

# GROUND COVERS

A low spreading plant with either above  
or below ground growing stems

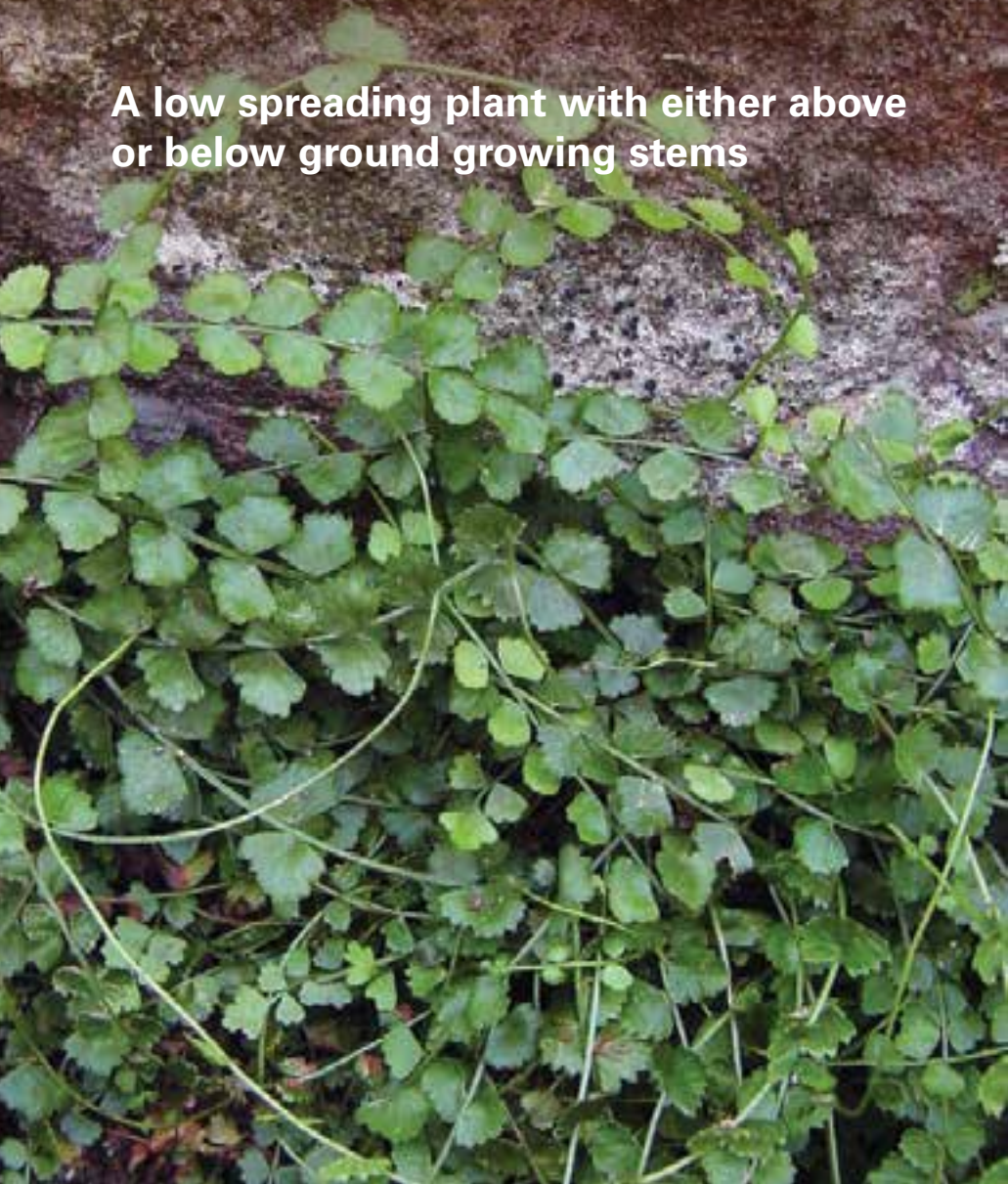
1  
GROUND  
COVERS

2  
GRASSES &  
SEDGES

3  
VINES

4  
SHRUBS

5  
TREES



## CENTELLA AND PENNYWORT

### NATIVE

- Name** Centella (*Centella asiatica*)  
**Family** Apiaceae  
**Habit** Creeping perennial herb.  
**Habitat** Found in moist shady areas in sclerophyll swamps on sandstone or shale soils.  
**Leaves** Leaf margins are serrated and leaves are fairly soft and dull.  
**Flowers** Flowers in Summer. Flowers are small red in colour.  
**Fruit/seed** Fruit is densely reticulate.



