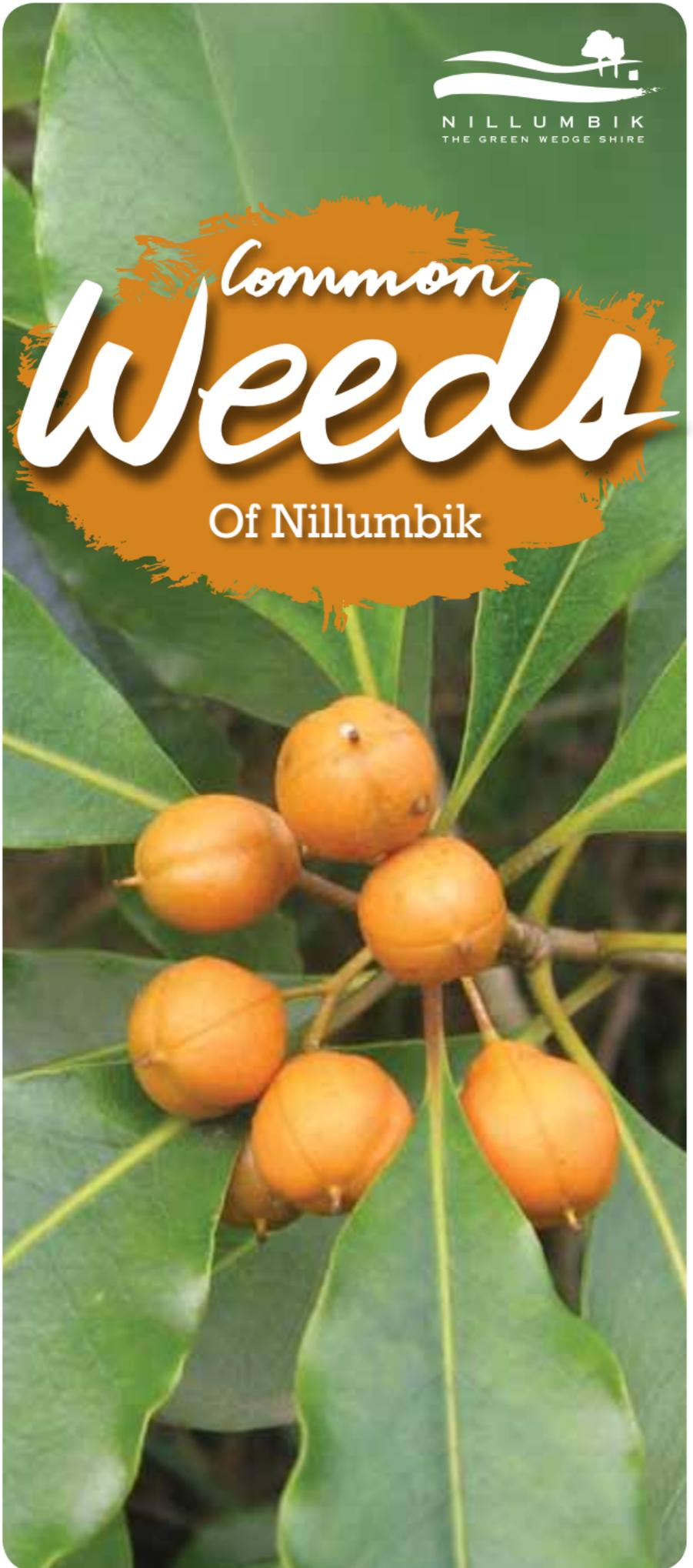


*Common*  
**Weeds**  
Of Nillumbik



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**Disclaimer:** Although precautions have been taken to ensure the accuracy of the information, the publishers, authors and printers cannot accept responsibility for any claim, loss, damage or liability arising.

**Cover image:** Sweet Pittosporum (*Pittosporum undulatum*) by David Blair



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# Introduction

If you live in the Shire of Nillumbik, you are aware of its amazing natural beauty. From fern-filled wet forests to orchid-rich dry forests, through hills and valleys, along creeks and rivers, and through historic townships and picturesque agricultural areas, Nillumbik has a unique and special environment. However these values are under threat with weeds impacting on bushland and agricultural areas.

*A weed is considered pragmatically as a plant that requires some form of action to reduce its harmful effects on the economy, the environment, human health and amenity.*

The Australian Weeds Strategy (2006)



**There are two main categories of weeds considered in this booklet:**

**1. Environmental weeds** invade native bush and threaten the biodiversity of natural ecosystems. Environmental weeds impact indigenous plants by competing for light, nutrients, water, space and pollinators. By limiting the growth of indigenous plants, weeds reduce the food and habitat available for wildlife, resulting in more degraded natural environments with fewer species. Some weeds also alter the fuel loads in our forest and increase the fire risk.

**2. Agricultural weeds** invade crops, pasture and other agricultural systems, reducing productivity.

Many weeds, such as blackberries, fit into both categories.

Weeds don't observe property boundaries, so the best weed management occurs at a landscape scale. Coordinating works with your neighbours or participating in a Landcare, Friends or other environmental group will increase your chance of success, while spreading the benefits beyond your own property.

## How to use this booklet

This purpose of this booklet is to provide all land managers (public and private) with a locally-relevant field guide that will help to identify and manage environmental and agricultural weeds in Nillumbik Shire. The first part of this booklet provides information on weed management. The second part provides information on 40 high threat weeds found in Nillumbik, grouped by life form (i.e. grasses and sedges, herbs). Although there are many other weeds in Nillumbik, these weeds were chosen because they represent common and/or significant species. For a list of high threat weeds, visit the Nillumbik Shire Council website: [www.nillumbik.vic.gov.au](http://www.nillumbik.vic.gov.au).

## What is my responsibility?

All land managers are responsible for managing weeds on their land, irrespective of whether the land is public or privately owned.

As of 2013, the Department of Environment and Primary Industries (DEPI) provides the following information:

### Legislation

Under the *Catchment and Land Protection Act 1994* (CaLP Act) certain plants are declared as Noxious Weeds in Victoria. These plants cause environmental or economic harm or have the potential to cause such harm. They can also present risks to human health. The CaLP Act defines four categories of Declared Noxious Weeds:

- State Prohibited Weeds
- Regionally Prohibited Weeds
- Regionally Controlled Weeds
- Restricted Weeds.

Noxious Weeds are categorised into one of these four categories for each catchment region in Victoria.

The Victorian Government is responsible for eradicating State Prohibited Weeds. If you think you have purchased or seen a State Prohibited Weed, please telephone the Department of Environment and Primary Industries on 136 186. Please do not attempt to control or dispose of these weeds yourself.

All land managers are responsible for taking all reasonable steps on their land to:

- eradicate Regionally Prohibited Weeds and
- prevent the growth and spread of Regionally Controlled Weeds.

Trade of Restricted Weeds is prohibited.

The Weeds of National Significance are nationally agreed priority plant species for control and management. Species are selected based on invasiveness, potential to spread, and impact socio-economic and environmental assets. They pose a serious threat to agriculture, the environment or community health and cannot be sold or traded.

There are currently 32 Weeds of National Significance. Nine of these weeds are described in this booklet.

In situations where landscape and heritage values apply, you may require permission through the Nillumbik Planning Scheme to remove certain plants. Please telephone Council's Planning Services on 9433 3343 to find out whether you need a planning permit for removal of invasive trees.

As a land manager, it is important to be able to identify and control all weeds posing a threat to your land or neighbouring land (including weeds not listed as Noxious). For lists of weeds known to pose a high environmental or agricultural threat in the Shire, visit the Nillumbik Shire Council website:

[www.nillumbik.vic.gov.au](http://www.nillumbik.vic.gov.au).

## When is a native a weed?

It may surprise you to learn that just because a plant is 'native', it doesn't mean it is good for our local environment. The terms 'indigenous' and 'local native' are used to refer to plants that occur naturally in the local area and have evolved to suit local environmental conditions. However, many plants are 'native' to Australia, but not part of our local ecosystems. These plants can take over natural bushland and hybridise with indigenous plants, polluting and weakening their gene pool.

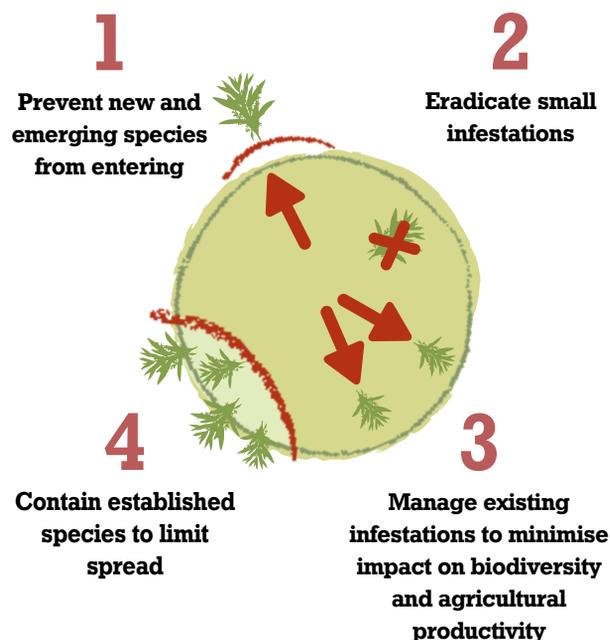
Many of these plants were introduced as garden plants and are still being readily purchased and planted. When purchasing plants, seek species that are indigenous or at least non-invasive.

