A couple of prickly native shrubs could be mistaken for the weed, African boxthorn (see page 1 of weeds guide). Tree violet (*Melicytus dentatus*, formerly *Hymenanthera dentata*) has toothed leaves, short spines and sweet-smelling small cream bell-flowers in spring,followed by purple berries (left and middle photo). Blackthorn (*Bursaria spinosa*) has sprays of small white flowers at the tips of the branches in summer, followed by papery capsules, green at first drying to brown. Neither of the natives has such ferocious spines as African boxthorn. Although prickly shrubs can be a nuisance for people and livestock, they are valuable as protected nest sites for small birds. Tree violet fruits are very popular with the small bird the Silvereye. Blackthorn blossom is an important food source for a parasitic wasp that helps to control Christmas beetles, whose larvae eat grass roots and damage pasture. The adult beetles can strip the leaves from eucalypts in summer.

Another native shrub on the reserve is austral indigo (*Indigofera australis*). It has compound leaves, sprays of pink pea flowers early in spring, and small cigar-shaped pods. There are two forms (both at left), the one with the larger, more blue-green, leaflets (far left) is mostly found on the tablelands, but is the form present in the reserve (mostly near the old bridge).

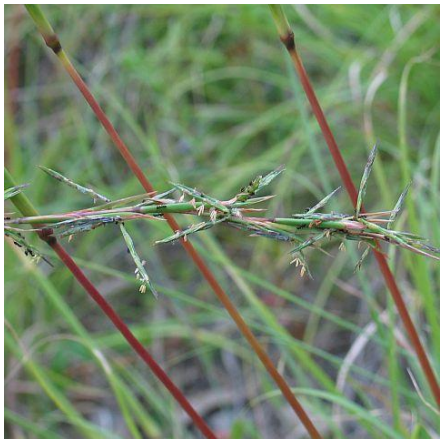
A few of the most common native grasses in the reserve are illustrated here.

Kangaroo grass (*Themeda australis*) covers most of the treeless parts of the reserve.

Red grass or red-leg grass (*Bothriochloa macra*) can be common in a wet summer.

Weeping grass (*Microlaena stipoides*) is the most common native grass in shady areas.

Below are some grasses which are still common in the Bega Valley but are less abundant in the reserve.



Barbed-wire grass (*Cymbopogon refractus*) has its flowers in short spikes which resemble barbed wire. Flowering stems tend to be reddish (as above). When not flowering it looks very like kangaroo grass, but the leaves are slightly lemon scented (*Cymbopogon* is also the genus to which lemon grass belongs).

Hedgehog grass (*Echinopogon* species). Like weeping grass, this delicate grass prefers shady areas.

Common plume grass above (*Dichelachne micrantha*), green and ripe. It could be confused with native spear grasses (*Austrostipa* species, not illustrated), though these are uncommon in the reserve. Most spear grasses have a less dense seed head, with visible branches.

Paddock lovegrass (*Eragrostis leptostachya*) is shown both left and right here. It could be confused with the weed African lovegrass (page 1 of the weed guide), as it has similar blackish seed heads. However, they are short-branched, with the branches held at 90° to the stem. The plant is smaller and shorter than African lovegrass. It persists well under heavy grazing, so may occur in old stock camp areas.

Hairy panic (*Panicum effusum*) has very wide-spreading branches in its seed head, with sparse, small seeds towards the tips. The seed heads snap off whole when ripe, and can blow around and pile up against fences. The weed serrated tussock also does this, but it is not present on the reserve. Hairy panic has a broad leaf with long, fine hairs scattered along the margins. These can be seen on the left hand leaf in the near photo.

Two grasses of wet areas found in Colombo Creek are illustrated below.

Swamp millet (*Isachne globosa*), left, is a mat-forming grass with small millet-like seeds and relatively short, broad leaves.
Water couch (*Paspalum distichum*) is a running grass rather like kikuyu. The photo at right shows both together. Water couch has reddish stems and narrower leaves. Its flowers are held in a V shaped spike. It is much less common in the creek than kikuyu.

Some regionally uncommon grasses occur in or near the reserve. These may be uncommon because they are sensitive to grazing pressure, so have largely disappeared from farms, though they may persist on roadsides and in cemeteries.

Native sorghum (*Sorghum leiocladum*) is a robust grey-green tussock with red-brown flowers in summer. A distinctive feature is the "ballet-skirt" of long hairs at the stem nodes (joints). These can still be seen after all the seed has fallen, helping to identify this grass.