**Native *Centella asiatica***

### WEED

- Name** Pennywort (*Hydrocotyle bonariensis*)  
**Family** Apiaceae  
**Habit** Grows vigorously. Is an invasive coloniser.  
**Habitat** Seaside sand dunes cliffs, estuaries, gardens and lawns. Grows in full sun or shade.  
**Leaves** Bright green, fleshy and circular with large rounded teeth on margins. Leaf is attached to the petiole at the centre of the leaf base and are hairless and very waxy on the surface.  
**Flowers** White to creamy yellow flowers. Flowers throughout the year especially Oct – Feb.  
**Fruit/seed** Dry fruit that splits into sections containing a single seed at maturity  
**Origin** South America



**Weed Pennywort**

Photo: Department of Agriculture NSW

### DISTINCTIVE FEATURES

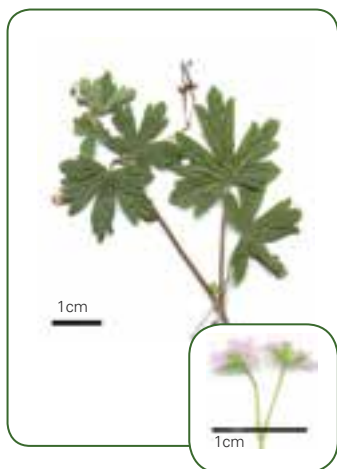
Centella: A distinctive feature is a sharp 'V' where the leaf joins the petiole.

Pennywort: If you crush its leaves it has a distinct smell, similar to mineral turpentine. The fruit of Centella is densely veined, distinguishing it from Hydrocotyle which has smooth, ribbed or warty fruit.

### WEED REMOVAL

Difficult to remove. The waxy leaves do not absorb herbicide readily and the deep underground runners make it difficult to dig up. All methods of weed treatment require follow up.





**Native Northern Cranesbill**



**Weed Creeping Buttercup**

## NORTHERN CRANESBILL AND CREEPING BUTTERCUP

### NATIVE

- Name** Northern Cranesbill or Native Geranium (*Geranium homeanum*)
- Family** Geraniaceae
- Habit** Sprawling herb with pink to red stems up to 50cm long.
- Habitat** Common on clays soils on the Cumberland Plain and north of Sydney Harbour.
- Leaves** Finely hairy and palmate.
- Flowers** Pink, flowering from spring to summer.
- Fruit/seed** Consists of a long beak which splits into five fruitlets.

### WEED

- Name** Creeping Buttercup (*Ranunculus repens*)
- Family** Ranunculaceae
- Habit** Creeping herb. This plant is a runner (like a strawberry) and spreads along stolons.
- Habitat** Prefers moist, marshy soils, and tends to infest creek banks and swampy areas.
- Leaves** Shiny and palmate with a prominent stalk.
- Flowers** Bright yellow buttercup flowers.
- Fruit/seed** A dry fruit with individually seeded parts. Spring to summer.
- Origin** Europe, Asia and Africa.

### DISTINCTIVE FEATURES

At the leaf base Creeping Buttercup often has black spots and the leaves may have patches of light and dark green.

### WEED REMOVAL

The weed Creeping Buttercup can be removed by hand, gloves should be worn as a chemical in the leaves can cause skin irritation. It can re-sprout from its stolons so care must be made and follow up should be done on this weed. Follow up is always required.



# SPOTTED KNOTWEED AND JAPANESE KNOTWEED

## NATIVE

**Name** Spotted Knotweed (*Persicaria decipiens*)

**Family** Polygonaceae

**Habit** Herbaceous annual which grows to 0.5 –1 metres

**Habitat** Found along creeks or marshes.

**Leaves** Are up to 10cm in length and often have a distinctive brown mark in the middle of the leaf.

**Flowers** Long spike of small pink flowers.

**Fruit/seed** Produce fine black seed.



**Native Spotted Knotweed**

## WEED

**Name** Japanese Knotweed (*Persicaria capitata*)

**Family** Polygonaceae

**Habit** Trailing and scrambling perennial herb to 50cm long.

**Habitat** Grows out of rock shelves, rockeries and damp areas such as drain pipes.

**Leaves** Alternate leaves, 6cm long with a mildly hairy margin. Generally pinkish, but sometimes green with a semicircular reddish brown band on its upper surface.

