



Garden Escapes & Other Weeds in Bushland and Reserves

A responsible gardening guide for the Sydney Region



Sydney Weeds Committees

- Sydney Central
- Sydney South West
- Sydney North
- Sydney West – Blue Mountains



CONTENTS

General Information	3
Vines & Scramblers	6
Ground Covers	20
Bulbous & Succulent Weeds	34
Grass Weeds	51
Shrub Weeds	57
Tree Weeds	64
Water Weeds	74
Help Protect Your Local Environment	77
Common Plant Parts	78
Bibliography	79
Plant Me Instead	80
Index & Acknowledgments	82

The Problem

Plants escape from gardens in a variety of ways, but one main cause of spread from gardens is by green waste dumping in bushland and road reserves. This practice is harmful to the bush for many reasons, such as:

- introducing weeds (plant fragments, bulbs, roots, tubers, seeds, spores)
- smothering native plants
- changing the soil and ideal growing conditions for native plants
- increasing fire risk by increasing fuel loads.

Dumping in bushland and reserves is illegal and can attract fines.

Plants may also spread into natural areas directly from gardens where they are planted. "Weedy" garden plants may be identified by:

- the ability to spread by vegetative means - bulbs, corms, tubers, root parts, stem fragments (e.g. Madeira Vine, Glory Lily, Coral Tree, Trad)
- berries that can be eaten by birds and animals (e.g. Chinese Celtis, Asparagus Fern, Cotoneasters, Olives, Camphor Laurel, Blackberry, Hawthorn)
- the ability to produce large amounts of seeds that are easily distributed by wind, animals, water and can survive in the soil for a long time (e.g. Formosa Lily, Longleaf Willow Primrose, Balloon Vine, Moth Vine, Narrow Leaf Cotton Bush)
- a general ability to survive under extreme conditions, and
- a history of weediness in similar climates.

What is a weed?

WEEDS are plants that don't belong where they are. They can include plants from other countries but area also some -times from other parts of Australia. Weeds can be harmful to human and animals. They also affect the ecology and appearance of bushland areas and waterways.

Environmental weeds often grow faster than native plants and out-compete them to become dominant in natural areas. The natural pests or diseases that would otherwise control their growth are lacking as the plants have been introduced from somewhere else.

Weeds replace the native plants that native creatures need for shelter, food and nesting. If left uncontrolled they will, in most cases, destroy ecosystems and choke waterways.

The classification of plants as noxious weeds is constantly changing and will continue to do so as climate change alters the way different plants behave. For this reason this booklet does not include the current classification of various plants. It is better to replace any of the plants in this booklet with safe native alternatives.

Some plants have such serious potential for damage to human health, agricultural production or the environment that they are classified as **Weeds of National Significance**. Where a plant is listed as a **WONS** it will have the symbol:



For more information about weeds:

www.sydneyweeds.org.au

•
www.weeds.org.au

•
www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds

Manual weed control methods

Weed control should be coordinated so as to avoid seed setting, i.e. prior to, or during flowering time. Any section of the plant capable of reproducing (e.g. seeds, fruits, tubers/roots, some shoots) should be bagged, removed from the site and disposed of by deep burial at a waste management centre. Other vegetative matter can be mulched on site or taken to a waste management centre and disposed of in green waste. Personal Protective Equipment (PPE) must always be used when controlling weeds and working in the garden. Always wash hands after working with weeds and exotic plants.

Hand pull/dig method

- Rake back leaf litter.
- Cut down along side plant.
- Grasp stem or leaves at ground level and pull firmly while loosening soil from roots with knife/trowel.
- Shake excess soil from roots and bag for removal or place plant on rock/log to die.
- Replace leaf litter.
PPE: hat, nitrile gloves, longsleeves/pants, boots, sunscreen and insect repellent.



Crown cut method

- Only the underground growing heart of the plant needs to be removed.
- Rake back leaf litter.
- Grasp plant at ground level, gathering stems together, insert knife and cut in a circular motion to remove crown.
- Replace disturbed soil/leaf litter and pat down
PPE: hat, nitrile gloves, long sleeves/pants, boots, sunscreen and insect repellent.



Herbicide use

Always read the label and Material Safety Data Sheets before using herbicides. Personal Protective Equipment (PPE) must always be used when handling herbicides. Always wash hands after using chemicals.

Skirting (using secateurs and herbicide)

- Cut all vines low down around trees.
- Apply herbicide IMMEDIATELY (within 10 seconds of cutting) to ground cut stems first, then aerial stems.

- Check for reshooting within 6 weeks, treat again where necessary.

Note: NOT suitable for vines with aerial tubers e.g. Madiera Vine.

PPE: hat, nitrile gloves, long sleeves/pants, boots, sunscreen and insect repellent.



Stem scrape (using knife and herbicide)

- Working close to ground, scrape along the stem of the plant for about 15-30cm to expose vascular tissue.

- Apply herbicide to exposed vascular tissue IMMEDIATELY (within 10 seconds of scraping).
- Take care not to ring bark entire stem.
- Leave plant *in situ* until completely dead, and re-treat if necessary.

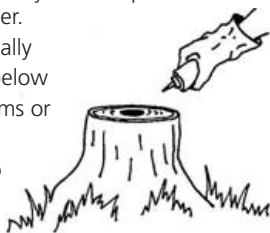
PPE: hat, nitrile gloves, long sleeves/pants, boots, sunscreen and insect repellent.



Herbicide use (cont.)

Cut and Paint (using saw and herbicide)

- Not suitable for plants with aerial tubers.
 - Appropriate on woody weeds up to 10cm basal stem diameter.
 - Cut stem horizontally close to ground, below any branching stems or side shoots.
 - Apply herbicide to cambium layer **IMMEDIATELY** within 10 seconds of making cut.
- PPE: hat, *nitrile* gloves, safety glasses, long sleeves/pants, boots sunscreen and insect repellent.



Foliar spraying (knapsacks & pressure sprayers)

- The use of herbicide diluted with water at a specific rate.
 - Most suited for use on certain shrubs, grasses and dense vines.
 - Foliage should be sprayed until wet but not dripping.
 - Do not make up more dilute than required for the job and do not store diluted herbicide as it may breakdown and become inactive.
 - Always use fresh clean water for mixing, not ground or dam water as herbicide may breakdown and become inactive.
- PPE: hat, *nitrile* gloves, safety glasses, long sleeves/pants, boots, respirator sunscreen and insect repellent.



Various spraying regimes and herbicides are available for use on particular weeds. The Department of Primary Industries has developed a guide entitled "Noxious and Environmental Weed Control Handbook" that is available online from <http://www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds> Also talk to the noxious weeds or bushland officer at your local Council.

Responsible Gardening

You can make a difference by what you do in your garden.

We encourage you to:

- **REPLACE** invasive plants in your garden with safe and preferably native alternatives.
- Regularly **PRUNE** your garden plants after flowering. Not only will this prevent seed set, it will also promote healthy and vigorous growth.
- Dispose of garden waste **RESPONSIBLY**, never dump it over the back fence, on roadsides or in bushland.
- Dispose of plant bulbs, tubers and seed heads in your **GENERAL WASTE** bin **not** green waste.
- **COVER** your trailer when taking garden waste to landfill to stop weeds and seeds from blowing off and invading roadsides and bushland areas.
- Buy a mulcher and **MULCH** garden waste (without seeds) on site, then use it in the garden or compost it!
- Actively **REPORT** any illegal dumping in your neighbourhood.
- **JOIN** your local Bushcare group and help remove weeds from the public reserves and bushland areas in your neighbourhood. Contact your local Council to find a Bushcare or environmental volunteer group.

Vines & Scramblers

Vines, scramblers or climbing plants can trail or creep along the ground but generally require the support of other plants to grow because their stems, in most cases, lack the central thickening which imparts rigour to trees and shrubs. Their stems are usually supple and can twist and contort in erratic convolutions without affecting the transport of water and nutrients that are essential to their survival.

This category of plants includes some of the most damaging environmental weeds in the Sydney region. It is recommended that all species listed here be eradicated from gardens.

It is impossible to estimate the number of species of plants in the world's flora which have adopted the climbing growth habit. Botanists tend to categorise plants according to their floral features rather than growth habits and it is therefore difficult even to arrive at an estimate. Certainly the number is in the tens of thousands, and because climbers tend to be a neglected group of plants, it is almost certain that new weed species await discovery and description.

The main weed species are featured in the following pages but below is a list of

Other Problematic Vines & Scramblers

Common Name	Botanical Name
Aerial Yam	<i>Dioscorea bulbifera</i>
Blackberry	<i>The group of Rubus fruticosus species (WoNS)</i>
Blue Trumpet Vine	<i>Thunbergia grandiflora</i>
Bridal Creeper	<i>Asparagus asparagoides</i> (see section about bulbous plants)
Cape Honeysuckle	<i>Tecomaria capensis</i>
Climbing Cineraria	<i>Senecio tamoides</i>
Crabs Eye Creeper	<i>Abrus precatorius</i>
Cup and Saucer Vine	<i>Cobaea scandens</i>
Creeping Groundsel	<i>Senecio angulatus</i>
Dutchmans Pipe	<i>Aristolochia elegans</i>
English Ivy	<i>Hedera helix varieties</i>
Flame Vine	<i>Pyrostegia venusta</i>
Moon Flower	<i>Ipomoea alba</i>
Mysore Thorn	<i>Caesalpinia decapetala</i>
Pie Melon	<i>Citrullus lanatus</i>
Purple Morning Glory	<i>Ipomoea purpurea</i>
Rubber Vine	<i>Cryptostegia grandiflora</i>
Silverleaf desmodium	<i>Desmodium uncinatum</i>
Siratro	<i>Macroptilium atropurpureum</i>
Snail Creeper	<i>Phaseolus caracalla</i>
Star of Bethlehem	<i>Ipomoea quamoclit</i>
Turkey Rhubarb	<i>Acetosa sagittata</i>

Balloon Vine

Cardiospermum grandiflorum

Seedlings germinate most of the year. Plants spread over ground or climb trees and shrubs. Common in moist gullies along the warm temperate to tropical coast of Qld and NSW.

- Family: Sapindaceae
- Origin: Tropical America, West Indies and Africa
- Habit: Herbaceous perennial climber with stems to more than 10m long.
- Leaves: 6-16cm long, on a leaf stalk 2-10cm long, with 3 leaflets each further divided into 3; margins of leaflets irregularly toothed.
- Flowers: White, 4 petals. in clusters, stalk of the flowerheads end in a pair of tendrils. Flowers for most of the year.
- Fruit: Inflated membraneous capsule, 6-ribbed, 4-8cm long, covered with short stiff hairs. each containing 3 blackish, round seeds, about 7mm wide.
- Roots: Shallow and fibrous, fragments re-root readily.
- Dispersal: Seeds spread by wind, water and contaminated soil (earthmoving equipment, car tyres etc)
- Control: Hand pull/Dig, Scrape and Paint, skirting, foliar spraying.



Black Eyed Susan

Thunbergia alata

Colour variation of flowers is encountered with plants grown from seedlings, including yellow or white, often lacking the dark central blotch. Very fast and erratic twiner.

Family: Acanthaceae

Origin: Tropical Africa

Habit: A delicate herbaceous and persistent twining or scrambling vine that will readily re-root from fragments and nodes.

Leaves: Thin-textured, heart-shaped or triangular.

Flowers: Bright orange to yellow some times white with a distinct black centre on a single stalk. Base of flower enclosed in pair of green sepals. Summer-Autumn.

Fruit: The papery sepals remain to cover the beaked capsule containing few seeds.

Roots: Tap and fibrous, will actively seek and block water/septic pipes.

Dispersal: Vegetation and seed will spread by water, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand Dig, Foliar spray.



Brazilian Nightshade

Solanum seaforthianum

Also known as Blue Potato Vine, this plant has become naturalised in rainforests and is widely distributed from N.E. Qld to N.E. NSW.

Family: Solanaceae

Origin: South America

Habit: Perennial shrub or twining climber to 6m.

Leaves: Green deeply 3-9 lobed, hairless except edges and veins on under surface.

Flowers: Mauve-blue, 2-3cm across in groups of up to 50 in Spring-Autumn.

Fruit: Green berry up to 1cm across, ripening to bright red.

Roots: Shallow and fibrous.

Dispersal: Seed is spread by water, animals, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand Dig, Scrape and Paint, Skirting, Foliar spray.



Cape Ivy

Delairea odorata

Also known as *Senecio mikanioides* Cape Ivy is naturalised in coastal parts of NSW and rapidly grows to blanket and smother surrounding vegetation.

Family: Asteraceae

Origin: South Africa

Habit: A climbing and trailing perennial, non-woody vine that smothers vegetation to heights of 10m. Stems break easily.

Leaves: Ivy or star shaped with 5-7 lobes, fleshy, glossy green above, silvery below, often with a purple tinge.

Flowers: Strongly scented on warm days, yellow and daisy-like in dense clusters lacking ray florets (petals). Autumn-Spring.

Fruit: Small, reddish-brown with a 'parachute' of fine hairs (pappus). A mature plant can produce up to 4000 seeds annually.

Roots: Shallow and fibrous, fragments re-root readily.

Dispersal: Vegetation and seed is spread by wind, water, animals, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand Dig, Skirting, Foliar spray.



Cats Claw Creeper

Macfadyena unguis-cati

Stems in established stands of Cats Claw Creeper have been recorded as being up to 250mm in diameter. Diameter growth of Cat's Claw stems is slow, but the vines are long-lived, nearly as long as the trees that they climb for support.

Family: Bignoniaceae

Origin: Mexico to Uruguay

Habit: Vigorous, blanketing climber in excess of 30m with distinctive three-pronged claws along the growing portion of the plant. The weight of the vine's mass often collapses the supporting trees branches and may even cause mature trees to fall. Mature stems can become very woody to 20cm in diameter.

