

### KIT 7 – Part 1 FLORA OF SOUTHWEST QLD





#### **Acknowledgments**

This workshop series has been developed by the Biodiversity and Ecosystem Sciences Unit, Environment and Resource Sciences, Queensland State Government

Published by Meat & Livestock Australia Limited ABN 39 081 678 364 July 2012 © Meat & Livestock Australia 2012 ISBN 9781741919363

Care is taken to ensure the accuracy of the information contained in this publication. However MLA cannot accept responsibility for the accuracy or completeness of the information or opinions contained in the publication. You should make your own enquiries before making decisions concerning your interests. MLA accepts no liability for any losses incurred if you rely solely on this publication.

Reproduction in whole or part of this publication is prohibited without prior consent and acknowledgement of Meat & Livestock Australia.

This kit provides information on a number of plant species across south-western Queensland, particularly focusing on the Mulga Lands and the Southern Brigalow Belt bioregions. More than 1,700 vascular plant species have been recorded in this region.

In the Mulga Lands and Southern Brigalow Belt bioregions we typically see these proportions of species in each life form group:

- Forbs typically represent 40–45% of the total plant species in the community.
- Grasses represent 25–30%.
- Shrubs represent around 20%.
- Tree species represent only around 5% of the plant species in a community.

The profiles that follow have been written to provide information on a few species within each of these life form groups. The species selected are either 'typical' in the region, or are known to be increaser or decreaser species.

### LIFE FORM GROUPS

1. GRASSES – Known technically as graminoids, being herbaceous plants with narrow leaves growing from the base (see figures over page with key identification features). They include the 'true grasses' of the Poaceae family other than bamboo. Grasses can be further classified into three groups based essentially on their suitability as forage for grazing, as described in the land type profile sheets which are available from www.dpi.qld.gov.au/27\_13350.htm. i. Preferred grasses – Native *perennial* grass species that are *productive* and *palatable* to grazing animals (otherwise known as the 3P grasses). The preferred species for one land type will often be different to the preferred species in another land type. Preferred species usually decline under persistent heavy grazing.

**ii. Intermediate grasses** – Generally less palatable grasses and not always perennial but are considered to provide better yield and are more desirable than species listed as non-preferred.

iii. Non-preferred grasses – Usually the least palatable and/or low yielding pasture grasses, which may be perennial. The proportion of non-preferred species usually increases under persistent heavy grazing.

### LIFE FORM GROUPS CONT.

**2. FORBS** – Herbaceous or slightly woody, annual or sometimes perennial plants; not a grass, and include ground orchids.

**3. SHRUBS** – Woody plants that are multi-stemmed from the base (or within 200mm from ground level) or if single stemmed, less than 2m tall.

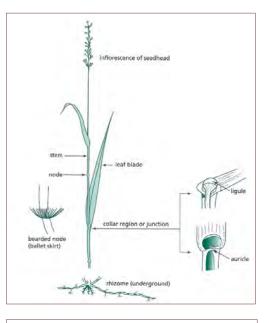
4. TREES – Woody plants, more than 2m tall with a single stem or branches well above the base.

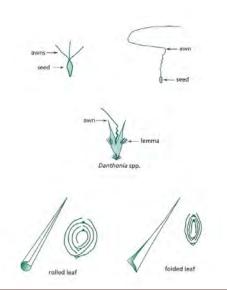
#### PLANT IDENTIFICATION GUIDES

There are many useful identification guides to plants in Queensland. Below are but a few of the more general ones. Some more specific guides can be found in the resources section of the BioCondition Manual (<u>www.derm.qld.gov.au/</u> <u>wildlife-ecosystems/biodiversity/biocondition</u>) or on the Queensland Herbarium website (<u>www.</u> <u>derm.qld.gov.au/wildlife-ecosystems/plants/</u> <u>gueensland\_herbarium/botanical\_information</u>).

- *A guide to plants of inland Australia* by Philip Moore
- Plants of central Queensland, their identification and uses by Eric Anderson
- Plants of Capricornia by Rhonda Meltzer
- Field guide to trees and shrubs of eastern Queensland oil & gas fields by Santos
- Pasture plants of southern inland Queensland

Key identification features for grass identification – Reproduced from Meredith, M. (2002) Native grasses – an identification handbook for temperate Australia. Landlink Press, Victoria.





#### MULGA MITCHELL GRASS, MULGA MITCHELL, MULGA GRASS *Thyridolepis mitchelliana (Nees)* S.T.Blake

#### DESCRIPTION

*Thyridolepis mitchelliana* is a densely tufted perennial grass to 50cm tall with densely woolly rootstock. Stems are branched or unbranched and have 4-6 hairy nodes. The leaf sheaths are hairy or almost hairless with ligules less than 1mm long. The leaf blades are flat, linear to narrowly ovate, 25-65mm long and 2.5-4.5mm wide. They are rather thick, stiffly spreading or almost horizontal. The leaf tips are firmly pointed. Flower heads are dense spike-like panicles, 20–35mm long and 5–7mm wide. The stalk is silky hairy below flower heads. Two flowers are grouped into a spikelet, 4.5-7.5mm long and 1.7–2mm wide. The spikelet is beard at the base and bristly near the tip. The lower flower is sterile and the upper fertile.

#### **OCCURRENCE**

Often on red earth soils on sand plains, flat, stony ridges and stony hillsides in the following land types in the Mulga Lands and Maranoa Balonne; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands (red soils), poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widely distributed throughout the west and southwest of Queensland. It also occurs in New South Wales, South Australia, Western Australia and the Northern Territory.

#### NOTES

Mulga mitchell is a preferred grass species. It is long lived and indicates functional condition, especially in the soft mulga land type. It can withstand grazing moderately well. However, it can be threatened by prolonged heavy grazing and clearing.

#### SIMILAR SPECIES

*Thyridolepis xerophila* (Domin) S.T.Blake – *T. xerophila* has spikelets 1.25–1.5mm wide. The stalk is not silky hairy below the flower head.





Thyridolepis mitchelliana

Thyridolepis xerophila

#### KANGAROO GRASS Themeda triandra Forssk.

#### DESCRIPTION

Themeda triandra is a deep-rooted tufted perennial grass to 150cm tall. The stem with hairy or hairless nodes is branched or unbranched. The leaves grow from the base or on the stem and are up to 50cm long by 0.2–0.5cm wide. The leaf sheaths are hairless or with scattered hairs. The leaf liqules are short with fine hairs. The leaf blades are linear, rather stiff, have rough sharp edges and prominent midveins. The flower heads are a loose interrupted panicle, up to 35cm long, comprising of groups of leafy clusters borne singly or in pairs. Each cluster has 1–3 involucral fertile or sterile spikelets, and measures 0.8-1.4cm long. The fertile spikelet is brown and hard with a rigid, hairy spear-like base and a bent awn 5-7cm long. The sterile spikelets remain on the plant at maturity while the fertile one falls to the ground.

