



# Common grasses of Tasmania

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## Introduction

Grasses are an extremely important economic, environmental and social component of the Tasmanian landscape. They support agricultural production by providing the bulk of feed for the grazing industries in the State, in addition to adding carbon to the soil profile. Year round ground cover provided by perennial pasture species protects the soil surface from the loss of carbon from wind and water erosion. Native grasses form a major component of Tasmania's conservation estate, particularly native grasslands, grassy woodlands and grassy forests. Grasses are also important in recreational and parkland areas and provide aesthetic values in amenity situations.

Many grasses are considered to be weeds as they compete with other more preferred plants in agricultural and conservation areas. The presence of volunteer (weedy) species may ultimately result in lower levels of productivity and profitability, due to their competitive ability and cost of control and removal.

Being able to identify pasture grasses is important in order to manage for environmental and production outcomes. This book is intended as a valuable reference for the identification of grasses (Poaceae) commonly encountered in Tasmania. The information is aimed at a wide audience from those involved in agriculture (large and small scale farmers, field agronomists) to students and others who work in the areas of forestry, conservation and land and natural resource management.

[The Census of Tasmanian Vascular Plants](#) (de Salas and Baker 2014) lists 281 species of grasses in 86 genera that are found in Tasmania. This book contains only a small portion of this number, concentrating on the more common grasses found in lowland Tasmania.

The book has been prepared in such a form that those with little or no botanical knowledge should be able to identify many grasses by matching specimens to the photographs and drawings, while those with greater knowledge can also make use of the abbreviated botanical descriptions. The description covers both vegetative and flowering characteristics in ideal conditions (i.e. ungrazed). In the majority of cases, correct identification will be more likely when a complete flowering specimen is available.

We hope this guide will help readers to identify those grass species that are likely to be encountered in Tasmanian pastures and associated agricultural and environmental situations, in order to help land owners and managers to make appropriate land management decisions for production and environmental outcomes.



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## A description of pasture types

In this book we have grouped grasses as native (originating from Tasmania) or introduced (not originating from Tasmania). Introduced grasses are further divided into sown species, i.e. those that are used for agricultural production, or volunteer species (mostly considered as weeds), which are common and widespread in native or sown pastures or in disturbed ground such as along roadsides and in waste places.

Grass species can be described as either annuals or perennials. Annual species germinate, flower, set seed and then die within 12 months, whereas perennial species flower and set seed, but may live from a few to many years depending on the species. Grasses may be characterised by their growth form (tussock, rhizomatous etc.) and growing season. Cool-season grasses actively grow in autumn, winter and early spring. Warm-season grasses actively grow in late spring and summer.

Native grasses have evolved over thousands of years and are well adapted to climatic extremes. Native pastures (pastures dominated by native species) are important for fine wool production particularly on hill slopes in the Midlands, the Derwent Valley and on the East Coast. Some species such as wallaby grasses have thrived under grazing while the presence of others such as kangaroo grass has been affected by heavy grazing by livestock, timing of grazing and by fertiliser additions. Native pastures are often diverse with a wide range of grasses and other herbaceous species and edible low shrubs. In an agricultural context, native pastures are better suited to low stocking rates, with limited to no fertiliser addition and rest from grazing during the growing period. They produce less biomass (edible plant matter) than many sown grasses and may take much longer to respond to rainfall, requiring a longer recovery period. Most native grasses are perennial. Information on the management of native pastures can be found in [Managing Tasmanian Native Pastures: A Technical Guide for Graziers](#) (Mokany et al. 2006).

**Sown grasses** were introduced into Tasmania soon after settlement. They are valued for agricultural production because they generally grow much more biomass than native grasses, respond more quickly to rainfall and provide high quality feed for livestock production (dairy, beef, lamb and sheep and cattle breeding operations). They usually require fertiliser additions to maintain high productivity and are occasionally sown with a few other species e.g. clover. Many sown grasses are perennial; however some annual species are sown as part of a crop rotation program. More information on the management of sown pastures can be found in [‘Species for Profit’](#) (Knox et al. 2006) on the Department of Primary Industries, Parks, Water and Environment (DPIPWE) website.

**Volunteer grasses** are often called ‘weeds’ because they are unwanted from a conservation or an agricultural perspective. They may be perennial or annual and they often persist where there has been past disturbance. Volunteer grasses are commonly found in degraded native pastures which have been overgrazed or fertilised. They are also common along roadsides and railway lines. The State Government ([DPIPWE](#)) and [Natural Resource Management](#) organisations have information on the management of volunteer grasses, particularly those classified as declared environmental weeds.

## Role of pastures in soil carbon capture and reduced risk of loss due to erosion

In an agricultural context there is more soil carbon retained under pastures than under crops. The main reasons cited for this are that soils in pastures are less likely to be disturbed by tillage and the presence of year-round ground cover means that grass roots are continuously adding carbon to the soil (see '[Soil Health for farming in Tasmania](#)', Cotching 2009). The value of pastures in adding carbon to soils is one of the reasons why a pasture phase is included in crop rotations.

In addition to adding carbon to the soil, the presence of ground cover throughout the year, particularly from perennial species, reduces the risk of losing soil carbon by reducing the risk of soil loss from extreme events such as heavy rainfall or strong winds. Permanent pastures that are dominated by perennial species are a good insurance policy against soil erosion, weed invasions and loss of productivity.

### Pastures for the future

Tasmanian pastures are dominated by cool-season grasses, particularly in sown pastures. Future climate projections for Tasmania suggest that the mean temperature will rise and rainfall will not change significantly in most regions. However the regularity, seasonality and intensity of rainfall may change which will affect the productivity and management of pasture grasses. For example a shift in rainfall from winter/spring to summer will favour warm-season grasses over cool-season grasses. Volunteer species (weeds) which are also warm-season grasses may become more of a problem in the future under projected climate change.

Researchers from the Tasmanian Institute of Agriculture (TIA) modelled the potential production benefits of including warm-season grasses in pasture mixes to maintain an annual feed-base for livestock production. Further information on this topic can be found on the websites of [TIA](#) or [DPIPWE](#).

The [TIA Herbage Development program](#) is researching a range of different sown pasture species that may be more tolerant of future climatic conditions. Fact sheets on a range of these species are available on the TIA website.



## Glossary

**annual:** plant completing its life cycle within one year

**awn:** a slender stiff or bristle-like structure on the back or tip of the glume or lemma

**axis:** the main stem of the plant, inflorescence or spikelet

**auricle:** a small ear-shaped appendage at the junction of leaf sheath and blade

**biennial:** a plant which lives for longer than one year but less than two years

**bract:** a leaf-like structure usually different in form from foliage and often much reduced, as in glumes and lemmas

**culm:** stem of grasses bearing leaves and inflorescences

**cultivar:** a form of a plant species that has been developed or selected intentionally and maintained under cultivation

**digitate:** branches all radiating from one point

**endemic:** native to a particular locality, region, State or country

**environmental weed:** a naturalised plant species which displaces native species, or adversely affects the survival or regeneration of native species, in natural or semi-natural vegetation

**fertile:** capable of producing seeds, or pollen in the case of stamens

**floret:** the floral unit of a grass comprising a lemma, and palea which enclose the sexual organs of the plant

**glume:** one of a pair of bracts at the base of a spikelet, called respectively the lower and upper glumes, the lower glume sometimes reduced or absent

**habit:** the general appearance, or form of growth of a plant

**habitat:** a location where, or environment in which, an organism commonly grows

**hirsute:** covered with long and coarse or stiff hairs; hairy

**hybrid:** a plant produced by the crossbreeding of two distinct species

**inflorescence:** the flower head of a plant, in grasses, a panicle, raceme or spike, or reduced to a single spikelet

**internode:** the part of the stem between two nodes or joints

**lemma:** the lower of the two bracts enclosing a grass floret

**ligule:** a small structure (usually membranous, hairy or ciliate) at the junction of the leaf sheath and leaf blade

**membranous:** thin, flexible and translucent, not green

**midrib:** the central and principle vein of a leaf; the mid-vein

**naturalised:** originally from overseas, but now established in Australia and propagating by itself (i.e. not native).

**node:** the joint on a stem from which other structures such as leaves arise

**nodding:** bent to one side and downward as in some panicles

**open:** loose, such as in panicles with separate spaced spikelets on long branches

**palea:** the upper of two bracts enclosing a grass floret, usually enclosed within the margins of the lemma

**panicle:** an inflorescence or flower cluster that is divided into branches, each bearing several flowers, ranging from very dense and spike-like to widely or loosely spreading

**perennial:** a plant with an indefinite lifetime, flowering more than once

**prostrate:** growing or lying flat along the ground

**raceme:** an unbranched inflorescence with several flowers, each flower directly attached to the main stem by very short stalks or pedicels

**rhizome:** a horizontal, root-like stem usually found underground and often with short internodes

**sheath:** the lower part of leaf which is wrapped around the stem in most grasses

**spike:** an unbranched inflorescence with spikelets directly attached to the main stem

**spikelet:** a unit of the grass inflorescence having one to many reduced flowers (i.e. florets)

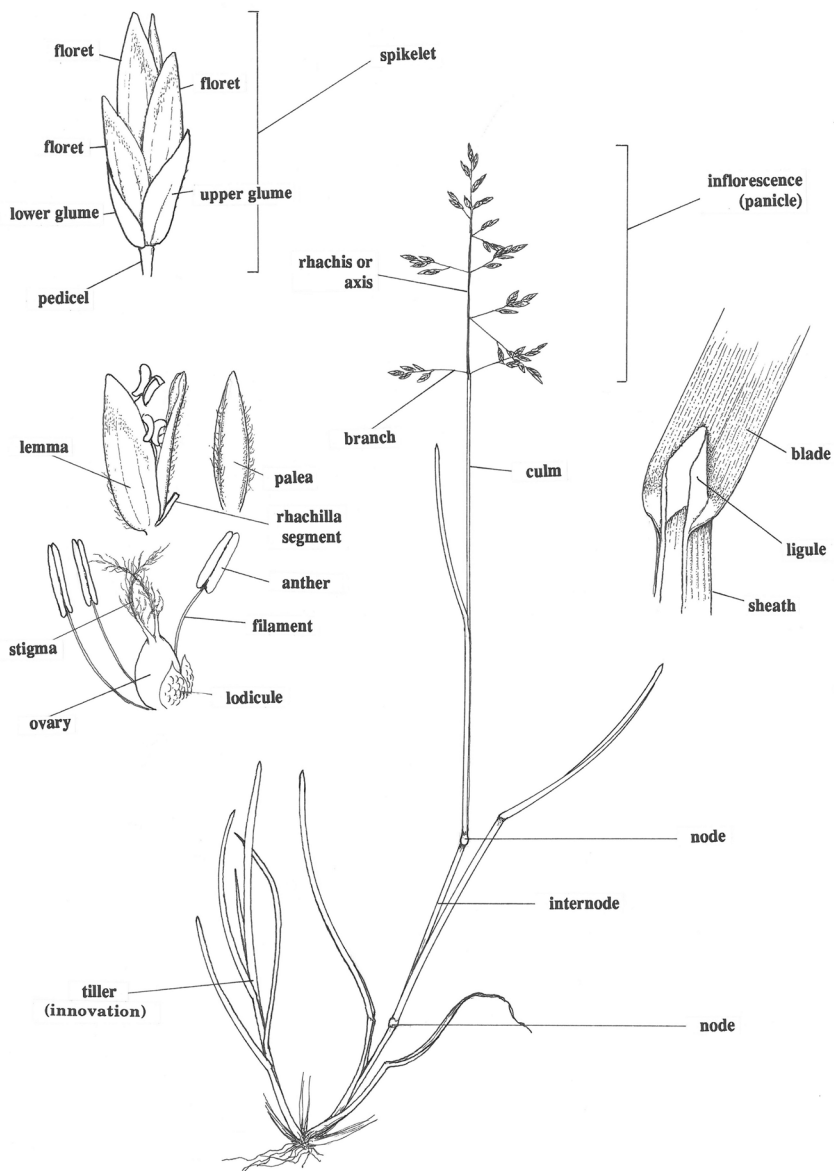
**sterile:** not producing viable seed or pollen

**stolon:** a creeping or trailing stem that grows above ground and roots at the nodes; a runner

**terminal:** at the tip or apex



# Parts of a Grass Plant



## Inflorescence types



**Spike**

**Panicle**

**Raceme**

The book has been arranged in three sections: Native grasses, Sown grasses and Volunteer grasses. The technical terms used in the descriptions are defined in the glossary. Information is provided on the following: habitat, significance, and the characteristics of similar species to assist in the correct identification.