Leaves: Leaflets are dark green and formed in opposite pairs along the vine. New leaves and tips are a showy red/brown colour.

Flowers: Attractive bright yellow forming a bell shape when fully open and only occur on mature plants. Winter-Spring.

Fruit: Long dark brown seed pods are formed which split open when mature exposing numerous hard brown seeds.

Roots: Deep underground tuberous roots are profuse suckering readily.

Dispersal: Seed and tubers spread by wind, or water such as along rivers in floods, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand Dig, Scrape and Paint, Foliar spray.



German Ivy

Senecio macroglossus

A popular plant for hanging baskets, German Ivy has escaped cultivation and found its way into shaded areas on the verges of rainforests.

Family: Asteraceae

Origin: South Africa

Habit: Evergreen light or slender, twining herbaceous perennial.

Leaves: Bright green, fleshy, triangular or five-pointed ivy-like.

Flowers: Large, conspicuous pale yellow daisy flowers about 6cm across and carried singly on long slender stalks are borne just about all year round, but mainly during the summer months.

Fruit: The seeds are small and stick-like with a tuft of greyish-white bristles at one end (pappus). Dandelion-like tufty balls.

Roots: Shallow and fibrous, fragments re-root readily.

Dispersal: Seed is spread by wind, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand Dig, Skirting, Foliar spray.



Japanese Honeysuckle

Lonicera japonica

A popular garden plant of yesterday that has become a widespread weed throughout many areas of eastern Australia from Qld to SA. In colder climates it may become deciduous.

Family: Caprifoliaceae

Origin: China & Japan

Habit: A robust climbing or scrambling shrub to 8m high. Young stems covered with short hairs. Older stems woody and hairless.

Leaves: A robust climbing or scrambling shrub to 8m high. Young stems covered with short hairs. Older stems woody and hairless.

Flowers: Paired, long and tubular (3-4cm), very sweetly scented. White, ageing cream to yellow or pale orange. Flowers Autumn-Spring.

Fruit: Globe-shaped berry, 4-10mm long, glossy black.

Roots: Fibrous initially, becoming a dense, extensive and woody crown with age.

Dispersal: Seed mostly spread by birds, but also humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand Dig, Skirting, Foliar spray.



Kudzu

Pueria lobata

Family: Fabaceae

Origin: South America

Habit: Perennial climber

with twining stems to 6m on supporting vegetation.

Leaves: Oblong – triangular leaves, with finger-like glands on the upper surface, grow at right angles to the stalk.

Flowers: Perfumed tubular white flowers late spring to autumn.
Sap a milky, sticky latex.

Fruit: Leaves and pear-shaped fruit pods are greyish, covered in fine hairs. When the pods turn brown and split, they release thousands of tiny black seeds with a tuft of silky white hairs.

Roots: Expansive root system with crowns and deep tap root.

Dispersal: Stolons root at the nodes to form new plants by rhizomes.
Also seeds in pods.

Control: Vital to dig out all tubers; also use skirting technique.
Can also be sprayed. Seek advice before doing so.

This plant has taken over entire towns in America. There are only two known locations of this in Sydney as of 2012. It is one of the most critical potential threats to Sydney riparian zones and bushland. Extremely difficult to remove once established with hardy tubers and rapid growth rate. Beware of this plant.



Photo: Kelly Saunderson

Madeira Vine

Anredera cordifolia

Madeira Vine is a devastating weed capable of smothering host vegetation in a relatively short period of time. The masses of fleshy leaves become very heavy and can break branches in large trees destroying the upper canopy.

- Family: Basellaceae
- Origin: South America
- Habit: Vigorous, robust fleshy and extensive twining, hairless, perennial climber in excess of 30m.
- Leaves: Fleshy broadly egg or heart shaped, alternately arranged and bright green.
- Flowers: Small, fragrant, creamy white coloured and numerous in drooping clusters to 20cm long. Separate flowers on stalks evenly spaced along a central stem. Spring-Summer.
- Fruit: Rarely fruits.
- Roots: Fleshy and tuberous. Tubers are capable of sprouting even after being pulverised.
- Dispersal: Spread and tubers transported by contaminated soil (earthmoving equipment, car tyres etc), garden refuse dumping and water, such as along rivers in floods. Aerial tubers will be shed from stems if the vine is cut, and remain viable in soil from 5 to 10 years.
- Control: Hand Dig, Scrape and Paint, Foliar spray. *Never Cut and Paint.



Morning Glory

Ipomoea indica (blue)

Ipomoea cairica (coastal)

Family: Convolvulaceae

Origin: South America

Habit: Robust and extensive twining perennial vine to 10m.

Leaves: Blue: Dark green; variably heart-shaped or 3-lobed, 20-180mm long. Coastal: Light green; hairless, 5-7 lobed, star shaped leaves to 90mm long.

Flowers: Trumpet/funnel shaped flowers 50-80mm diameter; Purplish-blue (Blue), mauve to pale pink/red/white (Coastal). Spring-Autumn.

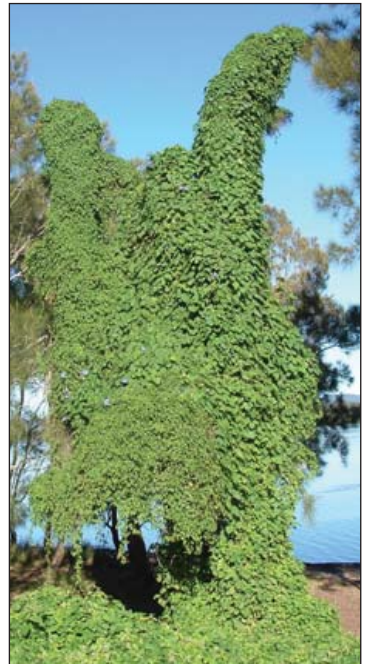
Fruit: *Ipomoea cairica*: 4-valved brown capsule containing 4-6 seeds, which have parachute-like attachments. No seed set in *Ipomoea indica*.

Roots: Fibrous initially, becoming dense, extensive and crown-like with age. Will set root from stem fragments when in contact with the soil.

Dispersal: Seed is spread by wind, water, animals, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping. (particularly *I.indica*).

Control: Hand Dig, Skirting, Scrape and Paint, Foliar spray.

Can readily be seen spreading along road edges and favour disturbed and open areas. They are capable of totally engulfing host trees in a relatively short period of time.



Moth Vine

Araujia sericifera

Commonly smothers shrubs and small trees, depressing their growth. Often in wasteland and forests adjoining settlement, mainly in coastal higher rainfall areas.

- Family: Asclepiadaceae
- Origin: Southern Brazil, Paraguay and Uruguay
- Habit: Twining perennial climber reaching up to 6m on supporting vegetation. Milky latex exuded from damaged stems and leaves
- Leaves: Opposite, oblong to triangular, 3-11cm long, 1-6cm wide, dark green above, grey-green below.
- Flowers: Fragrant, tubular, 0.8-1.4 cm long, 5-lobed, 5-stamens, white to pale pink in groups of 2-5. Flowers late spring to autumn.
- Fruit: Grey-green choko shaped pod, turning brown and woody with age, opening to release numerous black seeds approx. 4mm long each possessing a tuft of white silky hairs that aid its spread by wind.
- Roots: Shallow and fibrous.
- Dispersal: Seeds spread by wind, water and contaminated soil (earthmoving equipment, car tyres etc)
- Control: Hand pull/Dig, Scrape and Paint, skirting, foliar spray for seedlings.



Pampas Lily of the Valley

Salpichroa organifolia

Grows in full shade or sun, sand or wetlands, and tolerates long dry periods. It grows rapidly and can completely smother other vegetation. Once established, the plant is difficult to remove.

Family: Solanaceae

Origin: South America

Habit: A scrambling or climbing perennial herb.

Leaves: Oval shaped leaves are unequal in size, shortly hairy, with leaf stalks about the same length as the leaf blades.

Flowers: Bell-shaped whitish flowers 6-8mm long, form at the leaf axils.

Fruit: Smooth yellow berry when ripe, containing about twenty brown to pale yellow flattened seeds. The plant has a thick, woody, extensive mostly horizontal root system, which can be up to 1 metre deep.

Roots: Extensive horizontal woody root system (up to 1m depth)

Dispersal: Reproduces from seed and root segments, which are spread by birds and machinery.

Control: Seedlings can be removed by hand. Mature plants have horizontal roots up to 3m long and 1m deep. They can be removed by persistent digging over several seasons. Fruit should be cut and bagged. Permits to use chemicals are being sought.



Passion Flower/Fruit

Passiflora subpeltata, *P. edulis*,
P. foetida, *P. suberosa*, *P. mollissima*

Family: Passifloraceae

Origin: Chiefly tropical South America

Habit: Vigorous climber with tendrils.

Leaves: Varying with species; from 10mm up to 150mm long; generally 3-lobed some times ovate; pale green with powdery film and blunt tips to dark green with pointed tips.

Flowers: Passion flowers are very distinctive in shape. They range from 1-5cm across with colours from plain white to white blotched purple, pinks and reds; 5-10 petals; numerous cream/yellow stamens and a prominent divided stigma. Spring-Summer.

Fruit: Globe-shaped drupe, generally pulpy 15-50mm long, glossy, yellow, green, red or purple/black.

Roots: Lateral roots form at right angle to stem, break easily when pulled, re-shoot from remnant root stock.

Dispersal: Seeds spread by humans, water, animals and garden refuse dumping.

Control: Scrape and Paint, Cut and treat root system, Foliar spray.

Even the popular edible Passion fruit species have become problematic weeds of bushland, mainly because of human negligence discarding unwanted fruit or merely failing to harvest.



Ground Covers

These herbaceous, slightly woody or strap like plants may seem insignificant in reserves and bushland areas, but they displace native ground covers and thus reduce the biodiversity of natural areas, which alters the whole ecology of that plant community.

Many of these ground covers are still found for sale in nurseries and local markets. Like all categories of plants in this booklet, active management is most important which includes regular pruning to maintain plant health and vigour and the constant removal of spent flowers to prevent seed set.

In some ecological communities, lawn grasses such as Kikuyu, Buffalo Grass and Paspalum can be damaging and problematic e.g. Themeda grass headlands, Coastal saltmarsh (see grass weeds section)

The main weed species are featured in the following pages but below is a list of

Other Problematic Ground Covers

Common Name	Botanical Name
Canadian Goldenrod	<i>Solidago canadensis</i>
Coastal Spurge	<i>Euphorbia paralias</i>
Coreopsis	<i>Coreopsis lanceolata</i>
Creeping Lantana	<i>Lantana montevidensis</i> (WoNS)
Crucifix Orchid	<i>Epidendrum radicans</i>
Evening Primrose	<i>Oenothera biennis</i>
Fireweed	<i>Senecio madagascariensis</i>
Ginger Lilies	<i>Hedychium gardnerianum/H. coronarium</i>
Japanese knotweed	<i>Persicaria capitata</i>
Obedient Plant	<i>Physostegia virginiana</i>
Opium Poppy	<i>Papaver somniferum</i>
Painted Spurge	<i>Euphorbia cyathophora</i>
Pennywort	<i>Hydrocotyle bonariensis</i>
Polka Dot Plant	<i>Hypoestes phyllostachya</i>

Blue Perrywinkle

Vinca major

Mats of this species smother other ground vegetation and prevent growth of shrubs and trees. Grows best in fertile soil and well in shade.

Family: Apocynaceae

Origin: Central and southern Europe and northern Africa

Habit: Spreading perennial herb to 50cm high with stems that root at nodes and sometimes at tips Lacks milky latex that is common with its family.

Leaves: Opposite, ovate, 1.5-9cm long, 1.5-4.5cm wide, glossy green above, paler below; on leaf stalk 0.5-1.5cm long

Flowers: Violet-blue to mauve, 3-6cm wide, tubular with 5 spreading lobes 1.3-2.5cm long, stamens attached to inside of tube and within tube. Flowers mostly late Winter to late Summer.

Fruit: Produced in pairs joined at the base, membranous, cylindrical 3.5-5cm long, about 0.4cm wide. Seeds flat, hairless, 7-8mm long, 1-10 per fruit.

Roots: Fibrous. Stems root at nodes and sometimes at tips.

Dispersal: Seed is apparently rarely produced in Australia. Mainly spread by humans via garden refuse dumping.

Control: Hand Dig, bagging all plant parts and removing from site. Foliar spray.



Blue Stars

Aristea ecklonii

Naturalises in disturbed woodland. Takes up space where natives should be providing food and habitat for creatures.

Family: Iridaceae

Origin: Forest margins in western and southern Africa

Habit: Perennial herb resembling a clump of grass.

Leaves: Up to 60cm linear and leathery, red at the base.

Flowers: Bright blue flowers in a loose panicle on a taller stem close early afternoon.

Fruit: Pods 2cm long, three-sided, contain numerous small seeds.

Roots: Aggressive root system of rhizomes developing into tubers, corms.

Dispersal: Seeds spread by water.

Control: Best removed by hand. If in abundance possible to spray.



Photo: Warringah Council

Butterfly Flower

Gaura lindheimeri

*Gaura parviflora**

*At the time of printing this booklet it is an offence to sell, propagate or knowingly distribute this species.

- Family: Onagraceae
- Origin: USA and Mexico border region
- Habit: Sprawling perennial herb, 0.6-1.2m high with a 0.6-0.9m spread.
- Leaves: The leaves are simple, narrow, irregular and spoon shaped, 2.5-7.6cm long, with toothed margins. Often blotched red.
- Flowers: Small, butterfly-like blooms adorn long willowy stems. Blooms are white when they open at dawn, fading to rose-pink by the end of the day and are produced for a very long period. Other varieties produce flowers of pinks and crimson. Spring-Autumn.
- Fruit: Small 4 sided elongated capsule persisting after the flowers containing numerous tiny seeds.
- Roots: Fibrous root system tolerant of a wide range of soil types from sand to clay.
- Dispersal: Seed and vegetation spread by water, humans, contaminated soil (earthmoving/slashing equipment, car tyres etc) and garden refuse dumping.
- Control: Hand pull/dig, Foliar spray.