## Prioritising weed management on your property

Controlling weeds is not simple. Land managers are confronted with managing many weeds over many years. However, a small amount of work in the short term to prevent weed spread and control new and small infestations can save time and money in the future.

The following section provides a framework for prioritising weed management to:

- prevent weeds spreading
- protect environmental and agricultural values
- contain established weed infestations.



**Figure 1:** A biosecurity approach to weed management (adapted from Department of Environment and Primary Industries publications)

## Prevention

Weed prevention is generally much more cost effective than controlling established infestations. Weeds disperse from many sources and by many processes. By understanding how weeds are dispersing into or around your property, you can often find simple ways to prevent weed spread, such as:

**Planting methods** – When planning to undertake revegetation, the first action should be to control weed infestations in the area. Avoid planting known environmental weeds and where practicable choose indigenous species.

**Reduce soil and vegetation disturbance** – Most weeds are opportunistic and the first to colonise newly disturbed areas. Disturbing soil may also encourage the growth of existing weed seeds. Maintaining a healthy and competitive cover of the plant species you want, such as indigenous plants in bushland and pasture species in agricultural pasture, will provide the greatest deterrent to weeds. To help reduce disturbance and maintain vegetation cover consider: limiting vehicle and stock movement; preventing overuse of herbicides; controlling rabbits; preventing overgrazing by stock or excluding grazing in bushland areas; and revegetating with preferred species.

**Practise good hygiene** – Weed seeds, stems and leaves often spread on machinery, vehicles, tools, equipment, clothing and footwear. Livestock and domestic animals can also transport weeds on their fur or through their manure. Appropriate hygiene practices, particularly when moving from more weedy areas to cleaner areas, can make a big difference. This might include brushing down of machinery like mowers.

**Dispose of weeds appropriately** – Ensure soil, gravel, stock feed and mulch introduced to your property are weed free, and dispose of garden and weed waste appropriately. Under the *Catchment & Land Protection Act (1994)* it is an offence to transport Noxious weeds, even to take them to the tip. You can dispose of weeds not declared as Noxious by the trailer load at Council's Recycling and Recovery Centre, 290 Yan Yean Road, Plenty. A guide to fees charged is available on Council's website:

[www.nillumbik.vic.gov.au](http://www.nillumbik.vic.gov.au).

As an alternative, consider allowing the weeds to break down on your property. This can be done through solarisation. Solarisation involves covering weeds in black plastic until they have completely broken down. Another alternative is to submerge bags of weeds in water in a drum or other container.

Incineration is not always effective to destroy the viability of seeds and may not be possible in some areas of the Shire. Contact Council on 9433 3111 for burning off outside the Fire Danger Period, and the Country Fire Authority (CFA), [www.cfa.vic.gov.au](http://www.cfa.vic.gov.au), for advice in regards to burning off during the declared Fire Danger Period. Place weeds in bags to prevent seeds spreading until you are able to burn them.

There is a risk of seed spread and germination in a compost heap. Burying noxious weeds is also not ideal, as seed can be stored under the ground for many years and still remain viable. A simple disturbance could cause this seed to germinate.

**Manage nutrient inputs** – Many weeds prefer high nutrient environments, while indigenous plants have an advantage in Nillumbik's relatively nutrient-poor soils. Managing nutrient inputs from stock, fertiliser, septic systems and runoff can help favour our local species.

**Focus on new and emerging weeds** – Controlling weeds when they first appear is much more cost and time effective than controlling large established weed infestations.

**Identify and manage sources of weeds** – Work with neighbours and local organisations to identify and manage sources of weeds outside your property.



## Protection

Prioritise the protection of areas with the greatest environmental or agricultural values that are at the highest risk of damage from weeds.

This creates a focus on the weeds doing the most harm in the areas where weed control will have the greatest long-term benefit. For example, to prevent further loss of indigenous vegetation, first remove weeds that are smothering significant or structural species in the highest quality bushland. Areas with a good cover of preferred species are more resilient to most weed invasion and regenerate easily after control works.

If you have bushland on your property, talk to Council or your local Landcare Group to develop an understanding of the important areas or natural features that require protection.

When undertaking weed control, consider less invasive measures, like hand weeding or 'drill and frill', in the more sensitive vegetation (see Weed Control Methods section). Also consider the role weeds may play in providing habitat for local fauna. Stagger woody weed removal and consider replacement planting with indigenous species.

## Containment

Once a weed has established, there are steps you can take to contain the infestation and prevent further spread.

**Eradicate/remove isolated infestations** – Most weeds disperse close to existing plants, either through vegetative growth or from seeds. By targeting small or isolated infestations you can help prevent that weed establishing in that particular location.

**Target mature reproducing individuals** – Many weeds, in particular woody weeds, take several years to reach reproductive maturity. However, once mature, birds, mammals, insects and wind can spread seed long distances from the parent plant. This is particularly the case for: trees; plants that produce fruit or berries eaten by birds and animals, such as foxes (a major source); and climbing plants (e.g. ivy) that seed from the tops of trees. Prioritising removal of mature plants can drastically reduce the spread of weed seeds, while giving you time to target the immature individuals in later years.

**Prevent seed set** – Actions like slashing/mowing, quick spraying or removing flower heads won't kill a weed, but may reduce the ability of the plants to set seed and provide space for more desirable species to become established. This is very important in managing annual weeds, such as some grass species that are reliant on producing seed each year to regenerate the next year.

As some weed seeds can remain dormant in the soil for many years, preventing seed set can slow progression of a weed until you have the capacity for more active management. You can use phased mowing to target grassy weeds amongst indigenous grasses. Mow the area so the indigenous grasses can still set seed.

**Reduce the size of infestations** – When tackling large, dense infestations, controlling the entire infestation in one go may be impractical and could result in large areas of bare ground where that weed or a new weed can reinfest. Starting at the edges of a weed infestation and working inwards gives surrounding natural or agricultural vegetation a chance to colonise the spaces left by weed control.



## Weed control methods

The following section outlines the different weed control methods available.

Effective weed control often requires targeting a weed in a variety of different ways at different points in its life cycle. For example, Sweet Pittosporum control may require you to hand weed seedlings, cut and paint juvenile plants and drill and fill adult plants.

Before selecting a control method, it is important to correctly identify the weed and understand its biology. This will ensure you don't inadvertently remove an indigenous plant and help you to select the most effective control method.

Based on a weed's biology, weed control methods can be more effective at certain times of the year. In a natural setting, understanding the ecology of the local environment can allow you to match the timing of weed control with the germination of indigenous species. If unsure contact Council for advice.



## Non-chemical control methods



### **Hand weeding**

Used for small infestations or in environmentally sensitive areas, or where herbicide use is not desirable. Remove plants by hand or chipping. Ensure you remove all root or rhizome material, as some plants may regrow if roots or rhizomes are not removed.



### **Felling/ringbarking**

Used on trees and large shrubs that won't resprout (e.g. pines). Avoid damage to native vegetation.



### **Solarisation**

Used for dense infestations of grassy or herbaceous weeds, generally in a garden setting. Cover the area with black plastic sheeting to block light, which will heat or 'cook' the weeds. Bury the edges of the plastic sheet and leave in place for at least four weeks and then remove.



### **Smothering/mulching**

Used for dense infestations of grassy or herbaceous weeds, generally in a garden setting. Use a thick layer of mulch or weed matting to cover weed species, limiting the available light to plants. This reduces germination and makes it difficult for plants to penetrate the surface. Take care when using organic mulch as it will increase nutrient levels, which can favour some weed species. Also, ensure that the mulch is free of weed seeds and propagules.



### **Pasture improvement**

Used for agricultural pasture. This technique increases the competition with weed species through good grazing management and by addressing soil fertility.



### **Slashing, mowing and hand removal**

Mainly used for dense infestations of annual grassy or herbaceous weeds, to impede growth and prevent seed set. Slash before seeding, where possible, but otherwise use a catcher on the mower to remove seeds and nutrient rich material from a site and prevent smothering of desirable plants. Dispose of mown material appropriately to prevent spreading the weed. A hoe or a shovel can be used to chip out certain weeds such as thistles.



### **Grazing**

Grazing with livestock can be used before seeding similarly to slashing and mowing, however, grazing is not an appropriate weed control method in bushland.



### **Spot-burning**

Used for grassy and herbaceous weeds using a hand-held weed burner. Be mindful of environmental conditions and fire restrictions. Not suitable for weeds other than grassy or herbaceous weeds.



### **Biological control**

Specifically researched, tested and approved biological control agents (such as rusts, beetles and wasps) are available for certain weed species, such as Bridal Creeper. In most cases they only slow down the progress of the weed. For more information visit [www.depi.vic.gov.au](http://www.depi.vic.gov.au).



### **Revegetation**

If your weed control method exposes the soil, it is important to re-plant, re-sow or encourage the 'good competitors' to fill that space which would otherwise be re-colonised by weeds. In highly degraded areas, you can densely plant or direct seed with desirable species to increase competition with weed species. Over time and combined with targeted weed control, revegetation can shift the balance toward the desired species.