Within each section, the grasses are arranged alphabetically by botanical name.

- Grass 'height' refers to the height of an ungrazed flowering stem and not the height of the leaves.
- Most grass species produce young leaves rolled in the bud therefore it is assumed that the grass has young leaves rolled in the bud unless stated otherwise (i.e., folded in the bud).
- The ligules of grasses are generally membranous. They can be up to 12 mm long and either jagged, blunt, rounded or square at the tip. A number of native grass species are distinguished by having a rim of hairs up to 5 mm long on or around the ligules.

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# *Anthosachne scabra*

## Common wheat grass

**Synonym:** *Elymus scaber*

### **Description:**

- tufted cool-season perennial, variable in height, up to 120 cm high
- stem slender to fairly stout, nodes often purple
- leaf blades up to 30 cm long and 6 mm wide, narrow, flat, rough on both surfaces, grey-green. Auricles narrow, spreading
- inflorescence a spike up to 35 cm long, with up to 20 spikelets but in poor specimens reduced to only a few spikelets
- spikelets 6-12-flowered, florets 8-12 mm long with an awn up to 4 cm long, erect at first, curved later

### **Habitat:**

Common wheatgrass is widespread in Tasmania and locally common in native pastures and grasslands from sea level to about 1200 m.

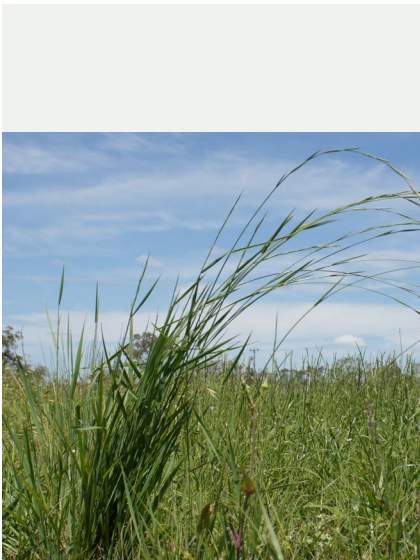
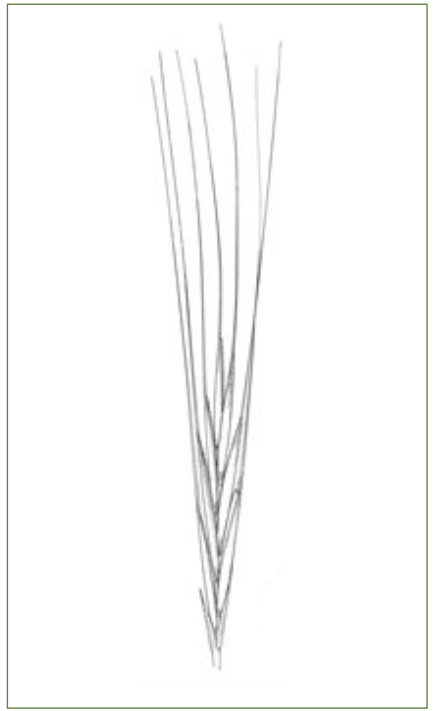
### **Significance:**

Common wheatgrass is generally only a minor component of native pastures. It is one of the first native grasses to begin growth in the spring and flowers from late winter to summer. It is highly frost tolerant and moderately drought tolerant. Genetic material from common wheat grass has been used to confer traits into commercial wheat varieties.

### **Similar Species:**

*Anthosachne scabra* is somewhat similar to *Microlaena stipoides*, however *A. scabra* is generally a larger plant and has more florets per spikelet and curved awns.





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# Austrostipa species

## Speargrass

### Description:

- shortly rhizomatous or tufted cool-season perennials up to 150 cm high
- leaf blades finely ribbed, up to 70 cm long and 6 mm wide, often rough on the upper surface
- stem characteristics variable between species
- ligule present, membranous, variable in size and form, with a fine row of hairs at the tip
- inflorescence a loose or contracted panicle up to 40 cm long
- spikelets 1-flowered, florets 8–11 mm long, with a long fine awn up to 7-9 cm long, usually twice bent

### Habitat:

Widespread species found in grassland, woodland, scrub and heath from sea-level to over 1200 m.

### Significance:

Year-long green species that are drought and frost tolerant. They respond poorly to increased soil fertility and grazing by livestock.

### Similar Species:

Twelve *Austrostipa* species are native to Tasmania. They are all similar in general appearance and can be recognised by having solitary florets with a single, long, twisted awn. The introduced needle grasses, Chilean needle grass (*Nasella neesiana*) and Texas needle grass (*N. leucotricha*) look very similar when flowering. The Weeds of National Significance (WONS) best practice manual for Chilean needle grass and serrated tussock provide a guide to distinguishing between these species.

*Austrostipa flavescens*



*Austrostipa mollis*



*Austrostipa pubinodis*



*Austrostipa* spp.



*Austrostipa* spp.



Native species

# *Deyeuxia quadriseta*

## Reed bent-grass

### Description:

- erect, sparsely tufted cool-season perennial up to 150 cm high
- stems ribbed, smooth, sometimes with short stiff hairs below the inflorescence
- leaf blades, largely basal, usually up to 30 cm long and 7 mm wide, flat or inrolled, often rough to touch and finely ribbed on the upper surface
- ligule membranous, 1-2 mm long, occasionally up to 5 mm, jagged or blunt at the tip
- inflorescence a dense, usually linear, cylindrical panicle up to 20 cm long
- spikelets 1-flowered and 3-6 mm long, laterally compressed, green or purplish with a short bent awn

### Habitat:

A variable grass found in a variety of open to lightly shaded situations from sea-level to over 1200 m.

### Significance:

Occurs occasionally in native pastures.

### Similar Species:

There are 16 native species of *Deyeuxia* in Tasmania.



..... Native species .....



# *Dichelachne crinita*

## Long-hair plume grass

### Description:

- tufted cool-season perennial usually 80-100 cm high, occasionally up to 150 cm
- stems smooth or occasionally rough below the hairless nodes
- leaf blades finely ribbed, usually up to 20 cm long and 6 mm wide, flat or inrolled, often rough on the upper surface
- ligule membranous, 1-2 mm long, occasionally up to 5 mm, jagged or blunt at the tip
- inflorescence a dense cylindrical panicle 6-25 cm long, feathery on maturity
- spikelets 5-9 mm long, with one fertile floret and sometimes 1-2 rudimentary florets present, fertile floret 4.5-6.5 mm long, smooth with a fine awn usually 2-4 cm long, curved or bent in the upper half

### Habitat:

Long-hair plume grass is most common in coastal areas in open situations or under light woodland but can be found from sea level to around 550 m.

### Significance:

Long-hair plume grass occurs occasionally in native pastures.

### Similar Species:

There are seven species of *Dichelachne* in Tasmania. Denser or larger specimens of *Dichelachne rara* may have inflorescences which resemble those of *D. crinita*.



Native species

# *Microlaena stipoides* var. *stipoides*

## Weeping grass

**Synonym:** *Ehrharta stipoides*

### Description:

- tufted cool-season perennial with short rhizomes, up to 60 cm high
- stems finely ribbed, drooping at the tip at maturity
- leaf blades 1.5-18 cm long with a prominent midrib, hairy on the underside, sparsely hairy on the upper surface. Auricles have long spreading hairs.
- ligule a fringe of hairs less than 1 mm long
- inflorescence a fairly compact panicle up to 20 cm long, branching at the lower nodes only
- spikelets up to 4.5 cm long including prominent awns, 3-flowered, only the uppermost floret fertile

### Habitat:

Weeping grass grows in a range of open habitats in most regions of Tasmania, from sea level to 700 m.

### Significance:

Weeping grass is widespread in native pastures. It tolerates moderate to heavy grazing, is drought and frost resistant and persists in fertilised pastures. The common name refers to its hoop-like drooping spikelets.

### Similar Species:

*Microlaena stipoides* is somewhat similar to *Elymus scaber* which is generally a larger plant and has more florets per spikelet and curved awns.



# *Pentapogon quadrifidus*

## Five-awned speargrass

### Description:

- slender annual or short-lived cool-season perennial, usually 15-25 cm high, occasionally up to 60 cm, very variable in habit, hairiness and size of spikelets
- stems erect or prostrate at the base becoming erect
- leaf blades flat or inrolled, up to 15 cm long and 3 mm wide, upper stem leaves much shorter
- inflorescence a spike-like panicle, up to 20 cm long, usually much shorter, branches short, erect and rough
- spikelets 1-flowered, green or purplish, the floret has a single, large bent awn and four shorter bristles from the tip

Two varieties of this species exist in Tasmania, variety *quadrifidus* which has spikelets 6.5-10 mm long, and the more common variety *parviflorus*, in which the spikelets are 3-4.5 mm long, excluding the awns.

### Habitat:

Five-awned speargrass occurs in a variety of habitats from sea level to about 1200 m.

### Significance:

Five-awned speargrass is common in native pastures.

### Similar Species:

*Dichelachne rara* is somewhat similar in appearance but the florets bear only a single awn. In the early flowering stage, spikelets of *Pentapogon quadrifidus* somewhat resemble those of *Rhynchospora*, but the ligule and the hairs at the junction of the leaf sheath and blade easily distinguish the latter.





..... Native species .....

# *Phragmites australis*

## Common reed

### Description:

- warm-season robust perennial up to 3 m high with stout creeping rhizomes and stolons
- stems erect, rigid, stout, with many nodes, occasionally branching
- leaf blades up to 20-60 cm long by 10-45 mm wide, firm, tapering to a fine wavy tip
- inflorescence an erect or nodding open panicle 15-40 cm long, green to purplish-brown when young becoming silver-white at maturity
- spikelets very numerous, 3-7 flowered and the rachilla has hairs about 12 mm long

### Habitat:

Common in lowland areas on the margins of rivers, streams, lakes and dams, and in irrigation and drainage ditches.

### Significance:

Forms tall dense stands that provide habitat for many species of wildlife and may assist with erosion control. Primarily reproduces asexually by rhizomes.

### Similar Species:

None recorded for Tasmania.



# *Poa labillardierei*

## Silver tussock grass

### Description:

- coarse, densely tufted cool-season perennial, usually 50-80 cm high, occasionally up to 120 cm
- stems smooth or rough below the inflorescence
- leaf blades usually 40-60 cm, but up to 80 cm long and 2mm wide, folded with margins inrolled, both surfaces rough
- inflorescence an open panicle 10-30 cm long, branches erect or slightly spreading, green or purplish
- spikelets usually 3-4-flowered but up to 8, slightly flattened, 3.5-4 mm long, with a web of long hairs at the base

### Habitat:

Widespread throughout the State in a wide range of habitats from sea-level to over 1300 m. More commonly found in grasslands and open forests in the drier areas of the State.

### Significance:

*Poa labillardierei* is the most common of the large tussock-forming *Poa* species. It is generally regarded as a valuable pasture species by graziers, especially for cattle. It provides shelter for lambs and newly shorn sheep. It is drought resistant and capable of year-round growth, but forage quality is low. *Poa labillardierei* pastures are of high conservation significance and silver tussock grass is an indicator species for the [nationally listed critically endangered lowland native grasslands of Tasmania](#), *Poa labillardierei* sub-type.

### Similar Species:

Several of the native tussock-forming *Poas* have a similar general appearance. *P. labillardieri*, which favours damp situations and river flats, is generally coarser than *P. rodwayi* which has softly hairy leaves. When not flowering, serrated tussock (*Nasella trichotoma*) may be confused with silver tussock. The ligules on serrated tussock are long and membranous compared to silver tussock, and the bases are always a creamy colour and never purple.





