WEEDS
of the Monaro

• Orange Hawkweed

A Glove Box Guide

SNOWY MONARO
REGIONAL COUNCIL

This booklet provides an identification guide to the priority weeds of the Monaro. It does not provide information about control methods. For this information you should consult your local Council's Biosecurity officers (back cover) you may also:

- Go to Weedwise online: ***https://weeds.dpi.nsw.gov.au/***
- Download the Weedwise app to your phone from Appstore or Google Play ***https://www.dpi.nsw.gov.au/biosecurity/weeds/nsw-weedwise-app***
- Obtain a printed copy of the latest edition of the New South Wales Weed Control Handbook from your local Council, Local Land Services Office, or download from the web: ***https://www.dpi.nsw.gov.au/biosecurity/weeds/weed-control/management-guides/noxious-enviro-weed-control***

For further information about weeds the following websites are useful:

- Legislation – NSW *Biosecurity Act 2015* **https://www.legislation.nsw.gov.au/#/view/act/2015/24**
- For individual weed fact sheets ***https://weeds.dpi.nsw.gov.au/***

Priority Weeds differ from region to region and may change over time.

The *Snowy Monaro Region Local Weed Management Plan* can be downloaded from this page: ***https://www.snowymonaro.nsw.gov.au/Environment-Waste-and-Weeds/Biosecurity-and-Weeds***

The *South East Regional Strategic Weed Management Plan* can be found here, under South East: ***https://www.lls.nsw.gov.au/biosecurity/weed-control***

Acknowledgements

The revision and printing of this booklet is supported by the Department of Agriculture, Water and the Environment through funding from the Australian Government's **National Landcare Program.** Text by Jackie Miles, photos by Jackie Miles and Max Campbell, except for Chilean Needle Grass seed (Margaret Ning) and Orange and Mouse-ear Hawkweeds (NSW Department of Planning Industry and Environment, NSW Department of Primary Industries).

Layout and printing by Excell Printing, Pambula
Fourth edition: May 2023

Australian Government

National Landcare Program

Disclaimer:

The information contained in this publication is based on knowledge and understanding at the time of writing. While the information contained in the document has been formulated with all due care, the users of the publication are responsible for assessing the relevance and accuracy of the content.

What is a weed?

To a gardener, a farmer or a botanist, a weed may mean different things, but broadly, it is a plant having some sort of adverse impact. The majority of weeds are from overseas but some native Australian plants grown outside their natural range can also become weeds within Australia. Whatever their origin, they spread "like weeds" when they arrive in a favourable environment often because they have left their natural pests and diseases behind.

What is a weed under the Biosecurity Act 2015?

Under the Biosecurity Act 2015 a weed is a plant that has or could have a biosecurity impact. A biosecurity impact means an adverse effect on the economy, the environment or the community related to the introduction, presence, spread or increase of that plant.

Landowners and managers are legally required to control weeds under their General Biosecurity Duty. Biosecurity is a shared responsibility; everyone has a part to play.

Priority weeds that must be managed to a prescribed level are detailed in a number of documents. In the South East region of NSW the South East Regional Strategic Weed Management Plan guides this process and locally a more specific set of management plans are compiled under the Snowy Monaro Region Local Weed Management Plan. You can find these documents online at the links in the front of this booklet or request a paper copy from your local Council offices.

- **Prohibited Matter includes all plants listed in Schedule 2 of the *Biosecurity Act 2015***

These plants pose a very high biosecurity risk in NSW.

A person who becomes aware of the presence of any of these plants has a biosecurity duty to notify Council, the Local Land Services or the DPI of the prohibited matter as soon as possible. For example, all Hawkweed species are listed as Prohibited Matter in NSW.

Why do weeds matter?

The huge financial cost to agriculture of weeds and weed control is well known and the devastating impact of weeds on natural vegetation is widely recognised. Weed invasion is one of the greatest threats to many communities of native plants.

Weeds can come to dominate the landscape, significantly reducing agricultural productivity and preventing regeneration of native plants or even killing them in some cases. Weeds result in reduced habitat for native animals and change the visual character of the landscape. They can greatly increase the fuel load making some areas more fire-prone and putting communities at risk.

What can I do?

- Learn to recognise weeds and take early action to remove them from your property.
- Have unfamiliar plants identified if you think they may be weeds.
- Avoid unnecessary soil disturbance.
- Monitor areas where you have imported materials or created disturbance, and be ready to control weeds as soon as they appear.
- Avoid overgrazing as this creates ideal conditions for weed invasion.
- Insist that contractors' machinery is cleaned before being used on your property and monitor areas where such machinery has worked for new weed arrivals.
- When feeding stock on imported hay or grain do it in a restricted area and monitor afterwards for weeds.
- Quarantine new livestock for up to two weeks so weed seeds can pass through them in a confined area which can be treated later.
- Seek information on the weeds present on properties from which feed or stock are bought and avoid properties with significant weed problems.
- Don't shift stock straight from weedy areas into clean paddocks or areas of remnant native vegetation, especially when weeds are seeding.ntrol efforts to prevent seed set.
- Be vigilant, and act early. Don't wait until a few plants turn into a major infestation.