## Chemical control methods



### **Spot spraying and wick wiping with suitable herbicide**

Used for grassy and herbaceous weeds and some young or shrubby woody weeds. Spot spraying or wiping selected weeds with appropriate herbicide (refer to herbicide label) ensuring that due care is taken to minimise impacts on non-target species.



### **Cut and paint with suitable herbicide**

Used on trees and shrubs that are likely to resprout from cut stumps. Cut stem close to the ground and paint cut stump immediately (within 20 seconds) with systemic herbicide (herbicide translocated through the plant). This produces less soil disturbance than hand pulling.



### **Scrape and paint with suitable herbicide**

Used mostly for vine-like weeds. Similar to the cut and paint method, the outside bark is removed with a knife and the inner tissue immediately painted with herbicide.



### **Drill or frill and fill with suitable herbicide**

Used on trees and shrubs likely to resprout. Drill a number of holes or make horizontal cuts with an axe or tomahawk at an angle of 45° into the sapwood (moist wood below bark) around 7cm apart. Immediately fill hole with systemic herbicide (herbicide translocated through the plant). This allows the plant to remain in place and limits disturbance on the surrounding vegetation.

## Responsible use of herbicides and chemicals

When using herbicides make sure you:

- **Stay safe**

Use appropriate safety equipment, take appropriate precautions and always follow the guidelines for use on the label to protect yourself and others from harm.

- **Meet your legal requirements**

In Victoria, to purchase and use certain agricultural chemicals you must hold an Agricultural Chemical Users Permit (ACUP) or be under the direct supervision of an ACUP holder. To obtain a permit you must complete an accredited course in agricultural chemical use. You are also legally required to keep records of agricultural chemicals used according to Department of Environment and Primary Industries' standards. There are household or home garden products available that do not require an ACUP. For more information visit [www.depi.vic.gov.au](http://www.depi.vic.gov.au).



### • Choose the right herbicide

Select an appropriate registered herbicide for the weed you want to target and the control method you are using.

Wherever possible choose a 'selective' herbicide. 'Selective' herbicides target only certain categories of plants while sparing the plants you want to keep. For instance, herbicides designed specifically for broad-leaved plants can be used to kill weeds such as Cape Weed, but they will not kill grasses.

Choose the most environmentally friendly option, in particular when using around waterways. Some chemicals are toxic in aquatic systems. Other chemicals persist in the environment for a long time, increasing the chance of off-target damage.

If you are unsure of which herbicide to use, seek expert advice.

### • Apply the right method

Read the herbicide label and always follow the directions specified. Do not exceed dilution and application rates. Do not spray herbicides on windy days, in high temperatures or if rain is forecast within 24 hours.

All weeds have weak points in their life cycle when they are most susceptible to herbicides. For best results, apply herbicides when plants are actively growing and before seed set, unless otherwise specified.

For more information on using herbicides and other chemicals for weed control visit [www.depi.vic.gov.au](http://www.depi.vic.gov.au).

### • Prevent damage to other plants

Take care to prevent spray drift or overspray that may affect indigenous, agricultural or desired garden plants. If damage can't be prevented or minimised consider using a different weed control method. Also, take particular care when spraying around waterways and use appropriate chemicals to prevent damage to fish and invertebrates.

## Methods of weed dispersal

Weeds grow their numbers and spread across the landscape in several ways. When planning weed control it is useful to understand the methods of dispersal of the weed because some control methods will be specific to certain methods of dispersal. For each weed in this booklet, the methods of dispersal are listed.

<b>Animals</b>	carried by animals on their fur or through consumption.
<b>Ants</b>	seed collected and dispersed.
<b>Birds</b>	transported through consumption.
<b>Machinery</b>	carried by machinery.
<b>Seeds</b>	transferred in soil or fodder.
<b>Vegetative</b>	spread by rhizomes, bulbs, corms and plant segments.
<b>Water</b>	through rainfall events and along waterways.
<b>Wind</b>	carried seed.



# 40 Weeds of Nillumbik

Following is a description of 40 high threat weeds found in Nillumbik. The weeds are grouped by life form:

- grasses and sedges
- herbs
- lilies and bulbs
- creepers and climbers
- small to medium shrubs
- large shrubs and trees.



# Grasses

and sedges



**Threat:** High threat environmental weed.

**Description:** Perennial tufted grass to 80cm tall. Dense, erect and narrow spike-like flower heads. Leaves and roots have a distinct sweet smell like newly mown hay.

**Flowers:** Flowers September to January. The flower is a dense, erect spike-like head which expands at the time of pollen release. The flower colour changes from light green to bleached copper colour with age. Produces prolific seed in late spring.

**Leaves and stems:** Grows in loose tufts, stems unbranched, 10–20cm long with persistent leaf sheath at base. Leaf blades are thin, flat and sparsely hairy. The ligule, arising from where the grass leaf meets the stem, is membranous and ragged at the tip 2–6mm long.

**Roots:** Shallow, very fine and densely matted.

**Note:** Forms extensive ground cover. Highly competitive with other herbaceous plants because of its rapid growth and early flowering. This grass is favoured by mowing because the layer of cut grass provides nutrients for further grass to grow. Contains chemicals that suppress growth of other plant species. Causes hay fever in humans and can be toxic to stock if large amounts are ingested, although generally not eaten by stock or rabbits due to the bitter taste.

**Similar indigenous species:**

When not in flower it appears similar to Weeping Grass (*Microlaena stipoides*). When flowering it is similar to Reed Bent-grass (*Deyeuxia quadriseta*).

**Control measures:**



**Dispersal:**

Animals, Machinery, Water, Vegetative, Wind.

*Briza maxima*  
Large Quaking-grass

*Dactylis glomerata*  
Cocksfoot



**Threat:** High threat environmental weed.

**Description:** A sparsely tufted, upright mid-green short-lived annual grass that grows 10–65cm tall. It has distinctive, blow fly-like, nodding flowering heads. Reproduction is by seed.

**Flowers:** Pale brown and hairy, loose and finely branched with nodding, shell-like spikelets which rattle in the wind. Large flower spikelets vary in number (between three and 12) and size (7–25mm long) and lack awns. Flowers in spring to early summer.

**Leaves and stems:** Few leaves in loose basal tufts which tend to wither at flowering. Leaf blades narrow and flattish, pale green and slightly twisted, sometimes blotched appearance.

**Note:** It can displace orchids, herbs and grasses within a few years and reduces the species richness of indigenous vegetation. Has a significant impact to the threatened Eltham copper butterfly (*Paralucia pyrodiscus lucida*), due to its ability to out compete and prevent regeneration of Sweet Bursaria (*Bursaria spinosa*), the native food plant of this rare butterfly. Can significantly increase fuel loads and associated fire risk. Easily spread via water, wind, mammals and slashing. Seed bank can persist for up to three years.

**Control measures:**



**Dispersal:** Birds.

**Threat:** High threat environmental weed.

**Description:** A robust, densely tufted, broad-leaved perennial grass with an erect flower stem, growing to 1m tall. While an environmental weed, Cocksfoot is also a useful pasture species for agricultural purposes. Flowers are densely clustered and one sided. Highly invasive in native woodlands, forests, wetlands and riverine environments. Plants can readily out compete the growth and regeneration of indigenous ground-flora.

**Flowers:** Branched, densely clustered at the end of branches and one sided. Branches become shorter at the tip. The lowest branches are some distance below the others and are commonly at 45° to the stem. Flowers November to January.

**Leaves and stems:** Greyish-green or blue-green, up to 80cm long and 8–12mm wide, tufted at the base with persistent leaf sheath. Blades flat or sometimes folded. Hairless (or very finely hairy) and slightly rough. Mid-vein of the leaf blade is prominent.

**Roots:** Short, fibrous and generally fairly shallow.

**Note:** Different cultivars have different growing seasons. Generally grows in winter but able to grow and flower from early spring until late autumn if moisture sufficient. Grows very quickly from seed: can form mature tussocks and flower in first season. This widespread perennial is a palatable pasture grass.

**Similar indigenous species:** When not in flower the leaves appears similar to Reed Bentgrass (*Deyeuxia quadriseta*) (*Deyeuxia quadriseta*).

**Control measures:**



**Dispersal:** Animals, Machinery, Water, Vegetative, Wind.

## *Ehrharta erecta*

Panic Veldt-grass

## *Nassella neesiana*

Chilean Needle Grass



**Threat:** High threat environmental weed.

**Description:** A widespread perennial grass that grows to 50cm tall. Loosely tufted, bright green leaves usually with an erect flowering stem. Grows well in shady areas. Very aggressive and quick growing, it can readily smother the growth and regeneration of indigenous plants.

**Flowers:** Emerge at any time of year. Upright or arching and stems sometimes branched near the base. Flowers are initially compact then become open and spreading at maturity.

**Leaves and stems:** Stems branched near the base, sometimes kinked where the stem and leaf meet and may be up to 1m long when trailing along the ground. Blades bright green, flat, 5–15cm long, droop with age and hairless. The mid-vein of the leaf is prominent on the underside. Older leaves are often blotched.