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Native species

# *Poa rodwayi*

## Velvet tussock grass

### Description:

- tussock-forming cool-season perennial, usually 30-80 cm high
- stems smooth, varying from smooth to shortly hairy below the nodes
- leaf blades usually 20-60 cm long, tightly inrolled, smooth, rough with dense short hairs which give the leaves a grey-green appearance
- inflorescence a panicle 3-15 cm long, at first loosely contracted, spreading later and up to 8 cm wide, green or purplish
- spikelets 2-7-flowered, florets 2-4 mm long, slightly flattened, usually shortly hairy in the lower half with or without a web of long hairs at the base

### Habitat:

Common in dry open habitats under light tree cover, often in lowland areas near sea level but up to 1300 m in altitude.

### Significance:

*Poa rodwayi* is widespread in native pastures. It is drought resistant, and provides year-round green feed. Sheep and cattle will graze it but does not persist under heavy grazing pressure.

### Similar Species:

Several of the native tussock-forming *Poas* have a similar general appearance. *Poa labillardierei* which is often found in damp situations, is generally coarser and *P. sieberiana* is often found in drier sites, both are rough to the touch. The hairy lemmas on velvet tussock grass distinguish it from silver tussock.



Native species



# *Poa sieberiana*

## Fine-leaf tussock grass

### Description:

- tussock forming cool-season perennial usually 30-50 cm high, occasionally up to 80 cm
- stems slender, smooth or rough usually much longer than the leaves
- leaf blades usually up to 35 cm long, occasionally longer, inrolled, more or less rough, fine to very fine, grey-green to blue-green
- inflorescence a panicle 3-20 cm long, green to purplish, narrow at first becoming pyramidal at maturity
- spikelets 2-7-flowered, compressed, florets 2-3.5 mm long, with a web of hairs at the base

### Habitat:

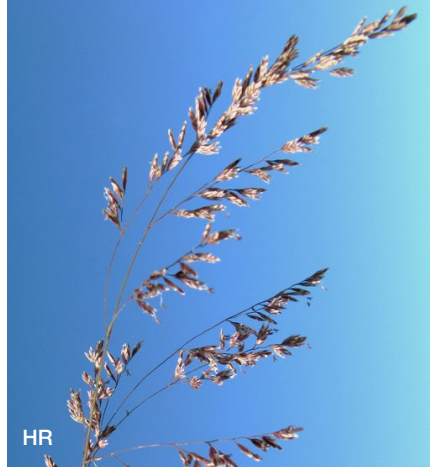
A variable grass found in a wide range of habitats from sea-level to over 1300 m, although, more common in grasslands and open forests in the drier areas of the State.

### Significance:

*Poa sieberiana* is a common component of native pasture but less widespread than *P. labillardierei* or *P. rodwayi*. Its grazing value is similar to *P. labillardierei* and it provides a useful fodder reserve for stock.

### Similar Species:

Several of the native tussock-forming *Poas* have a similar general appearance. *P. labillardierei*, which favours damp situations, is generally coarser and *P. rodwayi* has softly hairy leaves.



Native species

# Rhytidosperma species

## Wallaby grass

**Synonym:** *Austrodanthonia* and *Danthonia* species

### Description:

- erect tussock-forming cool-season perennials usually 20-30 cm high occasionally up to 90 cm, very variable in the characters of the leaf, and inflorescence
- stems hairless and finely ribbed
- leaf blades, up to 25 cm long, usually inrolled, occasionally flat and up to 4 mm wide, smooth or hairy
- ligule, a fringe of hairs up to 5 mm long, with longer tufts of hairs at the margins
- inflorescence a compact panicle usually 5-10 cm long
- spikelets gaping at maturity, green or purple tinged containing 7-9 florets. The hairs on the florets give the spikelets a fine feathery appearance

### Habitat:

Wallaby grass is widespread in native vegetation, degraded pastures and along roadsides across Tasmania. Wallaby grasses can be found from sea level to high alpine environments.

### Significance:

Wallaby grasses are the most abundant of the native grasses found in Tasmania. They are capable of year-round growth. Deep-rooted, wallaby grasses are tolerant of heavy grazing, respond well to spelling and will often reinvade sown pastures particularly where soil fertility is not maintained. They are drought and frost resistant.

### Similar Species:

There are 23 different species of *Rhytidopserma* recorded in Tasmania which are similar in general appearance.



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# *Themeda triandra*

## Kangaroo grass

### Description:

- densely tufted, warm-season perennial 20-60 cm high, occasionally up to 120 cm
- stems slightly flattened, smooth
- young leaves folded in the bud, leaf blades up to 30 cm long and 2-4 mm wide, green or reddish, folded at first, flat later, margins rough, midrib prominent
- ligule a rim of hairs
- inflorescence an open panicle, at first tinged with purple later becoming a rusty colour, up to 25 cm long with slender, flattened primary and secondary branches, secondary branches bearing clusters of spikelets
- spikelet cluster consists of 6 male or sterile spikelets and one 2-flowered spikelet in which the lower floret is sterile and the upper is bisexual and fertile with an awn 4-5 cm long. Beneath each cluster is a leaf-like bract

### Habitat:

Kangaroo grass is found in open grassland and under light forest from sea level to about 600 m on most soil types. The grass is very prominent in areas that are not heavily grazed such as roadsides and reserves.

### Significance:

As a warm-season species, *Themeda triandra* is capable of rapid growth when temperatures increase in the spring. It is drought resistant, but responds well to summer rainfall. It remains dormant over winter. It decreases under fertiliser additions, heavy grazing and soil disturbance associated with sowing introduced grasses. *Themeda* pastures are of high conservation significance and *T. triandra* is an indicator species for the [nationally listed critically endangered lowland native grasslands of Tasmania](#), *Themeda triandra* sub-type.

### Similar Species:

None.





# *Bromus catharticus*

## Prairie grass

### Description:

- short-lived tufted cool-season perennial up to 100 cm high
- stems stout, smooth, erect, hairless, lower leaf sheaths densely hairy
- leaf blades up to 45 cm long and 12 mm wide, flat, more or less rough on both surfaces, midrib prominent
- inflorescence an open panicle, up to 40 cm long, the lower branches drooping bearing several spikelets, the upper branches much shorter often bearing a single spikelet
- spikelets 2-10- flowered, strongly compressed, green or purplish, the florets with a straight or slightly curved awn 1-6 mm long

### Habitat:

Prairie grass is widespread in areas of moderate rainfall at altitudes up to 500 m in pasture, on roadsides and waste areas.

### Significance:

Prairie grass was introduced into Australia as a pasture species. It performs well on fertile soils and under high rainfall, and is particularly productive in the cool winter months. Prairie grass produces high value feed for livestock but is susceptible to over-grazing.

### Similar Species:

*Bromus fonkii* and *B. cecadilla*, which are mainly restricted to the south of the State, superficially resemble *B. catharticus* but the spikelets are softly hairy.





# *Dactylis glomerata*

## Cocksfoot

### Description:

- coarse, densely tufted cool-season perennial up to 120 cm high
- stems erect with the base noticeably flattened
- young leaves folded in the bud
- leaf sheaths are folded and keeled making the base of the shoots flattened
- leaves up to 45 cm long, 2-14 mm wide, folded at first, flat later, greyish green or blue green, ribs on the lower surface and the margins rough
- inflorescence a one-sided panicle 10-20 cm long with densely clustered spikelets on erect branches
- spikelets 5-9 mm long, 2-5-flowered, florets overlapping, each floret with an awn up to 1.5 mm long

### Habitat:

Cocksfoot is widespread across Tasmania. It is commonly sown as a pasture species but can be found in waste areas and along roadsides.

### Significance:

Cocksfoot is a valuable sown pasture species which is well adapted to a wide range of climate and soil conditions. It is suitable as a supplement to, or replacement for perennial ryegrass, especially in situations of moderate fertility, on light textured soils and under low soil moisture conditions. It has good tolerance to pasture pests such as cockchafers and corbie grubs. Cocksfoot is slow to establish, but once established is very persistent. It requires careful grazing management to prevent growth becoming coarse and highly tufted, and generally unattractive to stock.

### Similar Species:

None.



# *Festuca arundinacea*

## Tall fescue

### Description:

- robust, densely tufted cool-season perennial up to 2 m high
- stems stout, smooth tending to rough below the inflorescence
- leaf blades dark-green, up to 60 cm long, 3-12 mm wide, flat, minutely rough or smooth on both surfaces, upper surface finely ribbed, lower surface shiny, hairless except for a few hairs near the auricle. Auricles hairy at least on the lower leaves
- inflorescence an open or contracted panicle up to 60 cm long, erect or nodding, green or purplish
- spikelets 10-15 mm long, 4-8 flowered, florets 6-9 mm long, rounded on the back, awnless or with a short erect awn

### Habitat:

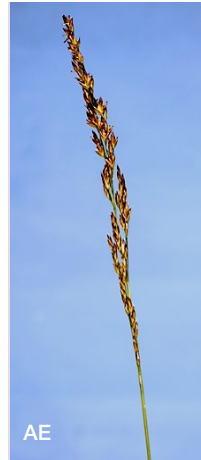
Tall fescue is a common pasture species and is naturalised in low-lying damp areas, roadside ditches, creek banks and in regions of higher rainfall.

### Significance:

Tall fescue is widely adapted and suited to many soil types. It is used as a pasture species for livestock production, and it is also recommended for sites that are waterlogged or are moderately saline. Tall fescue is reasonably drought tolerant and will withstand attack by root feeding cockchafer. It is slow to establish and should not be heavily grazed during the first year after establishment, but once established it persists well under grazing.

### Similar Species:

None, however it may resemble Italian ryegrass in the vegetative stage of growth.



# *Lolium multiflorum*

## Italian ryegrass

### Description:

- annual or short-lived cool-season perennial up to 120 cm high
- stems erect, smooth or minutely rough below the inflorescence
- leaf blades up to 25 cm and 8 mm wide, rolled in the bud, lower surface smooth and shining, upper surface ribbed, smooth or minutely rough  
auricles narrow, spreading
- inflorescence a spike up to 30 cm long, erect or slightly curved
- spikelets up to 25 mm long, up to 20-flowered, flattened, florets with awns up to 15 mm long

### Habitat:

Italian ryegrass is widespread and common as a component of short-term pastures. It is common on roadsides and wasteland.

### Significance:

Italian ryegrass is important to livestock producers as a short-term sown pasture species providing large quantities of high quality feed throughout autumn, winter and spring. Growth occurs in summer if sufficient moisture or irrigation is available. Italian ryegrass requires good soil fertility and responds well to applications of nitrogenous fertilisers.

### Similar Species:

Italian ryegrass is similar to perennial ryegrass (*Lolium perenne*) which has narrower, darker leaves and unawned florets. Hybrids between *L. perenne* and *L. multiflorum* produce important cultivars difficult to distinguish from *L. multiflorum* as they all have awned florets.





# *Lolium perenne*

## Perennial ryegrass

### Description:

- erect, tufted cool-season perennial usually 30-50 cm, occasionally up to 90 cm high
- stems, erect, smooth or minutely rough below the inflorescence, purplish at the base
- leaf blades up to 15 cm long, sometimes longer, up to 6 mm wide, dark green, flat, lower surface smooth and shining, upper surface ribbed, smooth or minutely rough, auricles narrow, spreading
- inflorescence a spike up to 30 cm long, erect or slightly curved
- spikelets up to 20 mm long, up to 14-flowered, flattened, florets awnless

### Habitat:

Perennial ryegrass is widespread in all agricultural areas of Tasmania on a variety of soil types, most commonly as a sown pasture grass.

### Significance:

Perennial ryegrass is a widespread pasture grass in temperate agricultural regions used for livestock production. It produces a large amount of high-quality feed under favourable conditions with its main growth period from autumn until the late spring. It is highly persistent under heavy grazing and is easy to manage under high fertility and high rainfall conditions. In low rainfall areas, its persistence can be poor. Perennial ryegrasses are susceptible to damage by cockchafers and corbie grubs, particularly on light soils. It can cause 'ryegrass staggers' due to the presence of endophytic fungi, but some varieties are now available with novel endophyte or endophyte-free.