Gazania

Gazania species

Have become naturalised on coastal dunes, parks and along roadsides from southern Sydney to the Mid North Coast, the Eyre Peninsula and Mt Lofty region of Sth Australia and in the Moreton region of S.E. Queensland.

Family: Asteraceae

Origin: Mainly South Africa

Habit: Clumping, low-growing perennial herb to 15cm high. that withstands salt-laden winds and grows well in sandy soils

Leaves: Elliptic to narrow-oblongate, irregularly pinnatisect, dark green above white hairy underneath.

Flowers: Brightly coloured long stemmed daisy-like flowers to 8cm wide, in red, bronze, yellow and orange tones. Spring to Autumn.

Fruit: Achenes. 4mm long; pappus scales lanceolate 2-3mm long, with hairs covering achene.

Roots: Fibrous root system tolerant of a wide range of soil types from sand to clay preferring dryer to free draining conditions.

Dispersal: Abundance of seed spread by wind. Seed and vegetation spread by garden refuse dumping, contaminated soil (earthmoving/mowing equipment, car tyres etc).

Control: Hand pull/dig, Foliar spray.



Impatiens/Busy Lizzy

Impatiens walleriana varieties

Readily sold at nurseries and local markets, these colourful plants spread easily by seed and fragments. Commonly found along drains and water courses.

Family: Balsaminaceae

Origin: Africa

Habit: Bushy, succulent-stemmed tender perennial that grows in a spreading mound 15-60cm tall depending on variety. Shade tolerant, favouring moist conditions.

Leaves: Ovate to elliptic leaves light to dark green, sometimes with a bronze-red cast and serrated edges. The opposite leaves are arranged spirally around a thick, green or brownish, brittle stem. Fragments of stem re-root readily.

Flowers: Large (to 5cm across), fleshy, with 5 petals. Pink, rose, red, lilac, purple, orange, white & bicolors. Spring-Autumn.

Fruit: Explosive capsules contain hundreds of small, viable seeds, which are expelled some distance when ripe.

Roots: Fibrous root system tolerant of a wide range of soil types from sand to clay.

Dispersal: Seed and vegetation is spread by water, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand pull/dig, bagging all plant parts and removing from site. Foliar spray.



Lippia

Phyla canescens

Introduced as a lawn species and once used to stabilise soil on banks of irrigation canals and around weirs. Overruns native vegetation, and is capable of suppressing the growth of neighbouring plants.

Family: Verbenaceae

Origin: Americas from California to Argentina and Chile

Habit: Hardy, mat forming, perennial herb with stems that root at nodes.

Leaves: Ovate, with blunt short teeth; 0.5-3cm long, 2-10mm wide, without hairs or with short dense hairs; leaf stalk absent or short.

Flowers: Inflorescence a dense short cylindrical to globe-shaped spike of tubular flowers, on a stalk which is 1-6.5cm long and usually much longer than leaves at the stalk base; petals usually lilac or pink. Flower tubes 2-3mm long. Spring to late autumn.

Fruit: Ellipsoid to globose, 1.5-2mm long.

Roots: Dense and mat forming.

Dispersal: Seed and fragments spread by water, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Foliar spray, pasture improvement techniques.



Spiny Headed/Slender Mat Rush/River Reed

Lomandra hystrix

Family: Lomandraceae
Origin: Riverine
sub tropical
Australia

Habit: Tufted hardy plant with dark green, strappy leaves to 1.3m.

Leaves: Leaf tips pointed with 2-4 tiny side teeth lower down.

Flowers: Clusters of fluffy yellow green or cream scented flower spikes as tall as leaf blades.

Fruit: Clusters of fluffy yellow lemon scented flower spikes on female plants mainly in spring. Primary branches of the flower spikes are in fours.

Roots: Fibrous root system

Dispersal: Widely used in large scale revegetation projects along roadsides and watercourses. Seedlings spread readily into neighbouring bushland.

Control: Remove flower heads before seed set. Remove plants.

Still mistaken for local native *L.longifolia* and planted in bushland restoration sites. High potential to hybridise with local species leading to loss of vigour and genetic integrity. Damages ecosystems where it doesn't belong.



Nasturtium

Tropaeolum majus

Readily sold at nurseries and local markets, these colourful plants spread easily by seed and fragments. Active management in gardens is required to minimise the spread.

Family: Tropaeolaceae

Origin: South America

Habit: Quick growing, soft sprawling succulent annual herb.
Tolerates a wide range of soil conditions but prefers full sun.

Leaves: Broad circular leaves are arranged spirally around stem supported by long stalks joined at the centre of the leaf.
Leaves and stems are soft and fleshy.

Flowers: Large five-petalled funnel-formed flowers in shades of yellow red and orange. Spring – Autumn

Fruit: Green and succulent, 10mm long.

Roots: Fibrous and succulent.

Dispersal: Seed and vegetation is spread by water, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand pull/dig bagging all plant parts and removing from site, Foliar spray.



Seaside Daisy

Erigeron karvinskianus

Highly tolerant of poor, dry soils and grows in a wide range of conditions.

- Family: Asteraceae
Origin: South Mexico to Venezuela
Habit: An aggressive spreading perennial herb to about 50cm high. Grows vigorously smothering low native ground covers. Highly tolerant of poor dry soils and grows in a wide range of conditions. The plant is able to tolerate high salinity and drought.
Leaves: Simple, evergreen, elliptical to oval, pubescent on both sides, and reach 32mm long by 13mm wide.
Flowers: Small daisy flowers 1-2cm across are borne all year round. Each flower has a yellow centre, a corolla that is 5-lobed with white petals, which become pink and finally purple with age.
Fruit: Dandelion-like tufts; 1mm long hard dry seed (achene) attached to a pappus of fine whitish hairs, 2mm long.
Roots: Fibrous, shallow; rooting at the nodes.
Dispersal: Seed spread by wind, humans and contaminated soil (earth-moving equipment, car tyres etc) and garden refuse dumping. Plants will spread vegetatively by cuttings rooting at the nodes.
Control: Hand pull/dig bagging all plant parts and removing from site, Foliar spray.



Singapore Daisy

Sphagneticola trilobata

Introduced as an ornamental. Deliberately planted as a roadside and railway embankment stabiliser in Queensland, now spreading in coastal areas of NSW. Also naturalised in Florida, Malaysia and on Pacific Islands.

Family: Asteraceae

Origin: Mexico to Argentina

Habit: Dense mat-forming perennial herb to 70cm high, with spreading stems to 2m or more long that root at nodes.

Leaves: Simple, dark green above, paler below, 3-11cm long, 2.5-8cm wide, with white hairs and toothed margins, sometimes trilobed.

Flowers: Solitary in leaf axils with yellow disc and ray florets; to 3.5cm wide on stalks 3-14cm long. Flowerheads with 4-14 petals 6-15mm long, inner (disc) florets tubular. Flowers Spring to Autumn.

Fruit: Seeds 4-5mm long, tuberculate and topped with Dandelion-like tufts.

Roots: Fibrous, shallow; rooting at the nodes.

Dispersal: Seed spread by wind, humans and contaminated soil (earth-moving equipment, car tyres etc) and garden refuse dumping. Plants will spread vegetatively by cuttings rooting at the nodes.

Control: Hand pull/dig bagging all plant parts and removing from site, Foliar spray.



Spider Plant/Ribbon Plant

Chlorophytum comosum

An old fashioned plant, still popular in rockeries or hanging baskets because of its ability to withstand drought conditions.

Family: Anthericaceae

Origin: South Africa

Habit: A tufted grass-like perennial herb, to 60cm high.

Leaves: Linear strap/grass-like leaves to 1cm wide and 60cm long forming a point at the apex, leaves may be solid green, although the variegated form with pale green and white longitudinal stripes is more common.

Flowers: Small white flowers with six petals are borne along outward arching wiry stalks in branching heads for most of the year.

Fruit: Small plantlets are produced at the tips of the flowering branches. When the branches bend over and the plantlets come into contact with the soil they take root. Capsules are formed that contain many seeds.

Roots: Fleshy tuberous roots 5-10cm long form at the base of clumps.

Dispersal: Main method of reproduction is vegetative where by new plantlets take root. Spread by humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand pull/dig, bagging all plant parts and removing from site. Foliar spray.



Wandering Jew/Trad

Tradescantia albiflora, *T. zebrina*,
T. spathecea

Family: Commelinaceae

Origin: South America

Habit: Weak, perennial, creeping succulent herb, rooting from distinct nodes. Grows vigorously, layering and smothering low native ground covers. Shade tolerant and moisture loving.

Leaves: Simple, alternate, ovate leaves that are glossy and dark green, to 6cm long. Slightly fleshy.

Flowers: Small (1-2cm) white flowers, with three petals and six hairy stamens. Spring-Summer.

Fruit: Papery capsule, seed not viable in Australia.

Roots: Stolons form underground, with weak, shallow roots forming at nodes.

Dispersal: Main method of reproduction is vegetative where by stem fragments re-root. Stem fragments spread by water, and contaminated soil (green waste dumping, earth moving etc). Common in watercourses.

Control: Hand pull/dig, bagging all plant parts and removing from site. Foliar spray.

This shade loving, weak rooted herb is often the cause of skin irritations in dogs. Many other forms of *Tradescantia* are well known garden plants including the popular "Moses in the cradle" (*Rhoeo*).

Similar native species: *Commelina cyanea* (photo bottom right). This native ground cover has hairy leaf sheaths, blue flowers and a strong primary root system.



Wild Iris

Dietes bicolor
Dietes iridioides

Family: Iridaceae
Origin: South Africa
Habit: Perennial
rhizomatous

Highly tolerant of poor, dry soils and grows in a wide range of conditions. Active management needed in all gardens. This may be as simple as actively removing spent flower stalks prior to seed set, or even better, complete removal from gardens.

clumps of erect sword-shaped leaves. The adult plant is approximately 1m wide and 1m tall.

Leaves: Leathery, sword shaped, strappy leaves 1-2cm wide to 60cm long; arranged in flat fans.

Flowers: Short-lived, iris-like flowers that are either white, yellow and mauve or yellow with brown spots produced Spring-Summer.

Fruit: Green, three-celled capsule containing numerous hard angular seeds 1-2mm in diameter.

Roots: Rhizomatous and fibrous, will re-shoot from any rootstock left in soil.

Dispersal: Seed is spread by water, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand pull/dig, Foliar spray.



Bulbous & Succulent Weeds

These plants are extremely hardy due to their above ground and below ground storage structures, which are modified leaves, stems and roots.

This group of plants includes all of the *Asparagus* species. These plants are prolific, hardy (drought-resistant), shade tolerant and highly invasive. They have extensive underground rhizomes that form thick mats capable of reducing water penetration into soil; vigorous vegetative structures that are capable of smothering native vegetation and produce copious amounts of berries (red or black) that are readily consumed and spread by animals and birds. They are also spread by green waste dumping as rhizomes are capable of surviving for long periods of time out of the soil.

The main weed species are featured in the following pages but below is a list of

Other Problematic Bulbous & Succulent Weeds

Common Name	Botanical Name
Aloes	<i>Aloe species</i>
Asparagus Fern	<i>Asparagus scandens</i> (WoNS)
Bridal Veil	<i>Asparagus declinatus</i> (WoNS)
Cactus/Prickly Pears	<i>Harrisia, Opuntia & Cylindropuntia species</i>
Century Plant	<i>Agave americana, Agave species</i>
Coastal Gladiolus	<i>Gladiolus gueinzii</i>
Freesia	<i>Freesia x hybrida/Freesia refracta</i>
Gladiolus	<i>Gladiolus species</i>
Mother in Law's Tongue	<i>Sansevieria species</i>
Naked Lady	<i>Amaryllis belladonna</i>
Philippine Lily	<i>Lilium philippinense</i>
Soursob/Shamrock/Wood Sorrel	<i>Oxalis species</i>
Various Succulents	<i>Sedums, Kalanchoe, and many other Genera</i>

Bridal Creeper fact: First recorded in Australia in 1857 in a nursery catalogue. By the 1870's Bridal Creeper was a common garden plant; its flowers were used in floral arrangements, particularly in wedding bouquets. Within 50 years of introduction, bridal creeper had become naturalised in many areas across most of southern Australia and has earned its status as a Weed of National Significance.

Agapanthus

Agapanthus species

One of the most widely planted ornamental landscape plants, Agapanthus have invaded natural areas including the Blue Mountains world heritage area.

Family: Alliaceae

Origin: Africa

Habit: An erect fleshy, clumping, perennial lily with long strappy leaves.

Leaves: Long (up to 700mm), strap-like, glossy bright green, fleshy.

Flowers: Small (30mm) trumpet shaped blue or white flowers that form large spherical clusters (umbels) at the end of long (1200mm) smooth tubular stalks. Very showy floral display in Summer.

Fruit: Three-sided leathery green capsules form in clusters at the end of stalks, drying brown and papery when mature. Contain numerous winged, small black seeds.

Roots: Shallow, fleshy, densely matted and quite robust.

Dispersal: Seed and tubers spread by water, wind, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand pull/dig, bagging all plant parts and removing from site. Foliar spray, Cut and Paint.

This is a popular garden plant that needs active management in all gardens This may be as simple as **actively removing spent flower stalks prior to seed set**, or even better, complete removal from gardens.



Arum Lily

Zantedeschia aethiopica

Used extensively in floral arrangements all *Zantedeschia* species are highly toxic if eaten raw. They are known to have caused the deaths of cattle and children. All parts of the plant are toxic, and produce irritation and swelling of the mouth and throat, acute vomiting and diarrhoea.