#### OCCURRENCE

Usually on red and red brown soils in a range of habitats in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands (red soils), poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widely distributed throughout Queensland, other states of Australia and overseas.



#### NOTES

Kangaroo grass is a preferred grass species that is moderately to highly palatable. It is a long lived species and indicates functional condition in open forest and woodland. The species is susceptible to heavy grazing.

#### SIMILAR SPECIES

*Themeda quadrivalvis* (L.) Kuntze – T. *quadrivalvis* is a non-native annual species that can grow up to 180cm tall. The involucral spikelets are 0.6–0.7cm long.

### **L**is a long lived species that indicates functional condtion... **J**

#### SILKY UMBRELLA GRASS Digitaria ammophila (F.Muell.) Hughes

#### DESCRIPTION

*Digitaria ammophila* is a tussocky perennial grass to 60cm tall. The plant has a swollen rootstock that is covered with densely-hairy scales. The stem is often branched from the hairy or hairless nodes. The leaves are densely hairy. The ligules are membranous and measure 1–3mm long. The blades are linear, 6–20cm long by 0.3–0.7cm wide. The leaf edges are sometimes finely wavy. The flower heads have up to 10–12 branches and measure 7–10cm long. The branches spread outwards at maturity and are bare of spikelets towards the junction with the main axis. The lower branches are arranged in a whorl of 3-8 and usually measure 10–20cm long. The upper branches are solitary and shorter. The spikelets are in pairs, about 0.25cm long and are covered with silky hairs.

#### OCCURRENCE

Most common on sandy and loamy red earths and duplex soils in the following land types in the Mulga Lands and Maranoa Balonne; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands (red soils), poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widespread throughout western, central and southern Queensland. It is also found in all other mainland states and territories.

#### NOTES

Silky umbrella grass is a preferred grass species. It occurs as scattered individuals or



as an abundant component of the pasture. It is long lived and indicates functional condition in open forest and woodland. It mainly grows in summer and dies back in autumn and is dormant in winter. The plant can produce large tussocks with a good bulk of valuable leafy forage. As it is quite drought-resistant, it is regarded as a useful species in dry times.

#### SIMILAR SPECIES

Three species in the same genus are relatively similar to *D. ammophila*. Their main distinguishing features are listed below. *Digitaria* hystrichoides Vickery (curly umbrella grass) -The spikelets are 0.3–0.35mm long. The sterile floret is partly hairless and partly covered with fine hairs. Digitaria divaricatissima (R.Br) Hughes (spreading umbrella grass) – The spikelets are lanceolata, usually 0.45–0.5mm long and more or less hairy. The hairs spread at maturity, but do not conceal the outline of the spikelets. *Digitaria* coenicola (F.Muell.) Hughes (finger panic grass) -The spikelets are usually 0.5cm long, with woolly hairs which are conspicuous and spreading in the upper part, giving the spikelet a blunt appearance but not concealing the outline of the spikelet.

#### HAIRY PANIC *Panicum effusum* R.Br.

#### DESCRIPTION

Panicum effusum is a tufted perennial grass to 70cm tall. The plant is usually hairy with a slightly thickened butt. The stem is unbranched or sparingly branched. The nodes on stem are usually densely covered with long soft hairs. The leaves are usually flat, 5–25cm long by 0.2–0.6cm wide, gradually tapering to a fine point. The leaf edges are thickened, rough and sharp. The midrib of blade is prominent below. The flowers are arranged into a large, open, much-branched panicle that measures 5–50cm long and almost as wide. The panicle base is at first enclosed by the upmost leaf sheath, later carried shortly above the leaves. The lower branches are up to 20cm long. The spikelets with stalks 0.2–1cm long are usually borne in pairs near the ends of the branchlets. The lower floret is sterile and the upper floret fertile.

#### OCCURRENCE

On variable habitats from quartz gravely soils to heavy grey clay soils, isolated sandhills on floodplains in the following land types in the Mulga Lands and Maranoa Balonne; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands (red soils), poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widely distributed throughout Queensland. It also occurs throughout Australia and overseas.

#### NOTES

Hairy panic is a preferred grass species. It is long lived and indicates functional condition in open forest and woodland. The plant produces fair summer forage and is most palatable when young and leafy. The species is suspected of causing photosensitisation in sheep.

#### SIMILAR SPECIES

*Panicum simile* Domin – The stem and leaf sheath of *P. simile* are hairless or slightly hairy. The sterile floret is purplish in colour and the fertile floret golden in colour.



Panicum effusum

Panicum simile

### MULGA OATS, BANDICOOT GRASS *Monachather paradoxa* Steud.



#### DESCRIPTION

*Monachather paradoxa* is a densely tufted perennial grass to 60cm tall with a short stocky rhizome and a dense woolly butt. The stems are numerous, erect, wiry,

usually unbranched and mostly covered by the leaf sheaths. The leaves measure 4–20cm long by 0.1–0.4cm wide, are stiffly erect either flat or with incurved edges. The flower head is a loose open panicle and measures 5–15cm long and 0.65–1.25cm wide. Each flower head contains 4–17 stalked spikelets that are borne on the few short upright branches or directly on the axis. The spikelets are 0.8–1.7cm long, with two large outer husks containing 3–8 silvery-haired florets. The outer husks are hairless, smooth, pointed, many-veined and boat-shaped. The florets are brownish-black, with short straight awns, separating individually at maturity, leaving the outer husks attached to the plant.

#### OCCURRENCE

On low gravely ridges or hillslopes with red earth or skeletal soils. It also occurs on sandplains and dunefields with deep red sandy soils in the following land types in the Mulga Lands and Maranoa Balonne; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands (red soils), poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widely distributed throughout south western Queensland. It is also found in New South Wales, South Australia, Western Australia and the Northern Territory.



#### NOTES

Mulga oats is a preferred grass species. It is long lived and indicates functional condition, especially in soft mulga. The plant is resistant to drought and fire. As it is highly palatable, it can be threatened or eliminated by over grazing. Broadcasting seed can be effective.

#### SIMILAR SPECIES

*Monachather paradoxa* is the only species in the genus.

9

#### BRIGALOW GRASS *Paspalidium caespitosum* C.E.Hubb.

#### DESCRIPTION

Paspalidium caespitosum is a tufted perennial grass to 60cm tall. The stems with 3–6 nodes are hairless, very slender, branched or unbranched. The leaves are hairless or sprinkled with long hairs, loosely rolled or inrolled, mostly 10-15cm long x 0.02-0.15cm wide. The flowerhead is a very narrow erect panicle to 16cm long with 7–10 spikes. The spikes are 3–4.5cm apart each other, the lower ones are to 2.5cm long and the upper ones shorter. The spikelets are two-flowered, pale or sometimes tinged with purple, 1.8–2.2mm long, hairless, shortly stalked, touching and overlapping each other. The lower outer husk is 1–3 nerved, about 1/2 as long as the spikelet. The upper husk is about 3/4 as long as the spikelet. The lower floret is sterile, as long as the spikelet and has five nerves. The upper floret is fertile and has five nerves.