**Note:** Cool fires do not kill plants and can allow infestations to spread dramatically. Seed spread by birds, ants and soil movement. Can regenerate, flower and set seed throughout the year and mature plants can produce seed every four weeks. Infestations can be eradicated through a concentrated one to two year program as the seed does not persist for longer than 12 months. Annual Veldt-grass (*Ehrharta longiflora*), a relative of Panic Veldt-grass, is also a high threat environmental weed, is very common in Nillumbik and may significantly increase fuel loads when it dies back at the start of summer.

**Similar indigenous species:** Weeping Grass (*Microlaena stipoides*) has similar foliage and habitat requirements.

**Status:** Declared Noxious Weed (Restricted), Weed of National Significance.

**Threat:** High threat environmental and agricultural weed.

**Description:** A tufted, perennial, tussock grass growing to about 1m tall with a nodding, loose flower head which contains spear-like flowers with long twisting awns. Active summer growing species adaptable to a wide range of conditions.

**Flowers and seeds:** Flowering seed heads are a distinctly purplish colour and have a nodding habit. Seeds 8–10mm long with a very sharp point and a 60–90mm long twisted awn bent at two points. The seed has a very distinctive raised membranous crown or collar where the awn attaches to the seed. It also produces stem and basal seeds within and at the base of some stems. October to February.

**Leaves and stems:** Forms an erect, robust tussock. It has narrow, hairless or sparsely hairy leaves up to 30cm long and 5mm wide, which are normally flat but sometimes rolled and feel rough to the touch. Leaves are mid to dark green but can become yellow or straw-like in cold conditions.

**Note:** Seeds frequently spread by animals and machinery (mostly slashers). Aggressively invades grassy ecosystems and agricultural land causing injury to stock. Very difficult to control when established, so small or scattered outbreaks urgently. It can produce more than 20,000 seeds per square metre.

**Similar indigenous species:** Often confused with a number of native spear grasses (*Austrostipa* spp.), grasses can be easily distinguished from needle grasses by a collar on the seed.

**Control measures:**



**Dispersal:**

Animals, Machinery, Water, Vegetative, Wind.

**Control measures:**



**Dispersal:**

Animal, Machinery, Water, Wind, Seeds.

# Nassella trichotoma

Serrated Tussock

# Paspalum dilatatum

Paspalum

Grasses and sedges



Grasses and sedges

**Status:** Declared Noxious Weed (Regionally Controlled), Weed of National Significance.

**Threat:** High threat environmental and agricultural weed.

**Description:** A perennial tussock grass up to 50cm tall and up to 25cm wide with deep fibrous root system and a branched flower head in early summer with small spear-like seeds, giving a distinct bleached, fluffy look.

**Flowers and seeds:** The small seeds are enclosed by dark purple glumes. Seed heads break off at maturity and are spread by wind. Flowers October to December.

**Leaves and stems:** Leaves very tightly rolled and cylindrical, rough to the touch, mid to yellow green and arranged in a dense tuft arising from the base of the plant. Tips of the leaves can appear bleached with age.

Flowering stems are erect at first, but become droopy and brittle as the seeds develop.

**Note:** Unpalatable to stock and rabbits, invasive, drought and fire tolerant, and a prolific seeder (approx. 100,000 seeds per plant).

**Similar indigenous species:** Can be confused with native spear grasses (*Austrostipa* spp.) or native tussock grasses (*Poa* spp.). Spear grasses have centrally attached awns with no membranous collar and their leaf cross-section is flat or u-shaped. Native tussock grasses have awnless seeds, seed heads are usually retained for some months and leaf cross-section is flat or v-shaped.

**Threat:** High threat environmental weed.

**Description:** Robust, open tufted, summer-growing perennial grass. Grows to 1m, with creeping underground stems. It becomes dominant in damp, disturbed areas and its dense growth smothers all competing ground flora and prevents the establishment of overstorey plants. Widely used in irrigated pasture.

**Flowers and seeds:** Four to seven long drooping spikes each 4–7cm long that are purple-green with tufted hairs at the base. Seeds are flattened and in rows along the flowering spike. Darkened and sticky when ripe. Flowers December to July.

**Leaves and stems:** Leaves are 15–45cm long, wide and flattish with a prominent midrib, mid to dark green with the upper surface often tinged reddish-purple. Sparsely hairy around where the leaf meets the stem. Stem is smooth, erect, but arching and often tinged purple.

**Note:** Mature seed readily adheres to most surfaces and is regularly transported on animals, machinery and clothing.

**Control measures:**



**Dispersal:**

Wind, Animal, Machinery, Seeds.

**Control measures:**



**Dispersal:**

Animal, Machinery, Water, Vegetative, Wind.

# Herbs



**Threat:** High threat agricultural weed.

**Description:** Annual rosette-forming herb with fleshy taproot. Individual plants grow to 80cm wide and 30cm high. The rosette grows through winter and flowers in late spring to early summer, before dying off. Forms mass display of yellow flowers on over grazed agricultural land.

**Flowers:** Produces a single yellow, daisy-like flower 2–6cm across at the end of stalks and 8–25cm long. Black to dark purple centre comprising many small flowers (florets). Mostly flowers spring to early summer.

**Seeds:** Small and covered with a dense pink-brown wool. A single Cape Weed plant can produce up to 4000 seeds which can remain dormant for two years.

**Leaves:** Leaves are deeply lobed with upper surface hairless to hairy, grey-green above, and pale green to white below, with woolly hairs. Basal leaves 5–25cm long and 2–6cm wide, on a stalk up to 6cm long. Upper leaves, if present, are stem-clasping.

**Note:** Seed spread by wind, water or in soil. Cape Weed develops a strong, highly-competitive rosette, choking out most other crop and pasture plants. Growth is enhanced by dry summers and overgrazing which leave bare soil in autumn. Can cause nitrate poisoning in livestock if eaten in large quantities.

**Control measures:**



**Dispersal:** Water, Wind.

# *Cirsium vulgare*

Spears Thistle

# *Echium plantagineum*

Paterson's Curse

Herbs



Herbs

**Status:** Declared Noxious Weed (Regionally Controlled).

**Threat:** High threat environmental and agricultural weed.

**Description:** An erect annual or biennial spiny thistle often growing up to 2m tall. Usually flat rosette of hairy leaves with spiny edges in its first year, before producing a flower stem and dying after seeding in its second year.

**Flowers:** Pinkish-purple flowers that are surrounded by green, cottony, long spiny bracts. Flower heads are usually in clusters of one to three at the end of branches. Flowers spring to autumn.

**Leaves:** Rosette leaves dense bristly up to 30cm long. Stem leaves are spine-tipped and have spiny leaf blades that extend along length of stem. Upper leaf surface is dark green and bristly, sometimes with small prickles, lower leaf surface is white and woolly. Stems are branched towards the top, hairy and spiky.

**Fruits:** Densely packed in bulbous head. Splits to release multiple seeds attached to pappus (hairy attachment) to aid wind dispersal.

**Roots:** Thick branched taproot which grows rapidly in first winter.

**Note:** Readily colonises disturbed, high fertility soils or overgrazed areas via wind, water or attached to animals.

**Status:** Declared Noxious Weed (Regionally Controlled).

**Threat:** High threat environmental and agricultural weed.

**Description:** Erect annual or occasionally biennial herb up to 1.2m tall and covered with coarse hair. Bears a dense, one-sided spike of large purple flowers. Establishes rapidly on disturbed ground. After flowering and seeding in spring/summer plants generally die off.

**Flowers:** Purple (sometimes white or pink), tubular-shaped flowers clustered at the end of multiple branches. The inflorescence is made up of densely crowded flowers along one side of branches that are coiled at the top and sometimes elongate with age. Flowers July to December.

**Leaves and stems:** Initially starts as basal rosette from which several branching stems emerge in spring. Basal leaves broad, oval or oblong up to 25cm long and often have wavy margins. Basal leaves have prominent branching veins which run off the mid-vein. Stem leaves are alternate, smaller, hairy and clasp the stem. All leaves and stems are hairy and dull green.

**Roots:** Strong taproot with many lateral roots.

**Note:** Can dominate grazing land, annual pastures and bare ground. Crowds out more useful pasture species and can be toxic to stock, especially horses. Very rarely a problem in high quality, intact native vegetation, but can rapidly establish on disturbed ground in remnant grassland and grassy woodland sites.

**Control measures::**



**Dispersal:** Birds, Animals, Machinery, Seeds, Vegetative.

**Control measures:**



**Dispersal:** Birds, Water.

# *Hypericum perforatum* subsp. *veronense*

St John's Wort

Herbs



**Status:** Declared Noxious Weed (Regionally Controlled).

**Threat:** High threat environmental and agricultural weed.

**Description:** An erect perennial herb up to 1m tall. New plants can be produced via creeping, shallow underground stems. Forms extensive infestations which exclude most other ground flora and prevents the establishment of overstorey plants.

**Flowers and seeds:** Flowers are bright yellow with five petals and form clusters at the end of the upper branches. Petals have small black dots along the margins. Seed capsule 5–10mm long, egg shaped and turns sticky brown when ripe with many seeds. October to March.