Snowy Monaro region Landcare

In the Snowy Monaro Region you will find three active Landcare Networks supporting hundreds of dedicated Landcare volunteers. Landcare supports groups and individuals collectively working towards improving environmental outcomes and the sustainability of our natural resources.

The **Upper Snowy Landcare Network** has four active landcare groups namely: ■ Snowy River Landcare ■ MacLaughlin River Landcare ■ Jindabyne East Residents Committee ■ Jindabyne Community Garden Group
www.uppersnowylandcare.org.au

The **Upper Murrumbidgee Landcare Committee** is the umbrella organisation for the Upper Murrumbidgee Landcare groups: ■ Bredbo Community Landcare Group ■ Michelago & District Landcare Group ■ Numeralla & District Landcare Group
www.umlc.org.au

The **Snowy River Interstate Landcare Committee** (SRILC) represents nine rural Landcare groups across two states – NSW and Victoria: ■ Ando/Bibbenluke/Cathcart and Creewah (ABC Landcare) ■ Craigie ■ Corrowong/Wallendibby/Tombong ■ Deddick River ■ Delegate River ■ Little Plains ■ Mila ■ Mt Piper ■ Nungatta/Yambulla
www.snowyriverinterstatelandcare.net

Vehicle hygiene

- **STOP!**
  Avoid driving through infestations
- **INSPECT!**
  Inspect and clean clothing and equipment
- **PROTECT!**
  Report suspicious plants

- Use high pressure water for exteriors
- Use compressed air for hard to reach areas
- Use a vacuum for interiors

Weeds in Livestock Purchases

KEEP YOUR COUNTRY CLEAN!

TAKE ACTION

BEFORE

WEEDS BECOME A

PROBLEM

Quarantine introduced stock for AT LEAST TEN DAYS in a location where weeds can be easily observed, contained and managed.

CONSIDER THE ORIGIN OF PURCHASED STOCK

IF YOU ARE UNSURE, ASK TO SEE THE NATIONAL VENDOR DECLARATION

Hawkweeds *(Pilosella species, formerly Hieracium species)*

• Mouse-ear Hawkweed

Description:

Two species of Hawkweeds have so far been found on the Southern Tablelands. Illustrated above is Mouse-ear Hawkweed *(Pilosella officinarum,* formerly *Hieracium pilosella).*

Less easy to confuse with other native and weedy daisies is Orange Hawkweed, *(Pilosella aurantiaca,* formerly *Hieracium aurantiaca),* with its bright orange flowers (see cover photo and below). Both species have leaves in a basal rosette, and covered in long, fine hairs (white and matted on the underside of Mouse-ear Hawkweed leaves). Mouse-ear Hawkweed flowers are held singly on unbranched stems, Orange Hawkweed flowers are in tight clusters of 5 or more. Both have black hairs on the stems and the bracts that enclose the base of the flower heads.

Dispersal:

Seeds have a parachute of fine hairs to aid wind dispersal. They may also attach to humans, animals, vehicles or be transported in soil.

Effects:

These extremely invasive plants are a serious threat to both agriculture and natural vegetation. The rosettes send out runners, rapidly expanding the clump size. They release allelopathic chemicals, excluding other plants. They reduce carrying capacity. They are major weeds in many parts of the world. In NSW they are a notifiable weed. If you think you have seen this weed **DO NOT** attempt to control it yourself but mark the location and contact Council immediately.

• Orange Hawkweed

Look-alikes:

- Lesser Hawkbit *(Leontodon saxatilis)*

Hairless green bracts enclosing flowers

Many native and exotic yellow-flowered daisies have some resemblance to Mouse-ear Hawkweed, though none have the long fine hairs on foliage, or black hairs on stems and bracts. The weed Cat's Ear or Flatweed is illustrated on page 25. It has flowers usually on branching stems and the underside of the "petal" is grey-green, not red. In all other similar daisies the "petal" underside is yellow.

Another weed, Lesser Hawkbit *(Leontodon saxatilis, above)* has flowers on single stems and hairy leaves but is a single rosette, not a clump, and has no hairs on the green bracts which enclose the flowers. Its leaf hairs have a tiny fork at the tip which may need magnification to see.

The native *Picris angustifolia* looks a bit similar but is taller and often branching, and has pale T shaped hairs on stems and foliage and pale curved hairs on the bracts.