#### OCCURRENCE

On variety of soil types, such as alluvium, clay, sandy clay, sandy clay loam, grey loamy, red earth, sandstone and stony shallow soil. Common in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands, brigalow-belah softwood scrub, woodland of gidgee, poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widespread throughout Queensland. It is also found in New South Wales.

#### **NOTES**

Brigalow grass is usually a dominate ground species of brigalow and associated forests. It is one of the first species to grow after hot fires and can be very common after rain. Although brigalow grass contains significant amounts of water-soluble oxalates, it is probably eaten by grazing stock.

#### SIMILAR SPECIES

*Paspalidium disjunctum* S.T.Blake (no common name) and *Paspalidium distans* (Trin.) Hughes (shotgrass) but the leaf blades are flat and measure up to 4mm wide.





Paspalidium caespitosum

Paspalidium disjunctum

#### COTTON PANIC, COTTON PANIC GRASS, SILVER SPIKE GRASS Digitaria brownii (Roem. & Schult.) Hughes



#### DESCRIPTION

*Digitaria brownii* is a hairy tussockforming perennial grass, usually 0.3–1m tall. The plant with numerous stems, is slender and leafy, and has shortly branched

rootstock. Each stem is branched and has 4–5 nodes. The leaf ligules are membranous and measure 1–43mm long. The leaf blades are flat and soft, 4–16cm long x 0.15–0.5cm wide. The leaf edges are thickened, white and wavy. The flower heads are 6–11cm long, consist 1–7 branches arranged singly or in pairs on the main axis. The branches are mostly 3–12cm long. The spikelets are on stalks 4–8mm long, usually in pairs, enveloped in long fine silky brownish or purple hairs. Each spikelet is 2.5–3.5mm long excluding hairs. The spikelets fall intact at maturity to leave the distinctly zigzagged branch.

#### OCCURRENCE

On variable soil types in the following land types in the Mulga Lands and Maranoa Balonne; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, brigalow, poplar box woodlands, poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widespread throughout Queensland. It is also found in all other mainland states and territories.

#### NOTES

Cotton panic is a long lived grass and usually has a sparsely and scattered distribution. It can be locally abundant and frequent after good rainfall. It is regarded as one of the desirable pasture grasses and readily eaten by stock. It indicates functional condition in open forest and woodland. It mainly grows in summer and tends to diminish in abundance during successive dry seasons.

#### SIMILAR SPECIES

Although other species in the genus, such as *D. ammophila, D. hystrichoides, D. divaricatissima* and *D. coenicola,* have hairy spikelets, *D. brownii* is readily recognised by it having less flower branches, and most importantly its long hairs are mauve purplish.

### **Cotton panic is** a long lived and desirable pasture grass... **J**

#### SLENDER WINDMILL GRASS, SLENDER CHLORIS, SMALL CHLORIS Chloris divaricata R.Br.



#### DESCRIPTION

*Chloris divaricata* is a slender and mostly hairless perennial grass 20–60cm tall. The stem is erect, kneed at the base or arising from stolons, unbranched or

branched only in the lower part. The leaf ligules are marginal hairy. The leaf blades are 3–12cm long x 1.5–4mm wide.

The flower heads are windmill-like consisting of 3–8 spike-like racemes that measure 7–20cm long. The spikelets that tend to be appressed to the axis are two–flowered and 4mm long. The fertile lemma is scabrous and measures 2–3mm long. The awn is 3–16mm long.

#### OCCURRENCE

Common on sandy loam, reddish-brown sandy soil, black soil and clay in the following land types in the Mulga Lands and Maranoa Balonne; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, brigalow, poplar box woodlands (red soils), poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

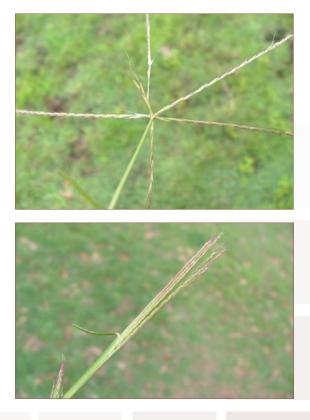
Widespread throughout most areas of Queensland. It is also in New South Wales, New Caledonia and Fiji.

#### NOTES

Slender windmill grass is a preferred grass species. It may be locally common and indicates functional condition in open forest and woodland. It mainly grows in summer and is regarded as a valuable and palatable forage species both green and dry. It is a good colonizer on newly cleared or freshly burnt areas.

#### SIMILAR SPECIES

*Chloris pectinata* Benth. which is an annual grass. Its spike-like racemes are 3.5–9cm long. The fertile lemma is smooth and measures 3–5.5mm long. The spikelets diverging from the axis are like fingers of a comb.



#### FAIRY GRASS, YAKKA GRASS, PRETTY SPOROBOLUS, SMALL PEPPER GRASS Sporobolus caroli Mez

#### DESCRIPTION

Sporobolus caroli is a slender tufted shortlived perennial grass to 80cm tall. The plant is often dense and leafy at base. The stem has 3–5 nodes, is erect, unbranched or branched from the upper nodes. The leaves are purplish to blue-green, to 20cm long, hairless or with stiff, fine hairs arising from hard wartlike protuberances, roughened by minute bristles, often curly when dry. The leaf edges are thickened, sharp and roughened by short bristly hairs. The flowerhead is an open delicate pyramidal panicle, 7–15cm long and about 13cm wide at the base, with extremely fine, spreading, twice-divided branches to 7cm long. The lower branches arise in whorls and upper ones scatted on the axis in small clusters of 2-4, or borne singly. The spikelets are numerous, vey small, one-flowered, about 1mm long, slightly laterally flattened, and loosely crowed on hairlike stalks about 1mm long.

#### **OCCURRENCE**

On cracking clay soil flats, creek floodouts, red earth soils and sandy soils in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, brigalow, poplar box woodlands, poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widely distributed throughout Queensland. It is also found in New South Wales, Northern Territory, South Australia and Victoria.



#### NOTES

Fairy grass is a very palatable grass species. It does not provide a lot of bulk, but is a highquality forage plant. Plants are usually scattered, but in favourable sites and seasons it can be very abundant.

#### SIMILAR SPECIES

*Sporobolus australasicus* Domin. Most of the flowerhead branches are whorled.

**L** The flowerhead is an open delicate pyramidal panicle... **J** 

### NATIVE MILLET, AUSTRALIAN MILLET, WINDMILL GRASS, UMBRELLA GRASS, STARGRASS, WILD MILLET *Panicum decompositum* R.Br.