### Similar Species:

*Lolium multiflorum* (Italian ryegrass), especially at the seedling stage.

*L. multiflorum* has awned florets and the young leaf is rolled in the bud.



# *Lolium rigidum*

## Annual ryegrass

### Description:

- cool-season annual up to 120 cm high
- stems erect or prostrate becoming erect, base often reddish-purple
- leaf blades up to 18 cm long and 8 mm wide with sheaths ribbed, hairless and shiny underneath with auricles c. 2 mm long
- inflorescence a narrow erect spike, 13-32 cm long
- spikelets up to 18 mm long, 3-11-flowered, awnless or rarely awned

### Habitat:

Annual ryegrass is occasionally found in waste areas, along roadsides and as a sown pasture species.

### Significance:

Annual ryegrass is an important grass for both dryland and irrigated agriculture. However, seed heads can be infected with annual ryegrass toxicity and/or an ergot that makes them toxic to animals. It is also a major weed of winter crops and has developed resistance to herbicides.

### Similar Species:

Annual ryegrass is similar to other *Lolium* species. However, *L. rigidum* has a glume about as long as the spikelet and often has a red dot at the inside base of the tillers.



Sown species

# Phalaris aquatica

## Phalaris

### Description:

- rhizomatous, densely tufted cool-season perennial up to 150 cm high, in ungrazed situations forming coarse tussocks
- stems stout, basal internodes more or less swollen, when cut exuding a pink sap
- leaf blades up to 60 cm long and 14 mm wide, flat and greyish-green with distinct ribs
- inflorescence a dense, cylindrical, spike-like panicle up to 15 cm long and 2.5 cm in diameter
- spikelets 3-flowered, the two basal florets sterile, greatly reduced, the terminal floret fertile, pear shaped, flattened, shinning

### Habitat:

Phalaris is widespread in all agricultural areas of Tasmania but is more common in the low to medium rainfall districts. It is a common pasture species, suited to a wide range of soil types and situations, and a weed of roadsides and waste areas.

### Significance:

Phalaris is an important pasture species which performs well on a wide variety of soil types but is best suited to heavy soils. It is slow to establish but once well-established it is extremely persistent and able to withstand hard grazing. It produces most feed from March to December and is practically dormant during the summer. Phalaris is highly drought tolerant, resistant to cockchafers and corbie grubs and can tolerate waterlogging. It is occasionally toxic to livestock due to the presence of alkaloids in the leaves which cause a condition referred to as 'phalaris poisoning' (phalaris staggers).

### Similar Species:

Large, vigorous plants of *Phalaris minor* appear similar to *P. aquatica*.





# *Thinopyrum elongatum*

## Tall wheat grass

**Synonym:** *Elymus elongatus*

### **Description:**

- densely, tufted cool-season perennial up to 100 cm high
- stems fairly stout, smooth, tapering and ribbed
- leaf sheaths finely ribbed and stems with prominent nodes
- leaf blades up to 50 cm long by 2.5-5 mm wide, flat but commonly inrolled with lower surface finely ribbed
- inflorescence an erect spike up to 40 cm long
- spikelets are 10-25 mm long, laterally compressed containing 7-9 closely overlapping florets, greenish or straw-coloured

### **Habitat:**

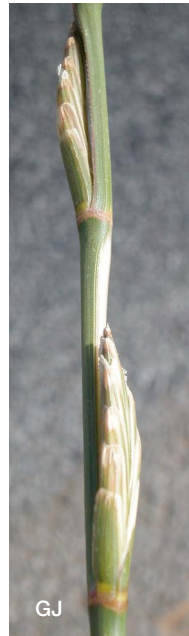
Originally introduced as a forage grass in areas of poor drainage and saline soils. Now occasionally found on roadsides and waste areas.

### **Significance:**

Tall wheat grass has been used to rehabilitate and improve the productivity of land affected by salinity. It has the potential to be a serious weed if it escapes into native wetlands as it can quickly become dominant by crowding out other species.

### **Similar Species:**

Tall wheat grass may be confused with *Lolium* species and *Elymus repens* in flower-head type, but *Lolium* species have spikelets that are orientated with their thin edge facing the central stem.



# *Agrostis capillaris*

## Browntop bent

### Description:

- tufted cool season perennial up to 70 cm high, but rarely above 30 cm, spreading by short rhizomes, forming a loose or dense turf
- stems erect or prostrate becoming erect
- leaf blades rolled at first, flat or somewhat inrolled later, hairless up to 20 cm long and 3 mm wide
- inflorescence a panicle up to 15 cm long, contracted at first, spreading at flowering and contracted again later, varying in colour from green to purplish, at maturity assuming the brown colour which gives the grass its common name
- spikelets 2-3 mm long, 1-flowered, lemma with a sharply bent awn

### Habitat:

A common component of lawns and sports turf, widespread on roadsides and waste areas, and a common weed of pasture and native vegetation in all areas of the State.

### Significance:

Browntop bent tolerates a wide range of soils and is particularly abundant on poor, acid soil types and is especially invasive in pastures with low soil fertility and/or poor drainage.

### Similar Species:

*Agrostis stolonifera* (creeping bent), which spreads by leafy stolons and usually has wider leaves, longer ligules and a much shorter awn. It is difficult to separate browntop bent from *A. stolonifera* in the absence of basal parts. There are several native species of *Agrostis* in Tasmania.





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# Agrostis stolonifera

## Creeping bent

### Description:

- tufted cool-season perennial up to 40 cm high, spreading by leafy stolons which root at the nodes
- flowering stems terminal on the stolons or arising from the nodes
- leaf blades green to greyish or bluish green, rolled at first becoming flat, up to 18 cm long and 5 mm wide
- inflorescence a panicle up to 15 cm long, contracted at first, spreading at flowering and contacted again later, varying in colour from green to purplish
- spikelets 2 to 3 mm long, clustered at the tips of the branches, 1-flowered, lemma minutely awned

### Habitat:

Creeping bent is widespread and a common weed of pastures, waste areas and roadsides. It is a common turf grass found in lawns and turf situations such as golf courses and bowling greens.

### Significance:

Creeping bent has little or no pasture value for livestock production and can compete strongly with sown species particularly under conditions of poor management and low fertility. It is an important turf grass species.

### Similar Species:

*Agrostis capillaris* does not have creeping stolons, instead spreads by short rhizomes. Leaves are generally narrower than in *A. stolonifera*. It is difficult to separate Creeping bent from *A. capillaris* in the absence of basal parts.





# *Aira caryophyllea*

## Silvery hairgrass

### Description:

- cool-season annual up to 40 cm high
- stems very slender, solitary or tufted, usually erect but sometimes spreading
- leaf blades up to 8 cm long, tightly inrolled, grey-green in colour, quickly drying to brown
- inflorescence a panicle, compact at first but becoming wide-spreading later, up to 12 cm long
- spikelets 2.5-3 mm long, 2-flowered, carried in small loose clusters at the end of the branches

### Habitat:

Silvery hairgrass occurs throughout Tasmania to about 1200 m. This species can be found in cultivated ground, degraded pasture, waste areas, gardens, roadsides and tracks in low rainfall districts.

### Significance:

All *Aira* species grow rapidly to maturity and then die back. Individual plants although small often occur locally in large numbers but rarely assume any agricultural significance.

### Similar Species:

*Aira elegantissima*, which is widely distributed but slightly less common, is very similar in appearance. However, in *A. caryophyllea* both florets in the spikelet are awned whereas in *A. elegantissima* only the upper floret is awned. In the vegetative stage *A. praecox* resembles the other species of *Aira* found in Tasmania but is easily distinguished at flowering by its much smaller, compact inflorescence.



# *Alopecurus pratensis*

## Meadow foxtail

### Description:

- erect, loosely or compactly tufted cool-season perennial, up to 120 cm high
- stems erect, smooth, nodes brown
- leaf blades up to 40 cm long and 10 mm wide, flat, hairless, finely ribbed, ribs minutely rough
- inflorescence a dense, soft cylindrical spike-like panicle up to 13 cm long, green to slightly purple
- spikelets 4-6 mm long, fattened, hairy, 1-flowered, the floret awned

### Habitat:

Meadow foxtail is widespread in agricultural areas, particularly in damp situations, including pastures, waste areas, ditches and margins of dams.

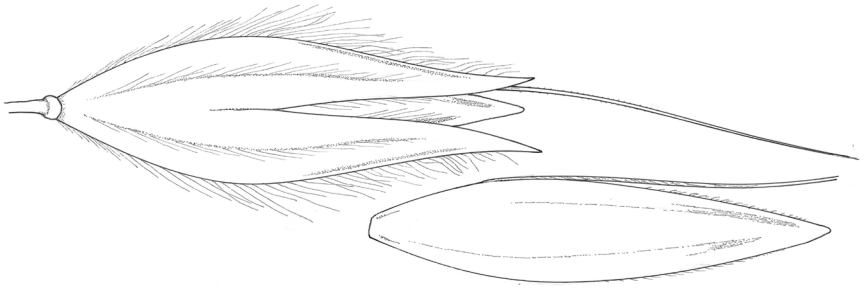
### Significance:

Meadow foxtail is considered a weed of sown pastures in areas of high rainfall or poorly drained conditions where it competes strongly with more desirable species.

### Similar Species:

*Alopecurus geniculatus* (Creeping foxtail) can be easily distinguished from *A. pratensis* by its creeping habit and smaller spikelets (2-3 mm long). *Phleum pratense* (Timothy) has a dense cylindrical inflorescence but is rough to the touch and narrower than *A. pratensis*.





# *Ammophila arenaria*

## Marram grass

### Description:

- erect tussocky cool-season perennial up to 120 cm high that spreads by an extensive network of vertical and horizontal branching rhizomes. Most of the leaves are arranged toward the base of the stems with their sheaths overlapping
- stems, rigid, smooth, rough below the inflorescence
- leaf blades up to 60 cm long, tightly inrolled with the upper surface closely ribbed. The ribs are densely hairy but lower surface is smooth
- inflorescence a spike-like panicle up to 27 cm long, 1-2.5 cm wide, pale green to pale straw-coloured
- spikelets 1-flowered, 10-16 mm long, laterally compressed, closely overlapping

### Habitat:

Marram grass is a common plant of coastal sand dunes around Tasmania.

### Significance:

Marram grass was introduced to Tasmania to assist with the stabilization of coastal sand dunes but is now considered as a widespread threat to native coastal vegetation in Tasmania. It is highly tolerant to salinity and waterlogging.

### Similar Species:

Marram grass can be confused with native species including beach fescue (*Austrofestuca littoralis*), beach poa (*Poa poiformis*) and beach spargrass (*Austrostipa stipoides*).





# *Anthoxanthum odoratum*

## Sweet vernal

### Description:

- tufted cool-season perennial 20-50 cm high, occasionally up to 100 cm
- stems erect, fairly slender, smooth
- leaf blades usually 3-15 cm long and up to 7 mm wide, flat, sparsely hairy or hairless. Auricles small, hairy or absent
- inflorescence an erect, dense spike-like panicle, 2-9 cm (usually 4-6 cm) long, straw coloured, green or purple
- spikelets flattened, 7-10 mm, 3-flowered, the upper floret fertile, smooth, the lower two sterile, longer than the fertile floret, hairy, brown, awned

### Habitat:

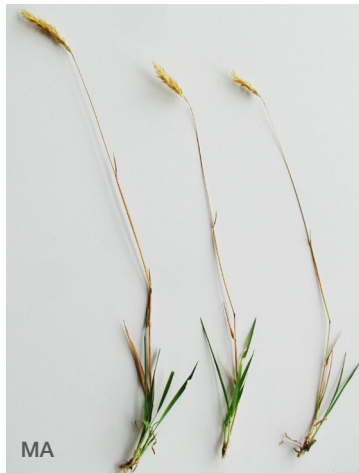
Sweet vernal occurs in damp situations, various open habitats and on a variety of soils. It is common on roadsides, remnant bush and in poor pasture from sea level to around 1200 m.