**Leaves and stems:** Leaves hairless, green, but lighter in colour underneath. Distinct black-dotted glands along the leaf surface. Leaves occur in opposite pairs along the stem and are oval to oblong in shape. Numerous small oil glands are apparent when the leaf is held up to the light. Stem is green or reddish-green and sometimes features two ridges. Branched towards the top.

**Note:** May cause photosensitivity in stock.

**Similar indigenous species:**

Could be confused with native *Hypericum* species, such as Matted St. John's Wort (*H. japonicum*) or Small St. John's Wort (*H. gramineum*). Both native *Hypericum* species are slender herbs up to 30cm high with four-sided stems, usually solitary flowers, gold to orange flowers and small rounded petals.

**Control measures:**



**Dispersal:**

Animals, Machinery, Water, Vegetative, Wind.

# Lilies

and bulbs



**Status:** Declared Noxious Weed (Regionally Controlled).

**Threat:** High threat environmental weed.

**Description:** A 20–40cm tall tufted perennial lily-like herb. Upright strap-like leaves with drooping white flowers and three-angled stem. Foliage emerges from bulbs in mid to late autumn with flowering from late-winter to spring. The whole plant has a strong onion aroma.

**Flowers:** White with green veins, bell shaped, with six petals. Flowers grouped in a head in loose clusters on slender triangular stems. Flower stalks join stem at common point. Flowers August to November then dies back over summer to bulbs. New bulb forms at side of old bulb at flowering.

**Leaves:** Limp, pointed at tip, v-shaped in cross-section, hairless, shining bright-green. Leaf bases wrap around the lower stem and bulb.

**Fruits:** Rounded capsules that split, with several black seeds in each capsule.

**Note:** Invades bushland, waterways and drainage lines and is capable of dominating the ground layer and impeding overstorey regeneration. It often occurs on moist soils. Seeds spread by ants and water. Bulbs spread in soil.

**Control measures:**



**Dispersal:**

Water, Wind.



Lillies and bulbs

**Threat:** High threat environmental weed

**Description:** A robust, erect, fleshy perennial orchid 30–50cm high with annual above-ground growth from tubers. One plant grows up to 60 tiny flowers in a dense spike. It has a self-pollinating reproductive strategy and produces millions of dust-like seeds. It is the only invasive, non-native orchid in Victoria.

**Flowers:** Small with hooded red-brown upper parts and yellow-green thin, downward pointing lower parts. Borne on a thick cylindrical spike 5–20cm long. Each flower is surrounded by a conspicuous tapering modified leaf.

**Fruits:** Brown capsule containing minute dust-like seeds. Seed set and dispersal occurs at the end of November.

**Leaves:** Leaves numerous with parallel veins, decreasing in size progressively up the stem; lower leaves 5–15cm long. Leaves initially form a clump at the base, and then numerous grass-like leaves with purplish under-surfaces develop on the lower stem as it lengthens. Modified leaves also embrace each flower.

**Note:** Seeds readily spread by wind, on vehicles, and via clothing, shoes and camping equipment. Self-pollinating, forming dense colonies that may replace native ground flora. Populations of this orchid have increased rapidly where the species has established.

**Similar indigenous species:** Similar to Onion-orchids (*Microtis* spp.) and Leek-orchids (*Prasophyllum* spp.). However, these orchids have single leaves which are not purple underneath.

**Threat:** High threat environmental weed.

**Description:** Freesias are small upright perennial herbs with leaves arranged in a fan-like iris. They range in height from 10–30cm. The flowers may be single or double and barely to sweetly scented and grow from an underground corm.

**Flowers:** Three to seven trumpet-shaped, white-cream flowers with yellow and purple shading. Sweetly scented. Long, wrinkled, green fruit containing numerous brown seeds.

**Leaves:** Long tapering flat leaves, green on both sides, arranged as a fan.

**Stems:** Slender upright to 40cm. Flowers in loose one-sided spike of flowers with six tepals at end of stem.

**Note:** Regenerate from seed or bulb-like corms. Freesia hybrids are popular in gardens; however, they invade woodlands, roadsides and riparian areas. They impede the growth and regeneration of indigenous ground plants. Readily spread by soil movement and dumping garden waste.

**Control measures::**



**Dispersal:** Vegetative, Wind.

**Control measures:**



**Dispersal:** Water, Wind.

# *Watsonia meriana* var. *bulbillifera*

Wild Watsonia

Lillies and bulbs



**Status:** Declared Noxious Weed (Regionally Controlled).

**Threat:** High threat environmental weed.

**Description:** Erect perennial herb with pale green sword-shaped leaves up to 1m that die back each year in late summer.

**Flowers:** Red-brown flowering stem develops in winter to spring, with large pink to red trumpet-shaped flowers with six pointed lobes in two rows on upper stem. Flowers October to December.

**Leaves:** Pale green sword-shaped leaves arranged in a fan. Broad at base, upright with pointed tips. Parallel veins with prominent midrib.

**Stems:** Dark reddish, cylindrical at base attached to large bulb.

**Roots:** Large bulb with stringy brown fibrous, covering up to 8cm below surface.

**Fruits:** Regenerates primarily by bulbils which form in clusters along stem. Seeds rarely formed.

**Note:** Invades roadsides, coastal and grassy woodlands, heathland, forests, and riparian environments. Bulbils spread by slashing, soil movement, animals and people.

**Control measures::**



**Dispersal:**

Animals, Machinery, Water Seeds.



# Creepers and climbers



**Status:** Declared Noxious Weed (Restricted), Weed of National Significance.

**Threat:** High threat environmental weed.

**Description:** A climbing herb with bright green foliage. Scrambles to 3m high. Stems wiry. Rapid growth from autumn to spring and dies back in summer. Survives by means of an extensive tuberous root system.

**Flowers:** Sweetly scented, creamy white, 8–9mm in diameter with six petals and hang in leaf axils in ones and twos between August and October.

**Fruit:** A round berry 6–10mm in diameter. Green, turns red and sticky when mature with hard black seeds.

**Leaves:** Oval, glossy green and alternate with pointed tips. Usually 1–4cm long and 5–15mm wide.

**Stems:** Slender, twining and up to 3m long.

**Note:** Highly competitive and invasive in natural bushland and orchards. Climbs on and chokes understorey species. Spread primarily by birds and animals. Often spread by the careless disposal of garden waste. As well as seed, may also grow by creeping rhizomes.

**Control measures:**



**Dispersal:** Birds, Animals, Seeds, Vegetative.

# *Billardiera heterophylla*

Bluebell Creeper

# *Delairea odorata*

Cape Ivy



Creepers and climbers

**Threat:** High threat environmental weed.

**Description:** Hardy evergreen vigorous climber with dense foliage and masses of bluebell flowers. Capable of strangling or smothering other plants. It is a popular choice for gardens, which have acted as a major source of infestation.

**Flowers:** Pendent clusters of two to five small blue-mauve five-petal bell-shaped flowers near end of branches. Flowers spring to summer.

**Fruits:** Fleshy green cylindrical berry 15–35mm long following flowers, changes to purplish-green and soft when ripe in summer-autumn. Each fruit contains around 50 small black seeds.

**Leaves:** Alternate, 20–50mm long and 5–15mm wide, light to dark green, glossy and hairless above and paler underside, mid vein prominent.

**Stems:** Twisting, arching branches, woody and supple. Young stems shining reddish-brown.

**Note:** Berry contains toxins responsible for causing irritation or nausea. Invades heathland, grassland, forest, riparian areas and gardens. Previously *Sollya heterophylla*.

**Similar indigenous species:**

There are indigenous *Billardiera* species such as *B. scandens*, *B. cymosa* and *B. longiflora*. Bluebell Creeper is distinguished by glossy leaves, bright coloured flowers and rampant climbing habit.



**Control measures:**

**Dispersal:** Birds, Animals, Machinery, Seeds, Vegetative.

**Threat:** High threat environmental weed.

**Description:** Invasive climbing plant with large fleshy green leaves forming a yellow curtain when in flower. Scrambles over indigenous vegetation up to 5m and readily smothers low shrubs and understorey plants. Stems smooth green or purplish. Older parts turn woody.

**Flowers:** Slender yellow daisy heads with no prominent petals. Arranged in dense clusters of 15–40 on branched stalks. Sweetly fragrant, mainly in winter.

**Leaves:** Alternate, ivy shaped, 5–10cm long, broad with three to seven lobes. Glossy and fleshy leaves, lime green above and silvery below, often purple-tinged. Has paired kidney-shaped green 'blades' at base of large leaf stalks when young.



**Control measures:**

**Dispersal:** Wind.

**Stems:** Weak evergreen stems growing to 5–10m long or forming a loose mat to 30cm thick. Purplish when young, green-creamy brown and woody with age, warty.

**Fruits:** Tiny seeds with a crown of hairs that easily breaks off.

**Note:** Cape Ivy has been used as a garden ornamental, for screening and on fences. Found in creek valleys and moist areas. Seeds readily dispersed by wind.

*Hedera helix*  
English Ivy

*Lonicera japonica*  
Japanese Honeysuckle

Creepers and climbers



Creepers and climbers

**Threat:** High threat environmental weed.

**Description:** Perennial creeper and climber growing to 30m or more in length that can form dense mats and prevent revegetation.