**Flowers** Dense, round bright pink flower spikes Oct – Feb.

**Fruit/seed** Produces a small brown nut.

**Origin** Himalayas



**Weed Japanese Knotweed**

## DISTINCTIVE FEATURES

Japanese knotweed leaves are more ovate than the native *Persicaria* and the pink flowers are clustered in a ball. It also has a strong urine like odour.

Spotted knotweed is erect and freestanding in large colonies and requires moist environments for growth whereas Japanese knotweed scrambles along the ground and can cope with very dry conditions.

## WEED REMOVAL

Japanese Knotweed is a hard weed to remove as the roots are often deeply embedded in rockeries (the most common habitat). Beware, some people are susceptible to skin irritations from this weed.



## BERRY SALTBUCH AND FAT HEN

### NATIVE

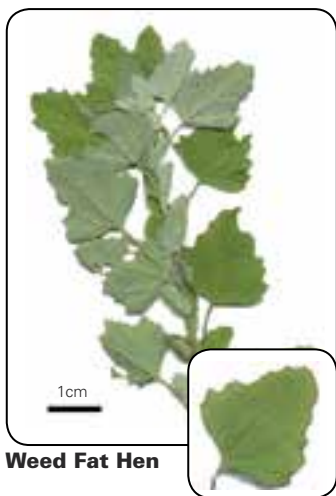
- Name** Berry Saltbush (*Einadia hastata*)  
**Family** Chenopodiaceae  
**Habit** Herb that can grow to 50cm tall.  
**Habitat** Cumberland Plain, rainforests and gullies in good soils.  
**Leaves** Opposite, thin and soft. Have a blunt tip without serrations and often have a reddish edge, or white salt spots on the under-surface of the leaf.  
**Flowers** Tiny, yellow. Flowers during winter.  
**Fruit/seed** Small red berries that hold small black seeds that are easy to propagate.



**Native Berry Saltbush**

### WEED

- Name** Fat Hen (*Chenopodium album*)  
**Family** Chenopodiaceae  
**Habit** Shrub to 2 metres, with a thick green trunk.  
**Habitat** Wastelands, disturbed edges and pastures.  
**Leaves** Bluegreen in colour, mealy on its surface and ovate to wedge shaped. Leaf margin is coarsely toothed, except on upper leaves.  
**Flowers** Tiny, green to greyish in colour. Flowers summer to autumn.  
**Fruit/seed** Shiny, black, smooth seed within a membranous hairless fruit.  
**Origin** Europe and Asia.



**Weed Fat Hen**

### DISTINCTIVE FEATURES

Fat Hen is an upright and tall plant where Berry Saltbush is low and bushy. Fat Hen prefers good balanced soils, and as such is a good indicator of soil health.

### WEED REMOVAL



# COMMELINA AND TRAD

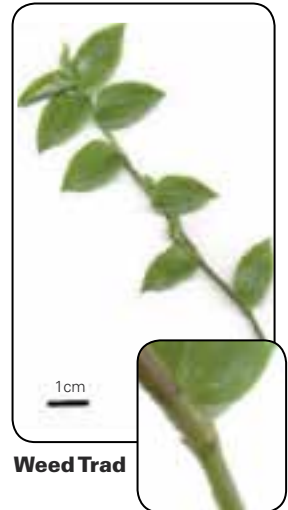
## NATIVE

- Name** Commelina or Scurvy Weed (*Commelina cyanea*)
- Family** Commelinaceae
- Habit** Sprawling native groundcover that can often appear weedy due to its abundance. Has a very tough root system and is much hardier than it appears.
- Habitat** Moist nutrient rich areas and swampy zones.
- Leaves** Sparsely spaced along the stem with wavy leaf margins. Leaf arises from an enclosed sheath.
- Flowers** The name "cyanea" refers to its iridescent cyan or blue flowers. Flowers from spring to summer.
- Fruit/seed** Capsule bearing 2-3 mm long seeds



