

What are environmental weeds?

Environmental weeds are plants that continually invade and threaten our diverse bushland, wetlands and other natural areas. Many environmental weeds originate in home gardens.

Environmental weeds are distinct from noxious weeds in that noxious weeds are acknowledged as the most serious weeds in the environment, and landholders are required under state regulation to control them.

However, environmental weeds also cause major problems in the local environment and should also be controlled.

Why are environmental weeds a problem?

Environmental weed invasion results in the loss of biodiversity. National Parks, bushland reserves, roadsides, and bushland on private land can be severely degraded by environmental weed invasion.

Where environmental weeds have replaced bushland, the habitat of native animals is displaced. Native animals rely on a variety of native plants for food and shelter.

Helping control the spread of environmental weeds is the responsibility of everyone in the community.

Controlling environmental weeds **NOW** will help reduce the long term cost and impact on our community and the environment.

Environmental weeds and our suggested alternatives for your garden

	Environmental Weeds	Alternative Natives <i>*indigenous or local native</i>	Alternative Exotics
Trees	Box-elder Maple (<i>Acer negundo</i>) Sycamore (<i>Acer pseudoplatanus</i>) Tree of Heaven (<i>Ailanthus altissima</i>) Monterey Pine (<i>Pinus radiata</i>) White Poplar, Silver Poplar (<i>Populus alba</i>) Willows - all varieties (<i>Salix</i> spp.) English Holly, Common Holly (<i>Ilex aquifolium</i>)	Black She-oak (<i>Allocasuarina littoralis</i>)* Blackwood Wattle (<i>Acacia melanoxylon</i>) * Hoop Pine (<i>Araucaria cunninghamii</i>) Port Jackson Pine (<i>Callitris rhomboidea</i>) River Oak (<i>Casuarina cunninghamiana</i>) Forest She-oak (<i>Allocasuarina torulosa</i>) Narrow-leaved Paperbark, Snow-in-Summer (<i>Melaleuca linarifolia</i>)	Red Maple (<i>Acer rubrum</i>) Liquidambar (<i>Liquidambar styraciflua</i>) Tupelo (<i>Nyssa sylvatica</i>) Scarlet Oak (<i>Quercus coccinea</i>) Crepe Myrtle (<i>Lagerstroemia indica</i>) Norway Maple (<i>Acer platanoides</i>) Linden (<i>Tilia cordata</i>)
Shrubs	Barberry (<i>Berberis aristata</i> & <i>B. vulgaris</i>) Butterfly bush (<i>Buddleja davidii</i>) Cotoneasters (<i>Cotoneaster</i> spp.) Hawthorn (<i>Crataegus</i> spp.) Heather (<i>Erica lusitanica</i>) Montpellier & Cape Broom (<i>Genista</i> spp.) Large leaved Privet (<i>Ligustrum lucidum</i>) Small leaved Privet (<i>Ligustrum sinense</i>) Cherry Laurel (<i>Prunus lauracerasus</i>) Firethorn (<i>Pyracantha</i> spp.)	Blueberry Ash (<i>Elaeocarpus reticulatus</i>)* Bottle Brush (<i>Callistemon</i> spp.) Christmas Bush (<i>Ceratopetalum gummiferum</i>)* Grevillea (<i>Grevillea</i> spp.) Tea-tree (<i>Leptospermum</i> spp.) Hairpin Banksia (<i>Banksia spinulosa</i>) * Mint Bush (<i>Prostanthera</i> spp.) Native Daphne (<i>Philotheca myoporoides</i>)* Paperbark (<i>Melaleuca</i> spp.) Sunshine wattle (<i>Acacia terminalis</i>)* Willow-leaf Hakea (<i>Hakea salicifolia</i>)* Waratah (<i>Telopea speciosissima</i>)*	Azalea (<i>Rhododendron</i> spp.) Box (<i>Buxus sempervirens</i>) Camellia (<i>Camellia</i> spp.) Daphne (<i>Daphne</i> spp.) Fuschia (<i>Fuchsia</i> spp.) Hebe (<i>Hebe</i> spp.) Magnolia (<i>Magnolia</i> spp.) Osmanthus (<i>Osmanthus</i> spp.) Protea (<i>Protea</i> spp.) Rhododendron (<i>Rhododendron</i> spp.)
Vines	Turkey Rhubarb (<i>Acetosa sagittata</i>) Madiera vine (<i>Anredera cordifoli</i>) Moth vine (<i>Araujia sericifera</i>) Cape Ivy (<i>Delairea odorata</i>) English Ivy (<i>Hedera helix</i>) Jasmine (<i>Jasminum polyanthum</i>) Japanese Honeysuckle (<i>Lonicera japonica</i>) Banana Passionfruit (<i>Passiflora molissima</i>)	Guinea Flower (<i>Hibbertia scandens</i>)* Old Man's Beard (<i>Clematis aristata</i>)* Purple Twining-pea (<i>Hardenbergia violaceae</i>)* Wonga Vine (<i>Pandorea pandorana</i>)* Wombat Berry (<i>Eustrephus latifolius</i>)* Dusky Coral Pea (<i>Kennedia rubicunda</i>)	Clematis (<i>Clematis</i> spp.) Star Jasmine (<i>Trachelospermum jasminoides</i>)
Lilies	Monbretia (<i>Crocoshia x crocosmiiflora</i>) Agapanthus (<i>Agapanthus praecox</i>) Formosan Lily (<i>Lilium formosanum</i>) Arum Lily (<i>Zantedeschia aethiopica</i>)	Native Iris (<i>Patersonia</i> spp.) Nodding Blue-lily (<i>Stypandra glauca</i>)* Flax-lily (<i>Dianella</i> spp.)	Daffodils (<i>Narcissus</i> spp.) Irises (<i>Iris</i> spp.) except Stinking Iris (<i>I. foetidissima</i>) and Dietes spp. Day Lilies (<i>Heimerocallis</i> spp.)
Ground Covers	Umbrella sedge (<i>Cyperus eragrostis</i>) Spiny Rush, Spike Rush (<i>Juncus acutus</i>) Ox-eye daisy (<i>Leucanthemum vulgare</i>) Forget me not (<i>Myosotis</i> spp.) Kikuyu (<i>Pennisetum clandestinum</i>) Bulbous canary grass (<i>Phalaris aquatica</i>) Rhizomatous bamboo (<i>Phyllostachys aurea</i>) Creeping buttercup (<i>Ranunculus repens</i>) Wandering Jew (<i>Tradescantia fluminensis</i>) Blue Periwinkle (<i>Vinca major</i>)	Brachycome (<i>Brachycome multifida</i>) Creeping Boobialla (<i>Myoporum parvifolium</i>) Native Violet (<i>Viola hederacea</i>)* Mat-rush (<i>Lomandra</i> spp.)* Weeping Grass (<i>Microlaena stipoides</i>)* Sedge (<i>Carex</i> spp.)	Star Jasmine (pruned) (<i>Trachelospermum jasminoides</i>) Speedwell (<i>Veronica repens</i> or <i>Veronica peduncularis</i>) Snow in summer (<i>Cerastium tomentosum</i>) Catnip (<i>Nepeta cataria</i>)