### Significance:

Sweet vernal invades poor, open pasture and its occurrence is normally associated with low soil fertility, and in particular potassium deficiency. It is heavily scented due to the presence of the aromatic compound, coumarin.

### Similar Species:

None.



# *Arrhenatherum elatius var. bulbosum*

## Bulbous oat grass (Onion twitch)

### Description:

- coarse, loosely tufted cool-season perennial up to 150 cm high
- stems stout, smooth or hairy at the nodes, basal internodes swollen capable of producing new plants if separated from the parent plant
- leaf blades up to 40 cm long and 12 mm wide, flat, lower surface smooth, upper surface minutely rough
- inflorescence a loose, narrow panicle, 10-30 cm long, green or purplish
- spikelets 7-10 mm long, 2-flowered, lower floret male or bisexual with a twisted awn up to 17 mm long, upper floret bisexual or female with or without a short awn

### Habitat:

Bulbous oat grass is found in cultivated areas, especially in the medium to high rainfall regions of the State and is common on roadsides, in perennial crops and disturbed waste areas.

### Significance:

Bulbous oat grass is a significant weed in some local situations because of its ability to spread by seed and vegetatively from the swollen internodes which may become detached from the parent plant and grow into new plants.

### Similar Species:

None.



# Avena species

## Wild oats

### Description:

- stout, erect, tufted or stems solitary, cool-season annual grasses up 160 cm high
- stems erect, or prostrate becoming erect
- leaf blades up to 45 cm long and up to 15 mm wide.
- inflorescence a loose panicle up to 45 cm long, with ascending, spreading or drooping branches
- spikelets with 2-3 fertile florets, up to 35 mm long, florets hairy with a stout bent prominent awn

### Habitat:

*Avena* species are common weeds of roadsides, waste places and cultivated land.

### Significance:

Wild oats are competitive weeds in winter crops and are ranked as one of the most important weeds of grain crops, especially on mainland Australia.

### Similar Species:

The three common species of Wild oat (*A. fatua*, *A. barbata* and *A. sterilis* spp. *ludoviciana*) are superficially similar but can be separated on the size and characteristics of the spikelets. *Avena sativa* (Cultivated oat) spikelets are 20-30 mm long, hairless or with a few scattered hairs, and often unawned or shortly-awned.





# *Briza maxima*

## Quaking grass

### Description:

- solitary or loosely tufted cool-season annual usually 15-25 cm high, occasionally up to 60 cm
- stems smooth, erect or bent, becoming erect
- leaf blades up to 20 cm long and up to 8 mm wide, flat and finely pointed, margins minutely rough
- inflorescence an open panicle, 3-10 cm long with 1-12 spikelets
- spikelets 14-25 mm long, rounded, triangular, 7-20 flowered, nodding, greenish, straw-coloured or tinged purple

### Habitat:

Quaking grass is found occasionally on roadsides, waste places, and in degraded or abandoned pastures.

### Significance:

Quaking grass is of little agricultural significance due to its low productivity.

### Similar Species:

*Briza minor* (lesser quaking grass) is remotely similar but has many more spikelets smaller than those of *B. maxima*.



# *Briza minor*

## Lesser quaking grass

### Description:

- solitary or loosely tufted cool-season annual usually < 25 cm, occasionally up to 60 cm high
- stems slender, erect, smooth
- leaf blades up to 14 cm long and 9 mm wide, flat, narrow, finely pointed
- inflorescence a loose panicle up to 16 cm long, primary branches rough
- spikelets 2-5 mm long, roundish to triangular in shape, 3-8 flowered, nodding, green or tinged with purple

### Habitat:

Lesser quaking grass is found over a wide range of soil types though it is more common on light textured soils of low fertility in the drier parts of the State.

### Significance:

It is of little significance due to its weakly competitive nature. It is a frequent weed of gardens, roadsides, waste areas and native vegetation.

### Similar Species:

*B. maxima* (quaking grass) is a much larger and more robust plant with fewer, larger spikelets.





# *Bromus diandrus*

## Great brome

### Description:

- cool-season annual up to 90 cm high
- stems loosely tufted or solitary, erect or slightly nodding, sometimes hairy below the inflorescence, internodes usually shorter than the leaf-sheaths
- leaf blades up to 25 cm long and 7 mm wide, flat, hairy, prominently ribbed on both surfaces
- inflorescence a panicle up to 25 cm long, at first erect, later becoming open and nodding, the branches rough, up to 10 cm long usually bearing one spikelet only
- spikelets drooping and gaping at maturity, 7-9 cm long including the straight awns which are up to 6 cm long, the 5-8 florets separating readily at maturity, green or purplish

### Habitat:

Great brome tolerates various soil types and habitats from sea level to 450 m. It is a common plant of cereal and other field crops, degraded pasture, roadsides, waste or disturbed areas.

### Significance:

Great brome provides some feed in autumn, winter and early spring but it is essentially a weed of sown and native pastures. When mature, its sharp, roughly awned seeds can cause damage to sheep.

### Similar Species:

At first glance, great brome can be confused with native spear grass (*Austrostipa* species) or Chilean or Texas needle grasses due to the large awns. Great brome is similar to *Bromus sterilis* (Sterile brome) and *B. madritensis*, both of which are rare in Tasmania.





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# *Bromus hordeaceus*

## Soft brome

### Description:

- cool-season annual or biennial usually 30-50 cm high, occasionally up to 100 cm
- stems solitary or loosely tufted, slender or quite stout, hairless or hairy, the nodes hairy
- leaf blades soft, greyish green up to 30 cm long and 8 mm wide, flat, hairy on both surfaces
- inflorescence a panicle up to 16 cm long, erect at first but later contracting and nodding, greyish-green to purple, many-flowered or under harsh conditions the inflorescence may consist of a single spikelet
- spikelets 5-14-flowered, florets closely overlapping, finely hairy and slightly compressed, with a fine straight awn

### Habitat:

Soft brome is a common plant of crop, pasture, gardens, roadsides and waste areas.

### Significance:

Soft brome occurs mainly in degraded pasture and is palatable to livestock in the early growth stages.

### Similar Species:

*Bromus alopecuroides* is somewhat similar but at maturity its awns project at right angles.



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# *Cenchrus clandestinus*

## Kikuyu

**Synonym:** *Pennisetum clandestinum*

### Description:

- matt-forming warm-season perennial, mostly to 30 or 40 cm high, spreading by slender rhizomes and highly branched stolons that grow closely along the ground
- stem, short 3-15 cm high
- leaf blades up to 30cm long by 7mm wide, tightly folded when young but opening flat when mature
- inflorescence reduced to a cluster of 2-4 very shortly stalked spikelets, almost enclosed in the uppermost leaf sheath and only visible by long, white, thread-like stamens in summer
- spikelets 10-20 mm long

### Habitat:

A warm season species, commonly found in coastal areas of Tasmania.

### Significance:

Kikuyu is favoured as a lawn species in some parts of Australia, but is listed as a declared weed in other regions. This species could expand its range in Tasmania under projected climate change.

### Similar Species:

None.



# *Cenchrus macrourus*

## African feather grass

**Synonym:** *Pennisetum macrourum*

### Description:

- stout, densely tufted rhizomatous warm-season perennial up to 150 cm high
- stems, finely ribbed, rough below the inflorescence
- leaf blades up to 60 cm long by 4-12 mm wide, mostly hairless, long-tapering to a fine point, crowded at the base and sometimes have purplish edges. Leaf sheaths longer than internodes, rounded on the back
- inflorescence a dense cylindrical, panicle up to 25 cm long by 15 mm wide. Mostly green or yellowish with a tinge of purple, yellow or brown depending on their age
- spikelets 4-6 mm long each surrounded by several fine-barbed feathery bristles (5-10 mm long)

### Habitat:

This species is found mostly along roadsides, creek beds and it occasionally invades pastures.

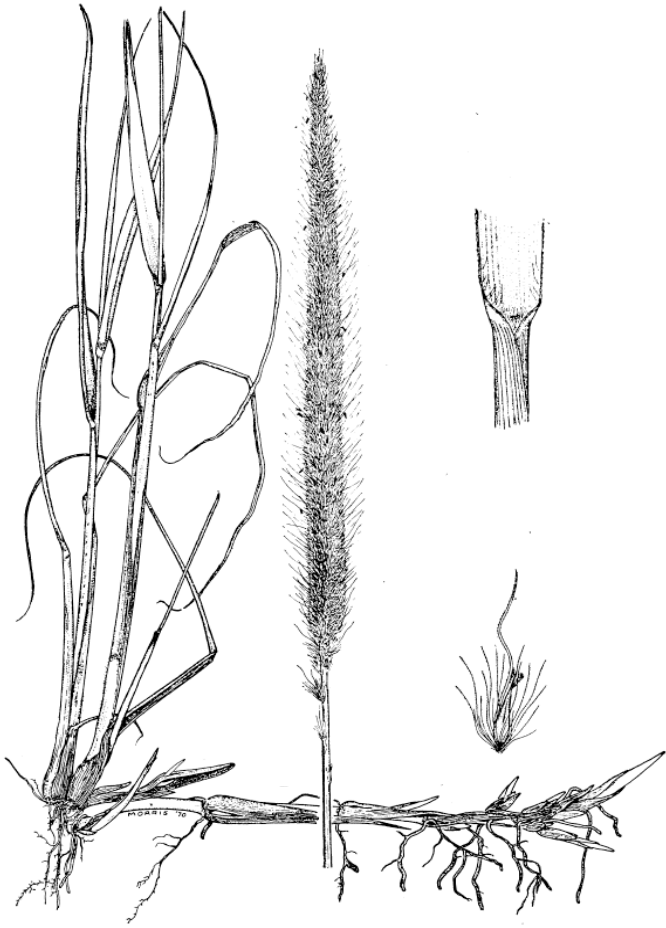
### Significance:

African feather is listed as a [declared environmental weed](#) in Tasmania.

### Similar Species:

African feather grass is similar to *Cenchrus purpurascens* and *C. longisetus*.





# Cortaderia selloana

## Pampas grass

### Description:

- large, dense, tussocky cool-season perennial 300-400 cm high. Leaf sheaths ribbed and flowering culms only shortly exerted above the tuft of basal leaves
- stems stout, erect, smooth and hairless
- leaf blades up to 200 cm long and 15 mm wide, with razor sharp margins
- inflorescence a large, white to pink plume-like panicle 60 cm long. Some plants have bisexual flowers and others only female flowers
- Female spikelets 6-flowered, terminal floret rudimentary

### Habitat:

*Cortaderia selloana* prefers sunny and wetter conditions of disturbed sites, waste areas, native vegetation, coastal environs, forestry plantations and along roadsides.

### Significance:

*Cortaderia selloana* was originally introduced as a garden ornamental but is now listed as a [declared weed](#). Pampas grass produces large amounts of flammable material, and the dense tufts of dead leaves can be a fire hazard. The edges of its leaves are sharply toothed and can easily cut human skin, leaving irritating welts.

### Similar Species:

There are three species of pampas in Tasmania: *Cortaderia selloana* (Pampas grass), *C. jubata* (Pink pampas), and *C. richardii* (Toe toe). Leaves of *C. jubata* are bright green compared to the dull green of *C. selloana* and *C. richardii*. The inflorescence of *C. selloana* and *C. richardii* are usually whitish rather than pinkish or purplish in colour as is the case for *C. jubata*.



*Cortaderia richardii*



*Cortaderia richardii*



*Cortaderia richardii*



*Cortaderia selloana*



# Cynodon dactylon

## Couch

### Description:

- warm-season perennial mat-forming species spreading by tough scaly rhizomes and flat stolons
- stems (stolons), rooting freely at the lower nodes, vegetative and flowering shoots arising from the nodes, flowering stems upright, slender, smooth, up to 30 cm high
- leaf blades on the stolons small, pale, shiny, blade much reduced, stem leaves up to 15 cm long and 4 mm wide with a blunt tip, greyish green or green, sparsely hairy at the base on the upper surface
- inflorescence consists of 3-6 slender purplish spikes up to 5 cm long, radiating from the tip of the stem
- spikelets 2-3 mm long, 1-flowered, produced on the underside of the axis

### Habitat:

Commonly found in urban situations on roadsides and grassed areas.