#### DESCRIPTION

Panicum decompositum is a densely tufted perennial grass to 100cm tall. The plant is usually light blue-green, forming large tussocks with

a hairless or sparsely hairy butt somewhat thickened by several broad, loose, papery, shiny bracts. The stems are usually soft, erect, thick, smooth, hollow, unbranched or branched and have 3-4 prominent hairless or hairy nodes usually concealed by the leaf sheaths. The leaves are usually blue-green, flat, erect, gradually tapered to a fine point, to 50cm long by 1.26cm wide. The leaf edges are rough whitish and the midribs conspicuous. The flower heads are large, open, much-branched panicles that measure to 40cm long and almost as wide. The lower branches are whorled or with a single branch below the whorl. The spikelets measure 0.25–0.35cm long and are borne usually in pairs at the ends of the branchlets on unequal stalks. The lower outer husk is less than a quarter the length of the spikelet. The upper husk is the same shape and size of the spikelet. The lower floret is sterile. The upper floret is bisexual and the lemma is 0.2cm long. Two varieties within the species are recognised in Queensland, Panicum decompositum var. decompositum (spikelets 0.3–0.35cm long) and Panicum decompositum var. tenuius (spikelets 0.25–0.28cm long).

#### OCCURRENCE

Mainly on heavy clay and alluvial soils, in disturbed areas, also on flood plains and open grassland in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, hard mulga, mulga sandplains and poplar box woodlands (red soils). It may occur in dense stands over extensive areas.

#### DISTRIBUTION

Widely distributed throughout Queensland, nationwide and overseas.

#### NOTES

Native millet is a summer-growing species which produces a large bulk of forage, particularly after heavy rainfall or flooding. Its palatability is moderate. The species is fire-resistant and may establish easily, but has little drought-resistance. The seed head drops off intact on maturity and is blown around by the wind. The species is suspected of poisoning sheep.

#### SIMILAR SPECIES

*Panicum laevinode* Lindl. (pepper grass) is a tufted annual. Leaves are yellow-green or green with a purple tinge. Nodes are usually visible.

#### LIMESTONE BOTTLE WASHERS Enneapogon polyphyllus (Domin) N.T.Burb.



#### DESCRIPTION

*Enneapogon polyphyllus* is a loosely tufted annual or short-lived perennial grass to 45cm tall. The plant is covered with dense fine hairs and sticky

to the touch due to many of the glandular hairs. Numerous stems are often kneed at the base, strongly branched from the upper nodes and almost completely covered by the leaf sheaths. The nodes are bearded.

The leaves are flat or folded, erect or spreading, gradually tapering to a fine point and measure 7–15cm long by 0.2–0.4cm wide. The flower heads are dense spike-like panicles, often purplish and measure 5–9cm long x 0.5–1.5cm wide. Each head has short branches covered with spikelets. Each spikelet has 5–6 flowers but only one is fertile. The out husks have 5–11 veins, are densely downy and measure 0.5–0.7cm long. The fertile floret is 0.2–0.3cm long fringed at the tip with nine awns 0.6–0.7cm long. The floret has a basal tuft of hairs and a row of sparse hairs just below the awns. The awns are feathery-hairy in the lower part.

#### OCCURRENCE

On variable habitats, but mainly on red earth soils with sandy or loamy textures in mulga or poplar box communities in the Mulga Lands and Maranoa Balonne.

#### DISTRIBUTION

Widely distributed throughout Queensland. It is also found in New South Wales, South Australia, Western Australia and the Northern Territory.

#### NOTES

Limestone bottle washers are palatable and readily grazed at all stages of growth. The species produce little bulk but will fatten stock after summer rains. The plant is drought tolerant but does not persist under heavy grazing.

#### SIMILAR SPECIES

Species in the genus are also known as Nineawn grasses. Queensland has 16 species in the genus and eight are commonly seen in the region including the limestone bottle washers. The other seven species usually have 3–5 florets, 2–3 of which are fertile and the husks have more than 11 veins.

# **11** ...are readily eaten at all stages of growth **)**

#### WOOLYBUTT WANDERRIE Eriachne helmsii (Domin) W.Hartley

#### DESCRIPTION

*Eriachne helmsii* is an erect or spreading, loosely tufted perennial grass to 0.8m high. The plant base is bulbous and woolly. The stems are numerous, branched or unbranched, wiry, bluish-green, and often bent at the lower nodes. Each stem has 6-10 nodes, often thickened, knuckle-like, hairless or the upper ones silky hairy. The leaves are flat or narrowly inrolled, stiffly spreading or curved, firmly pointed, roughened and measure 2.5–10cm long. The flower heads are panicles, 5–11cm long x 1–2cm wide. Each head has few fine, angular, roughened, well-spaced erect branches. The spikelets are few, pale or strawyellow, two-flowered and measure 0.5–0.7cm long. The lemmas are awnless, have silky hairs on the margins and lower half and measures 0.6–0.8cm long.

#### **OCCURRENCE**

Occurs on sandplain areas with sandy red earth soils, usually with open mulga and other communities. Associated with numerous land types in the Mulga Lands and Maranoa Balonne; Bendee ridges, dissected residuals, mulga sandplains, poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widespread throughout southwest Queensland. It is also found in New South Wales, South Australia, Western Australia and the Northern Territory.

#### NOTES

Woollybutt wanderrie is a long lived species and is grazed fairly readily when young. Mature growth is largely ignored except in dry times. It does not usually occur as a dominant or a common component of the pasture.

#### SIMILAR SPECIES

*Eriachne mucronata* R.Br. (Mountain wanderrie) – Culm bases are often thickened but not bulbous, hairless or hairy but not woolly. Lemmas are 0.2–0.7cm long.





Eriachne helmsii

Eriachne mucronata

#### PURPLE LOVE GRASS *Eragrostis lacunaria* F.Muell. ex Benth.



#### DESCRIPTION

*Eragrostis lacunaria* is a slender perennial grass to 60cm tall. The plant has a hairless and almost bulbous base. The stems with 3–5 nodes are thin, wiry and

usually unbranched. The leaves are with long fine hairs arising from warty protuberances, becoming rigid and bristle-like with age. The leaf blades are linear and measure up to 9cm long x 0.4cm wide.

The flowerhead is an open panicle 11-16cm long and 6-10cm wide at maturity, with slender stiff single branches 3-6cm long arising at widely spaced points along the axis. Each branch is further divided into few single, stiffly spreading spikelets. Each spikelet has 5-35flowers, is purplish, linear-oblong, flattened, straight or slightly curved, and measure 0.25-1.8cm long x 0.07-0.15cm wide. The lemmas are broadly ovate, blunt, 0.1-0.2cm long, lateral nerves closer to margins than mid nerve and often minutely hispid on keel.