The familiar Dandelion *(Taraxacum officinale)* has hairless, hollow stems and at least some of its green bracts are flexed back towards the stem. A similar native is the Yam Daisy *(Microseris lanceolata),* whose leaves are long and narrow, and almost hairless.

IF IN DOUBT GET IT CHECKED BY CALLING COUNCIL!

- Mountain Picris *(Picris angustifolia)*

- Taraxacum "Dandelion" *(Taraxacum officinale)*

African Lovegrass *(Eragrostis curvula)*

Description:

Perennial tussock grass to 1m high with narrow, flat pale grey-green to blue-green leaves. The form most common on the Monaro often has curly leaf tips and is shorter and less upright than the form found on the coast, though either type may occur here.

The most distinctive feature is the blackish colour of the young seed heads. These start with the branches folded upwards against the stem and open out as they age.

Once seed is shed the seed heads become straw-coloured, and the stems are retained on the plant into winter. There is a ring of hairs where the leaf blade joins the leaf sheath, and there may be long hairs at the base of each branch of the seed head. There is always a swelling at the base of the branches within the seed head.

Dispersal:

Spread is by seed, which is produced in very large amounts. Most of it falls close to the parent plant, but long-distance spread may occur in contaminated hay, in soil or on vehicles and machinery and in the gut of livestock which have fed on it. It also spreads down rivers in water. It tolerates poor, sandy soils and dry conditions, and spreads rapidly once the initial infestation is established. Most spread is along roads on vehicles initially and subsequently in the gut of livestock.

Effects:

It is not very palatable or nutritious, so tends to be avoided by stock unless there is nothing else to eat. It therefore rapidly replaces more palatable grasses in overgrazed pasture, especially during drought. It also invades native vegetation including grassland, woodland and open forest, tolerating some shade.

Look-alikes:

• Native Paddock Lovegrass *(Eragrotis leptostachya)*

There are various weedy and native lovegrasses, of which the most common are the native Paddock Lovegrass *(Eragrostis leptostachya)* and the weed Stinkgrass *(E. cilianensis)*.

Paddock Lovegrass is quite common, and persists better than many native grasses under heavy grazing. Its seed head has the same blackish florets, but they are held on shorter branches which are held at 90 degrees to the main stem.

Native Poa Tussocks (*Poa* species) can also be confused with African Lovegrass on general shape, but they have purple flowering heads, not black.

Stinkgrass generally occurs on road verges, where it may form a dense strip along the edge of the bitumen. It has very black florets which are longer and larger than those of African Lovegrass and held on shorter branches. The whole plant is shorter. The seed heads become straw-coloured in winter.

• Stinkgrass *(Eragrotis cilianensis)*

• Hairy Panic *(Panicum effusum)*

Hairy Panic *(Panicum effusum)* is a common native tussock with a similar form to African Lovegrass. Its widely branched seed heads are not blackish, and do not persist on the plant once ripe, but snap off whole and blow around to pile up against fences.

Spikelets are held singly at the tips of branches, rather than being composed of several overlapping florets as in ALG (3rd photo, opposite page).

The leaf margins have scattered long, fine hairs and the leaf is softer and bright green, not grey-green.

Serrated Tussock *(Nassella trichotoma)*

Description:

Perennial tussock grass to 50cm high with erect bright green ("bleached blonde" in winter) rolled leaves less than 1mm wide. Long, branched flowering stems are slender and weak and often weep over and trail on the ground, rather than being held erect.

The flowers are enclosed in a red sheath, and combined with the weeping habit, give the flowering plant a pink cushion-like appearance. The seed is tiny and almost round, with a fine thread-like awn attached off-centre at one end. Photo at lower right shows the seed on the left, compared with the native Tall Speargrass *(Austrostipa bigeniculata),* whose seed is more elongated.

Dispersal:

Spread is mostly by wind, although seed can also be transported in and on animals, clothing and vehicles and machinery. The entire seed head snaps off when seed is ripe, and blows around. Large accumulations pile up along fences and catch on other vegetation such as shrubs and thistles. The native Hairy Panic *(Panicum effusum)* also does this, but its stems are thicker and straighter.

Effects:

Serrated Tussock is not very palatable and has almost no nutritional value, and is avoided by stock unless there is nothing else to eat. It therefore rapidly replaces more palatable grasses in overgrazed pasture and is one of the worst weeds for reducing carrying capacity in Australia. It also invades native vegetation including grassland, woodland and open forest, tolerating some shade.

Look-alikes:

The weeping, pinkish flowering heads are distinctive, as is the bright green leaf colour (more blue-green in most look-alikes) and the very bright blonde winter colour. Do not be misled by the "serrated" part of the name: many native grasses also have leaf edges which feel rough to the touch when run backwards between the fingers.