Family: Araceae

Origin: South Africa

Habit: Erect, tuberous, evergreen perennial herb to 1.5m high.

Leaves: Arrowhead shaped, dark green leaves to 45cm long and 20cm wide borne at the ends of stout, smooth, succulent green stems to 75cm long and winged at the base.

Flowers: Pale Yellow spike to 9cm long surrounded by a pure white funnel shaped spathe to 25cm coming to a point. Winter-Summer.

Fruit: Berry, green or yellow maturing to orange 5-10mm long containing about 4 yellow-brown seeds.

Roots: Fleshy tuberous rhizome.

Dispersal: Rhizomes, cormlets and Seed is spread by water, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand pull/dig, bagging all plant parts and removing from site. Foliar spray, Cut and Paint.



Asparagus - Bridal Creeper

Asparagus asparagoides

Widespread in Western Australia, South Australia and Victoria. It is also spreading in New South Wales and Tasmania. It has the potential to spread further and increase its density in all southern states.

Family: Asparagaceae

Origin: South Africa

Habit: Wiry twinning climber to 3m in length and branch extensively. Stems emerge annually in autumn from a mat, 0-10cm deep.

Leaves: Bright green with alternate, flattened, shiny, stems (leaf-like) that are pointed ovate shape and have parallel venation, leaves 4-30mm wide and 10-70mm long which occur along the length of wiry green stems.

Flowers: White, 6-petalled flowers, 5-8mm in diameter, appear in early Spring.

Fruit: Pea-sized green berries turning pink then red/burgundy in late spring-early summer. Berries contain 1-9 seeds that are black when mature.

Roots: Branching rhizomes that bear numerous fleshy tubers.

Dispersal: Seed spread by water, animals, birds, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Difficult to control – crowning, ensure that the crown is removed off site. Remove and bag berries. Follow-up – hand -pull all emerging seedlings. Foliar spray.

Similar looking native species: Wombat Berry (*Eustrephus latifolius*)



Asparagus - Climbing

Protasparagus plumosus
Protasparagus setaceus

A very popular indoor plant because of its ability to withstand low light and neglect, this plant is naturalised in sheltered sites and rainforests infesting many hectares on the NSW coast.

- Family: Asparagaceae
 Origin: South Africa
 Habit: Tough, perennial, wiry, twining climbing vine with occasional spines and fine, feathery fern like foliage.
 Leaves: Fine, feathery, leaf-like cladodes arranged in horizontal sprays.
 Flowers: Flowers are small, greenish-white and arranged at the tips of branches in Summer.
 Fruit: Bluish-green berries to 0.5cm across that turn black when ripe in Autumn.
 Roots: A tough, woody crown is forged at base of stems, with a comprehensive fleshy root mass radiating out from the crown.
 Dispersal: Seed spread by water, animals, birds, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.
 Control: Difficult to control – crowning, ensure that the crown is removed off site. Remove and bag berries. Follow-up – hand-pull all emerging seedlings. Foliar spray.



Asparagus - Ground

Protasparagus aethiopicus
Protasparagus densiflorus

A very popular indoor/basket plant because of its ability to withstand low light and neglect. This plant is naturalised in sand dunes and rainforests infesting hundreds of hectares on the NSW coast.

Family: Asparagaceae
Origin: South Africa

Habit: Herbaceous perennial, highly invasive, sprawling ground cover with wiry, much branched stems up to 2m. A tough, woody crown is formed at base of stems. Dense mats of branches will smother low native vegetation and suppress natural regeneration.

Leaves: Up to 2.5cm, bright green, ferny, leaf-like cladodes with a distinct midrib and abrupt point.

Flowers: Small, white to pale pink, bell shaped flowers in clusters produced during Summer.

Fruit: Pale green berries that ripen to red in late winter early spring.

Roots: Comprehensive and thick mat of tuberous roots spreading from crown.

Dispersal: Seed spread by water, animals, birds, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Difficult to control. When crowning, ensure that the crown is removed off site. Remove and bag berries. Follow-up – hand-pull all emerging seedlings. Foliar spray.



Photo: Steve Howard

Asparagus - Culinary

Asparagus officinalis

Family: Asparagaceae

Origin: Europe

Habit: Grown for culinary purposes. Hardy perennial with robust spears and prolific fern like vegetative structures 1.5 to 2.0m tall.

Leaves: Fine, feathery, leaf-like cladodes arranged in cylindrical sprays.

Flowers: Flowers are small, bell shaped, greenish-white and arranged at the base of branches in Summer.

Fruit: Bluish-green berries to 0.5cm across that turn red when ripe in Autumn.

Roots: A tough, woody crown is forged at base of stems, with a comprehensive fleshy root mass radiating out from the crown.

Dispersal: Seed spread by water, animals, birds, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Difficult to control – crowning, ensure that the crown is removed off site. Remove and bag berries. Follow-up – hand-pull all emerging seedlings. Foliar spray.

Unlike most other weeds of this family the culinary asparagus is native to Europe not South Africa. It does however share many of its counter parts weedy traits such as developing succulent berries and growing dense underground rhizomes and root mats.

This is a popular vegetable garden plant that needs active management. This may be as simple as removing vegetative stalks prior to seed set, or as comprehensive as complete removal from gardens.



Canna Lily/Indian Shot

Canna indica

Canna x generalis

Family: Cannaceae

Origin: Tropical and South America

Habit: Erect, herbaceous perennial to 2m high with No true stems. Stems are a collection of tightly furled leaf bases.

Leaves: Dark green to multi coloured and striped, large (60 x 25cm), arranged alternately on stems.

Flowers: Tubular flowers (yellows oranges, reds and pinks) formed in asymmetrical clusters. Spring-Autumn.

Fruit: Black, globular seeds (5-7mm long) borne in capsule, and spread by birds.

Roots: Extensive, fleshy rhizome formed underground.

Dispersal: Seed and rhizomes spread by water, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand pull/dig, bagging all plant parts and removing from site. Foliar spray, Cut and Paint.

A very widely planted species that prefers wet boggy sites. Commonly used in septic tank absorption trenches. Garden refuse dumping and deliberate planting in reserves and wetland areas is the main problem.



Elephants Ears/Taro

Colocasia esculenta

Plants such as these with fleshy tuberous rhizomes, when established in moist areas become extremely heavy and difficult to remove. Do not let them establish outside of gardens.

Family: Araceae

Origin: S.E. Asia,
Hawaii, and the
Pacific Islands

Habit: Erect, rhizomatous tuberous, evergreen perennial herb to 1.5m high.

Leaves: Heart shaped, dark green leaves to 60cm long prominently veined. Stem & leaf colour varies depending on variety of plant.

Flowers: Pale Yellow spike enclosed by a greenish yellow hood like spathe. Flowers Winter-Summer.

Fruit: Small berry, green or yellow maturing to orange 5-10mm long containing about 4 yellow-brown seeds.

Roots: Fleshy tuberous rhizome.

Dispersal: Roots, tubers and Seed is spread by water, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand pull/dig, bagging all plant parts and removing from site. Foliar spray, Cut and Paint.



Fishbone Fern

Nephrolepis cordifolia

Once a popular basket and rockery plant because of its ability to withstand low light and neglect, this plant is naturalised throughout a large proportion of the NSW coast.

Family: Davalliaceae

Origin: North Eastern Australia

Habit: Terrestrial fern that forms dense clumps of upright, arching fronds that resemble fish bones with erect rhizome and slender stolons.

Leaves: Compound fronds with opposite or alternate leaflets, often overlapping at base, to 1m. Leaflets to 6cm long.

Flowers: Nil.

Fruit: Spores carried in round, brown clusters (sori) that form in two rows on underside of frond.

Roots: Erect, branching rhizomes above or below ground level, with wiry stolons bearing rounded, hairy tubers.

Dispersal: Spores carried by water, wind and contaminated soil (tyres, earth works, people's shoes, green waste dumping). Problematic in any damp, shady areas, where it will completely dominate ground cover layer.

Control: Hand pull/dig, bagging all plant parts and removing from site. Foliar spray.

Similar looking native species: Rasp Fern *Doodia aspera* and Sickle Fern *Pellaea falcata*.



Formosa Lily

Lilium formosanum

Also known as Taiwan Lily, this plant is rapidly becoming a naturalised weed in many states of Australia infesting roadsides, disturbed areas, wastelands and even bushland.

Family: Liliaceae

Origin: Asia (Taiwan)

Habit: Deciduous perennial herb with annual flowering stalks 1-2m long.

Leaves: Mid to dark green, elongated, linear, sessile leaves are arranged spirally or whirled along the stems.

Flowers: Large trumpet shaped highly fragrant flowers, pure white on the inside, pink or purple/brown stripes on the outside bearing prominent yellow anthers. Summer.

Fruit: Copious papery winged seeds borne in a large capsule.

Roots: Underground bulb with numerous fleshy scales (resembling garlic).

Dispersal: Seeds, bulbs and bulb scales spread by water, wind, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Difficult. Hand dig, ensuring all scales are removed. Best done before flowering. Extensive follow-up required. Remove and bag seed heads (capsules). Foliar sprays ineffective.



Ginger Lily

Hedychium gardnerianum

Large, spreading plant out-competes natives for light and moisture in moist habitats. Heavy and difficult to remove from bush.

Family: Zingiberaceae

Origin: Himalayas

Habit: Robust perennial herb 2-3m high with creeping underground stems (rhizomes) up to 1 metre long.

Leaves: About 40cm long and 15cm wide. Alternately arranged and lance-shaped with long-pointed tips.

Flowers: Yellow with red filaments and very fragrant, in spike-like clusters, summer to autumn.

Fruit: Produces large amounts of seed.

Roots: Large fleshy rhizomes forming dense layers up to 1 metre thick.

Dispersal: Garden dumping of stems.

Control: Remove underground stems from contact with the soil.



Montbretia

Crocosmia x crocosmiiflora

This pretty bulb invades bushland, roadsides streams banks and even gardens. Tolerates full sun, moist areas, frost, shady and windy conditions. Takes over and displaces indigenous grasses and ground covers.

Family: Iridaceae

Origin: South Africa

Habit: Erect deciduous perennial herb to 0.9m.

Leaves: Basal linear strap like flat leaves around 30-80cm long and 1-2cm wide die down in autumn after producing its seeds, and reappear in Spring.

Flowers: Orange yellow tubular flowers are formed solitary in spike inflorescences on short wispy unbranched stems during Summer.

Fruit: Produces large amounts of seed.

Roots: Globular corms live and produce plants for two years or more, and new corms are formed annually, Long rhizomes are also produced, each of which grows into a new plant.

Dispersal: Roots, rhizomes, corms and seed spread by humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Difficult. Hand dig, ensuring all corms are removed. Extensive follow-up required. Foliar spray with penetrant when flowering.



Mother of Millions

Bryophyllum species

Often confused with the Australian native Christmas Bells, this mat forming plant will grow under the poorest of conditions in areas such as a crack in a rock, gravel on the side of a road or on cliff faces, sand dunes and pastures.

- Family: Crassulaceae
Origin: Madagascar, South Africa
Habit: Erect, smooth fleshy succulent stems to 2m, with green- pink grey stems.
Leaves: Leaves vary depending on the species, but all are succulent either cylindrical or boat shaped and have many small teeth on the leaf tip or margins that produce new plantlets (vegetative reproduction).
Flowers: Produced in a cluster at the tip of long stems. Flowers are drooping, bell-shaped, orange-red to scarlet, 4-lobed to 2-3cm long. Flowers mainly Winter-Spring.
Fruit: Dry capsule, producing hundreds of tiny black seeds. Prolific seeder.
Roots: Weak fibrous roots form from all vegetative parts.
Dispersal: Main method of reproduction is vegetative where by stem fragments re-root. Human activities such as mowing/slashing and green waste dumping are the common method of vegetative spread. Seeds are spread by water and contaminated soil.
Control: Difficult. Hand pull/dig, bagging all plant parts and removing from site. Foliar spray.



Parrot Alstroemeria/Peruvian Lily

Alstroemeria pulchella

Spreads in shady sites near the coast, forming dense clumps. Expensive and difficult to remove and takes up native habitat.

- Family: Alstroemeria
Origin: Central and South America
Habit: Erect perennial with numerous unbranched stems with spoon-shaped leaves to 1m high. Tuberous underground roots.
Leaves: Twisting from base
Flowers: Loose clusters 4-5cm across, red and green with black spots, at tops of stems. Fruit a capsule.
Fruit: Is a capsule.
Roots: Slender rhizomes becoming crowns and tubers.
Dispersal: Underground tubers spread underground. Fruit possibly eaten and spread by birds and or insects.
Control: Remove the entire plant including the roots. Cut individual stems near ground and paint with full strength herbicide. Follow up required.



Photos: Rob Gleeson

Spanish Bayonet

Yucca aloifolia
Yucca species

Commonly cultivated, found on roadsides and sand dunes. Very difficult to control due to spiny nature of plant creating impenetrable thickets.

Family: Agavaceae

Origin: North & Central America and the West Indies

Habit: Evergreen, herbacious, slow growing perennial shrub or small tree, forming large spiny rosettes of leaves. Often freely branched.

Leaves: Depending on species. Green-bluish grey fleshy, linear to narrow-lanceolate, 0.3-1m long, 2-5cm wide, apex acute with terminal spine 10-20mm long, margins finely toothed, surfaces glabrous.

Flowers: Creamy white, multi flowered panicle 1-3m long.

Fruit: Oblong purplish capsule, 6-8cm long, indehiscent (doesn't open on its own accord at maturity); seeds black.

Roots: Large, dense and fleshy.

Dispersal: Seed and vegetative reproduction where stem segments and leaf rosettes take root. Spread by humans, contaminated soil (earth-moving equipment, car tyres etc) and garden refuse dumping.

Control: Hand or mechanical removal, cut and paint, drilling, foliar spray. All plant parts should be removed from site.