### Significance:

A native of tropical and sub-tropical regions of both hemispheres, it is used widely as a turf species on mainland Australia.

### Similar Species:

It has a superficial resemblance to *Digitaria* species, which have broader leaves and fibrous roots.



# *Cynosurus cristatus*

## Crested dogs-tail

### Description:

- tufted cool-season perennial up to 75 cm high
- stems erect, stiff, unbranched and smooth
- leaf blades up to 15 cm long and 4 mm wide, tapering to a fine tip, upper surface minutely hairy or hairless, lower surface shiny
- inflorescence a dense spike-like, one-sided panicle with very short branches, erect or slightly curved, stiff, 1-14 cm long, green or tinged with purple
- spikelets in dense clusters in which the 3-5 mm long, 2-5-flowered fertile spikelets are surrounded by 4-6 mm long sterile spikelets. The sterile spikelets carry up to 18 sterile florets

### Habitat:

Crested dogs-tail is an occasional plant of waste and cultivated ground and occurs occasionally in pastures and lawns.

### Significance:

Crested dogs-tail is generally regarded as a weedy grass which can invade degraded pasture, over a range of soils types in areas of low to medium rainfall. Commercial cultivars of this grass are available in New Zealand for use in specialist situations.

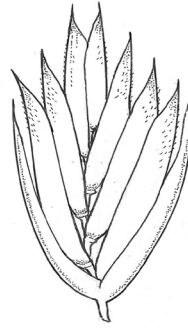
### Similar Species:

None.





*Sterile spikelet*



*Fertile spikelet*



# *Cynosurus echinatus*

## Rough dogs-tail

### Description:

- cool-season annual, up to 90 cm high
- stems solitary or tufted, smooth, erect or spreading
- leaf blades up to 30 cm long and 10 mm wide tapering to a fine point, rough above, smooth below
- inflorescence a dense spike-like, roundish panicle, bristly with short branches, 1- 8 cm long and 2 cm wide, green or tinged with purple
- spikelets form dense clusters of sterile and fertile spikelets, sterile spikelets flattened and up to 13 mm long, fertile spikelets produce from 1-5 florets 7-12 mm long, lemma awns very prominent

### Habitat:

Rough dogs-tail may be found in degraded pasture especially on light soils in low rainfall areas, on roadsides and in waste areas.

### Significance:

Rough dogs-tail is a widespread weed but it is of little significance in agricultural situations.

### Similar Species:

Superficially *C. echinatus* may resemble *Polypogon monspeliensis* but the latter has a more cylindrical, softer, larger inflorescence.



# *Digitaria sanguinalis*

## Summer grass

### Description:

- loosely tufted warm-seasonal annual up to 70 cm high
- stems simple or branching, creeping, rooting from the lower nodes
- leaf blades flat up to 4-8 cm long by 3-8 mm wide. Leaf sheaths are striped and hairy, sometimes with a purplish tinge
- inflorescence a raceme, mostly digitate to subdigitate, with 4-8 branches, 3-15 cm long
- spikelets paired, 2-flowered and 2.5-3 mm long, lance-shaped and can be pale green to purplish in colour

### Habitat:

Common along main highways, roadsides and of cultivated areas and home gardens.

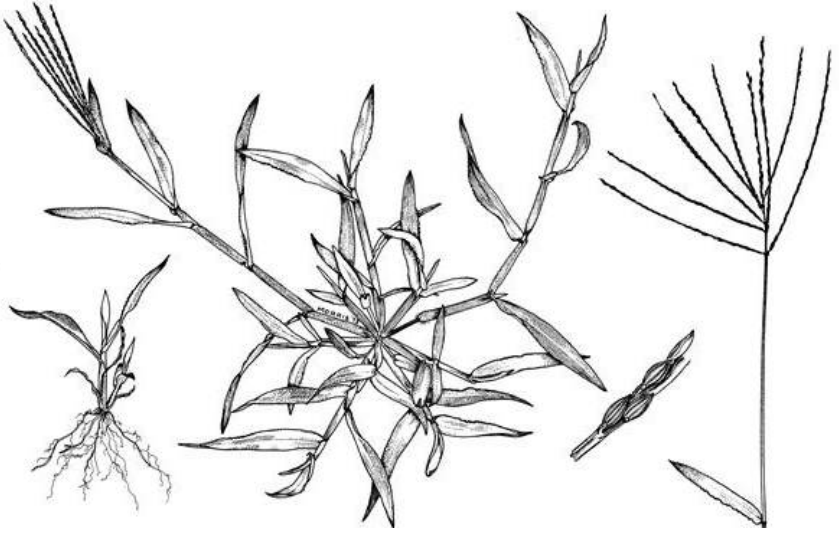
### Significance:

A weed of summer crops.

### Similar Species:

*Cynodon dactylon* has a superficially similar inflorescence to *D. sanguinalis*, but is easily distinguished by the presence of stolons and rhizomes.





# *Echinochloa crus-galli*

## Barnyard grass

### Description:

- coarse tufted warm-season annual, usually 50-70 cm high, occasionally up to 110 cm
- stems smooth, hairless, erect or semi-prostrate becoming erect, often branching from the lower nodes
- leaf blades up to 35 cm long and 20 mm wide, flat usually with about four more or less prominent ribs on either side of the midrib
- inflorescence composed of loosely arranged or crowded branches, each branch a raceme, green or usually purplish
- spikelets 2-flowered, with one sterile and one fertile floret, 2.5-4 mm long, solitary in groups of 2-3 or clustered on short branches, bristly. The fertile floret with a short point or an awn up to 3 cm long. Spikelets variable in the degree of bristliness and in the length of the awn

### Habitat:

Barnyard grass is common on roadsides, waste places, gardens and vegetable cropping areas, more commonly in the north of the State

### Significance:

Barnyard grass is a summer growing annual grass which can be a serious weed of irrigated crops. It is rarely found in pasture situations.

### Similar Species:

Similar to *Echinochloa esculenta* (Japanese millet) which is less common and has a more dense, purplish to brownish inflorescence and awnless spikelets.





# *Ehrharta erecta*

## Panic veldtgrass

### Description:

- tufted, cool-season perennial up to 60 cm high
- stems, prostrate becoming erect, branching from the lower nodes
- leaf blades slender, soft, pale green up to 20 cm long by up to 15 mm wide, tapering to a fine point. Leaf sheaths with prominent midrib
- inflorescence an erect contracted or open panicle up to 20 cm long,
- spikelets 3-flowered 3-4 mm long, oblong-elliptical in shape and pale green, only the upper floret is fertile

### Habitat:

Commonly found in moist and shaded situations, becoming very widespread as a suburban plant around Launceston and Hobart.

### Significance:

An aggressive perennial which is becoming a major weed of disturbed areas and gardens. Plants can seed within 10 weeks of germination. It is considered an environmental weed in New South Wales, Victoria and Western Australia.

### Similar Species:

*Ehrharta calycina* (Perennial veldtgrass) and *E. longiflora* (Annual veldtgrass). Both species have prominently awned spikelets.



AE



GJ



GJ

# *Ehrharta longiflora*

## Annual veldtgrass

### Description:

- tufted cool-season, leafy annual up to 100 cm high
- stems smooth, hairless, nodes brown or purplish, erect or prostrate becoming erect
- leaf blades up to 20 cm long and 12mm wide, usually softly hairy and tapering somewhat abruptly to a fine point
- stems smooth with brown or purplish nodes
- inflorescence a narrow, loose panicle up to 20 cm long
- spikelets nodding 12-25 mm long including awns and green or purplish in colour

### Habitat:

Annual veldtgrass is mainly found on roadsides, disturbed sites, waste areas and especially near the coast.

### Significance:

An invasive and competitive grass which has a rapid growth rate and is usually one of the first annual grasses to flower.

### Similar Species:

*Ehrharta calycina*, which is perennial with much shorter spikelets. It also superficially resembles Wild oats (*Avena* species).





# *Elymus repens*

## Rope twitch (English couch grass)

### Description:

- erect cool-season perennial up to 120 cm high with wiry straw coloured creeping rhizomes, up to 150 cm long with very sharp tips, and forming a tough fibrous mass. Fibrous roots, vegetative and flowering shoots arise from the nodes of the rhizome
- stems round, finely ribbed
- leaf blades up to 35 cm long and 10 mm wide, rough and sparsely hairy on the upper surface, green to bluish green
- inflorescence an erect slender spike 5-25 cm long
- spikelets flattened, 10-20 mm long, alternating on opposite sides of the axis, 3-8 flowered. Lemmas usually awnless but forms with awns up to 8 mm long are relatively common

### Habitat:

Rope twitch is a common plant of arable land and can be found throughout the developed areas of the State on a range of soil types. It is common in horticultural crops, gardens, waste areas, edges of paddocks and roadsides.

### Significance:

Rope twitch is a major weed of horticultural crops and pastures. It is difficult to eradicate due to its vegetative reproduction by rhizomes and can be very competitive with more desirable species.

### Similar Species:

*Elymus scaber* (Common wheat grass), a tufted or shortly rhizomatous native but has lemmas bearing awns up to 4 cm long. *E. elongatus*, a densely tufted perennial, awnless is occasionally used as a salt tolerant pasture species. *E. repens* is easily mistaken for *Lolium* species which also have spikelets alternating on opposite sides of the axis but in *Lolium* the spikelets are arranged with the narrow side to the axis whereas in *Elymus* they are broadside to the axis.





# *Eragrostis cilianensis*

## Stink Grass

### Description:

- warm-season, tufted annual often branching from the lower nodes, up to 60 cm high
- stems smooth with a ring of oil glands below the purple nodes
- leaf blades flat up to 20 cm long and 7 mm wide, hairless. Leaf sheaths are ribbed and shorter than the stem internodes
- inflorescence a panicle up to 16 cm long which at first is contracted and becoming narrow-pyramidal at maturity
- spikelets unawned and lead-coloured 14 mm long by 2-4 mm wide, 16-24 flowered

### Habitat:

Common along roadsides in Midlands and East Coast.

### Significance:

None. Stink grass gives off a disagreeable odour when fresh due to the presence of minute oil glands on the leaf edges and stem.

### Similar Species:

There are five *Eragrostis* species in Tasmania: *E. brownii* (perennial), *E. parviflora* (annual) and *E. cilianensis* (annual) are more commonly found than *E. tenuifolia* (perennial) and *E. curvula* (perennial). *E. curvula* (African lovegrass) is a [declared weed](#) in Tasmania.



# *Glyceria maxima*

## Reed sweet-grass

### Description:

- stout leafy warm-season perennial up to 250 cm high with wide-spreading rhizomes producing numerous vegetative and flowering shoots
- stems erect, robust and smooth
- leaf blades are finely ribbed, up to 60 cm long and 7-20 mm wide, tapering abruptly to a fine point, midrib prominent. Leaf sheaths keeled, the lower sheaths brown, papery and prominently cross-veined
- inflorescence a spreading or contracted panicle 15-45 cm long, much branched with 50-100 spikelets
- spikelets oblong, 3-10 flowered, green or purplish

### Habitat:

Widespread around creeks, dams, waterholes and wet areas, more common in the northern half of the State.

### Significance:

Generally a weed of drains and ditches. A palatable and nutritious grass for livestock however Reed sweet-grass can accumulate toxic levels of hydrocyanic acid that can result in cyanide poisoning.

### Similar Species:

Can be confused with *Glyceria declinata* and *G. australis*, but *G. maxima* is usually a much larger, robust plant.