Scented-top grass (*Capillipedium parviflorum*) is very rare in the district, and has not been found in the reserve yet. However, it is present on some of the graves in the cemetery, and began to spread from these when mowing was reduced.

Scented-top grass also has a skirt of hairs at the nodes (shorter than those of native sorghum), and reddish seed heads. Its flowers are sparser than those of native sorghum, and it tends to be a mat-forming grass rather than a tussock.

It would be good to get this grass established in the reserve.

Windmill grass (*Chloris truncata*), left, has whorls of long branches that are folded together at first, but open out like umbrella spokes.

Native rat's tail grasses (*Sporobolus elongatus* left, *creber* right) have very long narrow grey flower spikes. *S. creber* has a much "gappier" base to the flower spike.

Some common native herbs that are widespread in the reserve are shown first. The first three all have leaves that are more or less circular in outline, though lobed to varying degrees. They all prefer shade.

Kidney weed (*Dichondra repens*) has smooth-edged kidney shaped leaves and tiny flowers which are rarely seen. It is a mat-forming plant.

Stinking pennywort (*Hydrocotyle laxiflora*) is named for the unpleasant smell of its flowers, which are tiny, in spreading heads.

Native geraniums (*Geranium* species) have deeply lobed leaves and flowers about 1cm across, usually pale pink, or white. There is a similar introduced geranium also present, with darker pink flowers.

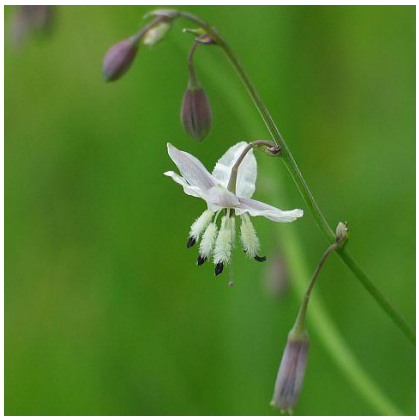
Three members of the saltbush family occur in the reserve. *Einadia hastata* (far left) is the most common and gets to about 30cm high. The smaller and more blue-green *E. nutans* is shown next to it. Both have tiny red berries and are spread by birds, so are mostly found under trees. Fishweed (*E. trigonos*), at right, lacks the berries and has a more spreading habit. It only appears after disturbance.

Hound's tongue (*Cynoglossum* species) have hairy leaves and could be mistaken for seedlings of the weed Paterson's curse if not flowering, though their leaves are held more erect.

The more common species, *Cynoglossum australe* has blue flowers followed by sticky seed capsules which are easily spread on socks. It tends to colonise disturbed ground.

Cynoglossum suaveolens has white flowers and its leaves (not shown) are glossier and less hairy. The name *suaveolens* means "sweet" and refers to the pleasantly scented (though very small) flowers.

Three members of the lily group are shown next. They are still relatively common in the district, but not common in the reserve. Lilies all have 6 petals (most other flowers have 5, or rarely 4).



Pale vanilla lily (*Arthropodium milleflorum*) has grey-green, grass-like leaves with a waxy bloom.

Yellow rush-lily (*Tricoryne elatior*) has wiry stems and sparse yellow flowers with brushes on the anthers.

Weather-grass is so named for its grass-like leaves, which have fine hairs along the margins. It is only a few cm high.

Larger members of the lily group are the blue flax-lilies (*Dianella* species). They have blue petals and purple berries. Two species are present, *Dianella longifolia* and *D. revoluta*. The latter is fairly common in many forest types, but *D. longifolia* is largely restricted to the grassy woodlands of the farming areas.

Dianella longifolia flowers are carried on open-branched heads up to about 1m high. Leaves are strap-like, and slightly folded at the base.

Dianella longifolia fruits.

Leaves of *D. revoluta* are much more tightly folded at the base than *D. longifolia* and are grey-green with reddish bases.

Dianella revoluta flowers. It is known as “black-anther flax-lily” because of the darker anthers (pollen-bearing structures).

Lomandras or mat-rushes are often mistaken for grasses but are more closely related to lilies. *Lomandra longifolia*, at left, has toothed leaf tips and spiny flower heads. *L. multiflora*, at right, has rounded leaf tips and more open, spreading flower heads. Both have tough leaves, more leathery than those of grasses or flax-lilies.