Wild Watsonia

Watsonia meriana variety *bulbillifera*

Once widely, but now rarely, planted as an ornamental. Major environmental weed of disturbed bushland and roadsides, particularly near water. Serious weed in WA, SA, Victoria and NSW.

Family: Iridaceae

Origin: South Africa

Habit: Erect perennial herb to 2m.

Leaves: Basal linear/Sword-shaped leaves up to 0.6m long with distinct midrib are arranged in a fan-like formation. Above ground parts dieback to underground corm each autumn.

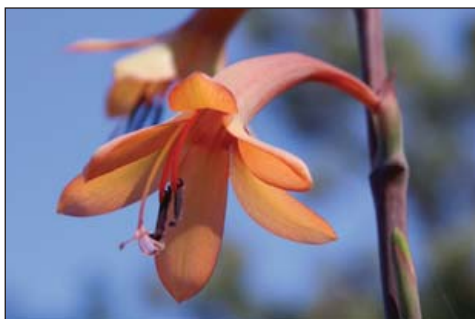
Flowers: Curved trumpet shaped salmon pink to Orange red flowers formed solitary in spike inflorescences on tall reddish unbranched stems. Spring-Summer.

Fruit: No seed set, but small bulbils are produced in clusters of up to 16 along the stem below the flowers.

Roots: Globular corm. 1-3 new corms produced each growing season.

Dispersal: Roots, bulbils and corms spread by water, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Difficult. Hand pull/dig, ensuring all corms are removed. Extensive follow-up required. Remove and bag all bulbils. Foliar sprays available.



Grass Weeds

The grassy weeds are commonly overlooked, however, exotic grass species are invading roadsides, reserves and bushland in Sydney and aggressively displace native ground covers. Although many of these species are desirable pasture grasses and turf grasses in home lawns, parks and playing fields, they are problematic bushland and garden weeds because they are capable of setting copious volumes of viable seed within a short time of germination. While many of these species only invade disturbed areas with adequate light levels, some of these species are also shade tolerant, and thus can invade intact bushland areas.

The main weed species are featured in the following pages but below is a list of

Other Problematic Grass Weeds

(Some of these species are declared noxious in different parts of Sydney)

Common Name	Botanical Name
African Feather Grass	<i>Pennisetum macrourum</i>
African Love Grass	<i>Eragrostis curvula</i>
Bamboo	<i>Phyllostachys species</i>
Broadleaf Paspalum	<i>Paspalum wettsteinii</i>
Buffalo Grass	<i>Stenotaphrum secundatum</i>
Chilean Needle Grass	<i>Nassella neesiana</i>
Columbus Grass	<i>Sorghum x almum</i>
Common Couch	<i>Cynodon dactylon</i>
Coolatai Grass	<i>Hyparrhenia hirta, H. rufa</i>
Fine Bristled Burr Grass	<i>Cenchrus brownii</i>
Giant Pigeon Grass	<i>Setaria verticillata</i>
Giant Parramatta Grass	<i>Sporobolus fertilis</i>
Giant Paspalum	<i>Paspalum urvillei</i>
Giant Rats Tail Grass	<i>Sporobolus pyramidalis</i>
Giant Reed	<i>Arundo donax</i>
Grader Grass	<i>Themeda quadrivalvis</i>
Johnson Grass	<i>Sorghum halepense</i>
Kikuyu	<i>Pennisetum clandestinum</i>
Large Quaking Grass	<i>Briza maxima</i>
Mexican Feather Grass	<i>Nassella tenuissima</i>
Mossman River Grass	<i>Cenchrus echinatus</i>
Olive Hymenachne	<i>Hymenachne amplexicaulis</i>
Parramatta Grass	<i>Sporobolus africanus</i>
Red Natal Grass	<i>Melinis repens</i>
Rhodes Grass	<i>Chloris gayana</i>
Slender Pigeon Grass	<i>Setaria geniculata</i>
Spiny Burr Grass	<i>Cenchrus longispinus/C. incertus</i>

Crimson Fountain Grass & Swamp Foxtail Grass

Pennisetum setaceum
Pennisetum alopecuroides

A very popular landscape grass, it is an offence to sell, propagate or knowingly distribute *Pennisetum setaceum*.

- Family: Poaceae
- Origin: Africa, Eastern Australia
- Habit: Tufted or clump-forming perennial grass to 1 m.
- Leaves: Thin leathery, arching leaves to 80cm long, with prominent veins.
- Flowers: Inflorescence spike-like and feathery, purplish, at the end of long canes. Flowering time: Summer-Winter. *P. setaceum* – seed heads to 30cm long, *P. alopecuroides* – seed heads to 8cm long.
- Seed: Both species strongly self-seed. Some new varieties are claimed to have low seed viability.
- Roots: Fibrous and shallow.
- Dispersal: Seed spread by water, wind, humans, contaminated soil (earth-moving equipment, car tyres etc) and garden refuse dumping.
- Control: In bushland situations: Hand dig (bag seed heads), Foliar spray. In the garden: cut flower heads before seeding, bag and dispose of by deep burial at a waste management centre.



Liriope/Lily Turf

Liriope species

A very popular garden plant that is used extensively in landscaping for its hardiness in extreme conditions. It is starting to become a problem in shaded riparian areas.

Family: Ruscaceae

Origin: East Asia

Habit: Clump forming and spreading, grass like perennial lily.

Leaves: Glossy dark green, narrow straplike, dense linear foliage from 20-50cm long and then recurves toward the ground to form rounded clumps.

Flowers: Spikes of small purple, violet or white flowers rise from the center of clumps.

Fruit: Black, pea sized berries, each containing one seed.

Roots: Dense, fibrous root mass. Some species develop fleshy tubers.

Dispersal: Seed spread by water and humans via contaminated soil and garden refuse dumping. Spread locally by seed falling from plant and rhizomes

Control: In bushland situations: Hand dig (bag seed heads), Foliar spray. In the garden: cut flower heads before seeding, bag and dispose of by deep burial at a waste management centre.



Pampas Grass

Cortaderia species

A very popular garden plant in the 1960's and 1970's, it is now found invading bushland, around Sydney and the Central Coast.

Family: Poaceae

Origin: South America and New Zealand

Habit: Large, long lived perennial tussock forming ornamental grass to 4.5m tall.

Leaves: Light green, up to 2m long and finely tapering with prominent midrib and sharp edges that will cut the skin. A rim of hairs (to 3mm long) at leaf base (ligule).

Flowers: Large feathery heads on stems to 3m tall. White-biege (*C. selloana*), or pink-mauve (*C. jubata*). Up to 50 plumes formed on one mature plant. Both single sex and bisexual plants exist. Summer-Winter.

Seed: Small (2mm), short-lived, up to 100,000 seeds set per plume.

Roots: Strong fibrous root with rhizomes capable of re-shooting.

Dispersal: Seed spread by water, wind, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Crowning, Slash and hand dig with mattock, Foliar spray. Bag all seed heads.



Panic Veldt Grass

Ehrharta erecta

An aggressive, perennial grass almost constantly in seed, *Ehrharta* spreads rapidly and smothers small native ground cover species.

Family: Poaceae

Origin: South Africa

Habit: Vigorous, shade-tolerant, rhizomatous and loosely tufted perennial grass, that will out-compete native ground covers in nearly all soil conditions.

Leaves: Bright green, flat leaf blade with soft hairs on surface, to 5-20cm long, 2-10mm wide, Stems rounded, prominent mid-vein on the underside of leaf. perennial grass, that will out-compete native ground covers in nearly all soil conditions.

Flowers: Inflorescences borne on stems, 10-80cm long and grow at any time during the year. The stem can be upright or curved, often branched near the base and sometimes tinged red.

Seed: Profuse and rapid production of 3mm long and oval-shaped, shiny seeds. They range from immature green to a bleached, dry appearance. Seeding occurs every 6 weeks and viability approaches 100%.

Roots: Relatively weak and fibrous, easily removed by hand.

Dispersal: Seed spread by water, animals (mainly birds), humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand pull/dig, bag all seed heads. Foliar spray.

Similar looking native species: Weeping Meadow Grass (*Microlaena stipoides*).



Mexican Feather Grass

Nassella tenuissima

Family: Poaceae

Origin: South America

Habit: Drooping perennial tussock forming grass which grows in dense clumps. up to 0.8m in height.

Leaves: Leaf blades to 0.5mm wide, tightly rolled and with small serrations that can be felt when fingers are moved downward along the blade. Distinguished by hairless nodes, some usually visible; ligule membranous and hairless, to 2.5mm long.

Flowers: Seedhead: Young seedheads held among the leaves; mature seedhead to 25cm long; glumes purplish in the lower half to 1cm long; callus bearded. Flowers summer.

Seed: Lemma to 3mm long, awn narrow, straight or obscurely twice bent, 4.5-9cm long; attached centrally to the top of the lemma.

Roots: Fibrous clump.

Dispersal: Seed spread by water, animals, humans, contaminated soil (earth-moving equipment, slashers, mowers etc) and as an ornamental.

Control: Hand pull/dig, bag all seed heads. Foliar spray.

Initially mislabelled and sold as an ornamental in Australia under the names Elegant Spear Grass, Pony Tail and Angel's Hair. Mexican Feather Grass needs to be prevented from naturalising in Australia.

This grass is a weed in its native range. If it naturalises in Australia it potentially has a wider range than Serrated Tussock. Mexican Feather Grass escaped from cultivation in New Zealand and has become a weed that is continuing to spread.



Shrub Weeds

The shrub weeds are often the most prolific, because of the fact that they are a common addition to many home gardens.

The main problem arises from the irresponsible dumping of garden waste in bushland and reserves bordering on home gardens and inadequate garden maintenance allowing plants to seed and spread to nearby areas via wind and water or in the droppings of fauna that have eaten them.

The main weed species are featured in the following pages but below is a list of

Other Problematic Shrubs Weeds

Common Name	Botanical Name
Butterfly Bush*	<i>Buddleja davidii</i> / <i>Buddleja madagascariensis</i>
Castor Oil Plant	<i>Ricinus communis</i>
Cotton Bush	<i>Gomphocarpus fruticosus</i>
Elderberry	<i>Sambucus nigra</i>
Gorse	<i>Ulex europaeus</i> (WoNS)
Guavas	<i>Psidium guajava</i> / <i>Psidium cattleianum</i>
Hawthorns	<i>Crataegus species</i>
Milk Wort/Purple Broom	<i>Polygala myrtifolia</i> , <i>P. virgata</i>
Montpellier Broom	<i>Genista monspessulana</i>
Orange Jessamine*	<i>Murraya paniculata</i> (seed grown species)
Oleander*	<i>Nerium oleander</i> (single flowering species)

Cassia/Winter Senna

Senna pendula var. *glabrata*

Another similar *Senna* species is *Senna floribunda* which is characterised by a more pointed leaf.

Family: Caesalpiniaceae

Origin: South America

Habit: A straggly, multi-stemmed evergreen shrub 1-3m high. Stems brown and woody with thin cambium layer.

Leaves: Leaves are compound, with 3-8 pairs of opposite leaflets. There is a raised gland between the lowest pair of leaflets.

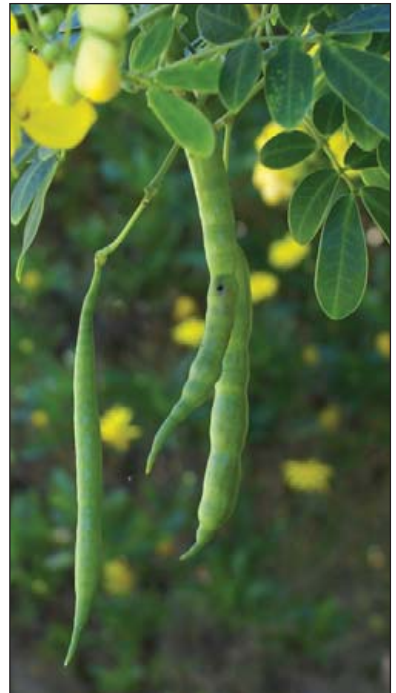
Flowers: Bright yellow, to 3cm, produce in large numbers, with protruding stamens. Flowers March/April.

Fruit: Cylindrical green bean-like pods, 10-20cm long, each containing 20-40 seeds. Pods turn brown and desiccate when ripe.

Roots: Woody, branching and relatively shallow. Will re-shoot from any root stock left in the ground.

Dispersal: Seed spread by water, animals (foxes, rats & birds), humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand pull/dig juvenile plants, cut and paint, scrape and paint and paint or foliar spray adult plants.



Coral Berry

Ardisia crenata

A common indoor plant due to its low light requirements. Is recorded as weedy from the Mullumbimby area in Northern NSW to Sydney.

Family: Myrsinaceae

Origin: NE India, China to Japan

Habit: Evergreen, compact shrub 1-2m high with a bushy head.

Leaves: Dark glossy green above, paler and dull below, elliptic to slightly oblanceolate, 5-12cm long, 1.5-3.5cm wide; margins serrated and crinkled.

Flowers: Inflorescence is a many-flowered, umbel. Flowers rather inconspicuous, white and starry, petals 4mm long. Summer – Autumn.

Fruit: Scarlet red globose berry, 5-8mm diam. Long lasting usually persisting through Winter.

Roots: Shallow and fibrous.

Dispersal: Seed spread by water, animals (foxes, rats & birds), humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand pull/dig, scrape and paint, foliar spray.