• River or Silver Tussock *(Poa labillardierei)*

Some Poa Tussocks (all natives) have similar fine, rolled, serrated leaves, but their seed heads are erect and remain on the plant into the winter. River or Silver Tussock *(Poa labillardierei)* commonly forms large colonies in low-lying areas.

Poa Tussock *(Poa sieberiana)* is a common dominant of native pasture on basalt soils. Both it and River Tussock have purple, not pink, erect seed heads with shorter less spreading branches.

Some native Speargrasses, especially Corkscrew Grass *(Austrostipa scabra)* have fine green leaves held erect in a narrow tussock and awned seed which also looks pink when young. Speargrass seed heads are erect and retained into the winter.

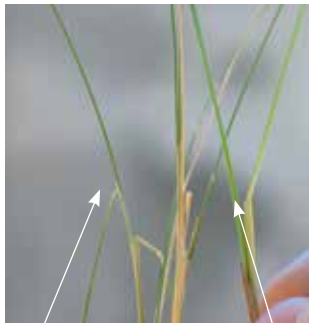
In Corkscrew Grass the awns on the seed twist into a spiral when ripe. These small tussocks are often found in areas of thin soil such as around rocks and on cuttings.

• Speargrass *(Austrostipa scabra)*

If unsure of tussock identification, check for a ligule, a small flap of translucent tissue at the point where the leaf blade joins the leaf sheath. Pulling the leaf blade back should make it stick up, if present.

In Serrated Tussock is it about 1mm long and white (left hand plant).

In Poa Tussocks it is very short and not visible to the naked eye (right hand plant). In Corkscrew Grass it is also 0.3-1.5mm long and visible, but is usually accompanied by an asymmetric pale lobe at the base of the leaf blade.



Comparing ligules

Chilean Needle Grass *(Nassella neesiana)*

Description:

Perennial tussock grass to 1m high, but often holding its leaves horizontal and close to the ground. Leaves are dark green, flat to slightly in-rolled, ribbed, hairy on both surfaces (above right) and to 5mm wide.

The flowering stems have bent joints (nodes) with short white hairs on and extending a short distance above the swollen node (opposite page, lower left). The flowers are enclosed in a purple-red sheath (above left), maturing to straw-coloured.

The seed is elongated and sharp-tipped, with a long awn. Awns may twist and tangle when mature, producing clumps of seed (this also happens in native spear grasses). The seed is densely hairy at the sharp end, but hairless above that, with a "corona" of long hairs encircling the base of the awn (opposite, top). The corona provides the best distinguishing feature between this weed and native spear grasses.

Dispersal:

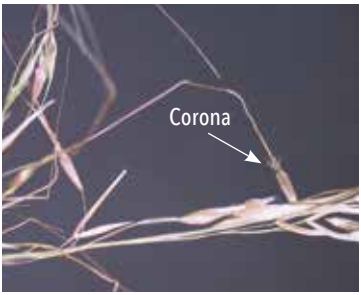
Sharp-pointed seeds attach to animals and clothing, also in soil on machinery and vehicles. Not only do plants produce up to 20,000 seeds on the flowering stems, but they also produce up to 5,000 hidden seeds in the stems at the base of the plant, making this a very difficult plant to control.

Effects:

It is not very palatable, especially in the seeding stage and reduces carrying capacity, as well as invading urban open space and native grasslands. It can contaminate crops and hay. Seed burrows into sheep skin and downgrades wool quality. It may replace native grasses in remnant grassland or woodland.

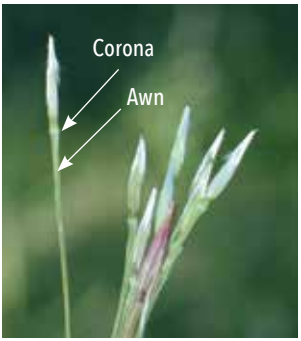
Look-alikes:

Many native spear grasses *(Austrostipa species)* have similar long, awned seeds enclosed in purplish sheaths, though some of these have very narrow rolled, bristle-like leaves, so are unlikely to be confused with Chilean Needle Grass. The two most similar natives are Tall Speargrass *(Austrostipa bigeniculata),* common on the Monaro, and *A. rudis* which grows in wetter areas in the eastern part of the region.

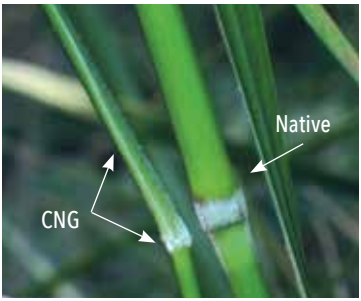


• Speargrass *(Austrostipa stuposa)*

The top seed is Chilean Needle Grass and the lower is the native *Austrostipa rudis.* Like many native spear grasses, its seed is hairy all over (though some have a bare area near the base of the awn). CNG seed is mostly hairless except at the tip. The corona of hairs (arrowed) looks more like a membranous flap in unripe seed (below right). Some native spear grasses such as *Austrostipa stuposa* also have a corona of hairs (left, arrowed), but the hairs are longer and sparser.