Bulbine lily (*Bulbine glauca*), left & right (leaves), used to be more common in the cemetery but re-fencing destroyed some patches. There are some in the old highway strip, under trees. It seeds freely and should be relatively easy to establish more widely in the reserve. It is uncommon in the valley, and sensitive to grazing.

Some members of the pea family are next. They are generally perennials which may die back to a tough woody root over winter, to reappear in spring, though some, such as *Glycine*, are visible in winter too. They often have leaves with 3 leaflets, like a clover, to which they are related. There are no native clovers.

There are two forms of *Glycine* in the reserve, shown here together. Typical *Glycine tabacina* (left) has hairless leaves, but there is also a much hairier form present, which may be a different species.

Tick-trefoils have leaves with more deeply impressed veins than *Glycine*, but other than this they can be hard to tell apart. *Desmodium varians* (above) has very variably shaped leaflets, from circular to oblong.

Desmodium varians flowers are pale pink or white and quite small. The rows of 4 or 5 sticky seeds (lower right above) are more commonly noticed, when they adhere to clothing.

Desmodium brachypodum is a larger plant than *D. varians*, to about 50cm high, but its pink flowers are also quite small. It has not been found in the reserve yet, but did appear in the cemetery after a small burn.

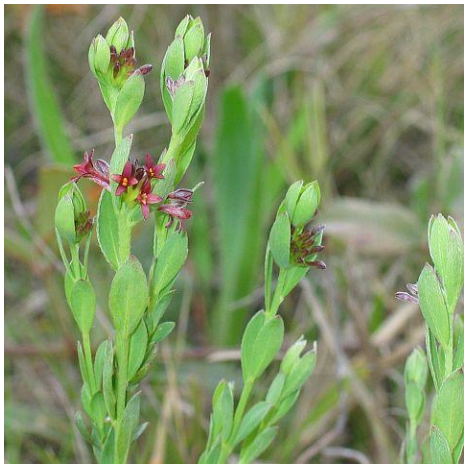
Zornia (*Zornia dyctiocarpa*) has yellow flowers and glossy leaves composed of only two leaflets. Its sticky seeds are in a similar row to those of *Desmodium* species (centre right above). It is uncommon.

Mountain scurf-pea (*Cullen microcephalum*) is not in the reserve, but is present on several graves in the cemetery. It is very uncommon in the Bega Valley, but more common in grassy snow gum woodlands on the escarpment.

Lespedeza (*Lespedeza juncea*) is present on graves but there are also a few plants in the old highway between the cemetery and the reserve. It grows to about 60cm and the white flowers are quite small. It would be good to get it and *Cullen* established in the reserve.

Two more peas: Austral trefoil (*Lotus australis*), below right, is in neither the reserve nor the cemetery, but is known in the valley from only one site, the Bemboka tip reserve, where it is highly threatened by weeds. It has leaves with five narrow leaflets and pale pink or white flowers in clusters at the branch tips. It would be good to get this species into the reserve, as its days may be numbered at the old tip site.

Hovea (*Hovea heterophylla*), at left, has small purple flowers held singly in the leaf axils, in spring. Leaves are variable in shape from almost round to long and narrow. It is uncommon in the reserve, but not in the district, where it is found in a lot of different forest types.



Curved rice-flower (*Pimelea curviflora* var. *sericea*) is not a pea. It is an uncommon species in grassy remnants of the Bega Valley and in the reserve. A few plants occur around the power line easement at the southern end. The small flowers may be yellow or reddish. With its pale green leaves it could be mistaken for the weed St John's wort. It would be unfortunate if it were removed, given its rarity in the region. It can be distinguished from non-flowering St John's wort by the fact that its leaves are alternately arranged on the stems, not in opposite pairs like those of the wort, and it lacks the translucent oil dots which can be seen when the leaves of St John's wort are held up to the light (see page 2 of the weeds guide).

Daisies may be common in grassy woodlands (though more on the tablelands than the coast). The cemetery has more species than the reserve, suggesting many are sensitive to grazing.

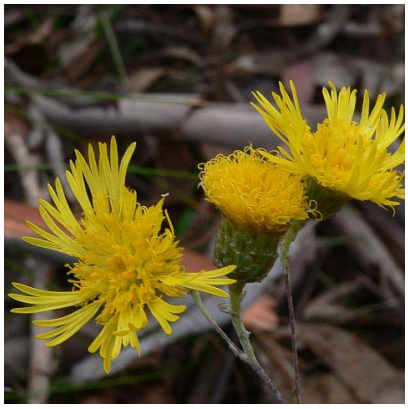
Yellow buttons (*Chrysocephalum apiculatum*) is the most common native daisy in the reserve. It has a silver and a green-leafed form, both shown above and both present in the Bega Valley, though uncommon.