## WEED

- Name** Trad (*Tradescantia fluminensis*)
- Family** Commelinaceae
- Habit** Perennial creeping herb to 30cm. Spreads vegetatively.
- Habitat** Highly fertile moist soils often in sheltered areas, creeklines.
- Leaves** Succulent dark green leaves. Hairless with purplish stems.
- Flowers** White flowers (do not produce viable seed in Australia).
- Fruit/seed** Is a capsule containing six seeds.
- Origin** South America



## DISTINCTIVE FEATURES

The leaf sheath found in *Commelina* is not found in the weed Trad. *Commelina* has blue flowers as opposed to Trad which has white flowers.

## WEED REMOVAL

When removing Trad by hand it is important to remove all pieces of stem in the soil, otherwise it can grow back very easily from a small piece. When found growing along creeklines, it is better to remove small mosaic patches over time and soil stabilisation must be put in place. Consideration of erosion and habitat for fauna (such as frogs, lizards and insects) must be applied. The preferred method in more accessible areas is hand weeding. This can involve the use of a rake to collect the bulk of it followed by hand weeding. The unwanted vegetation can be easily placed into a compost bin and composted into good soil in a year. Poultry also enjoy eating this weed.



## SICKLE FERN, RASP FERN AND FISHBONE FERN

### NATIVES

- Name** Sickle Fern (*Pellaea falcata*)  
**Family** Sinopteridaceae  
**Habit** Fern to 60 cm tall. It grows from runners and it has distinctive black wiry stems.  
**Habitat** Common in rainforest and open forests.  
**Leaves** Fronds are light green with tough shiny leaves.

### NATIVE

- Name** Rasp Fern (*Doodia aspera*)  
**Family** Blechnaceae  
**Habit** Grows to 40cm high, erect with rough slightly serrated harsh fronds.  
**Habitat** Grows in colonies in shady places, gullies and rainforests.  
**Leaves** New fronds are pink to green in colour.

### WEED

- Name** Fishbone Fern (*Nephrolepis cordifolia*)  
**Family** Davalliaceae  
**Habit** Fronds grow from erect rhizomes and wiry stolons with globe shaped tubers.  
**Leaves** Has pale green fronds. Leaflets are alternate and overlap up the stolon. The stem is quite brittle and light in colour which can sometimes be covered in rust coloured hairs.  
**Origin** Northern Coast of NSW, Queensland and the Northern Territory.



**Native Sickle Fern (top), Rasp Fern (right)**



**Weed Fishbone Fern**

### DISTINCTIVE FEATURES

Rasp fern has pink-red new fronds. Fishbone fern has underground water storage tubers where the other two do not.

### WEED REMOVAL

Note the tubers with small pieces of rhizome attached may re-shoot if left in the ground. A persistent species that requires follow up.



## FISHWEED AND HASTATE ORACHE

### NATIVE

- Name** Fishweed (*Einadia trigonos*)  
**Family** Chenopodiaceae  
**Habit** Small perennial trailing herb with slender stems usually 40cm long. A creeper that spreads along the ground from its root base.

**Habitat** Along the coast, on forest floors on richer soils and along swamp margins.

**Leaves** Triangular 10-35mm long, hairless, grey green and slightly mealy underneath. The leaves are arranged alternately along the stem.

**Flowers** Flowers in autumn

**Fruit/seed** Dry, loose fruit containing one seed



**Native Fishweed**

### WEED

- Name** Hastate Orache or Saltbush (*Atriplex prostrata*)  
**Habit** Upright annual growing to 80cm  
**Habitat** Grows most commonly on salty soil, estuaries and salt marshes.  
**Leaves** The leaves are blue green.  
**Flowers** Small and red and bloom in summer.  
**Fruit/seed** Broad, triangular dark green fruiting bracteoles with brown or black circular flattened seeds.  
**Origin** Europe and Asia.



**Weed Hastate Orache**

### DISTINCTIVE FEATURES

The weed *Atriplex prostrata* has similar features to the native *Einadia* but has opposite leaves rather than alternate. There is also a less common native in the Sydney region *Atriplex australasica* which looks similar to the weed.