**Flowers:** Greenish-yellow, in large clusters and each flower is 1.5–4cm long. Flowers between March and July.

**Fruit:** Globular light green berry turns black with one to three hard seeds in winter when ripe.

**Leaves:** Alternate, usually glossy. Dark green but lighter on the underside. Juvenile (young) leaves are hand shaped with three to five fingers (lobes) and have lighter veins, which harden when mature.

**Stems:** Green, flexible and scrambling when young, turning woody when mature. Climbing stems have aerial roots along the underside.

**Roots:** Main roots woody, thick with lateral and taproot features. Aerial roots, 1–3mm long on side of stem. Stems re-shoot at nodes when cut.

**Note:** Flowers and fruits generally only form when ivy climbs trees or fences to obtain sunlight. Removal of aerial growth is critical to prevent flowering and contain spread. Fruits spread by birds and animals e.g. foxes. Will readily grow from vegetative parts (roots at nodes) and often spread by the careless disposal of garden waste.

**Threat:** High threat environmental weed.

**Description:** A large semi-deciduous vine that climbs by twisting its stems around trunks and limbs of trees or other vertical objects.

**Flowers:** Creamy white to yellow or occasionally pink, in pairs, two-lipped with four lobes to 4cm long. Sweetly scented and produced throughout spring to early summer.

**Fruit:** Globular, dark blue to black berry with single black seed and ripens in summer.

**Leaves:** Opposite, oval to oblong shaped, 3–7cm long and 1–3cm wide. Leaf margins entire or with variable lobes (juvenile leaves). Plant may lose some leaves during winter.

**Stems:** Young stems are covered with fine hairs, older stems become woody and have brown bark that peels off in shreds. Stems produce roots at nodes when they contact soil.

**Note:** Adult plants rapid growing during autumn and spring and can cover up to 10m<sup>2</sup> in one season. Reproduces vegetatively and by seed. Fruits spread by birds, animals (foxes) and careless disposal of garden waste.

**Control measures::**



**Dispersal:** Birds, Animals, Vegetative.

**Control measures:**



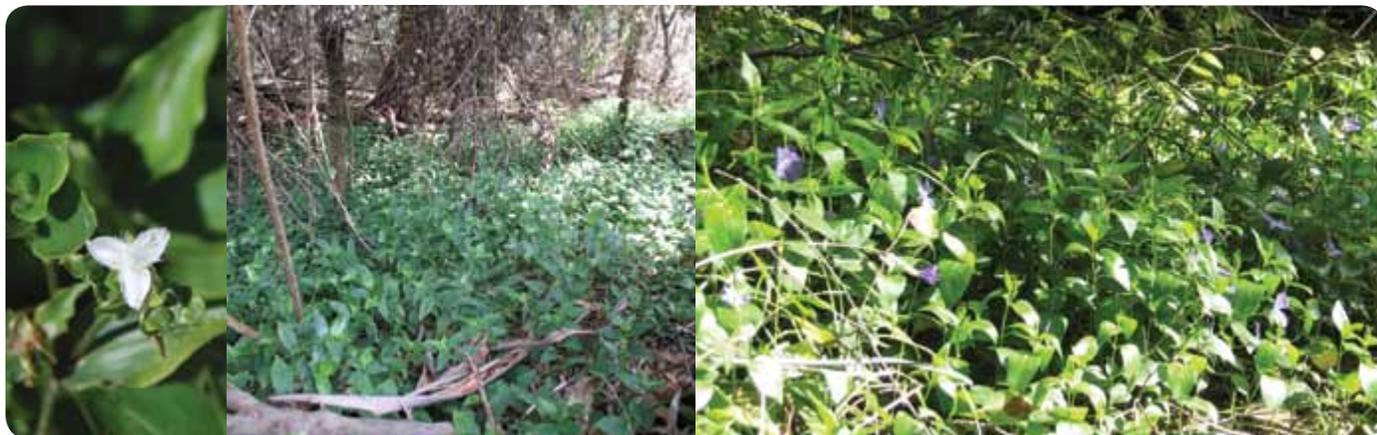
**Dispersal:** Water, Vegetative, Wind.

## *Tradescantia fluminensis*

Wandering Creeper

## *Vinca major*

Blue Periwinkle



**Threat:** High threat environmental weed.

**Description:** Evergreen, semi-succulent, rampant creeper that forms dense mats to 60cm deep. It readily smothers indigenous plants and prevents regeneration of all plants both indigenous and introduced.

**Flowers:** Small white star-shaped flowers with three petals that emerge from two leaf-like bracts in spring and summer.

**Leaves:** Shiny mid-green ovate-lanceolate leaves 3–6cm long and 1–3cm wide with the leaf base forming a sheath around the stem. Parallel veined and fleshy.

**Stems:** Succulent, brittle, branching and trailing. Forms shallow roots at nodes which is the primary means of spread.

**Note:** Invades riparian environments, moist woodlands and forests. Seedlings very rarely recorded. Rampant vegetative spread where one noded bit of stem will root and form stems. Plants readily spread by water movement during floods and dumping garden waste. Growth rapid with stems able to spread several metres in one year under favourable conditions. Very toxic to cattle, causing rapid death if eaten, and promotes allergenic reactions in dogs.

**Similar indigenous species:** Native Wandering Creeper (*Commelina cyanea*).

**Threat:** High threat environmental weed.

**Description:** A perennial creeper that forms dense mats from an extensive root system. It smothers other desirable plants including indigenous and regenerating plants.

**Flowers:** Single blue-mauve flowers sometimes white with five petals fused at base to form a tube, 3–5cm across. Flowers appear May to December.

**Fruit:** Seeds are contained in small, paired, woody structures.

**Leaves:** Smooth, broadly oval shaped, dark green, semi-glossy above and paler below, 3–8cm long and 1–4cm wide with fine hairs on the edges of leaves and main vein. Arranged opposite, clasping the stem and at right angles to those above and below.

**Stems:** Mostly green turning woody at the base. Up to 1m long and may layer at tips.

**Note:** Has deep layered root system. Able to spread rapidly by vegetative growth in heavily shaded conditions. Often spread through the careless disposal of garden waste.

**Control measures:**



**Dispersal:** Birds, Water, Seeds, Wind.

**Control measures:**



**Dispersal:** Birds, Animals, Vegetative.

Small to medium

Shrubs



**Threat:** High threat environmental weed.

**Description:** Erect large shrub or small tree that can spread to 8m with bright yellow flowers and flattened leaf structures (phyllodes).

**Flowers:** Bright, yellow and clustered in dense cylindrical spikes 2–5cm long in axils along branches, flowering late winter to spring.

**Fruit:** Fairly straight pod 5–15cm long with four to 10 seeds and maturing in late spring to summer.

**Leaves:** Phyllodes alternate, linear, tapering to blunt tip and more than seven times as long as broad, with two to three obvious parallel veins. There is a gland at the base of the phyllode.

**Stems:** Smooth angular, green to reddish-green, becoming rounded, woody and grey with age.

**Note:** Sallow wattle invades heathlands, woodlands, forests, riparian habitats, grassland, coastal dunes, scrub, river systems and catchments. Seeds long lived in soil and regenerate readily after fire.

**Control measures:**



**Dispersal:**

Ants, Birds.

*Chrysanthemoides monilifera*  
subsp. *monilifera* Boneseed

*Cotoneaster* spp.

Small to medium shrubs



**Status:** Declared Noxious Weed (Regionally Controlled), Weed of National Significance.

**Threat:** High threat environmental weed.

**Description:** Bushy upright shrub to 3m high. Often forms dense, extensive infestations which may smother virtually all other vegetation in the area, including threatened orchids in some places.

**Flowers:** Bright yellow daisy flowers with four to eight petals in loose clusters at branch tips in spring.

**Fruits:** Green berries in summer turning to black when ripe. Hard, bone-coloured seeds.

**Leaves:** Dull green oval to paddle-shaped leaves up to 7.5cm long, fleshy. Edges shallow toothed. Seedling and young leaves light green with soft white cobweb like down. Mature leaves darker and firm.

**Stems:** Soft, woody and springy. Certain plants may form trunk to 10cm diameter covered with pale greyish bark.

**Roots:** Woody, shallow with no distinct taproot.

**Note:** Invades coastal environments and bushland. Fruits spread by birds, foxes, and in soil. Seeds long lived in soil and will germinate after fire or soil disturbance.

**Similar indigenous species:** When not in flower similar to native *Myoporum* species and Hop Goodenia (*Goodenia ovata*) when small.

**Threat:** High threat environmental weed.

**Description:** Upright evergreen large shrub or small tree with arching branches and young stems that have dense woolly hairs. It is semi-deciduous with red fruit and native to China.

**Flowers:** Small white flowers (8–10mm across) are borne in dense clusters of six to 20 flowers in spring and summer. Each flower has five spreading petals.

**Fruits:** Small to medium rounded or egg-shaped 'berries' (5–8mm across), red when ripe in autumn. Usually containing two seeds and potentially poisonous.

**Leaves:** Relatively small oval-shaped leaves 10–40mm long and 8–16mm wide, dull green and hairless above, silvery-whitish below with dense hairs.