• Chilean Needle Grass



Comparing stem nodes

Swollen whitish nodes on flowering stems are a feature common to CNG and many native spear grasses. Chilean Needle Grass (on the left) has a zone of short white hairs extending up the stem from the node, while in *Austrostipa rudis* (right) and other natives the hairs are confined to the swollen area of the node.

Coolatai Grass *(Hyparrhenia hirta)*

Description:

Perennial tussock grass to 1m high. Erect flowering stems often have alternating broad bands of red and green. Flowers are in paired 2-4cm spikes each with 5-7 awned spikelets. The dark awns are straight in the flowering stage but may twist and bend later. Florets are covered in silky white hairs, looking fluffy when mature.

Dispersal:

The first occurrence in a new area is generally on road verges, from which it can spread to nearby pasture and into native vegetation. Potentially also spread in or on livestock.

Effects:

This very invasive grass forms monocultures, replacing more desirable grasses and invading native vegetation.

Coolatai Grass dominating the road verge at Berry on the south coast

Look-alikes:

Coolatai Grass is unfortunately quite similar to some local native grasses. It shares the striped red and green stem appearance with several closely related natives. Native Sorghum (Sorghum leiocladum) and Queensland Blue Grass *(Dichantheum sericeum)* can be distinguished by the "ballet-skirt" of fine hairs around the nodes (joints) on flowering stems.

Barbed Wire Grass *(Cymbopogon refractus)* has flower spikes arranged like the barbs on barbed wire and its crushed leaves have a slight lemony smell.

Kangaroo Grass *(Themeda triandra)* has dangling clusters of non-hairy spikelets with thicker dark awns.

The most similar is Red or Red-leg Grass *(Bothriochloa macra)*, a common pasture grass on the Monaro. It has similar spikes of awned fluffy spikelets but the spikes are in groups of 3-6, not in 2's. The stem below each spike has long hairs in Coolatai Grass (below right) but is bare in Red Grass (below left).

Red Grass with 5 spikes, and older stem from which most spikelets have fallen at left

Long hairs below the paired spikes in Coolatai Grass (above)

Awned red-brown spikelets and "ballet-skirts" on stems of Native Sorghum

The weed Whisky Grass (Andropogon virginicus) forms a very erect tussock. It is moving into the Southern Tablelands and is most likely to be spotted on highway verges.

Scotch or English Broom
(Cytisus scoparius)

Cape or Montpellier Broom
(Genista monspessulana)

• Scotch Broom

• Cape Broom

Description:

Shrubs 1-2m, occasionally to 3m high. Cape Broom has leaves composed of three leaflets, like clover, and seed pods which are hairy all over. Flowering is in late winter to spring, with a second flowering in late summer.

Scotch Broom has deep green to brown ribbed stems, is leafless, or may have small leaves of 1 or 3 leaflets, especially on young growth. Flowering is in spring to summer. Flowers are usually pure yellow, rarely with red or purple markings. Its flat seed pods are hairy only on the edges and brown to black when ripe.

Flax-leaf Broom *(Genista linifolia)* is similar to Cape Broom, but with each leaflet long and narrow rather than oval in shape. Spanish Broom (Spartium junceum) has leafless, non-ribbed stems. Neither is common on the Monaro but may be an occasional garden escape.

Dispersal:

Explosive release of seeds around parent plants may spread seed a few metres. Seed can be carried in wool of sheep or on other animals feeding among the plants during their seeding period. Movement of contaminated soil spreads seed over longer distances. Seed is very long-lived in the soil.

Effects:

Brooms reduce carrying capacity of pasture, and provide cover for feral animals such as rabbits, foxes and pigs. Scotch Broom is poisonous, particularly the seeds. They also invade forest, replacing native understorey plants and changing the soil fertility by fixing nitrogen.

Dense stands are highly flammable and burn very hot, worsening the effects of fires in bushland. Fire may break seed dormancy and encourage mass germination of seedlings.

Look-alikes:

There are several native shrubs with pure yellow flowers, such as Bossiaea foliosa but they do not have large pea-pod shaped seed pods.

Bossiaea foliosa grows to about 1m high and is a common understorey shrub in Snow Gum forest. Its leaves are tiny and almost circular. *Gompholobium huegelii* is a low shrub whose blue-green leaves have three narrow leaflets.

- Leafy Bossiaea
  (Bossiaea foliosa)

- Wedge Pea
  (Gompholobium huegelii)

There are some leafless native shrubs which are common in the understorey of some forests on the southern tablelands. None of them have pea-like yellow flowers. Their flowers are white or cream and very small. Fruits are succulent, like that of the Native Cherry (Exocarpos strictus) or spherical and green like those of the various Currant Bushes (*Choretrum* species).