### WEED REMOVAL

It is very easy to pull out the weed *Atriplex prostrata*, but make sure that it is the weed. Check for opposite leaves and erect growth.







**Native Lesser Joyweed**



**Weed Alligator Weed**

#### DISTINCTIVE FEATURES

The native is often mistaken for the noxious Alligator weed, although it is less vigorous and much less conspicuous. It has obvious differences to the weed that the flowers are stalkless and arise from leaf axil and the leaves are much longer and thinner.

#### WEED REMOVAL

If you discover this weed it is best to contact your local Council. They will then initiate eradication.

## LESSER JOYWEED AND ALLIGATOR WEED

### NATIVE

**Name** Lesser Joyweed (*Alternanthera denticulata*)

**Family** Amaranthaceae

**Habit** Sprawling herb. Grows as a creeper to about 10cm in height and runs to about 30cm along the ground.

**Habitat** Marshy, boggy or moist areas, especially on the Cumberland Plain.

**Leaves** Opposite

**Flowers** Papery white or pinkish stalkless flowers arising from the base of the leaf at the axil. Flowers spring to summer.

**Fruit/seed** Fruit is 1-1.5mm, flattened, broadly heart-shaped and does not open to release seed.

### WEED

**Name** Alligator weed  
(*Alternanthera philoxeroides*)

**Family** Amaranthaceae

**Habit** Perennial herb that grows near water. Grows vigorously and can form mats that spread across waterways smothering aquatic life and wetland habitats. It can also halt river flow.

**Habitat** Roots alongside waterways (preferably fresh water although can tolerate some salinity).

**Leaves** Opposite and in pairs. Slightly fleshy with a waxy surface.

**Flowers** White, papery. Each flower is a spherical head 1cm in diameter and arises from the tip of the stems (not from the leaf bases).

**Fruit/seed** Does not produce seed in Australia but reproduces vegetatively from broken pieces of stem.

**Origin** South America

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# PLECTRANTHUS AND BRAZILIAN COLEUS

## NATIVE

- Name:** Plectranthus or Cockspur flower (*Plectranthus parviflorus*)
- Family:** Lamiaceae
- Habit:** Perennial herb 30-60cm tall. It is hardy and reproduces by vegetative means and seed.
- Habitat:** Found in moist sheltered areas, particularly creek lines on rich soil.
- Leaves:** Soft dull toothed leaves along the stem.
- Flowers:** Produces lilac sweet smelling flowers all year.
- Fruit/Seed:** Dry fruit 4-5mm long. Four seeds per fruit.



**Native  
*Plectranthus  
parviflorus***



## WEED

- Name:** Brazilian Coleus (*Plectranthus oertendahlilii*)
- Family:** Lamiaceae
- Habit:** Trailing groundcover which spreads quickly through bushland.
- Habitat:** Prefers similar shaded habitats to the native *Plectranthus*. Tolerant of drought and dry conditions.
- Leaves:** Succulent, thick leaves with silvery veins which are slightly shiny and have hairs but with hairless stems.
- Flowers:** Spikes of small, white, two-lipped flowers. Flowers in Autumn
- Fruit/seed:** Small brown nutlets held in the calyx which remains once the flowers have dropped.
- Origin:** South Africa. Was introduced as a garden succulent.



**Weed Brazilian Coleus**

## DISTINCTIVE FEATURES

The native *Plectranthus* has a menthol-like smell when crushed and has quite hairy stems and soft dull toothed leaves. The weed has more succulent thick leaves which are slightly shiny and which have hairs but with hairless stems. The weed also has similar flowers to the native, though mostly white in colour. The native is a fast spreading plant that was crushed by Aboriginal people into a medicinal poultice.

## WEED REMOVAL

Small pieces of this weed left in the soil will regrow. Any parts should be bagged and follow up should be done to prevent the re-emergence of this weed.





**Native Kidney Weed**



**Weed Common Bittercress**

### DISTINCTIVE FEATURES

Kidney Weed may be confused with juvenile Common Bittercress as they have similar leaf shapes and inhabit the same kinds of areas. Perhaps the best way to distinguish them is by observing the 'rosette' formation of the Common Bittercress as opposed to the native's creeping nature.

