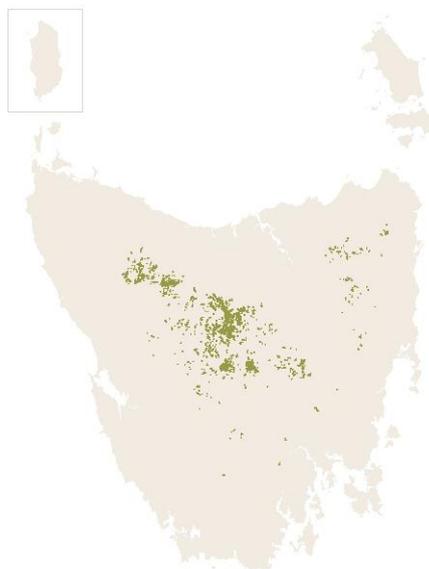
Some highland grasslands have been sown with exotic pasture species, but in most areas are now reverting to native grasslands. Grasslands with a high cover of exotic species are best mapped as Agricultural land (FAG).

RFA mapping unit

Not covered by RFA mapping.

Distribution

This community is found in valleys and on plains generally between 600 m and about 1 000 m above sea level. The largest highland grasslands are on basalt plains of north-western Tasmania (Surrey Hills, Middlesex Plains, Lemonthyme Plains/Bare Hill) and on limestone and other substrates in the Vale of Belvoir. Smaller grasslands on dolerite in the Central Highlands often form narrow strips between broad, wet sedgeland basins and their marginal woodlands.



Bioregional occurrence

BEL, TCH, TNS, TSE, TSR, TWE.

Site characteristics, habitat and ecology

Highland *Poa* tussock grassland is found on fertile soils, usually formed on basalt or limestone. Small highland grassland strips occur at higher altitudes on fertile mineral soils derived from dolerite, usually on the well-drained edges of broad basins. GPH can include some area of prolonged snow-lie. In some cases, such as at Paradise Plains in the north-eastern highlands, the grassland has replaced rainforest after fire. However, in most cases the grassland seems to have occupied the site for many millennia. Logging and grazing in areas such as Middlesex Plains and

Lemnathyme (both on basalt) have increased the area of grassland and grassy heathland. GPH does not occur on the siliceous rocks of western Tasmania.

Vegetation composition and structure

Poa species, particularly *Poa gunnii* and/or *P. labillardierei* (but occasionally *P. costiniana* and *P. clivicola*) dominate the principal layer, either as nearly closed canopy or as scattered tussocks with wide spaces between filled by a ground layer of herbs and grasses. Where heavy grazing follows clearing, tussocks are usually large and separate with an inter-tussock mat of *Rytidosperma nudiflorum* and a few individuals of *Australopyrum pectinatum* or *Ehrharta* species. Herbs include a rich array of daisies as well as species of *Acaena*, *Geranium*, *Viola*, *Ranunculus*, *Oreomyrrhis*, *Asperula*, *Euphrasia* and *Scleranthus*, with *Ajuga australis*, *Dichondra repens* and *Velleia montana*. *Grevillea australis*, *Hovea montana* and *Gaultheria tasmanica* may sprawl over the few exposed rocks, and there are usually small emergent shrubs, including *Epacris gunnii*, *Richea acerosa*, *Leptecophylla juniperina* subsp. *parvifolia*, *Bellenden montana*, *Olearia algida*, *Acrothamnus hookeri* and *A. montanus*. Scattered taller shrubs (1–2 m high) can include *Tasmannia lanceolata*, *Coprosma nitida*, *Leptospermum rupestre*, *Hakea microcarpa*, *Richea scoparia* and *Orites acicularis*. Typical sedges may include *Empodisma minus*, *Carpha alpina*, *Baloskion australe* and *Lepidosperma filiforme*. The wet tussock grasslands unique to the Central Plateau near Lake Augusta are dominated by a few tall grass species (*Deschampsia caespitosa*, *Poa labillardierei*, *Poa costiniana*), with a few *Ranunculus* species as the only ground cover.