Cotoneaster

Cotoneaster species

At least nine species of Cotoneaster have naturalised in Australia. There are numerous native alternatives available which will attract birds to the garden

- Family: Malaceae (often included in Rosaceae)
- Origin: China, Asia
- Habit: Evergreen shrub or small tree to 4m high usually with arching branches.
- Leaves: Varying with species but, usually elliptic to ovate 1.5-4cm wide, green above paler or silvery below. Young growth often woolly.
- Flowers: White clusters. Each flower about 8mm wide, 5-petalled. Flower stalk densely hairy. Spring and summer.
- Fruit: Red fleshy fruit (pome) 6-10mm long, almost globe-shaped. Containing 2 yellowish, flattened seeds.
- Roots: Substantial woody tap and lateral root system.
- Dispersal: Seed spread by water, animals (mainly birds), humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping. The main problem is that people plant Cotoneaster to attract birds to the garden.
- Control: Hand pull/dig juvenile plants. Cut and Paint or Scrape and Paint mature plants.



Indian Hawthorn

Raphiolepis indica

A commonly cultivated garden plant especially in coastal areas due to its ability to tolerate drought conditions. Less weedy or sterile cultivars may be available.

- Family: Malaceae
- Origin: Asia, especially India and southern China
- Habit: Drought hardy, evergreen, low growing, spreading shrub to 1-1.5m high.
- Leaves: Dark green on top, paler below; thick, leathery, serrated, ovate to elliptic or obovate, 3-7cm long, 5-30mm wide, pubescent or hairy at first, sharply toothed.
- Flowers: Panicle of star shaped flowers 10mm diam. Petals are white or pink, with five petals, and may be lightly fragrant.
- Fruit: Blue-black pome fruits each containing 1 or 2 seeds.
- Roots: Extensive lateral, woody and relatively deep.
- Dispersal: Seed spread by animals (mainly birds), humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.
- Control: Hand pull/dig, cut and paint, foliar spray.



Mickey Mouse Plant

Ochna serrulata

The long tap root makes manual removal extremely difficult. This plant seeds heavily in bushland areas.

- Family: Ochnaceae
Origin: South Africa
Habit: A dense evergreen shrub 2-4m high with rough stems. Bark has numerous lenticels (corky spots) protruding outwardly.
Leaves: Alternately arranged oblong to lanceolate leaves to 6cm long, glossy green on both surfaces, slightly paler below. Leaf margins finely serrated and often wavy, new growth is reddish-brown in colour.
Flowers: Yellow with 5 petals in Spring-Summer. Green calyx turns red after petals drop and fruit matures.
Fruit: Succulent green berries to 8mm across, in clusters of 4-6. Ripen to black in Summer. Each berry contains a single seed.
Roots: Strong tap-root formed, with characteristic kink that renders it susceptible to breaking. Will reshoot form any root stock left in ground.
Dispersal: Seed spread by water, animals (foxes, rats & birds), humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.
Control: Hand pull/dig juvenile plants. Scrape and Paint. *Hard to kill.



Pigeon Berry/Golden Dewdrop

Duranta erecta cultivars

This new vogue plant to the Sydney region has become naturalised in some areas. It requires active management in all gardens.

Family: Verbenaceae

Origin: West Indies, Central and South America

Habit: A straggly evergreen shrub 1-5m high with drooping branches and sharp spines.

Leaves: The ovate leaves are 2.5-7.6cm long and arranged on the stem in pairs opposite each other, or in whorls of three.

Flowers: Showy inflorescences bloom almost all year long in terminal or lateral racemes up to 15cm long. The individual flowers are tubular with five petals, white, light blue, violet or purple, and spread out at the mouth about 1cm across.

Fruit: Spherical yellow berry to 1.5cm in diameter borne in showy hanging bunches.

Roots: Substantial tap and lateral root system.

Dispersal: Seed spread by water, animals (mainly birds), humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.

Control: Hand pull/dig. Cut and Paint or Scrape and Paint, foliar spray.



Tree Weeds

The tree weeds are often the most obvious, simply by virtue of the fact that they occupy a large area in an ecosystem.

Because of the sheer size many of these plants can attain, it makes them one of the most costly and difficult group of plants to treat or remove.

Tree weeds add to the demise of forests and riparian areas.

The main weed species are featured in the following pages but below is a list of

Other Problematic Trees Weeds

Common Name	Botanical Name
African Tulip Tree	<i>Spathodea campanulata</i>
Athel Pine	<i>Tamarix species (WoNS)</i>
Black Locust	<i>Robinia psuedoacacia varieties</i>
Broadleaf Pepper Tree	<i>Schinus terebinthifolius</i>
Cadaghi Gum	<i>Corymbia torelliana</i>
Canary Island Date Palm	<i>Phoenix canariensis</i>
Chinese Rain Tree	<i>Koelutaria species</i>
Coffee Tree	<i>Coffea arabica</i>
Cootamundra Wattle	<i>Acacia baileyana</i>
Golden Willow Wattle	<i>Acacia saligna</i>
Honey Locust	<i>Gleditsia triacanthos varieties</i>
Ice Cream Bean	<i>Inga edulis</i>
Jacaranda	<i>Jacaranda mimosifolia</i>
Leucaena	<i>Leucaena leucocephala</i>
Loquat	<i>Eriobotrya japonica</i>
Mount Morgan Wattle	<i>Acacia podalyrifolia</i>
Night Scented Jasmine	<i>Cestrum nocturnum</i>
Norfolk Island Hibiscus	<i>Lagunaria patersonia</i>
Princess Tree	<i>Paulownia fortunei, Paulownia tomentosa</i>
Privet – Small leaf/Large leaf	<i>Ligustrum lucidum, Ligustrum sinense</i>
Radiata Pine/Slash Pine	<i>Pinus radiata, Pinus eliottii</i>
Rhus Tree	<i>Toxicodendron succedaneum</i>
Tagasaste	<i>Chamaecytisus palmensis</i>
Tung Oil Tree	<i>Aleurites fordii</i>
Willows*	<i>Salix species (WoNS) (Some exemptions apply)</i>

African Olive & European Olive

Olea europaea sub species africana
Olea europaea sub species europa vars.

Family: Oleaceae
Origin: Mediterranean region
of Europe, Portugal,
South Africa

One of the most significant threats to the last remnants of Cumberland Plain woodlands in the Sydney region. Threatens ecosystems in Sydney North. Forms dense monocultures beneath which no other vegetation remains. Hard to remove mature trees.

- Habit: Much branched evergreen tree 5-15m high with drooping branchlets. Thin greyish bark covered by protruding lenticels.
- Leaves: Narrow, lance-shaped leaves 5-10cm long and up to 2cm wide with prominent midrib and recurved tip, dark green on upper surface, African: yellowish-brown on lower surface. European: silvery-grey on lower surface.
- Flowers: Small white to cream or greenish tubular flowers forming in racemes at branch tips. Spring-Summer.
- Fruit: Green berries that ripen to purplish-black in summer. African: round 1-2cm in diameter. European: oval shaped 2-5cm long.
- Roots: Substantial tap root that gives rise to many laterals. Will re-shoot from any root stock left in ground.
- Dispersal: Seed spread by water, animals (foxes, rats & birds), humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.
- Control: Hand dig/pull juvenile plants. Cut and Paint or Scrape and Paint, foliar spray. Bag and dispose of all berries.



Camphor Laurel

Cinnamomum camphora

Once a common park and shade tree, now extensively naturalised, Camphor Laurels are now listed as Noxious in many areas of NSW.

- Family: Lauraceae
- Origin: China, Japan, Taiwan, Vietnam and Cheju-do (Korea)
- Habit: A large, hardy evergreen spreading tree 20-30m in height. Grey-brown, textured bark, becoming fissured with age.
- Leaves: Leaves 5-11cm long, ovate, glossy on upper surface; dull and chalky on lower surface. 3 main veins arise from petiole joint at base of leaf. Strong camphor smell when crushed.
- Flowers: Inflorescence a panicle. Flowers Small, white, produced in clusters in Spring.
- Fruit: Glossy green spherical berry to 1cm wide, ripen to black in late autumn. Each berry contains one seed.
- Roots: Strong root system capable of coping and suckering.
- Dispersal: Seed spread by water, animals (foxes, rats & birds), humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.
- Control: Hand dig/pull juvenile plants. Various foliar spray methods also drill-injection; frilling; cut and paint. Difficult to control.

Planted in eastern Australian 1854 as a shade and street tree in school yards, playgrounds, cemeteries, parks and agriculturally. It has naturalised from the Nowra region to north Queensland, in areas of high annual rainfall.



Chinese Celtis/Hackberry

Celtis sinensis

Seedlings quickly establish in disturbed areas in a wide range of soils forming a dense monostorey. Prevents native regrowth. Widespread weed near coastal rainforest.

- Family: Ulmaceae
Origin: China, Korea and Japan
Habit: Large semi-deciduous tree to 20m losing its dense canopy in the winter months.
Leaves: Oval shaped leaves 4.5-9cm long with a pointed tip and toothed margins along the upper half. Sparse hairs along the midvein.
Flowers: Early summer. Copious amounts of round green fruits turn orange in late summer/early autumn.
Fruit: Copious quantities round green fruits turn orange/red in Autumn.
Roots: Extensive lateral root system
Dispersal: Large fruit eating birds (Currawongs, Indian Mynas etc) and bats spread the seed. Also transported by water.
Control: Seedlings can be hand pulled. Large areas can be sprayed with a glyphosate-herbicide. Stems of larger plants can be scraped and painted or drilled, and glyphosate applied. Plants may sucker if cut.



Photos: Terry Inkson

Cockspur Coral Tree

Erythrina crista-galli

Commonly cultivated, becoming widely naturalized, especially in coastal districts along drains and streams. Removal of this species is highly recommended.

- Family: Fabaceae
- Origin: Brazil, Bolivia, Paraguay, Argentina and Uruguay
- Habit: Deciduous tree to 5-9m taking on a gnarled appearance with age, bark is covered with large curved prickles.
- Leaves: Compound trifoliate leaves with prickles on stems.
- Flowers: Very large spikes 30-40cm long of bright scarlet or coral-red pea like bird attracting flowers in Spring-Summer.
- Fruit: Long green pods age brown and open with a twist revealing large, hard, bean like seeds.
- Roots: Substantial tap and lateral root system capable of invading plumbing pipes. Will sucker from root fragments left in ground. Branches should not be left on the ground as they can re-grow into new plants.
- Dispersal: Vegetation & seed spread by water, animals, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.
- Control: Hand dig/pull juvenile plants. Various foliar spray methods also drill-injection; frilling; cut and paint. Very difficult to control.

Has the potential to invade natural areas such as hind-dunes, rainforests, wetlands creeks, and saltmarshes.



Coral Tree

Erythrina x sykesii

Grows readily from fallen branches, and should never be used as mulch. Has the potential to invade natural areas such as hind-dunes, rainforests, wetlands, creeks, and saltmarshes.

- Family: Fabaceae
Origin: Uncertain
Habit: Deciduous tree 10-15m high by 15-20m wide with a dense rounded canopy, short stout trunk and ascending branches with smooth greenish bark, and rose like thorns. Very brittle branches are shed when windy.
Leaves: Compound; tri-foliolate; leaflets triangular to obovate, 7-20cm long, 7-12cm wide mid green.
Flowers: Racemes usually 8-30cm long and erect bearing up to 30-scarlet red pea like flowers. Most of year but mainly Winter – Spring.
Fruit: Nil.
Roots: Substantial tap and lateral root system capable of invading plumbing pipes. Will sucker from root fragments left in ground. Branches should not be left on the ground as they can re-grow into new plants.
Dispersal: Vegetation spread by water and humans via garden refuse dumping. It is so easy to grow even woodchips can take root.
Control: Hand dig/pull small plants. Various foliar spray methods also drill-injection; frilling; cut and paint. Very difficult to control.



Golden Wreath Wattle/ Willow Wattle

Acacia saligna

Fast growing, high generation rates compete with local native species. Seed dormancy up to 20 years.

Family: Fabaceae

Origin: Southwest Western Australia

Habit: Medium shrub to 10m x 6m. Grey bark smooth or finely fissured. Pendulous branches often blue-grey when young.

Leaves: Phyllodes leathery with a prominent mid-vein. Bright yellow ball flowers in spring develop into smooth brown pods.

Flowers: Bright yellow ball flowers in spring develop into smooth brown pods.

Fruit: Narrow pods up to 0.5cm wide and 8-12cm long

Roots: Extensive horizontal and vertical root system

Dispersal: Planted for dune rehabilitation and road side planting. Birds carry seeds into bushland.

Control: Cut and paint trees; pull young specimens. Burn large areas of infestation to stimulate regrowth.



Tree of Heaven

Ailanthus altissima

A hardy plant with a deep root system and forms dense thickets.

Family: Simaroubaceae

Origin: China

Habit: Deciduous suckering shrub or tree to 15m.

Leaves: 9-21 opposite pairs of strongly veined, ovate leaflets with a smaller leaf at the tip. Leaflets have a conspicuous gland that produces an unpleasant smell when crushed.

Flowers: Male and female flowers appear in clusters on separate plants in summer.

Fruit: Seeds are covered in a flattened wing, green turning reddish.

Roots: Deep tap roots, a maze of lateral roots.

Dispersal: Seed and suckers. Once planted around rural buildings.

Control: Scrape and paint stems. Drill trunks of larger specimens.



Photo: Rob Gleeson

Willow

Salix cinerea

Salix nigra & other *Salix* species

Introduced to Australia to help stabilise creek banks and roadsides, willows are now actively displacing native riparian vegetation, altering creek flows and destroying habitat. Potential invaders of wetlands.

Family: Salicaceae

Origin: Eurasia, North Africa, North America

Habit: Rapidly growing deciduous trees 10 to 20m some with single trunks, others multi-stemmed, end branches shiny and reddish, very pliable.

Leaves: Can be droopy or not, shiny green on both sides, narrow and serrated.

Flowers: Spikes ('catkins') appear in spring. Plants male or female.

Fruit: Tiny seeds.

Roots: Extensive lateral root system. Can re-shoot from broken bits.

Dispersal: Wind dispersed seed. Sometimes branches on ground sucker.

Control: Stem injection of each aerial trunk with small seedlings up to 1 metre able to be hand pulled.