# *Holcus lanatus*

## Yorkshire fog

### Description:

- loosely or densely tufted cool season perennial 20-100 cm high
- stems erect or prostrate at the base, becoming erect, often rooting at the lower nodes, hairy below the nodes and the inflorescence
- leaf blades up to 25 cm long and 10 mm wide, flat, softly hairy on both surfaces. Basal leaf sheaths with pink ribs
- inflorescence a compact to open panicle, 6-20 cm long and 1-8 cm wide, erect or nodding and varying in colour from white to pale green, pink or purplish
- spikelets 4-6 mm, 2-flowered, the lower floret bisexual, awnless, upper floret usually male occasionally bisexual, shortly awned

### Habitat:

Yorkshire fog is widespread in sown pastures, particularly in damp situations. It is common on roadsides and waste places from sea level to highland areas.

### Significance:

Yorkshire fog is a major weed of sown and degraded native pastures especially in high rainfall areas. It is relatively unpalatable to livestock and competes strongly with more desirable species, particularly under conditions of low fertility, low stocking rate or poor drainage.

### Similar Species:

Creeping fog grass (*Holcus mollis*), which is a rhizomatous perennial known only from a few areas in the north-west of Tasmania.





# *Hordeum leporinum*

## Barley grass

### Description:

- cool-season annual usually 20-30 cm high, but up to 60 cm, light green in colour
- stems slender, erect or shortly prostrate at the base, becoming erect
- leaf blades up to 25 cm long and 8 mm wide narrowing to an acute tip, sparingly hairy or hairless on both surfaces. Auricles well developed, stem clasping
- inflorescence a dense, narrow spike 3-12 cm long, breaking up easily at maturity
- spikelets arranged in groups of three at alternate joints of the main axis. All three spikelets prominently awned, only the central spikelet produces a seed

### Habitat:

Barley grass is commonly found in pastures, waste areas and on roadsides throughout Tasmania. It is most frequently found on sandy soils in low rainfall areas.

### Significance:

Barley grass is a weedy species of sown and native pastures, particularly in low rainfall areas throughout the Midlands, Derwent Valley and the East Coast. It provides valuable feed in early autumn and winter but matures early and its awned spikelets may cause damage to livestock and contaminate wool.

### Similar Species:

There are a number of very similar species of *Hordeum* differing only in the structure of the florets. *Hordeum marinum*, sea barley grass, is found on saline soils and differs in having no auricles on the leaves and shorter inflorescences with spreading awns.



# Lagurus ovatus

## Hare's tail grass

### Description:

- erect cool-season annual 5-60 cm high
- stems tufted or solitary
- leaf blades 2-20 cm long by 2-14 mm wide. Leaf sheaths and blades softly hairy
- inflorescence a dense spike-like panicle, round, ovoid or oblong-cylindrical 2-6 cm long and 1-2 cm wide
- spikelets 1-flowered, with a short awn, 5 mm long, and covered in long hairs giving it a feathery appearance

### Habitat:

Predominantly found on sandy soils in coastal areas but occasionally found inland.

### Significance:

None.

### Similar Species:

This species is relatively similar to hedgehog grasses (*Echinopogon ovatus*), which has egg-shaped (i.e. ovoid) or slightly elongated seed-heads with awns. However, hedgehog grass usually has greenish coloured seed-heads and does not have a dense cover of feathery bristles on its flower spikelets.





# *Nassella trichotoma*

## Serrated tussock

### Description:

- tufted cool-season perennial up to 50 cm high forming large weeping tussocks up to 70 cm in diameter
- stems smooth and fine
- leaf blades up to 35 cm long, inrolled up to 0.5 mm in diameter, with short forward pointing bristles
- inflorescence an open drooping panicle up to 15 cm long with fine long branches up to 12 cm long, spikelets carried at the tips. At maturity the inflorescence breaks readily from the stem and may be carried great distances on the wind
- spikelets 5-7 mm long, purplish, 1-flowered, the florets about 2 mm long, oblong with a slender slightly bent awn up to 3 cm long

### Habitat:

Serrated tussock invades native or introduced pastures. It is highly unpalatable to stock, which enables it to become dominant and suppress other more desirable plants.

### Significance:

Serrated tussock was introduced from South America. It is listed as a [declared weed](#). Each plant is long lived and produces vast quantities of seed annually. Advice on control should be obtained from DPIPW or the local council's Natural Resource Management representative.

### Similar Species:

When not flowering, Serrated tussock (*Nassella trichotoma*) may be confused with Silver tussock (*Poa labillardierei*). The ligules on Serrated tussock are long, up to 3.5 mm, and membranous compared to Silver tussock, and the bases are always a creamy colour and never purple. *Poa* tussocks will retain flower heads while those of Serrated tussock break off.





# *Panicum hillmanii*

## Switchgrass

### Description:

- hairy warm-season annual up to 80 cm high
- stems simple or occasionally branching, fairly stout with long soft hairs at the nodes and below the inflorescence
- leaf blades flat and hairy, up to 25 cm long and 15 mm wide. Leaf sheaths are usually longer than the internodes and scattered with small wart-like outgrowths at their base
- inflorescence an open panicle 10-30 cm long, partly exerted from the leaf sheath
- spikelets 2.5-3 mm long, elliptical in shape, green or purplish and solitary on long hairy pedicels

### Habitat:

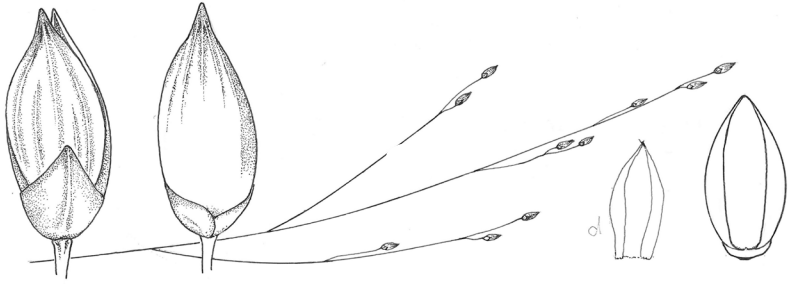
Common along disturbed areas such as roadsides and railway lines.

### Significance:

None.

### Similar Species:

Switch grass is similar in appearance to *Panicum miliaceum* but the spikelets are nearly half the size and green to greenish-brown. *P. miliaceum* is localised in Hobart and has been recorded growing in Devonport and Deloraine.



HR

# *Paspalum dilatatum*

## Paspalum

### Description:

- densely tufted, shortly rhizomatous warm-season perennial up to 150 cm high
- stems erect or bent, occasionally branching at the lower nodes
- leaf blades up to 45 cm long by 3–12 mm wide, often with a purplish tinge on the upper surface
- inflorescence usually nodding, comprised of 3–8 racemes. Each raceme 2.5–11 cm long by 2–4 mm wide and widely spaced along the central axis
- spikelets two flowered, borne in pairs along the raceme, overlapping, green or purple, 3–4 mm long, hairy with pointed tips

### Habitat:

*Paspalum* is widespread and common in all agricultural areas of Tasmania. It is commonly encountered along roadsides.

### Significance:

*Paspalum* is used as pasture species in coastal districts of mainland Australia, but is primarily considered as a weed in Tasmania.

### Similar Species:

*Paspalum dilatatum* with its inflorescences consisting of 3–8 widely spaced racemes on a central axis is an easily recognized grass. Three species of *Paspalum* have been recorded in Tasmania, however, *P. dilatatum* is by far the most common.





# *Phalaris minor*

## Lesser canary grass

### Description:

- tufted cool-season annual, up to 120 cm high, but usually much less
- stems smooth, erect or bent, often purple just below the nodes
- leaf blades greyish-green, up to 30 cm long and 13 mm wide, flat, tapering to a fine point
- inflorescence, a dense, cylindrical spike-like panicle up to 9 cm long and 2 cm wide
- spikelets laterally compressed, 3-flowered, the two basal florets sterile, greatly reduced, the terminal floret fertile, pear shaped, flattened, shinning

### Habitat:

A common plant of cultivated areas, roadsides and waste places.

### Significance:

Lesser canary grass can occur in established pastures but is more commonly a weed in newly sown pastures and annual crops.

### Similar Species:

Large vigorous plants of *Phalaris minor* may be confused with *P. aquatica*, a more robust perennial.



# *Phleum pratense*

## Timothy

### Description:

- erect, loosely or densely tufted cool-season perennial up to 150 cm high
- stems round, smooth, nodes often purplish, lower internodes often very short and slightly swollen
- leaf blades up to 45 cm long by 9 mm wide, hairless, and tapering to a long point. Leaf sheaths hairless and finely ribbed
- inflorescence a dense narrow cylindrical panicle 4-15 cm long
- spikelets one-flowered 3-4 mm long, compressed

### Habitat:

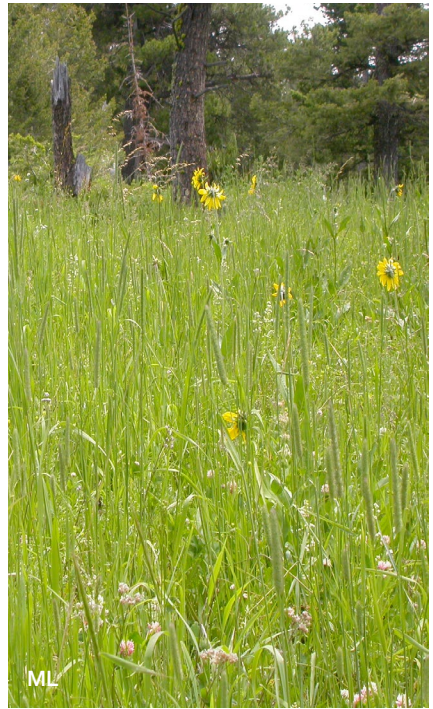
Occasional in pastures and roadsides in high rainfall areas.

### Significance:

Originally introduced as a pasture species but not now in general use.

### Similar Species:

The flower heads of Timothy may resemble *Alopecurus* species. *Alopecurus* species are a mixture of annual and perennial species that are smaller in stature and have soft-textured flower heads.



# *Piptatherum miliaceum*

## Rice millet

### Description:

- tufted warm-season perennial up to 100 cm high in open situations but becoming wiry and scrambling to 200 cm in shaded situations
- stems erect or prostrate becoming erect, many nodes and often branched
- leaf blades flat up to 35 cm long by 8-10 mm wide, the upper surface rough while the lower surface smooth. Leaf sheaths ribbed and smooth
- inflorescence a diffuse panicle up to 35 cm long with several branches from each node
- spikelets 1-flowered 3 mm long, lance-like, purplish or green with a 2-5 mm awn that can be straight or slightly twisted

### Habitat:

Common in waste areas especially in damp, shaded situations and suburban areas.

### Significance:

A common weed of roadsides and waste areas.

### Similar Species:

None.







# *Poa annua*

## Winter grass

### Description:

- loosely to compactly tufted annual or short-lived cool-season perennial up to 30 cm high, but usually < 15 cm, yellow-green to bright green
- stems slender, smooth, erect or prostrate becoming erect, sometimes rooting at the lower nodes
- leaf blades up to 12 cm long and 5 mm wide, hairless, flat or slightly folded, often wrinkled when young, hooded at the tip
- inflorescence a loose, roundish panicle 1 to 12 cm long
- spikelets, up to 10 mm long, 3-8 flowered

### Habitat:

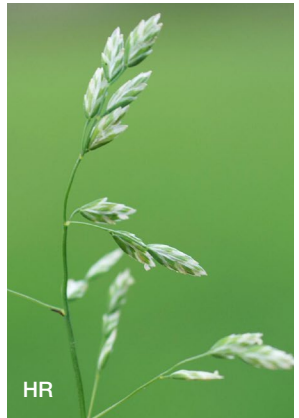
Winter grass grows on a variety of soils, in shade and full sun and in dry or moist situations. It varies in size depending on growing conditions and is common in all developed areas including pastures, lawns, gardens and waste areas.

### Significance:

Winter grass is found in most pastures. It can be a competitive species in newly established pastures. It is considered a major weed of turf especially golf courses and bowling greens where close mowing assists its establishment and survival. It seeds throughout the year and short-lived plants are rapidly replaced by new ones.

### Similar Species:

*Poa infirma* is difficult to distinguish from *P. annua* but has smaller flowers.