Grasslands not modified by clearing may contain scattered trees such as *Eucalyptus gunnii*, *E. rodwayi* or *E. pauciflora*, which usually also form fringing woodland. Scattered trees remaining or regenerating after clearing are chiefly *E. delegatensis*, with *E. coccifera*, *E. gunnii* and/or *E. dalrympleana*.

Floristic communities known to occur in this mapping unit

Alpine vegetation:

- 2 *Poa gunnii*–*Austrodanthonia nudiflora* marsupial lawn
- 3 *Poa labillardierei*–*Wahlenbergia saxicola* tall tussock grassland
- 4 *Poa gunnii*–*Oreobolus distichus* short tussock grassland
- 5 *Poa gunnii*–*Pimelea pygmaea* short tussock grassland
- 6 *Poa labillardierei*–*Empodisma minus* tall tussock grassland
- 11 *Richea acerosa*–*Exocarpos nanus* heath; also occurs in HHE & HSE

Grasslands and grassy woodlands:

- 26 *Poa labillardierei*–*Trachymene humilis* tussock grassland
- 27 *Poa labillardierei*–*Veronica gracilis* tussock grassland
- 28 *Richea acerosa*–*Coprosma pumila* grassy shrubland; also occurs in HSE & HHE
- 29 *Hakea microcarpa*–*Solenogyne* spp. grassy shrubland
- 30 *Poa gunnii*–*Drapetes tasmanicus* tussock grassland; also occurs in HHE
- 31 *Poa gunnii*–*Carpha alpina* tussock grassland
- 32 *Poa*–*Isolepis* tussock grassland; also occurs in HHE & HSE
- 33 *Poa labillardierei*–*Oreobolus distichus* tussock grassland
- 34 *Richea gunnii*–*R. acerosa*–*Ranunculus* grassy shrubland; also occurs in HHE & HSE
- 35 *Poa labillardierei*–*Trisetum spicatum* tussock grassland
- 37 *Gymnoschoenus sphaerocephalus*–*Comesperma retusum* grassy sedgeland; also occurs in MBE

Montane grasslands of north-western Tasmania (Gilfedder 1995)

- 7 *Hakea microcarpa*–*Epacris gunnii*–*Poa labillardierei* grassy shrubland (Heg); a low condition form also occurs in SLL

Explaining the distribution, structure and species composition of snow patch vegetation in Tasmania, Australia (Parry et al. 2016)

Snow patch vegetation:

- 1: *Oxalis magellanica*–*Poa* spp.–*Diplaspis cordifolia* short alpine herbfield

Lowland grassland complex (GCL)

General description

The lowland grassland complex is dominated by species of *Rytidosperma*, *Austrostipa* and *Poa*, *Themeda triandra* may also be present and is sometimes dominant in patches.



Pontville. Louise Gilfedder.

Example locality

Rifle Range Road, Pontville (Commonwealth land).

Distinguishing features and similar communities

Lowland grassland complex (GCL) generally contains natural or disturbance-induced grasslands dominated by species of *Rytidosperma* or *Austrostipa*, but commonly also containing *Poa* species and *Themeda triandra*. Semi-improved pasture can revert to this community over time, especially where drought conditions favour the native species. The mapping unit excludes rockplate grasslands dominated by *Poa rodwayi* or *Rytidosperma* species, which are mapped as Rockplate grasslands (GRP). GCL is distinguished from Agricultural land (FAG) by having a cover of more than 25% native grass species, and distinguished from Regenerating cleared land (FRG) by the prominence of native grass species without significant woody pioneers or sedges.

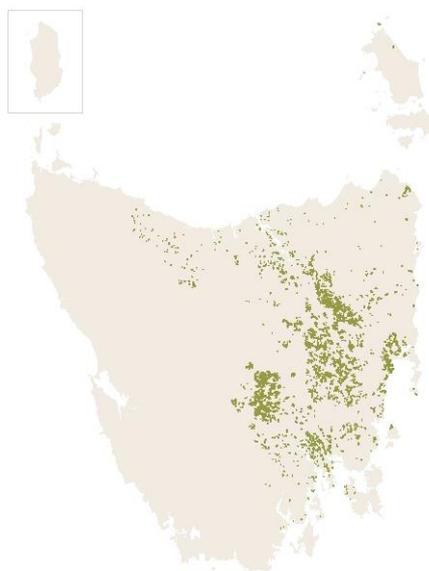
RFA mapping unit

Not covered by RFA mapping.