#### OCCURRENCE

Occurs on deep sands of sandplains and sandhills, hard loamy red earth soils of flats and ridges, and duplex soils of river floodplains. Common in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands (red soils), poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widespread throughout Queensland. It is also found in New South Wales, South Australia, Victoria and the Northern Territory.

#### NOTES

Purple lovegrass is moderately palatable. It does not supply much forage value, but it is a free seeding species which appears to be able to maintain itself well in the pasture and is quite drought resistant. It often occurs as an inconspicuous species in many pastures over extensive areas.

#### SIMILAR SPECIES

*Eragrostis falcata* (Gaudich.) Gaudich. ex Steud – Lemma with the lateral nerves mid-way between the margin and the mid-nerve.

# **C** The plant has a hairless and almost bulbous base. **J**

#### WOOLYBUTT *Eragrostis eriopoda* Benth.



#### DESCRIPTION

*Eragrostis eriopoda* is a tussocky perennial grass to 60cm tall. The plant has a dense woolly butt and coarse hairy roots measuring 15– 22cm wide or larger.

The roots are ring-like in formation owing to the mature centre dying and the new growth forming on the perimeter. The stems are erect or ascending, unbranched with many nodes, and rough with minute bristles. The leaves are stiff and spreading with rigid points. The leaf margin is inrolled.

The flower heads are panicles 11–20cm long and to 7.5cm wide near the base, narrower at the tip. Each flower head has a few short branches, erect or widely spreading and scattered on the axis. The spikelets can be straight or curved, are green suffused with violet and measure 0.6–2.2cm long by 0.2– 0.3cm wide. Each spikelet usually has 6–20 flowers and borne singly on short stalks on the branches or on the main axis in the upper part of the heads. The lemmas are keeled, smooth and hairless, and measure 0.2cm long.

#### OCCURRENCE

Occurs on sandplain areas with deep, often calcareous, sandy red earth soils. Associated with numerous land types in the Mulga Lands and Maranoa Balonne; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands (red soils), poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widespread throughout west and southwest Queensland. It is also found in New South Wales, South Australia, Western Australia and the Northern Territory.

#### NOTES

Woollybutt is a long lived species and is moderately palatable, with grazing normally restricted to new growth. Over grazing and severe burning can destroy the plant butt or reduce the number of live stems. Density and abundance can be greatly increased through heavy and prolonged summer rainfall. It occurs as a dominant species over extensive areas, and is a common constituent of pastures of mulga sandplains and dunefields.

#### SIMILAR SPECIES

There are two other species in the genus also called woollybutt. *Eragrostis laniflora* Benth. (woollybutt) – Lemmas are hairy along the lower margins. *Eragrostis desertorum* Domin (woollybutt) – Plant tufted, inflorescence often branched, rarely reduced and spike-like. Lemmas are 0.1–0.15cm long, however is not recorded from the Mulga Lands bioregion.

#### GRANITE LOVEGRASS Eragrostis alveiformis Lazarides

#### DESCRIPTION

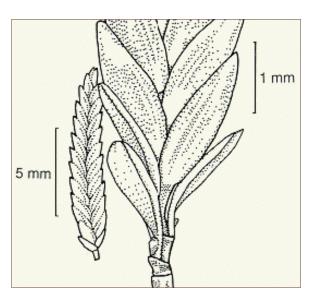
*Eragrostis alveiformis* is a tufted perennial grass that is 34–115cm tall. The stems with 2–3 nodes are smooth, often bent and branching from the lower nodes. The leaf sheaths are loose, hairless or with a few tubercularbased hairs. The leaf blades are up to 15cm long x 0.2–0.3cm wide. The leaf margins are inrolled when dry and sometimes with sparse tubercular-based hairs. The flowerhead is a large rigid panicle, to 40cm long and 30cm wide, with few distant, stiffly spreading branches comprising nearly half of the stem. The lower branches are up to 15cm long and again once or twice divided. The spikelet is strongly flattened, usually measures 7-13mm long x 1.5–2mm wide and has 6–31 flowers. The spikelet stalk is usually 4–8mm long.

#### OCCURRENCE

Chiefly on brown clays and loams under eucalypt forest. It also occurs on sandy soils, stony ridges, grassland plains and in railway enclosures in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands (red soils), poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widespread throughout, southeast, central east, central and central south Queensland. It is also found in New South Wales.



#### NOTES

Granite lovegrass is moderately palatable. It does not supply much forage value, but is a free seeding species which appears to be able to maintain itself well in the pasture. It occurs infrequently, but can be locally dominant after summer rains.

#### SIMILAR SPECIES

*Eragrostis leptostachya* (R.Br.) Steudel (paddock lovegrass). The stalk of spikelets is encircled by a yellow band.



#### GREYBEARD *Amphipogon caricinus* F.Muell.



#### DESCRIPTION

*Amphipogon caricinus* is an erect, rigid and densely tufted perennial grass to 60cm high. The plant sometimes develops a short rhizome which may

be covered with short soft hairs. The stems are numerous, wiry, thickened at the butt by stiff, tightly-overlapping, scale-like leaves. The leaves measure to 30cm long, are narrow, hairless or densely hairy sometimes. The leaf edge is inrolled and leaf tip is stiffly pointed. The flower heads are dense, narrow, spike-like, and measure 2–6cm long. The spikelets are 0.8–1cm long including the awns and densely clustered on very short stalks. Each lemma has five awns which are covered with distinctive long greyish scabrous hairs. The outer husks remain on the stalk after the seed matures and falls.

#### **OCCURRENCE**

Occurs on areas with sandy skeletal and red earth soils, associated with mulga or poplar box communities in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, mulga sandplains, poplar box with mulga understorey and soft mulga. The species is usually sporadically distributed. Where it occurs, it is often as scattered plants or in small groups.

#### DISTRIBUTION

Widespread throughout south and southwest Queensland and all other states and territories of mainland Australia.

#### NOTES

Greybeard is a long lived species and is highly drought resistant. It responds mainly to summer rainfall. Sheep may nibble fresh green shoots when available but the plant is generally of very low palatability and is grazed only during a feed shortage.

#### SIMILAR SPECIES

Species in the genus are generally called greybeard grasses. Queensland has three species in the genus and two are commonly seen in the region including greybeard.

*Amphipogon sericeus* (vickery) T.D.Macfarl. (grey beard grass) – Leaf edges are flat both when fresh and dried. The lemma lobes are plumosely hairy.