Environmental weeds on the local ‘Watch List’






Trees: Cootamundra Wattle (*Acacia baileyana*), African Olive (*Olea europaea* subsp. *cuspidata*), Honey Locust (*Gleditsia triacanthos*).
Shrubs: Pittosporum Silver Sheen (*Pittosporum tenuifolium*), Ochna Mickey Mouse Plant (*Ochna serrulata*), Sweet briar (*Rosa rubiginosa*), Laurustinus (*Viburnum tinus*), Cherry plum (*Prunus cerasifera*).
Vines: Bluebell Creeper (*Billardiera fusiformis*).
Ground Covers: Italian Arum (*Arum italicum*), Seaside Daisy (*Erigeron karvinskianus*), Panic veldt grass (*Ehrharta erecta*).

What can I do?

Listed below are some simple actions you can take on your land to help stop the spread of environmental weeds in our local environment.

1. Remove any weeds identified in this brochure using control methods as indicated.
2. Avoid planting species listed as environmental weeds.
3. Replace weedy plants with the alternative plants recommended in this brochure.
4. Never dump garden clippings in bushland areas. Compost garden clippings at home or take them to the Moss Vale Resource Recovery Centre.
5. Report any rubbish dumping to Council. Call 4868 0888.
6. Join a local Bushcare group!
Contact council for details of your nearest group: Call 4868 0888 or visit www.wsc.nsw.gov.au/environment

Control Methods

- **HAND REMOVAL**
Suitable for seedlings, herbs and grasses. Hand pull or dig out weed. Remove the roots and bag any seeds, fruit, bulbs or tubers.
- **STEM SCRAPE**
Suitable for vines and some woody plants. Scrape one side of the stem to expose the growing layer. Immediately apply glyphosate-based herbicide to the scrape.
- **CUT AND PAINT**
Cut trunk or stems and apply glyphosate-based herbicide immediately.
- **FRILL**
Suitable for trees. Make horizontal cuts around the trunk to depth of growing layer and apply glyphosate based herbicide immediately.
- **LOW VOLUME SPRAYING**
Suitable for weeds that are less than 1 metre in height. Spray with a herbicide that is registered for that weed. Do not spray woody weeds, shrubs or vines over 1 metre in height.