Distribution

Lowland grassland complex occurs mainly through the Tasmanian Midlands, Derwent Valley, east coast

and the south-east. There are extensive areas of disturbance-induced grasslands throughout the range.



Bioregional occurrence

BEL, FUR, TCH, TNM, TNS, TSE, TSR.

Site characteristics, habitat and ecology

Rytidosperma/*Austrostipa* grasslands occur naturally in valley bottoms and lower slopes, with 97% of GCL mapped below 600 m elevation. However, for the most part, this mapping unit comprises disturbance-induced grasslands resulting from the clearance of grassy woodlands or forests. A large proportion of 'native pasture' through the Tasmanian Midlands, east coast and Derwent Valley is included in this mapping unit.

Vegetation composition and structure

The dominant stratum is a species-poor grassy sward of *Rytidosperma* or *Austrostipa* species, with occasional patches of *Poa* species and *Themeda triandra*. Low (< 10 m), scattered (< 5% cover) *Eucalyptus viminalis* and *E. amygdalina* trees may be present, and *Acacia dealbata*, *A. mearnsii*, *A. melanoxylon*, *Bursaria spinosa* and *Dodonaea viscosa* can form a scattered small-tree layer, especially on slopes.

Floristic communities known to occur in this mapping unit

Grasslands and grassy woodlands:

T8 *Austrodanthonia* spp.–*Poa rodwayi*–*Agrostis aemula*
tussock grassland; also appears in **GRP, GTL, DGL & NAV**

Peatlands with *Sphagnum*:

6 Tussock grassland–*Sphagnum* mires; also occurs in **MSP**

Lowland grassy sedgeland (GSL)

General description

Lowland grassy sedgeland (GSL) is dominated by sedges such as *Lomandra longifolia* and *Lepidosperma* species interspersed with grasses.



Hamilton area, Derwent Valley, Louise Gilfedder.

Example locality

Kellevie.

Distinguishing features and similar communities

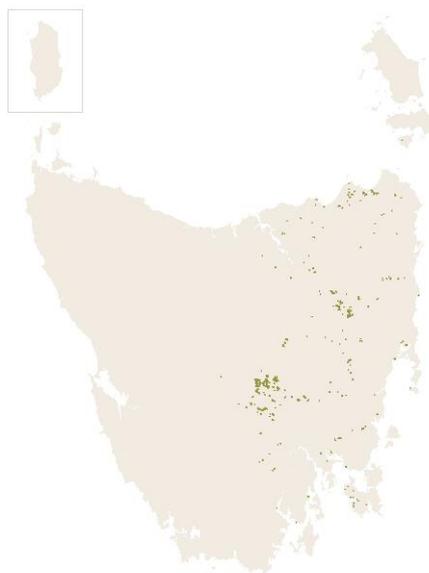
This community is distinguished by the dominance of *Lomandra longifolia* and *Lepidosperma* species.

RFA mapping unit

Not covered by RFA mapping.

Distribution

GSL occurs predominantly in eastern and northern Tasmania, and is scarce or absent in the far north-west and the south-west.



Bioregional occurrence

BEL, FUR, TNM, TNS, TSE, TSR.

Site characteristics, habitat and ecology

This community possibly results from woodland that has been degraded by frequent fires and overgrazing. It occurs on fertile substrates, such as dolerite and basalt.

Vegetation composition and structure

The ground layer is dominated by a sedgy sward of mainly *Lomandra longifolia*, *Diplarrena moraea* or *Lepidosperma* spp., with occasional patches of *Poa* spp. and *Themeda triandra*. The community may contain scattered eucalypts such as *Eucalyptus viminalis*, *E. pauciflora*, *E. ovata*, *E. rubida* and *E. amygdalina* with a density of < 5%. *Acacia dealbata*, *A. mearnsii*, *A. melanoxylon*, *Bursaria spinosa* and *Dodonaea viscosa* can form a scattered small-tree layer, especially on slopes.