Tall everlasting (*C. semipapposum*) is similar to yellow buttons, but has a more clumped growth habit and is taller. There are a small number of plants near the river.

Bear's ear (*Cymbonotus* species) is still relatively common in the region. They could be mistaken for several weedy daisies, such as flatweed and dandelion (see page 5 of weed guide), but the leaf underside is white, unlike the weeds.

Scaly buttons (*Leptorhynchos squamatus*) is very uncommon in the Bega Valley but is found in Bemboka and Wyndham cemeteries & roadsides.

Copper-wire daisy is in the cemetery, among the scaly buttons (the smaller flowers above). It would be good to get both into the reserve.

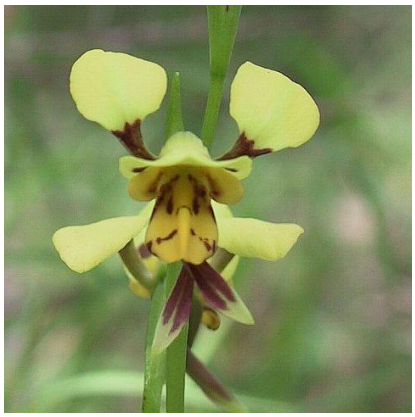


Close-up of copper-wire daisy (*Podolepis hieracioides*) flowers. The "petals" are deeply lobed and the whole flower head is enclosed in a cup of scaly green bracts.

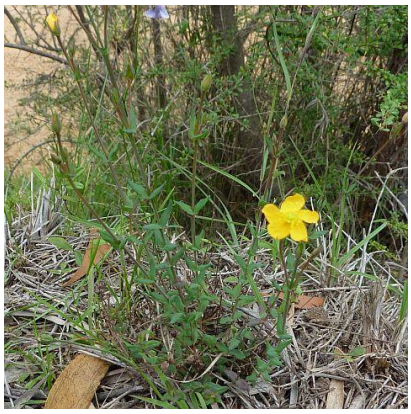
There are two species of fuzzweeds present in low numbers in the reserve. *Vittadinia cuneata* (left) has hairy grey-green foliage with 2 small teeth near the tip, mauve "petals" and grows to about 30cm high. *V. muelleri* (right, in seed) is a smaller plant with similar flowers. Its leaves are greener and have 3 long lobes at the tip.

A few odds and ends:

Scurvy weed (*Commelina cyanea*) could be mistaken for the weed wandering jew, but it has blue flowers, not white. It tends to grow around rocks.



Donkey or tiger orchid (*Diuris sulphurea*) is present near the river on the reserve in small numbers. It is only visible briefly in late spring.

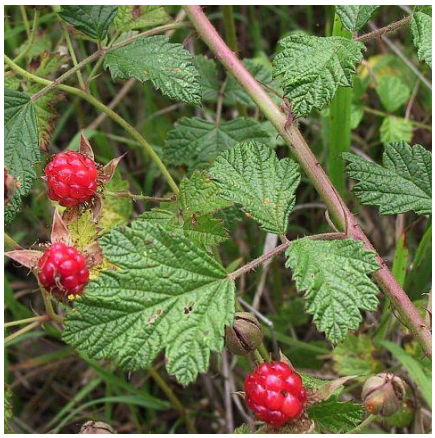


Small St John's wort (*Hypericum gramineum*) is still common in the valley. It would be hard to mistake for the weedy St John's wort as it is much smaller.

Native bluebells (*Wahlenbergia* species) are still common in the Bega Valley. There are at least 2 species present, *W. communis* and the much smaller flowered *W. gracilis*. There may be more.

A native plantain (*Plantago varia*) is less common in the reserve than the introduced ribbed plantain (*P. lanceolata*) shown on page 6 of the weeds guide. It can be distinguished by its toothed leaves.

Cockspur flower (*Plectranthus parviflorus*) has slender spikes of small blue flowers and grows among rocks. It is still fairly common in the valley and grows in many forest types.



Small-leaf bramble (*Rubus parvifolius*) is often mistaken for blackberry, but is native.

Native dock (*Rumex brownii*) grows in drier sites than its weedy relatives.

Hill fireweed (*Senecio hispidulus*) is one of many native *Senecio* species.