Photos: Reece Luxton

Yellow Bells

Tecoma stans

Popular because of its magnificent floral display, On the increase on roadsides and disturbed bushland. Easy to grow, plants are often sold at local fetes or backyard traded.

- Family: Bignoniaceae
- Origin: Central and South America. Mexico, Peru and Equador
- Habit: Evergreen many branched shrub or small tree 4-7m high.
- Leaves: Compound leaves to 8-25cm long, comprised of 5-13 leaflets. Leaflets are toothed and pointed, 2.5-10cm long and 8-30mm wide.
- Flowers: Large clusters of showy, bright yellow trumpet-shaped flowers in Spring-Summer. Formed at the branch tips and forks.
- Fruit: Green bean like seed pods aging brown, 10-22cm long x 20mm wide produced from spring to autumn, each containing numerous winged seeds.
- Roots: Substantial tap root that gives rise to many laterals.
- Dispersal: Seed spread by water, wind, humans, contaminated soil (earthmoving equipment, car tyres etc) and garden refuse dumping.
- Control: Hand Dig juvenile plants. Cut and Paint or Scrape and Paint. Bag and dispose of all seed pods.



Water Weeds

Aquatic weeds are plants that invade watercourses, dams and wetlands. These weeds are extremely detrimental to the aquatic environment, where they choke waterways, alter oxygen levels and reduce light penetration.

Most of the water weeds have originated from backyard fish ponds or home aquariums and have been accidentally released into the environment. They have been further spread by deliberate seeding of waterways by black market plant traders and spread between farm dams via fish, yabbie and eel traps.

Water weeds may be spread either by vegetation from plant fragments and/or by seed depending on the plant. Once established, water weeds are difficult to eradicate and may require a combination of controls methods including chemical, biological treatments as well as physical or mechanical removal. Water weed control is time-consuming, expensive work and usually requires many follow-up sessions.

The key to water weed control is early detection and to prevent their movement into uninfested waterways. If you think you might have any of the following water weeds, contact your council's weeds officer for expert identification, advice and assistance in preparing a control plan.

The main weed species are featured in the following pages but below is a list of

Other Problematic Water Weeds

Common Name	Botanical Name
Arrowhead	<i>Sagittaria montevidensis</i>
Anchored Water Hyacinth	<i>Eichhornia azurea</i>
Bog Moss	<i>Mayaca fluviatilis</i>
Dense Water Weed	<i>Egeria densa</i>
East Indian Hygrophila	<i>Hygrophila polysperma</i>
Elodea	<i>Elodea canadensis</i>
Eurasian Water Milfoil	<i>Myriophyllum spicatum</i>
Horse Tails	<i>Equisetum species</i>
Hydrilla	<i>Hydrilla verticillata</i>
Peruvian Primrose	<i>Ludwigia peruviana</i>
Lagerosiphon	<i>Lagerosiphon major</i>
Sagittaria	<i>Sagittaria platyphylla</i> (WoNS)
Salvinia	<i>Salvinia molesta</i> (WoNS)
Senegal Tea	<i>Gymnocoronis spilanthoides</i>
Water Primrose	<i>Ludwigia peploides sub species montevidensis</i>
Water Soldier	<i>Stratiotes aloides</i>
Yellow Burrhead	<i>Limnocharis flava</i>

Alligator Weed

Alternanthera philoxeroides

Often confused with other species of *Alternanthera* (Joy weeds), Water Primrose (*Ludwigia* species), or Smartweeds, (*Persicaria* species) Difficult to identify in dense vegetation and when not in flower.

Family: Amaranthaceae

Origin: South America

Habit: Perennial with mostly hairless surface stems that root at the nodes stoloniferous and underground stems producing shoots & roots (rhizomatous). Can form dense mats in or out of water.

Leaves & Stems: Glossy green lance shaped leaves arranged in opposite pairs on hollow stems. Terrestrial plants can have reddish stems.

Flowers: White, cylindrical to globe-shaped, papery, pom-pom like heads on stalks to 9cm long that arise from the leaf-stem junction. Summer.

Fruit: Viable seed not recorded in Australia.

Roots: Extensive underground rooting system to 1m deep.

Dispersal: Vegetation spread by water, humans, animals (live stock), contaminated soil, earth moving machinery, boats and turf, Also spread by its misguided use as a culinary herb.

Control: Mechanical and manual removal, foliar spray. Contact your local weed officer.

One of Australia's worst aquatic weeds. Adapted to growing on damp land, occasionally flooded land, in shallow water (rooted in the substrate), attached to the bank (in deep water) or free floating. Will survive for a few days in sea strength salinity and thrive in 10% sea strength (3,500 mg/l) saline water.



Longleaf Willow Primrose

Ludwigia longifolia

Introduced to Australia as a garden ornamental and first recorded as naturalised near Sydney in 1991. Capable of producing up to 2.5 million seed per plant and 10 million seeds per square meter.

- Family: Onagraceae
Origin: South America from Brazil to Argentina
Habit: Spring/Summer growing, woody, perennial, single stemmed or multi branched, erect, shrub ranging from 0.5m to 2.5m tall. Red, narrow, angular stems with unusual wing like characteristics.
Leaves: Simple, dark green linear to lanceolate/oblanceolate, up to 15cm long and 2.5cm wide, reducing in size up the stem.
Flowers: Solitary, 40-50mm across with 4 yellow petals, prominently ribbed, found in the junction of leaves and stems. Summer-winter.
Fruit: Sharply 4 angled, oblong to narrow oblong 10-40mm long, 4-8mm wide. Unripe - green to red/green with prominent triangular sepals. Ripe - brown, papery and desiccated each containing around 7000 sawdust-like seeds.
Roots: Stout taproot and dense lateral roots.
Dispersal: Vegetation and seed spread by water, wind, animals, birds, humans, contaminated soil, earth moving machinery and garden refuse dumping.
Control: Hand dig/pull juvenile plants and remove as stems readily grow from cuttings, Scrape and Paint, foliar spray. No chemicals are registered for use on this plant, but an off label permit is available for spraying biactive Glyphosate. Contact your local weed officer.



Help Protect Your Local Environment

Much of the bushland, reserves and creeks in the Sydney Region is managed by local councils, National Parks and Wildlife Services, and other government authorities.

These important natural assets often contain endangered ecological communities (EEC) and are invaluable for preservation of our native flora and fauna.

With limited resources the organisations managing these lands are trying to protect the most precious areas of biodiversity with regular maintenance programs that include bush regeneration, vegetation management and weed control. However resources are not sufficient to ensure that all weeds can be controlled at all times.

The public can greatly assist in this effort to protect and enhance the original native vegetation in these areas. As a local resident you can use the advice in this booklet to **manage the plants on your land**. You can also get involved in work to regenerate your local native environment as a bushcare volunteer in your local area. Your local council can provide details on how to join.

How can you HELP?

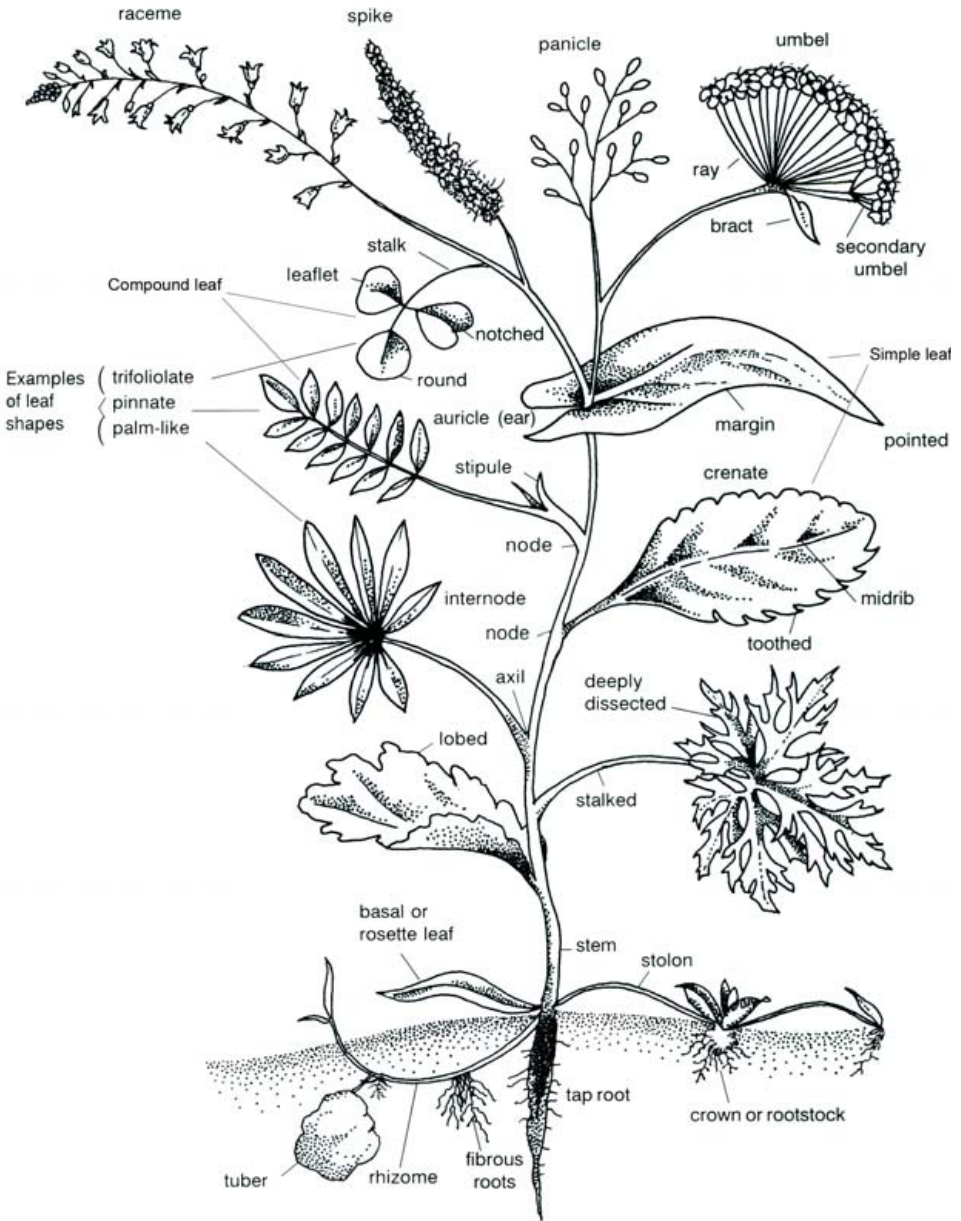
- Get to **KNOW** your local environment. Walking trails are a great start or you could join a local Bushcare or Streamwatch Group
- In your garden, select plants that are native to your area. **LOCAL NATIVE** plants establish quickly, and require less water and maintenance. Select native plants that attract more birds and local wild life.
- **RECYCLING** garden refuse and plant debris will improve your garden environment.
- **COMPOST** your plant and kitchen green refuse and use it for your own garden.
- Domestic cats and dogs often prey on native birds and animals in bushland. Placing a **RINGING BELL** on your pet's collar can help to minimise this.
- If your property is adjacent to a creek or stormwater channel, you will need to **CONSULT** your local council, the Department of Water and Energy and Sydney Water for guidance when undertaking building or major landscaping work.

Simple things you can AVOID doing for the benefit of your local environment

- **ENSURE** that the exotic plants you choose for your garden do not protrude or escape from your yard and infest bushland. Many have the potential to cause significant damage to the environment and wild life in the area.
- **AVOID** clearing any area of bushland. Most native trees and bushland are protected. Even a single tree is valuable and plays an important role in the natural ecosystem in your area
- **DUMPING** of rubbish and building materials in bushland, creeks and stormwater channels is illegal and causes significant damage to the area around you. Report all dumping to your local council.
- **AVOID** building or developing on land that does not belong to you. A minor expansion of your yard into public land can cause damage and access difficulties.
- **NEVER** drop any tree or lawn clippings in bushland. They can cause weeds to infest the bushland and creek systems.

Common Plant Parts

The following diagram describes the most common parts of plants found in this booklet



Bibliography & Further Reading

Weeds

Australian Weed Control Handbook (10th ed'n), J.M. Parsons & R.G. Richardson (eds.), Inkata Press, 1995.

Noxious and Environmental Weed Control Handbook, A guide to weed control in non-crop, aquatic and bushland situations Rod Ensbey et al NSW DPI.

Bush Invaders of S.E. Australia, A. Muyt, RG & FJ Richardson Publishing, 2001.

Efficient Weed Management, Protecting your investment in the land, Darren Bayley, NSW DPI, CB Alexander Agricultural College, Tocal 2001.

Identifying the Weeds Around You, (2nd ed'n) E.M. Felfoldi, Inkata Press, 1993.

Noxious Weeds of Australia (revised) W.T.Parsons & E.G. Cuthbertson (eds.), CSIRO Publishing, 2001.

Waterplants in Australia: Australian Water Weeds, G.R. Sainty & S.W.L. Jacobs, Sainty & Associates, 1992.

Weeds: An Illustrated Botanical Guide to the Weeds of Australia, B.A. Auld & R.W. Medd, Inkata Press, 1992.

Feral Future, The untold story of Australia's exotic invaders.; Tim Low, Penguin Books Australia, 2001.

Identification of weeds and clovers, (3rd ed'n); AJ Healy, New Zealand Weed and Pest Control Society 1982.

WEEDS OF THE SOUTH-EAST – an identification guide for Australia; F.J. Richardson, R.G. Richardson and R.C.H. Shepherd 2nd edition, 2011. R.G. and F.J. Richardson publishing.

Native Flora

Australian Rainforest Plants, Vol 1 - 4, N & H Nicholson, Terania Rainforest Publishing, 2004.

Climbing Plants In Australia, David L. Jones & Bruce Gray, Reed Books Pty Ltd 1988.