### **G** ... is grazed only during a feed shortage **J**

#### **CANE PANIC**

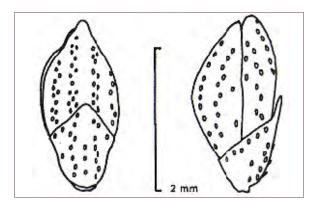
Walwhalleya subxerophila (Domin) K.E.Wills & J.J.Bruhl

#### DESCRIPTION

Walwhalleva subxerophila is an erect, slender perennial grass to 70cm tall. The plant is tufted, finely cane-like and hairless. The stem is rounded, unbranched or frequently branched and often has five nodes. The leaf sheath is smooth to lightly scabrous. The leaf ligule is firmly membranous, irregular shaped and measures 0.1–0.35cm long. The leaf blade is flat or loosely rolled, 2–12cm long by 1.5–3.5cm wide when expanded. The upper surface of leaf blade is marked with fine, usually parallel lines or grooves. The flowers are arranged into an, open, much-branched panicle that measures 5–30cm long and almost as wide. The panicle is borne a short distance above the leaves and has wide-spreading branches bearing few spikelets singly or in pairs towards their tips. The lower branches are usually in whorls of 2–5, to 13cm long. The spikelets on swollen unequal stalks (1-3mm long), are two-flowered, greenish or dark-purplish, 2-2.8mm long. The lower outer husk is rounded or slightly pointed, half to twothirds as long as the spikelet, the lower floret is sterile and the upper floret fertile, about 2.2mm long.

#### OCCURRENCE

Mainly occurs on red earth soils in poplar box woodlands, but also common in mallee on sandy red earths; occasionally occurs in shallow drainage channels on clay soils. Found in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands (red soils), poplar box with mulga understorey and soft mulga.



#### DISTRIBUTION

Widely distributed in south and central Queensland and New South Wales.

#### NOTES

Cane panic is listed as an 'intermediate' grass for soft mulga, but 'unpreferred' for mulga sandplains. It is a long lived species. It grows from spring through to autumn and provides green fodder in winter if moist conditions prevail. Despite the cane-like appearance of the stems the plant is well grazed by stock in soft mulga country.



SIMILAR SPECIES Walwhalleya proluta (Domin) K.E.Wills & J.J.Bruhl (Rigid panic) – Spikelets are at least 0.3cm long.

#### JERICHO WIREGRASS Aristida jerichoensis (Domin) Henrard



#### DESCRIPTION

Aristida jerichoensis is a tough tussocky perennial grass to 1m tall. The stems are simple or sometimes branched from the lower nodes. The leaf sheath is smooth or

lightly scabrous. The leaf ligules are 0.5–1mm long. The leaf blade is folded together or rolled up longitudinally, 10–25cm long x 0.1–0.15cm wide when expanded, becoming curly and twisted with age. The upper leaf surface has short, stiff hairs and the lower surface hairless. The flower heads are dense panicles, and measure 10–30cm long x about 1.5cm wide. The spikelets are yellowish or purple-brown, one-flowered, densely crowed on the short stalks along the branches. The glumes measure 5–9mm long, are equal or the lower one shorter than the upper by up to 1mm. The lemma is 4–7mm long, furrowed and has three awns. The awns are 10–25mm long. The species has two varieties in Queensland. All occur in the region - Aristida jerichoensis var. jerichoensis. Margins of the lemma furrow without spiny hairs. Aristida *jerichoensis* var. *subspinulifera* – Margins of the lemma furrow with rows of distinct spiny hairs.

#### OCCURRENCE

Very common on sandy loam, clay loam and gravelly loam soils in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands (red soils), poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widely distributed in Queensland. Also found in New South Wales, South Australia, Western Australia and Northern Territory.

#### NOTES

Jericho wiregrass often dominates large areas of pasture. The growth occurs mainly during summer, and after the wet season. Pastures dominated by this grass are regarded as degraded and are low in production and nutrition. The grass is only eaten when young or when there is a shortage of other forage. The 'seeds' are troublesome to stock and lodge in the eyes and hocks of sheep, causing infection. A reduction in the value of fleece occurs if the 'seeds'; are mixed in with the wool.

#### SIMILAR SPECIES

Species in the genus are also known as threeawn grasses. Queensland has more than 50 species in the genus, with more than 20 in the region. Two are similar to *A. jerichoensis. Aristida calycina* R.Br. (dark wiregrass) – The lower glumes are longer than the upper ones. *Aristida helicophylla* S.T.Blake (no common name) – The lemma is 4–5.5mm long, much shorter than the glumes.

#### **HOOKY GRASS**

Ancistrachne uncinulata (R.Br.) S.T.Blake

#### DESCRIPTION

Ancistrachne uncinulata is a large clumping wiry perennial grass, usually growing to 1m, but occasionally to 2m high. The leaves are 1–6cm long x 0.15–0.4cm wide, loosely hairy on the upper surface. The flower heads are panicles to 14cm long. The spikelets are 4–5mm long. The lower glume is 1–2.5mm long, 3–5 nerved. The upper glume is slightly shorter than spikelet, 9–11 nerves and has moderately dense tubercular-based hooked hairs. The lower lemma is as long as the spikelet, 7–9 nerves and has moderately dense tubercular-based hooked hairs. The upper floret is about 80% as long as the spikelet.

#### OCCURRENCE

Occurs on brown clay loam, sandy shallow stony soils, sandy red earth, commonly associated with brigalow, poplar box and other eucalyptus, or Acacia dominant open forest or woodlands in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals. The species is usually sporadically distributed. Where it occurs, it often forms clumps.

#### DISTRIBUTION

Widespread throughout eastern and central west Queensland. It is also in New South Wales.



#### NOTES

Hooky grass is a long lived species and is highly drought resistant. It responds mainly to rainfall. Sheep may nibble fresh green shoots when available but the plant is generally of very low palatability and is probably grazed only when there is a feed shortage.



SIMILAR SPECIES Two species are included in the genus in Australia. Queensland has one of these species.

#### FIVE-MINUTE GRASS, RYE BEETLE GRASS, EIGHT-DAY GRASS *Tripogon Ioliiformis* (F.Muell.) C.E.Hubbard

#### DESCRIPTION

*Tripogon Ioliiformis* is a slender tufted perennial grass, usually less than 15cm high. The plant forms compact leafy tufts with dense fibrous butts. The stems are fine, hairless and unbranched with 2-4 nodes. The leaves are mainly basal, flat or loosely folded 5–7.5cm long x 0.1cm wide, twisted or curled when dry. The flower heads are erect or curved, usually purplish spikes, 5–12cm long x 0.5cm wide, borne above the uppermost leaf. Each head includes numerous spikelets that are laterally flattened, 6.5–15mm long. The spikelets are borne on one side of the axis in two rows, sometimes appearing irregular, containing up to 18 florets. The florets are similar, bisexual except the upmost on the spikelet, shortly awned, breaking up at maturity above the persistent outer husks.

#### OCCURRENCE

Occurs on a wide variety of situations in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands (red soils), poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widespread throughout Queensland. It is also found from New South Wales, South Australia, Western Australia, Northern Territory and New Guinea.