Choretrum pauciflorum is a short, erect plant with stiff ribbed stems. *Choretrum candollei* is 1-3m high with a drooping habit (unlike the erect stems of Scotch Broom). It occurs in forest along the eastern edge of the Monaro.

- Native Cherry
  (Excaropos strictus)

- Dwarf Sour Bush
  (Choretrum pauciflorum)

Gorse or Furze *(Ulex europaeus)*

Description:

Gorse is a densely spiny shrub to 4m high with hairy ribbed stems. Seedlings are not spiny and have leaves composed of three leaflets, but these are replaced by grooved spines up to 30 mm long on mature plants. Flowers are pure yellow, fragrant, 15-25mm long and enclosed by densely hairy sepals. Seed pods are 10-20mm long, oval and inflated and densely hairy. Flowers can be produced year-round, but mostly in spring and autumn.

Dispersal:

Explosive release of seeds around parent plants will spread seed a few metres. Birds will also spread the seed, and plants often come up under trees or other perches. Seed can be carried in wool of sheep or on other animals feeding among the plants during their seeding period. Dumping of seed-bearing material and movement of contaminated soil can also spread seed over longer distances, for example during grading of infested road verges.

Seed is protected by a hard coat and is very long-lived in the soil. Even 25 year old seed is still 85% viable, and as seed production is high, a huge soil seed bank can develop over time. This can be an impediment to long-term control.

Effects:

Young plants are palatable but older ones are not and Gorse reduces carrying capacity of pasture, and because of its prickly nature makes movement within infested paddocks difficult. It provides cover for feral animals such as rabbits and foxes. It also invades forest, replacing native understorey plants. It burns readily and dense stands are a fire hazard.

Look-alikes:

• Gorse Bitter Pea *(Davesia ulicifolia)*

A native shrub, Gorse Bitter-pea *(Daviesia ulicifolia)* is prickly, with each tough, leathery leaf, and the branch tips, having a sharp point. The yellow flowers have tones of brown, orange or red and the pods are small, triangular and hairless.

It is a common understorey shrub in various types of forest or woodland from the coast to the Alps.

• Gruggly Bush *(Melicytus angustifolius)*

• Anchor Plant *(Discaria pubescens)*

There are some spiny native shrubs occurring in forest, woodland or grassland on the Monaro. The most common in grassland is Gruggly Bush *(Melicytus angustifolius,* formerly *Hymenanthera dentata),* above left. Its small leaves are often concealed among the spiny stems covered in a thick growth of lichens, and it is usually found around the base of rocks.

Anchor Plant *(Discaria pubescens),* above right, has bare green stems with long paired spines, and occasionally small clusters of white flowers. It is a rare plant of grasslands and grassy woodlands.

A less common plant on the Monaro is Blackthorn *(Bursaria spinosa),* not illustrated, which has alternate spines interspersed with small leaves, and large sprays of white flowers at the branch tips in summer. These are followed by clusters of papery brown capsules. In none of these shrubs are the spines as dense as they are in Gorse, nor are they grooved.

Sweet Briar *(Rosa rubiginosa)*
Blackberry *(Rubus fruticosus species complex)*

• Sweet Briar Flower

• Sweet Briar Fruits

Description:

Thorny shrubs 1-2m, occasionally to 3m high. Sweet Briar is erect and multi-stemmed, with leaves composed of 5-7 leaflets and pink flowers, followed by leathery seed capsules (rose hips).

Blackberry is also multi-stemmed, with long arching canes which droop down to the ground. Smaller white to pale pink flowers are followed by edible berries, ripening to black.

Dispersal:

Seed of both is mainly spread by birds and foxes and plants often occur under trees and fences initially. Blackberry also spreads vegetatively by "layering" with branch tips producing roots where they contact the soil. These then produce a new cluster of stems, expanding the size of the clump.

Effects:

Both reduce carrying capacity of pasture, make mustering and other paddock activities more difficult and provide cover for feral animals such as rabbits, foxes and pigs. They also invade forest, replacing native understorey.

Blackberry leaves have 5 leaflets. The berries ripen from green to red to black.

Look-alikes:

There are no similar plants to Sweet Briar, but there are Native Raspberries which could be mistaken for small Blackberry plants.

Small-leafed Bramble *(Rubus parvifolius)* is fairly common on the Monaro. Flowers are pink and fruits bright red, prickles on the stems are smaller, and the whole plant rarely gets more than 30cm high, though it can scramble over rocks and other plants up to 1m.

Rubus rosifolius is more a plant of the wetter tableland edge forests.