Field Guide to the Native Plants of Sydney, L. Robinson, Kangaroo Press, 2003.

Flora of New South Wales, Vols. 1 - 4, G. Harden (ed), NSW University Press, 1990 – 1993.

Wildflowers of the North Coast of NSW, B. Kemp, Reed New Holland, 2004.

Key guide: Australian wildflowers revised edition, Leonard Cronin, Envirobook.

Bush Regeneration

Bringing Back the Bush, Joan Bradely. Ed. by J. Larking, A. Lenning & J. Walker, Lansdowne Press, 1997.

Restoring Natural Areas in Australia, Robin.A. Buchanan, 2009. NSW Dept. Industry & Investment.

The National Trust Bush Regenerators' Handbook (3rd edn.), National Trust of Australia (NSW), 2010.

Plant Me Instead

Below is a list of **native plants** that can be used safely for similar purposes, i.e. as vine or groundcover, tree or shrub.

Vines & Scramblers

Bower Vine (*Pandorea jasminoides*)*
Broad-leaf Bramble (*Rubus hillii*)
Clematis (*Clematis aristata*)
Dusky Coral Pea (*Kennedia rubicunda*)
Guinea Flower (*Hibbertia scandens*)
Native Passionflower (*Passiflora herbertiana*)
Native Wisteria (*Indigofera australis*)
Old Man's Beard (*Clematis aristata*)
Pearl Vine (*Sarcopetalum harveyanum*)
Purple Coral Pea (*Hardenbergia violacea*)
Rose-leaf Bramble (*Rubus rosiifolius*)
Scrambling Lily (*Geitonopleisum cymosum*)
Shining Grape (*Tetrastigma nitens*)
Small Supplejack (*Ripopogon fawcettianum*)
Snake Vine (*Stephania japonica*)
Sweet Morinda (*Morinda jasminoides*)
Twining Glycine (*Glycine clandestine*)
Water Grape (*Cissus antarctica*)
WATER VINE (Five leaf) (*Cissus hypoglauca*)
Wombat Berry (*Eustrephus latifolius*)
Wonga Vine (*Pandorea pandorana*)

Grasses

Barb Wire Grass (*Cymbopogon refractus*)
Basket Grass (*Oplismenus aemulus*)
Gymea Lily (*Doryanthes excelsa*)*
Kangaroo Grass (*Themeda australis*)
Large Tussock Grass (*Poa labillardieri*)
Mat Rush (*Lomandra longifolia*)
Narrow Leaf Palm Lily (*Cordyline stricta*)
Plume Grass (*Dichelachne crinite*)
Saw Sedge (*Gahnia* species)
Spear Lily (*Doryanthes palmeri*)*

Ferns & Orchids

Birds Nest Fern (*Asplenium nidus*)
Bungwahl Fern (*Blechnum indicum*)
Elk Horn (*Platyterium bifurcatum*)
Maiden Hair Fern (*Adiantum aethiopicum*)
Pink Rock Orchid (*Dendrobium kingianum*)
Rasp fern (*Doodia aspera*)
Rock Lily (*Dendrobium speciosum*)
Rough Maiden Hair Fern (*Adiantum hidpidulum*)
Rough Tree Fern (*Cyathea australis*)

Ground covers, Bulbous & Herbaceous Plants

Blue Flax Lily (*Dianella caerulea*)
Bush Peas (*Pultanaea scabra*, *P. microphylla*)
Christmas Bells (*Blandfordia nobilis*)
Cunjevoi Lily (*Alocasia brisbanensis*)
Cut-Leafed Daisy (*Brachyscome multifida*)
Darwinia (*Darwinia leptantha*)
Dwarf Correas (*Correa* species)
Everlasting Daisies (*Chrysocephalum* species, *Rhodanthe* species, *Bracteantha* species)
Everlasting Daisy (*Helichrysum elatum*)
Fan Flower (*Scaevola calendulacea*)
Flannel Flower (*Actinotus helianthi*)
Flannel Flower (*Actinotus minor*)
Jacobean Lily (*Sprekelia formosissima*)
Kidney Weed (*Dichondra repens*)
Love Flower (*Pseuderanthemum variable*)
Low growth habit Grevilleas – e.g. 'Pink Lady'
Midgen Berry (*Austromyrtus dulcis*)
Native Fuchsia (*Correa reflexa*)
Native Fuschia (*Epacris longiflora*)
Native Ginger (*Alpinia caerulea*)
Native Violet (*Viola hederacea* species *hederacea*)
Purple Flag Iris (*Patersonia sericea*)
Sand Pigface (*Carpobrotus glaucescens*)
Saw Hedge (*Gahnia sieberana*)
Scarlet Mint Bush (*Prostanthera aspalathoides*)
Scurvy Weed (*Commelina cyanea*)
Slender Rice Flower (*Pimelea linifolia*)
Swamp Lily (*Crinum pedunculatum*)
Tassel Sedge (*Carex fascicularis*)
Tufted Blue Lily (*Thelionema caespitosum*)
Water-ferns (*Blechnum* species)
White Native Fuchsia (*Correa alba*)
Woolly Frogmouth (*Philydrum lanuginosum*)

Shrubs

Boobialla (*Myoporum boninense* *ssp australe*)
Bleeding Heart (*Omolanthus populifolius*)
Breyntia (*Breyntia oblongifolia*)
Broad-Leaf Geebung (*Persoonia levis*)

Nursery & Garden Industry of NSW & ACT has produced a useful booklet called “Grow Me Instead”, as a guide for gardeners and landscapers in NSW.

Shrubs (continued)

Broad-leaf Wedge Pea (*Gompholobium latifoium*)
Coastal Canthium (*Canthium coprosmoides*)
Coastal Tea Tree (*Leptospermum laevigatum*)
Coastal Bearded Heath (*Leucopogon parviflorus*)
Coastal Rosemary (*Westringia fruticosa*)
Coastal Wattle (*Acacia longifolia* var. *sophorae*)
Dog Rose (*Bauera microphylla*)
Elderberry Panax (*Polyscias sambucifolius*)
Hairy Pittosporum (*Pittosporum revolutum*)
Hairpin Banksia (*Banksia spinulosa*)
Heath Banksia (*Banksia ericifolia*)
Native Peach (*Trema aspera*)
Native Senna (*Senna acclinis*)
Rice Flower (*Ozothamnus diosmifolius*)
Sydney Golden Wattle (*Acacia longifolia*)
Wedding Bush (*Ricinocarpus pinifolius*)
Willow-Leaf Hakea (*Hakea salicifolia*)*

Trees

Alexander Palm (*Archontophoenix alexandrae*)*
Bangalow Palm (*Archontophoenix cunninghamiana*)
Black She-Oak (*Allocasuarina littoralis*)
Black Wattle (*Acacia decurrens*)
Blackwood (*Acacia melanoxylon*)
Blue Lily Pilly (*Syzygium oleosum*)
Blueberry Ash (*Eleocarpus reticulatus*)
Broad-Leaf Paperbark (*Melaleuca quinquenervia*)

Trees (continued)

Brush Box (*Lophostemon confertus*)
Brush Cherry (*Syzygium australe*)
Cabbage Tree Palm (*Livistona australis*)
Celerywood (*Polyscias elegans*)
Cheese Tree (*Glochidion ferdinande*)
Christmas Bush (*Ceratopetalum gummiferum*)
Coastal Banksia (*Banksia integrifolia*)
Elderberry Panax (*Polyscias sambuccifolia*)
Forest She-Oak (*Allocasuarina torulosa*)
Grey Myrtle (*Backhousia myrtifolia*)
Hickory Wattle (*Acacia implexa*)
Lemon-Scented Myrtle (*Backhousia citriodora*)*
Lily Pilly (*Acmena smithii*)
Lily Pilly (*Syzygium paniculatum*)
Morton Bay Fig (*Ficus macrophylla*)
Native Frangipani (*Hymenosporum flavum*)
Native Olive (*Olea paniculata*)
Parramatta Wattle (*Acacia parramattensis*)
Plum Pine (*Podocarpus elatus*)
Port Jackson Fig (*Ficus rubiginosa*)
Red Ash (*Alphitonia excelsa*)
Sandpaper Fig (*Ficus coronata* & *F. fraseri*)
Satinwood (*Phebalium squameum*)
Saw Banksia (*Banksia serrata*)
Small-Leaf Fig (*Ficus obliqua*)
Tuckeroo (*Cupaniopsis anacardioides*)
Wallum Banksia (*Banksia aemula*)
Water Gum (*Tristaniopsis laurina*)
Weeping Bottlebrush (*Callistemon salignus*)
Weeping Myrtle (*Waterhousia floribunda*)

Index

Vines & Scramblers	6	Mother of Millions	47
Balloon Vine	7	Parrot Alstromeria/	
Black Eyed Susan	8	Peruvian Lily	48
Brazilian Nightshade	9	Spanish Bayonet	49
Cape Ivy	10	Wild Watsonia	50
Cats Claw Creeper	11		
German Ivy	12	Grass Weeds	51
Japanese Honeysuckle	13	Crimson Fountain Grass &	
Kudzu	14	Swamp Foxtail Grass	52
Madeira Vine	15	Liriope/Lily Turf	53
Morning Glory	16	Pampas Grass	54
Moth Vine	17	Panic Veldt Grass	55
Pampas Lily of the Valley	18	Mexican Feather Grass	56
Passion Flower/Fruit	19		
		Shrub Weeds	57
Groundcovers	20	Cassia/Winter Senna	58
Blue Perrywinkle	21	Coral Berry	59
Blue Stars	22	Cotoneaster	60
Butterfly Flower	23	Indian Hawthorn	61
Gazania	24	Mickey Mouse Plant	62
Impatiens/Busy Lizzy	25	Pigeon Berry/Golden Dewdrop	63
Lippia	26		
Spiny Headed/		Tree Weeds	64
Slender Mat Rush/River Reed	27	African Olive & European Olive	65
Nasturtium	28	Camphor Laurel	66
Seaside Daisy	29	Chinese Celtis/Hackberry	67
Singapore Daisy	30	Cockspur Coral Tree	68
Spider Plant/Ribbon Plant	31	Coral Tree	69
Wandering Jew/Trad	32	Golden Wreath Wattle/	
Wild Iris	33	Willow Wattle	70
		Tree of Heaven	71
Bulbous & Succulent Weeds	34	Willow	72
Agapanthus	35	Yellow Bells	73
Arum Lily	36		
Asparagus – Bridal Creeper	37	Water Weeds	74
Asparagus – Climbing	38	Alligator Weed	75
Asparagus – Ground	39	Longleaf Willow Primrose	76
Asparagus – Culinary	40		
Canna Lily/Indian Shot	41		
Elephants Ears/Taro	42		
Fishbone Fern	43		
Formosa Lily	44		
Ginger Lily	45		
Montbretia	46		

Acknowledgements

Sydney Weeds Committees gratefully acknowledge permission by Great Lakes Council to adapt its publication "A responsible gardening guide for the area of Great Lakes Council". Amendments to text and graphics are by Sydney Weeds Project Officers, guided by the expertise of members of the Sydney Regional Weeds Advisory Committees, who, with their extensive field experience, provide residents of Sydney with detailed knowledge of the impact of invasive plants growing in their gardens.

Written & Researched by: Terry Inkson, Mike Smith and Isabelle Strachan

Design & Layout: Terry Inkson

Original Artwork: Isabelle Strachan and Roy Bisson (unless otherwise marked)

Artwork (revised Sydney version): Anna Buono, Lint Graphic Design

Photography: Terry Inkson (unless otherwise marked)

Reviewers & Contributors: Kerrie Simmons, Mat Bell, Andrew Staniland, Terry Schmitzer, Steve Howard, Mike Dodkin, Terry Rolls, Royal Pullen, George Wisemantel, Mark Tull, Paul O'Conner, Grant Taylor, Greg Egan, Delwyn Thomas & Michael Gleeson.

This project was originally funded by Hunter Central Rivers CMA, and a Caring for our Country Community Coastcare Grant. Special thanks goes to Great Lakes Council.

© 2009 Great Lakes Council

Always Read the Label: Users of agricultural (or veterinary) chemical products must always read the label and any Permit, before using the product and strictly comply with the directions on the label and conditions of any Permit. Users are not absolved from compliance with the directions on the label or conditions of the Permit by reason of any statement made or omitted to be made in this publication.

Disclaimer: This booklet has been prepared by the authors for the Mid North Coast Weeds Advisory Committee, and the Councils and participating stakeholders of the Mid North Coast region, in good faith on the basis of available information. Although precautions have been taken to ensure the accuracy of information provided, the publishers, authors and printers do not accept responsibility for any claim, loss, damage or liability arising out of the use of this booklet.

Front Cover photographs:

Mother of Millions (*Brophyllum x delagoense*)
Alligator Weed (*Alternanthera philoxeroides*)
Yellow Waterlily (*Nymphaea mexicana*)
Angels' Trumpet (*Brugmansia candida*)
Water Hyacinth (*Eichhornia crassipes*)
Cotton Bush (*Gomphocarpus fruticosus*)
Scotch Broom (*Cytisus scoparius*)
Pigeon Berry (*Duranta erecta* 'Geisha Girl')

Back Cover photographs:

Common Lantana (*Lantana camara*)
Canadian Golden Rod (*Solidago canadensis*)
Crucifix Orchid (*Epidendrum radicans*)
Longleaf Willow Primrose (*Ludwigia longifolia*)
Norfolk Island Hibiscus (*Lagunaria patersonia*)
Glory Lily (*Gloriosa superba*)
Blue Trumpet Vine (*Thunbergia grandiflora*)
Red Cotton Bush (*Asclepias curassavica*)



Sydney Weeds Committees

- Sydney Central
- Sydney South West
- Sydney North
- Sydney West – Blue Mountains

www.sydneyweeds.org.au



NSW
no space 4 weeds