**Note:** Fruits spread by birds and animals (e.g. foxes). Seeds long lived in soil and will germinate after soil disturbance. Can also spread vegetatively by layering. Invades bushland and riparian areas. Tolerates most conditions. There are several weedy *Cotoneaster* species present in Nillumbik.

**Control measures:**



**Dispersal:**

Animals, Machinery, Water, Seeds.

**Control measures:**



**Dispersal:**

Birds, Water, Animals, Seeds.

# Crataegus monogyna

Hawthorn

# Erica lusitanica

Spanish Heath



Small to medium shrubs

Small to medium shrubs

**Status:** Declared Noxious Weed (Regionally Controlled).

**Threat:** High threat environmental weed.

**Description:** A dense low branching deciduous tall shrub to 6m tall. Stiff branches with thorns to 2.5cm long. Bark generally smooth but rough near base.

**Flowers:** White, cream or pink, 8–13mm in diameter with five petals and in flat-topped clusters at the end of small branches. Flowers in spring with a strong and sometimes pungent smell.

**Leaves:** Lobed and irregular varying from roughly oval to triangular shape on stalks. Edges generally toothed. Leaf stalks may have small leaf-like flaps at base.

**Stems:** Erect and spreading with many stiff branches with thorns.

**Fruit:** Clusters of fleshy deep red berries 8mm in diameter on long stalks in bunches mostly in summer.

**Roots:** Woody, mostly shallow lateral and some deep. Sucker readily when cut.

**Notes:** Spread primarily by birds and animals. Provides harbour for pest animals (rabbits) and disease such as Fire Blight. May also provide habitat for native birds and animals (e.g. Ring-tail Possum), if other native shrub species absent.

**Threat:** High threat environmental weed.

**Description:** Erect, evergreen, dense multi-stemmed medium sized shrub, 1–2m in height.

**Flowers:** White to pink bell-shaped flowers in pendulous clusters of three to four on the ends of the very short side branches in late winter to early spring.

**Fruits:** A small capsule about 3mm long containing many tiny dust-like seeds. Each plant is capable of producing millions of seeds which are spread by wind, water and on the coats of animals.

**Leaves:** Small, light green, needle-like tightly rolled leaves in whorls of three or four crowded along the branches.

**Stems:** Multi-branched woody stems densely covered with simple hairs.

**Notes:** Forms dense stands that compete with native vegetation. It is often associated with disturbed areas, but can also establish in undisturbed bushland. The seed remains viable in the soil for several years. Plants shoot vigorously when burnt, grazed or slashed. It forms dense infestations and creates a fire hazard due to its extreme flammability.

**Similar indigenous species:** Grey Parrot-pea (*Dillwynia cinerascens*) may appear similar in appearance to Spanish Heath but can be distinguished by its longer leaves and orange-red pea flowers.

**Control measures::**



**Dispersal:**

Water, Seeds, Vegetative.

**Control measures:**



**Dispersal:**

Birds, Water, Animals, Seeds, Vegetative.

## *Genista linifolia*

Flax-leaf Broom

## *Genista monspessulana*

Montpellier Broom, Cape Broom



Small to medium shrubs

**Status:** Declared Noxious Weed (Regionally Controlled).

**Threat:** High threat environmental weed.

**Description:** Evergreen shrub to 3m with grey-green slender leaves.

**Flowers:** Bright yellow pea flowers in clusters at end of stems August to November.

**Fruits:** Flattened, grey-black hairy seed pods containing two to three seeds. Seeds are forcibly ejected from pods up to several metres from plant.

**Leaves:** Better described as three leaflets 2–3cm long with rolled edges, they are smooth grey-green above and silky white and hairy below. Stem clasping (sessile) and arranged alternate along stem.

**Stems:** Soft and hairy ribbed stems when young. Adult stems brownish green, woody erect and ridged.

**Note:** Invades disturbed bushland margins, roadsides and cooler high rainfall environments. Seeds long lived in soil and regenerate after fire.

**Status:** Declared Noxious Weed (Regionally Controlled).

**Threat:** High threat environmental weed.

**Description:** An erect shrub to 3m tall with many slender straight branches. Bright yellow pea flowers and reproduces by seed.

**Flowers:** Bright yellow, pea like and about 1.2cm long. Appearing late winter through spring in clusters of up to nine at the end of short leafy branches.

**Fruit:** Silky black or brown pods containing five to eight hard shiny black seeds that are forcibly ejected from pods up to several metres from plant on hot days in early summer.

**Leaves:** Shortly stalked and made up of three oval-shaped leaflets that are dull green upper surface and lighter hairy underneath. Middle leaflet longer than others. Arranged alternate along stem.

**Stems:** Erect, woody, ridged and finely hairy. One main stem with many branches.

**Roots:** Woody taproot with shallow branches.

**Note:** Forms dense stands excluding other vegetation. Seeds long lived in soil and regenerate after fire.

**Similar indigenous species:** Golden Tip (*Goodia lotifolia*). May also be confused with other introduced brooms.

**Control measures::**



**Dispersal:** Water, Animals, Seeds, Vegetative.

**Control measures:**



**Dispersal:** Birds, Animals, Machinery, Water, Seeds, Wind.

## *Hakea salicifolia*

Willow-leaf Hakea

## *Lycium ferocissimum*

African Boxthorn



**Threat:** High threat environmental weed.

**Description:** Large erect shrub or small tree, to 5–6m, fast growing.

**Flowers:** Creamy white flowers between the leaves and the branch stems between August and November.

**Fruit:** Woody capsule with slightly upturned beak to 16mm long. Covered in small bumps and splits in two to release a winged seed.

**Leaves:** Smooth, pale green, flattened and mostly narrow-elliptic to spear shaped (rounded at both ends, widest in the middle) to 12cm long and 5–20mm wide, lateral veins at acute angles. New growth is red-tinged at the leaf tips.

**Note:** Reproduces by winged seed (dispersed by wind and in dumped garden waste). Germinates profusely after fire. Native to NSW. Commonly sold as a drought-tolerant bird-attracting native hedge plant. True weed potential usually not realised until after the plant dies, releasing large quantities of seed, a high proportion of which may germinate.

**Status:** Regionally Controlled.

**Threat:** High threat environmental weed.

**Description:** An erect spiny shrub to five metres tall with spreading branches.

**Flowers:** Scented, white with some purple markings in centre, 1cm in diameter and containing five petals that form a tube at base. Occurring singly or in pairs, appears mainly in spring to early summer but also at other times.

**Fruit:** Berry 12mm in size on long stalks, green becoming orange to red at maturity containing up to 70 seeds. Retained on plant for long time if not eaten.

**Leaves:** Roughly oval shaped and tapering to base. Glossy green and appearing in clusters of 5–12 along branches. 1–3cm long and fleshy when plant is active. Leaves are shed when the conditions are unfavourable.

**Stems:** Erect, woody, multi-branched, hairless and bearing spines of up to 15cm long along and at the end of branches.

**Roots:** Extensive, deep, woody and sucker vigorously if cut.

**Note:** Forms dense, impenetrable thickets, restricting stock and human access to water, tracks and fences etc. Fruits dispersed by birds and animals (e.g. foxes, skinks). Spikes can cause injury and puncture car tyres. Harbours pest animals, such as rabbits, and native birds if other native shrub species absent.

**Control measures:**



**Dispersal:**

Seeds, Wind.

**Control measures:**



**Dispersal:**

Water, Seeds, Vegetative, Wind.

*Prunus cerasifera*  
Cherry Plum

*Rubus fruticosus*. spp. aggregate  
Blackberry

Small to medium shrubs



Small to medium shrubs

**Threat:** High threat environmental weed.

**Description:** A deciduous green or purple leaved tree (*P. cerasifera* "nigra") or multi stemmed large shrub growing to 12m at maturity. Common along roadsides and as a street, ornamental and fruit tree in gardens. There are a number of other *Prunus* species present in Nillumbik.

**Flowers:** Solitary or in clusters of two to four, 2.5cm across with five white or pink oval petals, appearing with or before the leaves, October to December.

**Fruit:** Smooth yellow to reddish or deep red stone fruit which resembles a large cherry or small plum.

**Leaves:** Smooth green or purple upper surface, oval-spear shaped with a pointed tip and toothed margins. Paler underside with downy growth on veins.

**Stems:** In juvenile phase sometimes spiny. Purple-brown bark, thinly scaly.

**Note:** Is an edible fruit and often provides ideal habitat for Ring-tail possum nests. If this is the case, remove in stages to allow for the relocation of Possums before removing all plants.

**Status:** Declared Noxious Weed (Regionally Controlled), Weed of National Significance.

**Threat:** High threat environmental and agricultural weed.

**Description:** An erect woody shrub with scrambling and prickly stems (canes) forming dense impenetrable thickets. Reproduces from seed, root suckers and layering at root tips.

**Flowers:** White to pink flowers with five petals that form in clusters at the end of branches. October to February, varies with seasonal conditions.

**Fruit:** December to March. Initially hard green cluster of berry segments turning to red then black on ripening. Each berry segment contains a seed.

**Leaves:** Oval, dark green on the upper side and lighter underneath with fine hairs. Leaflets 3–5cm long, edges slightly serrated with row of thorns along midrib. Leaves are often shed in winter.