Special Note: Always use herbicides such as Glyphosate according to the product label.

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Environmental Weeds in the Southern Highlands



Further information on environmental weeds in the Southern Highlands can be found online at:

www.wsc.nsw.gov.au/environment

www.wsc.nsw.gov.au/environment

Worst environmental weeds of the Southern Highlands



Vine



ENGLISH IVY Botanical Name: *Hedera helix*
A dense, evergreen woody creeper and climber to 20m high, occasionally becoming shrubby with age, usually with aerial roots along the stems. Leaves are dark glossy green and tough. All parts of the plant are poisonous.
Flowers/Fruit/Seed: Clusters of small greenish-yellow flowers are followed by round succulent blue-black berries; flowering in autumn and winter.
Dispersal: Spreads vegetatively via roots at leaf nodes, by birds eating the berries, or by garden rubbish dumping.

Vine



CAPE IVY Botanical Name: *Delairea odorata*
Fast-growing perennial vine with succulent twining stems, typically escaping from gardens into moist forest. Leaves are fleshy and hairless, and lobed not unlike English Ivy.
Flowers/Fruit/Seed: Flowers are small, densely bunched, yellow, daisy-like, occurring from autumn to spring. Produces many tiny seeds like dandelion, each with a small hairy parachute.
Dispersal: Seeds are transported by wind or water, and often dumped on bushland edges, where it can regrow from stem fragments.

Vine



JAPANESE HONEYSUCKLE Botanical Name: *Lonicera japonica*
Semi-deciduous scrambling shrub or climbing vine to 7-10m high. Distinguished by its climbing stems that are covered with dense, short hairs when young.
Flowers/Fruit/Seed: Flowers profusely throughout summer. Flowers are tube-like, fragrant and nectar-filled, ageing from cream to pale orange. Small, globe-shaped, shiny black berries follow the flowers in autumn.
Dispersal: Seeds dispersed by water and birds, and by spreading stems.

Tree



HAWTHORN Botanical Name: *Crataegus monogyna*
Branched, deciduous shrub or small tree to 10m high, usually with spines 7-20mm long. Leaves wedge-shaped, 6cm long and wide. Commonly planted as a hedge, the dense thickets protect undesirable pests and birds.
Flowers/Fruit/Seed: White or pink fragrant flowers, flowering in spring. Fleshy fruits (pomes) red when ripe, about 9 mm wide.
Dispersal: Seeds mainly spread by birds, but can also be spread by mud on machinery. Fruits can also be spread after digestion by animals.

Tree



ENGLISH HOLLY Botanical Name: *Ilex aquifolium*
Evergreen shrub or small tree growing to 15m tall. Dark green, prickly leaves. Lower branches may root where they touch the ground, forming dense clumps.
Flowers/Fruit/Seed: Small off-white flowers which develop into rounded glistening dark red berries in autumn. In the northern hemisphere, the berries appear in November, hence the association with Christmas.
Dispersal: Berries are eaten by birds and dispersed into bushland.

Tree



LARGE LEAVED PRIVET Botanical Name: *Ligustrum lucidum*
Shrub or small tree 10-12 metres tall. Invades bushland, especially along streams, outcompeting native streambank vegetation. Leaves 4-13cm long, 3-6cm wide.
Flowers/Fruit/Seed: Flowering in spring-summer, flowers are fragrant with 4 white petals, each 3-5 mm long. Fruiting in autumn-winter, the berries are purple-black and succulent when ripe.
Dispersal: Fruit is eaten by birds and seeds dispersed in their droppings.

Tree



WILLOWS (all species) Botanical Name: *Salix* spp.
Most species declared as Weeds of National Significance
Deciduous trees to 25m high often with more than one trunk. Roots will readily grow from aerial parts of the plant and are very aggressive in seeking out moisture. Often planted to assist erosion control along watercourses, but now regarded as invasive weeds.
Flowers/Fruit/Seed: Cylindrical flower clusters (catkins) are produced early in the spring, often before the leaves.
Dispersal: Will take root very readily from cuttings or where broken branches lie on the ground.