#### NOTES

Five-minute grass is an inconspicuous grass scattered in the communities it occurs in. It is very much drought resistant and capable of growing at most times of the year, whenever moisture is available; dry leaf and stem can become green, new green parts are produced rapidly after rain and the grass can set seed quickly. The grass is palatable when green but rarely produces sufficient bulk of forage. The species is usually sporadically distributed. Where it occurs, it is often as scattered plants or in small groups.



#### SIMILAR SPECIES *Tripogon Ioliiformis* is the only species of the genus in Australia.

#### BORAD-LEAF PARAKEELYA Calandrinia balonensis Lindl.

#### DESCRIPTION

*Calandrinia balonensis* is a succulent annual or short-lived perennial forb, to 25cm high. The stem is thick and weak. The leaves are fleshy, oblong to lanceolate, dark-green to palegreen. The basal leaves are 4–10cm long by 6–20cm wide. The flowering stems are erect and leafy to 30cm long. There are 3–4 flowers at the top of a stem, or along short branches on 2cm stalks. Each flower has five dark pink to purple coloured petals to 15mm long, and more than 20 bright yellow stamens in the centre. The fruit is a small capsule containing numerous seeds. The seeds are black or dark-red, reniform or obovoid, and at least 1mm in diameter.

#### OCCURRENCE

Common on sandy soils in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, sand dunes, poplar box woodlands, poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widely distributed throughout west and southwest Queensland. Also found from New South Wales and Northern Territory.



#### NOTES

Broad-leaf parakeelya is an attractive plant with showy flowers. It is common in many of the habitats in which it occurs. It is generally considered as a palatable and useful forage species for sheep and cattle. However, some *Calandrinia* species contain high level of oxalic acid, and have been shown to be toxic in feeding trials. The leaves have been used as a vegetable and the seeds for making a type of bread by Aborigines.

#### SIMILAR SPECIES

Queensland has around 19 species in the genus. Ten occur in the region.

*C. balonensis* is readily distinct from other species of the genus.

### **66** ...considered as platable and useful forage

#### PEE-THE-BED, SMOOTH VELLEIA Velleia glabrata Carolin

#### DESCRIPTION

Velleia glabrata is an annual forb. The plant is usually hairless or with a few soft hairs. The leaves are basal, oblong to oblanceolate, and measure 4–8cm long by up to 1cm wide. The leaf margins are toothed or lyre-shaped. The flower stalks are hairless, ascending to 20cm high. The lower bracts are leafy, ovatelanceolate, to 2cm long. The upper bracts are smaller. Each flower has five sepals free and five yellow petals united into a tube at the base. The petals are broadly winged, 12–14mm long with a spur to 3mm long, hairy outside, but with more or less long hairs inside the base. The fruits are globular capsules about 5mm in diameter and shortly hairy. The seeds are circular, 4–5mm diameter, dotted with pits, and have wings to 1mm wide.

#### OCCURRENCE

Often on red earths with a sandy or loamy texture in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands, poplar box with mulga understorey and soft mulga.



#### DISTRIBUTION

Widely distributed throughout west and southwest Queensland. Also found from New South Wales, Western Australia and Northern Territory.

#### NOTES

Pee-the-bed is an attractive forb. It can be very common especially after rainfall. The plant has little pastoral value.

#### SIMILAR SPECIES

Queensland has seven species in the genus. Four occur in the regions. Only one resembles pee-the-bed. *V. paradoxa* R.Br. (spur velleia) – The flower stalks are hairy.

### **L** The leaf margins are toothed or lyre-shaped. **J**

#### MULGA NETTLE, MULGA SPINACH, RASP WEED Haloragis odontocarpa F.Muell.



#### DESCRIPTION

Haloragis odontocarpa is an erect annual forb to 1m high. It has a well-developed taproot. The stems are green or reddish, hairless or softly hairy. The leaves are mostly alternate on stems and have long

soft hairs. The leaf blades are more or less lanceshaped, 45-80mm long by 7-25mm wide. The midvein of leaf is sunken above but conspicuous below. The leaf margins are toothed or occasionally entire. The leaf stalks are 5–20mm long. The flowers are borne in clusters of 3–15 in spikes at the ends of the stems and in the axils of the upper leaves. Each cluster is subtended by a bract 3–6.5mm long x 1-2mm wide. Smaller bracts were borne within the cluster. Each flower has four yellow-green petals and four triangular sepals. The petals are about 2.5mm long and less than 1mm wide. The sepals are smaller. The anthers are yellow. The ovary has dense long soft hairs. The fruits are variable in shape, size and surface characteristics. Each fruit has four cells containing 1-4 seeds. The species has three forms in Queensland. All occur in the regions.

*Haloragis odontocarpa forma octoforma* – Fruit is four-winged longitudinally between the sepals. Wings are constricted in the centre. *Haloragis odontocarpa forma pterocarpa* – Fruit is four-winged longitudinally between the sepals. Wings are entire and oblong. *Haloragis odontocarpa forma rugosa* – Fruit is not winged. The body of fruit is smooth or wrinkled below sepals.

#### OCCURRENCE

Usually on sandy red or brown soils in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands, poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widely distributed in the Maranoa and Warrego Districts in southwest Queensland. Also found from New South Wales, South Australia, Western Australia and Northern Territory.

#### NOTES

Mulga nettle can be a dominant component in a mulga community, especially after heavy rains. The plant is highly regarded as forage and is eaten readily by stock. Its consumption produces a red or yellow discoloration of the urine in sheep, but no reports of toxicity have been recorded. A report indicated that sheep grazing on the plant are kept free of fly strike.

#### SIMILAR SPECIES

Two other *Haloragis* species in the area are similar to *H. odontocarpa. Haloragis aspera* Lindley (raspweed) – Leaves have no or very short stalks. Leaves and stems are covered with a whitish or bluish waxy coating and have curved hairs. *Haloragis glauca* Lindley (grey raspwort) in the genus has three forms in the region. Leaves have no or very short stalks. Leaves and stems are grey-green and have hooked hairs.

#### SILVER TURKEY BUSH, BOWMAN'S POVERTY BUSH, FLANNEL BUSH Eremophila bowmanii F.Muell.

#### DESCRIPTION

Eremophila bowmanii is shrub to 1.5m high. The plant is silvery green and covered with soft woolly hairs. The leaves are alternate, lanceolata, ovate to obovata or, more or less circular, 10–15cm long x 1–10mm wide. The leaf margins are thickened and often revolute. The leaf tips are acute or obtuse. The flowers are blue or lavender, usually borne singly on a stalk 6–25mm long in the leaf axils. Each flower is bell-shaped, 10-25mm long. The sepals are subequal, not overlapping, lanceolata to elliptic, and 7–20mm long x 1.5–5mm wide. The petals are 14–30mm long, lilac or rarely white, unspotted, hairless or slightly hairy on lobes. The fruit is an ovoid hairless drupe and measures 6–8.5mm long x 3.5–5.5mm wide. Three subspecies within the species are recognised in Queensland; E. bowmanii subsp. bowmanii (leaves are linear, leaf margins are revolute), *E. bowmanii* subsp. latifolia (leaves are obovata to oblanceolate, leaf margins are flat), *E. bowmanii* subsp. nutans (leaves are ovate to circular, leaf margins are distinctly thickened).