Floristic communities known to occur in this mapping unit

No equivalent floristic communities have been identified for this mapping unit.

Lowland *Poa labillardierei* grassland (GPL)

General description

Lowland *Poa labillardierei* grassland (GPL) is dominated by tussocks of *Poa labillardierei* that may be large and spreading or small and tufty, depending on the situation. The tussocks may form a closed sward or an open layer with smaller grasses and herbs between the tussocks.



GPL on flats. Tunbridge. Louise Gilfedder.

Example localities

Township Lagoon Nature Reserve, Tunbridge; Maria Island National Park.

Distinguishing features and similar communities

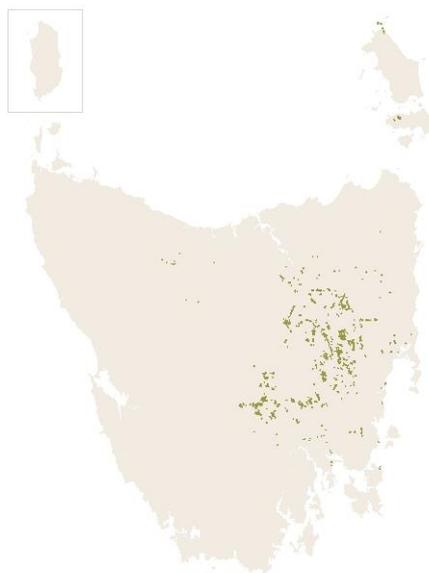
Lowland *Poa labillardierei* grasslands are generally species-poor, treeless communities characterised by tussocks of *Poa labillardierei* with herbs, graminoids and small grasses in between. Disturbance-induced grasslands dominated by *P. labillardierei* are included in this mapping unit. Small patches of *P. labillardierei* in grasslands dominated by *Rytidosperma* and *Austrostipa* are often mapped as Lowland grassland complex (GCL). Where *P. labillardierei* occurs within associated vegetation types that are distinctly coastal it is mapped as GHC.

RFA mapping unit

Not covered by RFA mapping.

Distribution

GPL occurs mainly through the Tasmanian Midlands, Derwent Valley, east coast and the south-east. Some substantial areas of this vegetation community occur on Flinders and Cape Barren islands.



Bioregional occurrence

BEL, FUR, TCH, TNM, TNS, TSE, TSR.

Site characteristics, habitat and ecology

GPL occurs on alluvial river flats generally less than 600 m above sea level. It is usually adjacent to, or intermixed with, *Eucalyptus ovata* grassy woodland. On alluvial flats where inundation is common, the tussocks are often interspersed with flood-scoured and water-filled hollows. Many valley bottom remnants are likely to be natural grasslands. Disturbance-induced communities occur mainly on slopes and result from the loss of the tree layer of grassy woodlands and sometimes forests, from eucalypt dieback, tree harvesting and/or failure to regenerate because of heavy stock grazing and/or burning. Repeated burning of areas that once supported closed forest may have induced the *P. labillardierei* grasslands of Bass Strait.

Vegetation composition and structure

GPL is characterised by large tussocks of *Poa labillardierei* with herbs and small grasses in the spaces between. Species richness is relatively low and weed species may be significant. GPL is treeless or has a very light tree cover, with scattered eucalypts such as *E. ovata*, *E. viminalis* or *E. pauciflora*.

The trees may be low (< 10 m) with a woodland form, or in high rainfall areas or on fertile alluvial sites may reach over 20 m in height. Disturbance-induced communities may be similar in vegetation composition and structure to natural *Poa labillardierei* grasslands, though most represent a modified form of grassy woodland with, mainly, *E. viminalis*, *E. pauciflora*, *E. ovata* or *E. globulus*.