### WEED REMOVAL

Because it is an annual, the most effective way of controlling Common Bittercress is to remove it before it goes to seed. Note: there are also Cardamine such as *Cardamine paucijuga* which is commonly confused with *C. hirsuta*.



## KIDNEY WEED AND COMMON BITTERCRESS

### NATIVE

**Name:** Kidney Weed (*Dichondra repens*)

**Habit:** Widespread native groundcover. It creeps along the ground, rooting at the nodes and becomes dense and compact when frequently mown.

**Habitat:** Found growing in woodland, grassland and in lawns.

**Leaves:** The leaves, as the name suggests, are kidney-shaped and sparsely covered with hairs.

**Flowers:** Solitary pale greenish yellow flowers. Flowers year round but mainly in spring-summer.

**Fruit/Seed:** Two lobed capsule

### WEED

**Name:** Common Bittercress, Flickweed (*Cardamine hirsuta*)

**Habit:** Slender annual herb growing to 35cm

**Habitat:** Widespread weed inhabiting most gardens and lawns.

**Leaves:** Thin, sparsely hairy and form a rosette at the base.

**Flowers:** White with petals around 3mm long.

**Fruit/seed:** Thin fruit stands erect on the stem and when ripe ejects the seed a considerable distance, giving the plant its other name 'Flickweed'.

**Origin:** Europe

# ROUGH GROUNDSEL AND FIREWEED

## NATIVE

**Name** Rough Groundsel (*Senecio hispidulus*)  
(Although there are several different native Fireweed species in the area, this is perhaps the most common).

**Family** Asteraceae

**Habit** Erect herb that can reach 1m.

**Habitat** Often found in moist sunny environments.

**Leaves** Grow up to 8 cm, can be narrow and toothed or deeply divided and have small hard hairs making them rough to the touch.

**Flowers** Bright yellow flowers appear through most of the year.

**Fruit/seed** Seed 1.5-3mm long with a cover of 5mm long hairs which help disperse the seed.

## WEED

**Name** Fireweed (*Senecio madagascariensis*)

**Family** Asteraceae

**Habit** Grows to a height of 60cm. An opportunistic and hardy plant.

**Habitat** Can be found in almost any sunny, disturbed location and has been declared a pastureland pest as it is toxic to cattle and horses.

**Leaves** Can be quite variable in shape and size, though often they are narrow, soft and toothed, and can grow up to 7cm in length.

**Flowers** The bright yellow flowers appear through most of the year.

**Fruit/seed** Seed 1.5-2.5mm long with cover of 5mm long hairs.

**Origin** South Africa.

to the touch; the weed leaf is softer and smooth. The weed usually has many more stems and flowers than the native and will often be found along fire trails and roadways. The native is less prolific and will usually only pop up after fires or at the site of a pile burn. Weed flowers are ray and disc shaped while the native has disc flowers only.

## WEED REMOVAL

The plant can be biennial and continually produces flowers throughout the year, so de-seeding is not always a viable long term option. It is important to remove all seeding and flowering parts from the site as seeds can continue to mature after the plant has died.



**Native Rough Groundsel**



**Weed Fireweed**

## DISTINCTIVE FEATURES

The native Fireweed can easily be confused with the weed species due to their similar appearance and growing environment. Both belong to the Asteraceae family and appear in disturbed areas, especially after fires. A useful way to distinguish between the two species is to feel the leaves.

The native leaf is thicker and rough to the touch; the weed leaf is softer and smooth. The weed usually has many more stems and flowers than the native and will often be found along fire trails and roadways. The native is less prolific and will usually only pop up after fires or at the site of a pile burn. Weed flowers are ray and disc shaped while the native has disc flowers only.



**Native Fish Bones Lomandra**



**Weed Asparagus Fern**

#### DISTINCTIVE FEATURES

On first glance native *Lomandra obliqua* looks quite similar to the *Asparagus scandens*, however it is just the juvenile form or new leaves of the Asparagus that look similar to the native. The weed Asparagus can be distinguished by its habit of climbing, reaching up to 2m high.

#### WEED REMOVAL

Ensure any foliage with berries and the rhizome are disposed into a green waste bin as it will reshoot if left on site.