Tree



BOX ELDER MAPLE Botanical Name: *Acer negundo*
Small to medium fast-growing deciduous tree up to 20 m high. Bark smooth when young, becoming flaky later, brownish-grey and pinkish-brown underneath. Has become an invasive weed along riverbanks, and in wet forests and woodland, as well as along roadsides and other disturbed open sites with moist soil.
Flowers/Fruit/Seed: Flowers appear before leaves in spring, and are greenish, yellowish green or sometimes pinkish, lacking petals.
Dispersal: Seeds are spread by wind and/or water.

Shrub



COTONEASTER Botanical Name: *Cotoneaster* spp.
Evergreen to semi-deciduous shrub 2-4 m high. Oval leaves with dull green upper surface and usually white underside with covering of fine hairs.
Flowers/Fruit/Seed: Clusters of small white or pink flowers, followed by small red or orange-red globe-shaped fruits (pomes). Flowers spring and summer.
Dispersal: Spread by birds, dumped garden waste, or from fruit washed along watercourses.

Shrub



MONTPELIER BROOM Botanical Name: *Genista* spp.
Declared a Weed of National Significance
Shrub to 3m high. Stems are green, ribbed and covered with short soft hairs. Forms dense thickets and out competes other vegetation by shading and nitrogen fixation.
Flowers/Fruit/Seed: Flowers pea-like, yellow, 8-13mm long. Mature seed pods densely hairy. Seeds dark brown to black, usually 5-8 seeds per pod.
Dispersal: Mostly by movement of seed in mud attached to vehicles, animals and footwear.

Shrub



CHERRY LAUREL Botanical Name: *Prunus laurocerasus*
Hardy perennial multi-stemmed evergreen shrub or small tree growing to 6m tall. Leaves are large, leathery and oblong with bright green shiny upper surfaces, pale and dull underneath. The veins are distinctly yellow. All parts of the plant are poisonous.
Flowers/Fruit/Seed: Clusters of cherry-sized succulent berries ripen from green to purplish black through summer and autumn.
Dispersal: The berry-like fruit is spread by birds and other animals into native bushland, shading out native species, reducing biodiversity and degrading the habitat available to native fauna.

Shrub



SMALL LEAVED PRIVET Botanical Name: *Ligustrum sinense*
Evergreen to semi-deciduous small tree 3-5m high. Leaves elliptic to ovate, similar colour on both surfaces. Mature leaves 2-6cm long, 2-3cm wide.
Invades wasteland, streambanks and margins of rainforest.
Flowers/Fruit/Seed: Will flower chiefly late winter to spring. Flowerhead is typically dense, branched, and 5-10cm long. White fragrant flowers with 4 petals. Berries are black and succulent when ripe.
Dispersal: Seed spread by water and birds.

Lily



MONBRETIA Botanical Name: *Crocsmia x crocosmiflora*
Vigorous, perennial hybrid bulbous plant, which dies down in autumn after producing annual leaves and flowers. Leaves are bright green, spear-shaped, and appear in spring.
Flowers/Fruit/Seed: Long spikes of small orange to red tubular flowers appear in summer.
Dispersal: Reproduces vegetatively with great vigour via corms and rhizomes. Each corm is a potential new plant, and will shoot when broken free from the parent plant. Long rhizomes are also produced, each of which grows into a new plant.

Ground Cover



WANDERING JEW Botanical Name: *Tradescantia fluminensis*
Creeping and highly vigorous soft herbaceous plant with succulent stems that root at nodes to form large clumps. Will carpet the ground in areas of low light levels, preventing regeneration of other species. Leaves dark green and shiny above. Favours damp, shady, nutrient-rich areas.
Flowers/Fruit/Seed: Small white flowers with 3 triangular petals occurring in spring and summer.
Dispersal: Spread by movement of stem sections by water and in garden waste.

Ground Cover



BLUE PERIWINKLE Botanical Name: *Vinca major*
Spreading perennial groundcover, distinguished by strong trailing stems that contain milky sap and grow roots where they touch the soil. Smothers other ground vegetation preventing growth of shrubs and trees.
Flowers/Fruit/Seed: Flowers blue to mauve, appearing in spring, and have five petals.
Dispersal: Spreads locally mainly by stems that root at nodes. Long distance dispersal occurs via stem fragments and crowns dispersed as garden waste or by water.