# *Poa bulbosa*

## Bulbous meadow grass

### Description:

- tufted, erect, bulbous-based cool-season perennial 10-40 cm high
- stems with fine ridges, nodes hairless, purple
- leaf blades up to 10 cm long and 2 mm wide, hooded at the tip, hairless and narrow with the basal ones, straw-coloured
- inflorescence a contracted sometimes open panicle up to 7 cm long
- spikelets compressed 3-6 flowered with long silky hairs on the lemmas tinged purple, green and white

### Habitat:

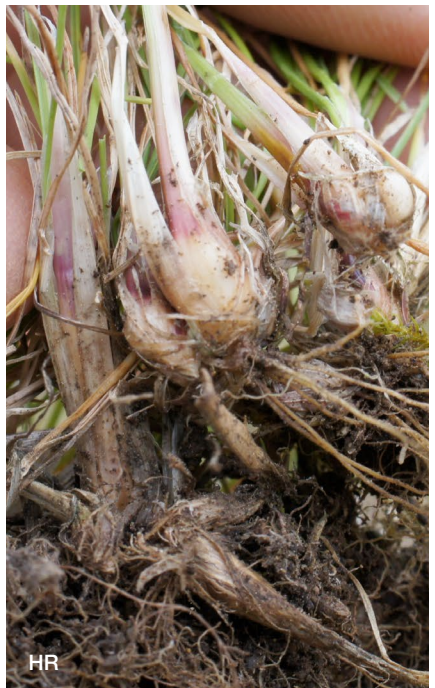
Commonly found in degraded dryland pastures in the Midlands and Derwent Valley and on the east coast.

### Significance:

Invasive plant of native and sown pastures, especially on shallow poor soils.

### Similar Species:

Annual Poa (*Poa annua*) is a pale green annual without a bulbous base. Kentucky blue grass (*P. pratensis*) has broader leaves and does not form tufts.



# *Poa pratensis*

## Kentucky blue grass

### Description:

- rhizomatous cool-season perennial, loosely tufted or turf forming, up to 90 cm high
- stems smooth, round or slightly compressed
- leaf blades up to 30 cm long and 3 mm wide, flat or occasionally folded, dark-green, hooded at the tip
- inflorescence a panicle up to 20 cm long, open and pyramidal or contracted and more or less oblong, branches of unequal length in whorls of 3-5
- spikelets, slightly flattened, 4-6 mm long, 2-6-flowered, green or tinged pink or purple

### Habitat:

Kentucky blue grass is a cold tolerant plant, well adapted to a range of soil types and is widespread throughout Tasmania in old pastures, on roadsides and waste areas.

### Significance:

Kentucky blue grass is a moderately productive and persistent species commonly found in sown pastures. It is not considered a preferred pasture species but has good feed value for livestock and performs particularly well at higher altitudes. It is a valuable turf species, especially for golf tees and fairways.

### Similar Species:

*P. pratensis* can be similar to the less common, *Poa trivialis* which is stoloniferous rather than rhizomatous.





# *Polypogon monspeliensis*

## Annual beard grass

### Description:

- erect, slender cool-season annual up to 80 cm high
- stems erect or prostrate becoming erect
- leaf blades up to 15 cm long and 8 mm wide, tapering to a fine point. Both surfaces rough to touch
- inflorescence a dense, bristly cylindrical panicle up to 10 cm long, 1-3.5 wide, yellowish-green or faintly purplish
- spikelets 1-flowered, bristly, with fine short awns arising from the tip of the floret

### Habitat:

Widespread in settled parts of the State in damp situations in lowland areas, ditches and margins of dams.

### Significance:

Annual beard grass is a useful indicator species of dryland and wetland salinity.

### Similar Species:

*Lagurus ovatus* (Hare's tail grass) is superficially similar but its flowerheads are 1-4 cm long, woolly and white.



# Setaria verticillata

## Whorled pigeon grass

### Description:

- loosely tufted annual warm-season grass, erect or extending up to 100 cm high
- stems slender, finely ribbed, hairless, rough below the inflorescence, nodes blackish-brown
- leaf blades flat up to 30 cm long, and 12 mm wide, hairless below or with scattered hairs on the upper surface
- inflorescence a cylindrical spike-like panicle, up to 10 cm long and 12 mm wide excluding the bristles
- spikelets 2-2.2 mm long with a persistent scabrous bristle below 4-8 mm long, 2- flowered, lower floret sterile, upper floret fertile

### Habitat:

A weed of roadsides and waste places.

### Significance:

None.

### Similar Species:

While there are over 100 species of *Setaria*, mostly in tropical and warm temperate regions, there are only five species introduced into Tasmania (*Setaria italica*, *S. parviflora*, *S. verticillata*, *S. viridis* and *S. pumila*). They are similar in appearance, all with soft, hairy, cylindrical shaped seed heads.





# *Sporobolus africanus*

## Rat's-tail grass

### Description:

- warm-season, densely tufted perennial up to 55 cm high
- stems round, smooth, sometimes branching from the lower nodes
- leaf blades up to 25 cm long hairless and rough. Leaf sheaths are ribbed
- inflorescence a dense, narrow, contracted panicle up to 20 cm long, lead-coloured becoming brown at maturity
- spikelets 2-2.5 mm long, shining, lead-coloured

### Habitat:

Rat's-tail grass is found in disturbed, degraded and compacted areas and on sandy, dry gravelly soils in lowland and especially coastal areas.

### Significance:

Regarded as an environmental weed in Queensland and New South Wales, but of minor significance in Tasmania.

### Similar Species:

Similar to *Sporobolus virginicus* however, the native plant *S. virginicus* is listed under the [Tasmanian Threatened Species Protection Act](#).





# *Vulpia bromoides*

## Squirrel-tail fescue

### Description:

- erect cool-season annual usually 20-40 cm high, occasionally up to 80 cm.
- stems smooth, slender, usually solitary or loosely tufted. Single stemmed plants often grow in dense clusters
- leaf blades up to 15 cm long, flat and up to 3 mm wide or inrolled, lower surface smooth, shiny, upper surface has fine hairs on the ribs
- inflorescence a narrow, loose to compact one-sided panicle up to 15 cm long, erect to curved or nodding at maturity, much exerted from the uppermost leaf-sheath
- spikelets 15-25 mm long including awns, 5-7-flowered, the florets narrow cylindrical tapering to a fine rough awn up to 13 mm long. The spikelets break up readily at maturity

### Habitat:

Squirrel-tail fescue is common in pastures, on roadsides and waste areas, particularly on light textured soils and in low rainfall areas.

### Significance:

Squirrel-tail fescue is a common weed of degraded pastures and grazed native pastures. Dense populations of seedlings may compete strongly in first year pastures and annual crops. The sharp seeds contaminate wool and may pierce the animal's skin.

### Similar Species:

All *Vulpia* species are superficially similar. See *V. myuros*.



# *Vulpia myuros* forma *megalura*

## Fox-tail fescue

### Description:

- erect cool-season annual usually 20-40 cm high but occasionally up to 60 cm
- stems smooth, slender, usually solitary or loosely tufted. Single stemmed plants often grow in dense clusters
- leaf blades up to 18 cm long, flat and up to 3 mm wide or inrolled, lower surface smooth, shiny, upper surface has fine hairs on the ribs
- inflorescence a narrow, compact panicle 3-30 cm long, with short branches, usually curved or nodding, enclosed at the base by the upper leaf-sheath
- spikelets 15-30 mm long including awns, 3-7-flowered, the florets narrow cylindrical tapering to a fine rough awn up to 16 mm long. The spikelets break up readily at maturity

### Habitat:

Fox-tail fescue is common in pastures, on roadsides and waste areas, particularly on light textured soils and in low rainfall areas.

### Significance:

Fox-tail fescue is a common weed of degraded pastures and native vegetation. Dense populations of seedlings may compete strongly in first year pastures and annual crops. The sharp seeds contaminate wool and may pierce the animal's skin.

### Similar Species:

All *Vulpia* species are superficially similar. *V. myuros* forma *myuros* (Rat's-tail fescue) is very similar in its habit to *V. myuros* forma *megalura* but the florets bear a row of fine erect hairs on the margins of the lemma. *V. bromoides* (Squirrel-tail fescue) has similar spikelets but the panicle is often shorter and always less compact and much exerted from the upper leaf sheath.



## Further reading

### Plant identification

Curtis WM and Morris DI (1994) *The Student's Flora of Tasmania, Part 4B*. St. David's Park Publishing, Hobart.

de Salas MF and Baker ML (2014) *A Census of the Vascular Plants of Tasmania*. Tasmanian Herbarium, Tasmanian Museum and Art Gallery, Hobart.  
[www.tmag.tas.gov.au/\\_\\_data/assets/pdf\\_file/0006/89988/2014\\_Census\\_of\\_Tasmanian\\_Vascular\\_Plants.pdf](http://www.tmag.tas.gov.au/__data/assets/pdf_file/0006/89988/2014_Census_of_Tasmanian_Vascular_Plants.pdf)

Knox J (2009) *The glove-box guide to grass and legume identification in Tasmanian pastures*. DPIPW, Hobart.

Available on NRM North's website

<http://www.nrmnorth.org.au/client-assets/documents/small-farm-living/Soil%20Pasture%20Health/Pasture/Glove%20-box%20guide%20to%20grass%20and%20legumes.pdf>

Mitchell M (2002) *Native Grasses: Identification Handbook for Temperate Australia*. Landlinks Press.

### Useful websites for plant identification

Australia's Virtual Herbarium to find geographical distribution of plant species:  
<http://avh.chah.org.au/>

Greg Jordan's Key to Tasmanian Vascular Plants  
[www.utas.edu.au/dicotkey/](http://www.utas.edu.au/dicotkey/)

### Listed species (threatened species and declared weeds) and threatened lowland native grassland communities

Department of Primary Industries, Parks, Water and Environment (DPIPWE) list of weed species  
<http://dpiwwe.tas.gov.au/invasive-species/weeds/weeds-index/weeds-index-declared-weeds>

[www.weeds.org.au/WoNS/](http://www.weeds.org.au/WoNS/)

Lowland native grasslands  
[www.environment.gov.au/system/files/resources/58968e45-8c24-434d-ba5c-c2d2451701d3/files/lowland-native-grasslands-tasmania.pdf](http://www.environment.gov.au/system/files/resources/58968e45-8c24-434d-ba5c-c2d2451701d3/files/lowland-native-grasslands-tasmania.pdf)



## Pasture management (current and future management)

Knox J, Thompson R, Campbell S (2006) *Species for profit: a guide for Tasmanian pastures and field crops*. DPIPWE, Hobart.

[http://dpiipwe.tas.gov.au/Documents/Species-for-Profit-Book\\_Web.pdf](http://dpiipwe.tas.gov.au/Documents/Species-for-Profit-Book_Web.pdf)

Mokany K, Friend D, Kirkpatrick J, Gilfedder L (2006) *Managing Tasmanian Native Pastures: A technical guide for graziers*. DPIPWE, Hobart.

<http://dpiipwe.tas.gov.au/conservation/publications-forms-and-permits/publications/managing-tasmanian-native-pastures>

Tasmanian Institute of Agriculture (TIA) Herbage Development:

<http://www.utas.edu.au/tia/centres/extensive-agriculture-centre/r-and-d/research-and-development/herbage-development>

Tasmanian Institute of Agriculture (TIA) Pasture and climate change in Tasmania:

<http://www.utas.edu.au/tia/centres/extensive-agriculture-centre/r-and-d/research-and-development/pasture>

## Soil carbon

Bill Cotching (2009) *Soil Health for farming in Tasmania*:

<http://www.billcotching.com/>

## General information

Department of Primary Industries, Parks, Water and Environment website

[www.dpipwe.tas.gov.au](http://www.dpipwe.tas.gov.au)

Visit the three NRM websites:

NRM North

[www.nrmnorth.org.au](http://www.nrmnorth.org.au)

NRM South

[www.nrmsouth.org.au](http://www.nrmsouth.org.au)

Cradle Coast NRM

[www.cradlecoastnrm.com](http://www.cradlecoastnrm.com)

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