## FISH BONES LOMANDRA AND ASPARAGUS FERN

### NATIVE

- Name** Fish Bones Lomandra  
(*Lomandra obliqua*)
- Habit** A small, stiff, sprawling herb.
- Habitat** Commonly found in heath and eucalypt woodland and forest on shallow sandy soil and rocky slopes.
- Leaves** Many-branched stems are lined with ranks of flat, twisted leaves up to 4cm long and 2 mm wide.
- Flowers** Yellow, flushed with purple. Male and female flowers on separate plants with male flowers displayed on the end of foliage while the female flowers in tight clustered ball.
- Fruit/seed** Only appears on female plants and similar in appearance to the flower.

### WEED

- Name** Asparagus Fern (*Asparagus scandens*)  
also called climbing asparagus
- Habit** This asparagus can climb up to 2m
- Habitat** Commonly found in gully areas, and is a common garden escape.
- Leaves** Deep green, 5-15mm long and 1mm wide.
- Flowers** White to pink.
- Fruit/seed** Small orange-red berries
- Origin** South Africa

## NATIVE VIOLET AND SWEET VIOLET

### NATIVE

- Name** Native Violet (*Viola hederacea*)  
**Habit** Creeping herb that forms carpets.  
**Habitat** Moist shady environments.  
**Leaves** Has short erect stems and leaves that reach 20mm by 30mm in size.  
**Flowers** White and mauve, on stems up to 6cm long. Flowers spring-summer.  
**Fruit/seed** Brown capsule

### WEED

- Name** Sweet violet (*Viola odorata*)  
**Habit** A slender, creeping herb  
**Habitat** Was widely cultivated in Sydney and can often be found as a weed in bushland edges and along creeks.  
**Leaves:** The oval or heart-shaped leaves reach 7cm long.  
**Flowers:** Are deep violet and white in colour. Fragrant. Appear in winter and spring.  
**Fruit/seed** 7mm long capsule.  
**Origin** Europe, North Africa and the Middle East



**Native Violet**



**Weed Sweet Violet**

### DISTINCTIVE FEATURES

Several different forms of Native Violet grow in the Sydney region and can usually be obtained from nurseries. Beware of the Victorian form from nurseries. The Native Violet can be confused with the Sweet Violet largely due to similarities between their leaves and flowers. The Sweet Violet can easily be distinguished from the native because the leaves are much larger and of a different shape. The flowers are also much larger, deeper in colour and fragrant.

### WEED REMOVAL

Sweet Violet can usually be removed quite easily by hand. It tends to grow in clumps and can be effectively eradicated from an area.





**Native Blue Trumpet**

Photo: © M.Fagg, Australian National Botanic Gardens



**Weed Creeping Ruellia**

Photo: Robert Whyte

## BLUE TRUMPET AND CREEPING RUELLIA

### NATIVE

**Name:** Blue Trumpet (*Brunoniella australis*)

**Family:** Acanthaceae

**Habit:** Erect or prostrate herb growing to 2-15cm high.

**Habitat:** Grows in sclerophyll forest and woodland.

**Leaves:** Usually unequal leaves growing at each node.

**Flowers:** Appears September to June. Clusters of small and larger sessile blue flowers in leaf axils.

**Fruit/Seed:** Capsule 10-16mm long.

### WEED

**Name:** Creeping Ruellia (*Ruellia squarrosa*)

**Family:** Acanthaceae

**Habit:** Sprawling perennial herb with branches to 60cm long which sucker.

**Habitat:** Commonly cultivated in gardens in Sydney, growing vigorously in drainage areas.

**Leaves:** Up to 6cm long and 2cm wide.

**Flowers:** Solitary blue inflorescence.

**Fruit/seed:** Long capsule to 15mm with 16-20 seeds.

**Origin:** Mexico

### DISTINCTIVE FEATURES

*Ruellia squarrosa* has been mistakenly propagated and grown in the past in the belief it was the native *Brunoniella australis*. Although the flowers appear similar, *B. australis* produces clusters of flowers in the leaf axis while *R. squarrosa* produces a solitary flower in its inflorescence

### WEED REMOVAL

*Ruellia squarrosa* has been found to spread rapidly and be extremely difficult to remove. It has been reported as naturalised in the Lane Cove area. Remove as many suckers as possible. Follow up will be required.