Floristic communities known to occur in this mapping unit

Grasslands and grassy woodlands:

- T1 *Poa labillardierei*–*Dichelachne crinita*–*Acaena novae-zelandiae*–*Lomandra longifolia*–*Juncus* spp. tussock grassland
- T2 *Poa labillardierei*–*Themeda triandra*–*Solenogyne dominii*–*Ehrharta stipoides* grasslands; also occurs in **GTL**
- T3 *Poa labillardierei*–*Juncus* spp.–*Epilobium* spp. tussock grassland

Riparian communities:

- 25 *Acaena novae-zelandiae*–*Agrostis capillaris*–*Poa labillardierei* riparian herbland; also occurs in **DRO** & **DVG**
- 26 *Hypochaeris radicata*–*Poa labillardierei*–*Holcus lanatus* riparian herbland

Lowland *Themeda triandra* grassland (GTL)

General description

Lowland *Themeda triandra* grassland (GTL) is dominated by *Themeda triandra*. This vegetation community includes sub-coastal grasslands dominated by *Poa rodwayi* in north-western Tasmania.



Tinderbox. Nepelle Temby.

Example locality

Township Lagoon Nature Reserve, Tunbridge.

Distinguishing features and similar communities

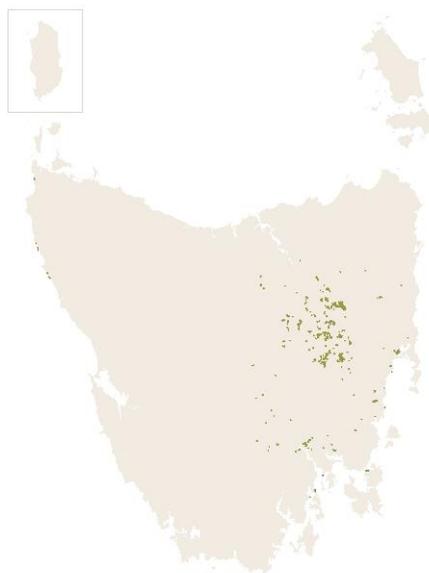
This community includes all natural and disturbance-induced native grasslands dominated by *Themeda triandra*, as well as sub-coastal grasslands dominated by *Poa rodwayi* in the north-west.

RFA mapping unit

Not covered by RFA mapping.

Distribution

Lowland *Themeda triandra* grasslands occur mainly through the Tasmanian Midlands, Derwent Valley, east coast and south-east. Coastal communities dominated by *Themeda triandra* occur sporadically in the north-east and north-west of the State, while sub-coastal communities dominated by *Poa rodwayi* are restricted to the north-west.



Bioregional occurrence

BEL, KIN, TCH, TNM, TSE, TSR, TWE.

Site characteristics, habitat and ecology

GTL occurs on treeless valley flats and well-drained slopes on basalt, dolerite and deep sands. It occurs as native pasture in agricultural land, or as small remnants on roadsides, country cemeteries and rail reserves. Many valley bottom remnants are likely to be natural grasslands. Disturbance-induced communities were previously grassy woodlands or occasionally forests that have lost the tree layer because of eucalypt dieback, tree harvesting and/or failure to regenerate because of heavy stock grazing and/or burning.

Two distinct facies of this mapping unit occur in Tasmania. Fertile soil and areas exposed to a high incidence of salt spray support grassland dominated by *T. triandra*, such as those at Waterhouse, Cape Portland and Butlers Point. Stable calcareous dunes in the near-coastal zone in the Arthur–Pieman area may support tussock grassland dominated by *Poa rodwayi*, with *T. triandra* as a minor element. Those grasslands in the Arthur-Pieman area occur in small, fragmented patches up to 700 m from the coast, with an estimated overall area of less than 20 ha.

Vegetation composition and structure

Themeda triandra dominated tussock grasslands are floristically diverse, with many inter-tussock herbs. Species richness is generally high. Other common grasses include species of *Rytidosperma*, *Austrostipa* and *Poa*. Both natural and disturbance-induced communities may have high biodiversity and threatened species values.