• Small-leafed Bramble *(Rubus parvifolius)*

• Native Raspberry *(Rubus rosifolius)*

St John's Wort *(Hypericum perforatum)*



Description:

Perennial herb to 1m high (but mostly 30-70cm) with small pale green leaves arranged in opposite pairs. If leaves are held up to the light small, clear oil dots can be seen (hence the name "perforatum" as the leaves appear to be perforated with pinholes – see photo opposite page bottom). Five-petalled flowers are about 20mm across and are followed by small, brown, oval seed capsules. Flowering is in spring to summer. The flowering stem dies after seed is shed (below left) and plants either disappear altogether through winter, or are present as prostrate stems forming a mat on the ground (below right).

Dispersal:

The plant spreads both by rhizomes (underground runners) and the very small seed, either of which may be spread in contaminated soil, or by water. Seed can be spread in contaminated hay, grain or pasture seed, and the sticky seed is spread in or on livestock. Cultivation can spread the runners.

Effects:

The oil glands contain a poisonous substance, hypericin, which is toxic to all livestock, although goats have been used to help control it and are less affected than sheep or cattle. It causes photosensitisation (effectively, sunburn), with bare skin or white haired areas becoming reddened, itchy and blistered. Dark-skinned animals are less sensitive to it.

Irritation can be intense and accompanied by restlessness, loss of condition, convulsions, blindness and eventually death. Illness in people has been reported after handling the plant, including lethargy, dizziness, diarrhoea and loss of appetite. Sensitivity can increase with increased exposure and in animals under stress. It is not readily eaten and hence will increase in grazed pasture, as competing plants are selectively grazed out. Readily invades native grassland, woodland and even forest.

Old seed heads may be the only visible sign of the plant in winter.

Prostrate stems early in Spring

Look-alikes:

There is a smaller native relative, *Hypericum gramineum,* which has the same pale green, opposite leaves and yellow flowers. The whole plant rarely exceeds 15cm high and the flowers are only 10mm across. It is not known if it is also toxic, but it seldom occurs in sufficient quantity to be a problem if it is. It is relatively common in native grasslands and woodland on the Monaro.

Another native, *Hypericum japonicum,* (not illustrated) is even smaller, and grows in wet areas such as bog edges.

• Native St Johns Wort (both images) *(Hypericum gramineum)*

Oil dots in St John's Wort are quite large

Numerous small oil dots in the leaves of Native St John's Wort

Fireweed *(Senecio madagascariensis)*

Description:

Branching erect or sprawling annual herb to about 30cm high, usually with 13-petalled flowers and bright green, slightly fleshy leaves which may be toothed, lobed or smooth-edged (often all on the same plant).

Dispersal:

Seed is wind-blown and can spread over long distances. It can also be moved in soil and on vehicles. Roadsides are often the first point of establishment in a new area.

Wind-blown seed is often deposited on the lee side of ridge tops, another common first point of arrival, along with moist areas like dam margins.

Effects:

It is toxic to stock, though less so to sheep and goats which graze it readily and provide a degree of control, though they may also spread the seed in their droppings.

Very invasive in moist conditions or wet seasons and capable of growing and seeding year-round, though seedlings are frost tender.

Pasture on the left above has been grazed by sheep

Look-alikes:

There are several Dandelion-like weeds with yellow flowers, but they have numerous overlapping "petals" (in the daisy family each flower head is made up of many tiny flowers, the outer ones having a single petal-like structure called a ligule).

The illustrated plant is Cat's Ear or Flatweed *(Hypochaeris radicata).*

The native Yam Daisy also has this type of flower head.

• Cat's Ear or Flatweed *(Hypochaeris radicata)*

• *Senecio pinnatifolius (*formerly *S. lautus)*

There are many native members of the genus Senecio, some of which are quite similar to Fireweed. The most similar, at left, is *Senecio pinnatifolius (formerly S. lautus).*

It is a variable species and a form very like Fireweed grows around the edges of escarpment swamps. Apart from the distinctive habitat (though Fireweed will also invade swamp edges), it can be distinguished by the smaller number of involucral bracts.

The bracts are the green, often dark-tipped, structures surrounding each flower head.

• Fireweed with 20 to 21 bracts

• Native *Senecio pinnatifolius* with 13 bracts

Ox-eye Daisy *(Leucanthemum vulgare)*

Description:

Herbaceous multi-stemmed perennial plant to about 90 cm high with underground runners. Single flower heads are born above the leaves on long, grooved, leafy stems and are about 4 cm in diameter. The green bracts below the flower head have purple-brown edges.

Seedling leaves are hairless, round or oblong to spoon-shaped with lobed edges, becoming longer on older plants.

Dispersal:

Seed becomes sticky when wet and sticks to animals, humans and vehicles. Initial spread is often along roads.