**Stems:** Erect or sprawling canes up to 7m long. Green to reddish purple and covered in curved or straight thorns. Can actively spread through the rooting of cane tips.

**Note:** Highly variable in form with up to 15 species recorded. Invades natural watercourses and harbours feral animals, especially foxes and rabbits. May provide critical habitat to small native birds and animals, so may require staged removal. Fruit readily eaten and dispersed by birds and mammals (e.g. foxes).

**Similar indigenous species:** Could be confused with Native Raspberry (*Rubus parvifolius*).

**Control measures::**



**Dispersal:**

Birds, Water, Animals.

**Control measures:**



**Dispersal:**

Birds, Animals, Machinery, Vegetative.

# *Ulex europaeus*

Corse, Furze

Small to medium shrubs



**Status:** Declared Noxious Weed (Regionally Controlled), Weed of National Significance.

**Threat:** High threat environmental weed.

**Description:** An erect, dense spiny branched shrub 2–4m tall.

**Flowers:** Bright yellow pea-like flowers 2–2.5cm long. Found in leaf axils and in clusters at the end of branches. Buds covered in stiff hairs that persist from flower to pod. Appear between July to October and March to May.

**Leaves:** Dark green, clover like with three leaflets and only present on young plants. Adult stage, leaves shed and replaced by narrow spines, 1–2.5cm long, stalkless and occurring in whorled clusters along the branches.

**Stems:** Green when young and turning brown and woody when mature. Ridged and hairy. Covered with spines and bearing short branches with spiny heads.

**Fruits:** Hairy oblong pod to 2cm long with up to six shiny hard black seeds.

**Note:** Introduced as a garden hedge. Prolific seeder and highly invasive. Forms dense stands excluding other vegetation. Seeds long lived in soil and regenerate readily after fire. A dense stand can produce six million seeds per hectare per year. May also provide critical habitat to small native birds and animals (e.g. bandicoots) if other native shrub species absent, so may require staged program of removal.

**Control measures::**



**Dispersal:**

Birds, Water, Animals, Vegetative.



Large shrubs and

# Trees



**Threat:** High threat environmental weed.

**Description:** Small evergreen spreading tree or large bushy shrub to 10m tall with distinct grey foliage. Includes purple leaf hybrids. Forms dense shade excluding native understorey species.

**Flowers:** Profuse golden ball-shaped flowers from June to September.

**Leaves:** Feathery, divided twice, with two to six main divisions, each having 10 to 24 pairs of silvery-blue greyish or purple tinged leaflets. Glands present along leaf axis.

**Stems:** Smooth and brown, branchlets slightly angled and furrowed, with waxy coating.

**Note:** Spread by wind, ants over short distances, dumped garden waste, water, and contaminated soil. Can readily hybridize with several local and introduced acacia species; hybrids should also be removed.

**Similar indigenous species:** Silver Wattle (*Acacia dealbata* hybrid with *A. baileyana*).

**Control measures:**



**Dispersal:**

Ants, Birds.

# Acacia decurrens

Early Black Wattle

# Ligustrum lucidum

Large-leaf Privet

Large shrubs and trees



Large shrubs and trees

**Threat:** High threat environmental weed.

**Description:** A small perennial tree or large shrub, 4–12m tall, often with a dense rounded form and large branches, and native to eastern New South Wales.

**Flowers:** Round bright yellow flower heads July to September.

**Fruits:** Hard black seeds form in long straight narrow pods 5–11cm long x 4–7mm wide.

**Leaves:** Leaves are mid green, bipinnate (fine, 'fern-like') with well separated individual leaflets (pinnae) with regular glands that extend through the middle of the rachis (main stem).

**Stems:** Winged ridges extend from the base of the leaf on both sides down the length of the branch which gives the branch a squarish angular appearance. Bark can be smooth to deeply fissured, brown or dark grey to blackish.

**Note:** A relatively short-lived species which declines in vigour after 10–15 years.

**Similar indigenous species:** Late Black Wattle (*Acacia mearnsii*) or Silver Wattle (*Acacia dealbata*). Early Black Wattle is distinguished by more open arrangement of leaflets.

**Threat:** High threat environmental weed.

**Description:** Evergreen large shrub or small tree to 10m with one or more trunks and dense crown.

**Flowers:** Creamy white tube-shaped strongly pungent flowers 4–6mm long with four spreading lobes borne in clusters at end of stem in spring and summer.

**Fruit:** Oval berries ripening from green to red–black in winter with single seed.

**Leaves:** Large shiny dark green on top, paler on the underside, opposite, narrow ovate 10–12cm long and 4–8cm wide.

**Stems:** Woody with small white outgrowths and hairless shoots.

**Note:** Prefers moist sheltered areas. Fruits spread by birds and animals (e.g. foxes), and in soil. Seeds long lived in soil. Leaves and fruit are poisonous.

**Similar indigenous species:** Austral Mulberry (*Hedycarya angustifolia*).

**Control measures::**



**Dispersal:**

Ants, Birds.

**Control measures:**



**Dispersal:**

Birds, Water, Vegetative.

# *Pinus radiata*

Radiata Pine

# *Pittosporum undulatum*

Sweet Pittosporum

Large shrubs and trees



**Threat:** High threat environmental weed.

**Description:** Tall straight evergreen tree, growing up to 30m tall or more. Usually spreading with straight branches, whorled and dark deeply fissured bark on trunk.

**Flowers:** Male cones small scaly and clustered near branch tips. Female cones can measure 7–17cm in length, woody, brown egg-shaped structures borne on short stalks, single or in clusters, usually set asymmetrically on a branch, attached at an oblique angle.

**Fruits:** Dry winged seeds released from mature cones annually. Wind dispersed.

**Leaves:** Dark green, needle-like, hard waxy surface, in clusters of three.

**Stems:** The bark is generally fissured and dark-grey to brown-black in colour.

**Note:** Can establish in disturbed and undisturbed areas. Combination of shade and dense carpet of pine needles on ground exclude most native plants. Pines have winged seeds which aid their dispersal into bushland where they form dense stands and compete with native species. Cones can also be transported into bushland by Cockatoos. Fire can sometimes release massive amounts of seed from cones, with seedlings establishing en masse in the fresh ash beds. Highly palatable to livestock, toxic to goats, before and after kidding, and potentially toxic to other livestock.

**Threat:** High threat environmental weed.

**Description:** Evergreen small tree or large shrub 4–10m with dense foliage.

**Flowers:** Fragrant creamy-white or pale yellow, fleshy five-petalled, bell shaped. Flowers in clusters at branch tips August to October.

**Leaves:** Stalked, up to 5cm across and 14cm long. Glossy, dark green above and paler underside. Leaf margins wavy and aromatic when crushed.

**Fruit:** Cluster of orange globular grape sized berries ripening in autumn to winter. Capsules split open when ripe and contain 20–30 sticky reddish seeds.

**Roots:** Woody spreading mostly lateral roots. Will sucker if cut.

**Note:** Sweet Pittosporum is native to East Gippsland but is now a widely spread environmental weed. Seeds readily dispersed by birds and animals (e.g. foxes). Forms dense shade, which excludes most native understorey plants. Frequent host for recruitment of shade tolerant weeds, such as Ivy, Holly and Asparagus fern. It is fire sensitive and the suppression of high intensity fires in some areas has aided its spread and persistence.

**Similar indigenous species:** Can hybridise with the indigenous Banyalla (*Pittosporum bicolor*) threatening Banyalla populations in some locations. The hybrids look more like Sweet Pittosporum than Banyalla. All hybrids should be destroyed.

**Control measures::**



**Dispersal:** Wind.

**Control measures:**



**Dispersal:** Birds.

# Populus alba

White Poplar

## Index of weeds by common name

Index of weeds by common name



**Threat:** High threat environmental weed.

**Description:** A broad-leaved deciduous tree growing up to 12m tall with distinctive silver white trunk.

**Flowers:** Male and female flowers are produced on separate trees. No male flowering trees yet recorded in Australia. Flowers borne in clusters (Catkins) 5–10cm long. After flowering in October the unfertilised female flowers become white, wind borne 'fluff' which spreads widely causing respiratory irritation to some people.

**Leaves:** 5–10cm long with three to five lobes, blue green upper surface with white undersides. Leaves turn brilliant yellow in autumn. It is a popular tree planted in parks and gardens for this reason.

**Stems:** Smooth white or grey bark becoming rough at base of trunk.

**Note:** White Poplar may be mistaken for Silver Birch. It spreads primarily by suckers which may form dense thickets in gullies and along streams. Suckering is stimulated by soil disturbance damaging roots.

**Control measures::**



**Dispersal:**

Wind.

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Large shrubs and trees

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Nilumbik Shire Council  
 Website: [www.nilumbik.vic.gov.au](http://www.nilumbik.vic.gov.au)  
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Department of Environment and Primary Industries  
 Website: [www.depi.vic.gov.au](http://www.depi.vic.gov.au)  
 Telephone: 136 186

### Other useful websites

[www.weeds.org.au](http://www.weeds.org.au)  
[www.sgaonline.org.au](http://www.sgaonline.org.au)  
[www.weedinfo.com.au](http://www.weedinfo.com.au)  
[www.wsvic.org.au](http://www.wsvic.org.au)

### Further reading

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