GTL is largely treeless, but scattered, low eucalypts occur at a density of < 5%. These include *E. ovata*, *E. viminalis*, *E. pauciflora*, *E. rubida* and *E. amygdalina*. *Acacia dealbata*, *A. mearnsii*, *A. melanoxylon*, *Bursaria spinosa* and *Dodonaea viscosa* can form a scattered small-tree layer, especially on slopes.

Poa rodwayi dominated grasslands of sub-coastal north-west Tasmania are characterised by a high diversity of herbs between the tussocks, together with sometimes sparsely emergent shrubs such as *Acrotriche species nova*, *Beyeria viscosa*, *Spyridium vexilliferum*, *Hibbertia sericea* and *Leucopogon parviflorus*. *Themeda triandra* may have been a more significant component of this community in the past, but may have been preferentially grazed out at most sites.

Floristic communities known to occur in this mapping unit

Grasslands and grassy woodlands:

- T2 *Poa labillardierei*–*Themeda triandra*–*Solenogyne dominii*–*Ehrharta stipoides* grasslands; also occurs in **GPL**
- T5 *Themeda triandra*–*Hibbertia hirsuta*–*Lissanthe strigosa* tussock grassland
- T6 *Themeda triandra*–*Austrostipa stiposa*–*Chrysocephalum apiculatum* tussock grassland; also occurs in **NBA**
- T7 *Themeda triandra*–*Veronica gracilis*–*Solenogyne* spp. tussock grassland; also occurs in **NBA**
- T8 *Austrodanthonia* spp.–*Poa rodwayi*–*Agrostis aemula* tussock grassland; also occurs in **GCL, GRP, DGL & NAV**

Rockplate grassland (GRP)

General description

These grasslands are on skeletal soils over rockplates. Rockplate grassland (GRP) is dominated by *Themeda triandra*, *Poa rodwayi* or species of *Rytidosperma*, and is usually devoid of all woody species due to the extremes of wetting and drying characteristic of these thin soils.



Eastern Tiers. Micah Visoiu.

Example locality

Tom Gibson Nature Reserve.

Distinguishing features and similar communities

This community generally supports natural grasslands dominated by *Themeda triandra*, *Poa rodwayi* or *Rytidosperma* species on shallow soil over rockplates. It also includes small patches of herbfield over exposed rockplate and grasslands induced by eucalypt dieback of grassy woodlands, mainly on dry hilltops (usually *Eucalyptus viminalis*, *E. amygdalina* or *E. pulchella*).

RFA mapping unit

Not covered by RFA mapping.

Distribution

Rockplate grasslands occur sporadically in response to restrictive environmental conditions below 600 m in altitude in the Tasmanian Midlands, Eastern Tiers, Derwent Valley, east coast and south-east.



Bioregional occurrence

BEL, TCH, TNM, TSE.

Site characteristics, habitat and ecology

Rockplate grasslands occur on skeletal soils over rockplates throughout the range of lowland native grasslands. They are typically small in area— often less than 1 ha. However, examples in the Eastern Tiers exceed 10 ha. Rockplate grasslands are often isolated from other lowland grassland communities by dry eucalypt (*E. viminalis*, *E. pulchella* or *E. amygdalina*) and/or *Allocasuarina verticillata* forest and woodland. Accessible examples are grazed by domestic stock and native wildlife.

Vegetation composition and structure

A short, dense grass and shrub layer typically dominated by *Themeda triandra* or *Poa rodwayi*, although species of *Rytidosperma* may also dominate the community, usually in association with species of *Schoenus*. The community is species-rich and treeless, except on the margins with grassy forest or woodland where tree seedling regeneration or drought-killed eucalypts are common. One distinct form of this grassland has *Euryomyrtus ramosissima* as a co-dominant.

Floristic communities known to occur in this mapping unit

Grasslands and grassy woodlands:

T4 *Poa rodwayi*–*Astroloma humifusum*–*Dianella revoluta*
grassland

T8 *Austrodanthonia* spp.–*Poa rodwayi*–*Agrostis aemula*
tussock grassland; also occurs in **GCL, GTL, DGL & NAV**