Effects:

This plant is extremely invasive, preferring higher rainfall areas or moist parts of the landscape such as sheltered slopes. It can completely exclude all other plants in both pasture and native vegetation. It is unpalatable to stock.

There are large infestations in northern Kosciuszko National Park and scattered off-park occurrences west of Adaminaby, as well as in the Bombala area.

Ox-eye Daisy invading subalpine woodland

Look-alikes:

Seedling (left) and pre-flowering Ox-eye Daisy plant. A single plant can spread rapidly via underground runners to form large clumps.

The garden plant Shasta Daisy is similar but its flowers (on the left in this photo) are about twice the size of Ox-eye Daisy (on the right).

Shasta Daisy has been known to spread around plantings and its use in gardens should be avoided.

The native Hill Daisy *(Brachyscome aculeata)* is very similar to Ox-eye Daisy, but is smaller. The Ox-eye Daisy flower at left is more robust than the Hill Daisy flower on the right.

Hill Daisy "petals" may have a mauve underside and the green bracts a purple tip, but not a complete purple margin as in Ox-eye and Shasta Daisy. Its flowering stems are not grooved.

In general appearance it is very similar to Ox-eye Daisy, but smaller.

Hill Daisy *(Brachyscome aculeata)* bracts and stems are covered in short hairs.

Thistles

• Nodding Thistle *(Carduus nutans)*

Description:

There are many thistles, all annual or biennial weeds in the daisy family. The features they share are a basal rosette of leaves (eg. above right) which produces a simple or branching flowering stem (eg. above left). Leaves are usually spined on the toothed or lobed margins and the tiny flowers are clumped into terminal heads surrounded by spiny bracts. The stems of some thistles are winged (eg. below right).

Most of the more common species are pink or purple flowered except for Saffron Thistle *(Carthamus lanatus)* which has yellow flowers.

Dispersal:

Seed is dispersed by wind (aided by a parachute of fine hairs), water, slashing, contaminated soil or hay, or on stock.

Effects:

Thistles reduce carrying capacity and hinder movement around paddocks. Fragments adhering to livestock can damage wool and make handling of animals unpleasant. They invade native vegetation.

• Scotch *(Onopordum acanthium)* left and Illyrian *(O. illyricum)* right

• Winged Slender Thistle *(Carduus tenuiflorus)*

Thistles

• Perennial or Canadian Thistle
(Cirsium arvense)

• Star Thistle
(Centaurea calcitrapa)

• Variegated Thistle
(Silybum marianum)

• Black or Spear Thistle
(Cirsium vulgare)

• Saffron Thistle
(Carthamus lanatus)

Thistle look-alikes:

The weed Wild Teazel *(Dipsacus fullonum)* has elongated cylindrical heads of mauve flowers with long spiny bracts at the base, and short prickles on stems and the vein on the leaf underside, but not on leaf margins.

The tough seed capsules, shown here, are quite persistent, and were once used to card wool for spinning.

It is an uncommon Monaro weed.

A native plant, the Blue Devil *(Eryngium rostratum),* left and below is an uncommon plant of native grasslands.

It has a distinctively wide-branched flowering stem and spiny flower heads, both blue-purple at maturity, but fading to straw coloured. With only the spiny bracts remaining after flowering this plant looks quite thistle-like. The grey-green leaves are in a basal rosette with long narrow teeth but no spines.

The Blue Devil is not related to thistles, but is in the carrot family *(Apiaceae).*

NSW WeedWise is provided as a free smartphone app through app stores Google Play and iTunes.

Like the web version ***(https://weeds.dpi.nsw.gov.au),*** the smartphone app provides key information to help users reduce the impact of over 300 weeds in New South Wales.

You can search or browse weed names (common or scientific); recognise a weed by its physical description and image gallery; and find out about its impacts, where it occurs, how it spreads and its preferred habitat.

Weed management options are also described for each weed and the herbicides registered for control are listed.

No space for weeeeeeeds!

Hey NSW, help share our message 'No Space For Weeeeeds'. A campaign to increase awareness of weeds, empower people to understand weeds and importantly, know how to report and control them.

Preventing the spread of weeds protects our native plants and animals and our land, water and food production in NSW. Weeds can take over precious habitats and threaten our industries and livelihoods. We need your help to stop them.

Let's share it!

We're for plants, wildlife, produce, pastures and a productive NSW. We're for 100% NSW No Space for Weeeeeds! We'd love to reach as many people as possible to prevent weeds and help us stop their spread.

SNOWY MONARO
REGIONAL COUNCIL

For further information about weeds and weed control, consult your local Council weeds officers:

PO Box 714 COOMA NSW 2630 — Phone 1300 345 345
council@snowymonaro.nsw.gov.au
www.snowymonaro.nsw.gov.au

This project is supported by the Department of Agriculture, Water and the Environment through funding from the Australian Government's National Landcare Program.