#### OCCURRENCE

On light to medium red soils and skeletal soils in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, hard mulga, mulga sandplains, poplar box woodlands, poplar box with mulga understorey and soft mulga.



#### **DISTRIBUTION** Throughout the west and southwest Queensland, Also found in New South Wales.

#### NOTES

Silver turkey bush sometimes occurs in dense local stands in mulga communities inhibiting grass production, and can be indicative of over grazing. It is usually not eaten by stock although it may be sparingly browsed. It is an attractive shrub and has potential as a garden shrub. Although it is frost- and droughtresistant, it is moderately susceptible to fire.



SIMILAR SPECIES Queensland has more than 40 species in the genus. Most of these occur in the region. *E. bowmanii* is quite distinct from other species of the genus in Queensland.

#### CHARLEVILLE TURKEY BUSH, GREEN TURKEY BUSH, DESERT FUCHSIA Eremophila gilesii F.Muell.

#### DESCRIPTION

Eremophila gilesii is a low compact shrub to 1.5m high. The plant has simple hairs. The stem and branches are sticky. The bark is smooth. The leaves are alternate, dull green, linear to linear-lanceolate, 20–70mm long by up to 5mm wide. The leaf margins are entire or slightly toothed. The leaf tips are pointed. The flowers are pale-blue or lilac, usually borne singly on a stalk 12–20mm long in the leaf axils. Each flower is bell-shaped, 18–32mm long, hairy outside and bearded inside. The upper lip is notched and bottom lip has three lobes. The calyx has five unequal segments, scarcely overlapped and measure about 10mm long. The fruit is an ovoid or globular drupe, 10– 13mm long, softly hairy and rounded at the tip.

#### **OCCURRENCE**

On sandy soils and stony ridges in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands, poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Mainly distributed throughout west and southwest Queensland. Also found from New South Wales, South Australia, Western Australia and Northern Territory.



#### NOTES

Charleville turkey bush often occurs in dense stands in mulga communities. It is seldom eaten by stock and is regarded as a weed as it restricts pasture growth. However, it is widely regarded by Aborigines as a medicinal plant.



#### SIMILAR SPECIES

Queensland has more than 40 species in the genus. Most of these occur in the region. Only one resembles Charleville turkey bush. *Eremophila goodwinii* F.Muell. subsp. *goodwinii* (purple fuchsia bush). The hairs on branches, leaves and calyces are glandular.

#### **DESERT POPLAR**

Codonocarpus cotinifolius (Desf.) F.Muell.



#### DESCRIPTION

*Codonocarpus cotinifolius* is usually a small tree to 10m high. It is generally conical in outline and erect. The bark is smooth, greygreen or sometimes

pinkish. The leaves are alternate, greyishgreen, broadly lanceolata or almost orbicular and measure 20–60mm long x 8–50mm wide. The leaf tips are obtuse or shortly pointed. The leaf stalks are 5–10mm long. The flowers are small and grouped into racemes at the ends of the branchlets or in the leaf axils. Male and female flowers are usually on different plants. The stalks of male racemes are 1–2mm long. The stalks of female racemes are 8–20mm long. The fruits are bell-shaped, 8–12mm long. The fruiting stalks are 12–22mm long. Each fruit has 30–36 segments arranged vertically around a central column. The segments finally separate from each other and from the column, each opening along the inner edge to expose the slightly roughened and reddish seed measuring 3.5mm long.

#### OCCURRENCE

On deep sandy soils in variable habitats in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands, poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widely distributed throughout west and southwest Queensland. Also found in all other mainland states and territories.



#### NOTES

Desert poplar is an attractive tree in arid areas. Adult trees are uncommon, where it occurs. The species can be fast-growing, but is relatively short-lived. Its density appears to be enhanced by fire possibly because of the reduced competition from other tree species and because young trees are rarely browsed by stock. It has been suspected of being toxic to stock but chemical tests for common poisonous components have proved negative. The timber has no commercial value.

#### SIMILAR SPECIES

Queensland has two species in the genus including the desert poplar. Both occur in the region. *Codonocarpus attenuatus* (Hook.) H.Walter (bell-fruit tree) – The leaf tips are long apical pointed. The leaf stalks are 10–25mm long. The fruiting stalks are 20–50mm long.

#### VINE TREE, SUPPLEJACK Ventilago viminalis Hook.

#### DESCRIPTION

Ventilago viminalis is usually a small tee to 10m high, with either a single trunk or a few intertwined trunks. The bark is dark and furrowed. The braches are flexible and drooping, sometimes intertwined. The branchlets are often covered with a whitish or bluish waxy coating. The leaves are alternate, dark glossy-green, narrow-lanceolate, 5–15cm long x 0.6–1.2cm wide. Each leaf has a prominent light-coloured mid-vein and a stalk 0.25–1.4cm long. The flowers are cream-coloured, borne in drooping raceme-like panicles in the leaf axils. Each flower is 5mm diameter has five sepals only. The sepals are 2mm long and spreading. The fruit is rounded single seed nut 3–4mm diameter at the end of a straight yellow-green wing 2–4cm long.

#### OCCURRENCE

On heavy clay soils and sandy red earths in variable habitats in the Mulga Lands and Maranoa Balonne land types; Bendee ridges, dissected residuals, hard mulga, mulga sandplains, poplar box woodlands, poplar box with mulga understorey and soft mulga.

#### DISTRIBUTION

Widely distributed throughout north, west and southwest Queensland. Also found from New South Wales, Western Australia and Northern Territory.



#### NOTES

The vine tree starts off as a vine which climbs up the nearest supporting plant, developing later into a tree, and is often scatted where it occurs. The tree is attractive with a drooping foliage appearance. It is drought-resistant, and readily eaten by all stock. Although it is palatable, it has moderate nutritive value. The wood is dark-coloured, heavy and hard, but is not used commercially. It is reported that the tree exudes a gum which is eaten by Aborigines.

#### SIMILAR SPECIES

Queensland has three species in the genus. *V. viminalis* is the only one occurring in the region.

### **6** The vine tree starts out as a vine... **9**

### NOTES




Level 1, 165 Walker Street North Sydney NSW 2060 Ph: +61 2 9463 9333 Fax: +61 2 9463 9393 www.mla.com.au