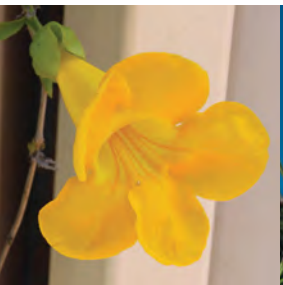


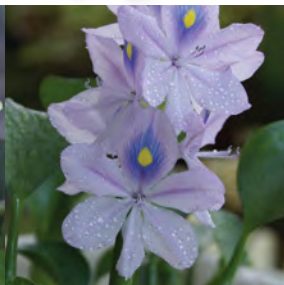

Garden Escapees & Other Weeds of Bushland & Reserves

3rd Edition

A responsible gardening guide
for the Mid North Coast of New South Wales

MID NORTH COAST WEEDS
Coordinating Committee



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Always Read the Label:
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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.

"The environment of Lord Howe Island is heavily influenced by maritime climatic conditions. Some weed control techniques that are commonly used on the mainland may need to be modified to effectively treat weeds on Lord Howe Island. If you have any queries about how to control weeds on island, contact the Lord Howe Island Board."

Note: The importation of plants to LHI is restricted. Only plants that are listed as "permissible" under the LHI Plant Importation Policy 2014 can be imported to the island. Contact the LHIB for advice on plant imports.

Front Cover:
Ground Asparagus *(Asparagus aethiopicus)*
Blue Heliotrope *(Heliotropium amplexicaule)*
Moon Flower *(Ipomoea alba)*
Montpellier Broom *(Genista monspessulana)*
Cat's Claw Creeper *(Dolichandra unguis-cati)*
Cotton Bush (*Gomphocarpus fruticosus)*
German Ivy *(Senecio macroglossus)*
Water Hyacinth *(Eichhornia crassipes)*

Back Cover:
Common Lantana - red flowering *(Lantana camara)*
Mickey Mouse Plant (flower) *(Ochna serrulata)*
Moth Vine *(Araujia sericifera)*
Blue Passion Flower *(Passiflora caerulea)*
Blue Periwinkle *(Vinca major)*
Glory Lily (*Gloriosa superba)*
Blue Morning Glory *(Ipomoea indica)*
Mickey Mouse Plant (fruit) *(Ochna serrulata)*

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What is a weed?

Weeds by definition are plants that are growing where they are not wanted. In the context of this guide, weeds are plants that occur in environments outside of their natural distribution. Weeds may be agricultural (where they compromise sustainable farming) or environmental. The latter invade and threaten natural ecosystems, where they compete with the native flora for space, water, nutrients and light; water weeds choke waterways. Not only do environmental weeds reduce biodiversity by out competing the native flora, they often alter and destroy habitat for native animals, and thereby harm our unique fauna.

About 65% of weeds invading reserves and bushland areas have originated from urban gardens, often termed 'garden escapees'. Once established, these weeds become difficult and expensive to control (let alone eradicate), and compromise the health of the ecosystem.

This booklet has been designed to assist residents living on the Mid North Coast of New South Wales identify problematic plants in their gardens and surrounding bushland reserves, and to offer advice on control methods.

The problem

Plants escape from gardens in a variety of ways, but the 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, roots, tubers, seeds, spores).
* smothering native plants.
* increasing nutrient loads.
* increasing fire risk by increasing fuel loads.

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

Garden plants may also spread into bushland reserves directly from gardens where they are planted. "Weedy" garden plants may be identified by:

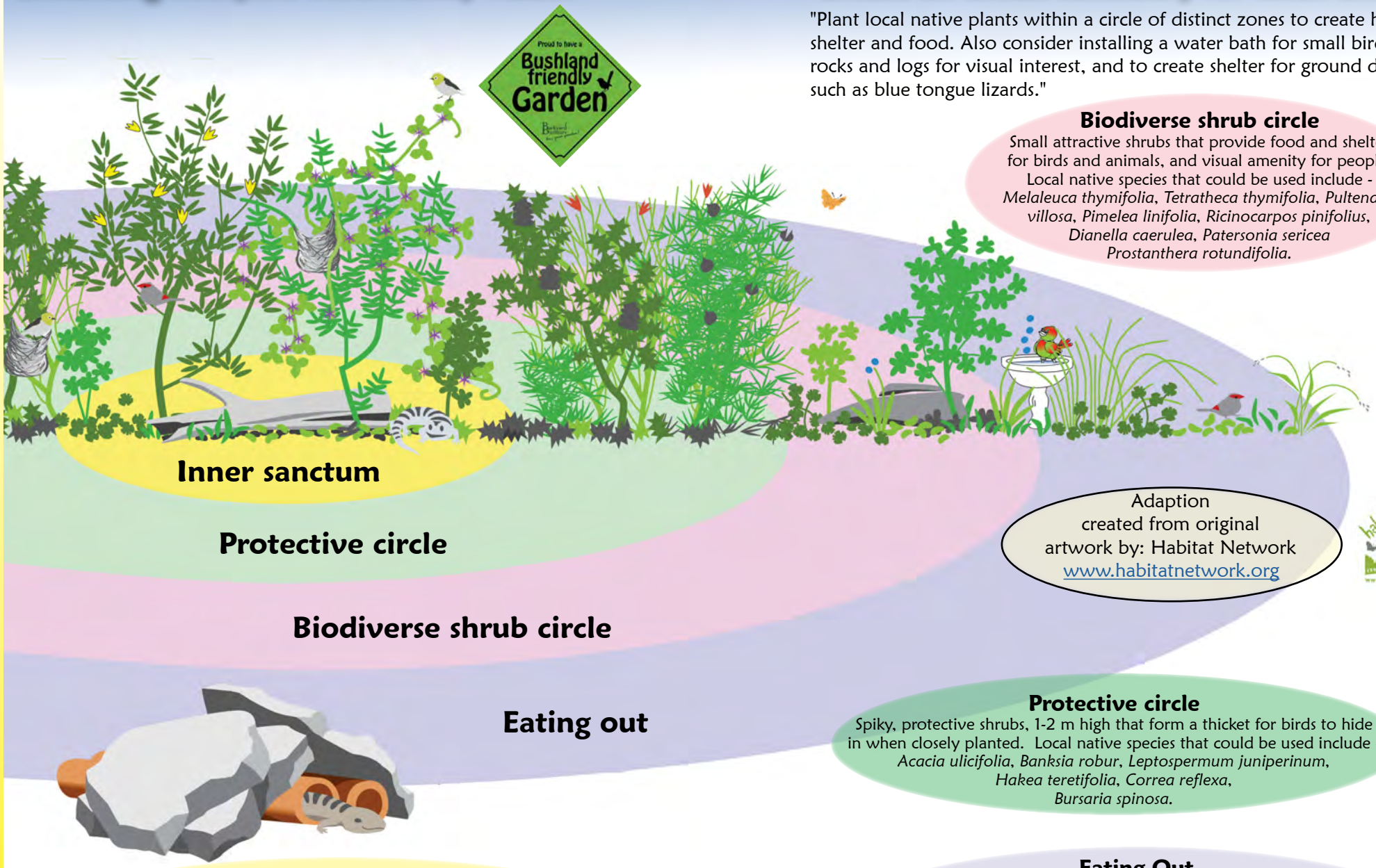
* the ability to spread by vegetative means (e.g. bulbs, corms, tubers, root parts, stem fragments) (e.g. Glory Lily, Coral Tree, Trad).
* berries that can be eaten by birds and animals (e.g. Asparagus Ferns, Cotoneasters, Olives, Camphor Laurel, Blackberry).
* production of large amounts of seed that is easily distributed by wind, animals, water etc.) (e.g. Formosa Lily, Longleaf Willow Primrose, Balloon Vine, Moth Vine, Narrow Leaf Cotton Bush).
* high viability of seed.
* a general ability to survive under extreme conditions.
* a history of weediness in similar climates.

Responsible gardening

You can make a difference by what you do in your garden. We suggest that you:

* 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. Green waste is accepted at all Landfill operations on the Mid North Coast of NSW. Contact your local Councils Waste Management section for a schedule of fees.
* dispose of plant bulbs, tubers and seed heads in your general waste bin **not** green waste.
* cover your trailer when taking garden waste to the landfill to stop weeds and seeds from blowing off and invading roadside and bushland areas. The EPA has a web portal and an application for smart devices, to assist in reporting such offences. http://www.epa.nsw.gov.au/
* buy a mulcher and mulch appropriate garden waste 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 clean up the public reserves and bushland areas in your neighbourhood. Contact your local Council for more information.

Enhancing backyard biodiversity values



Inner sanctum

Tall, soft shrubs, 1-2 m high that provide a safe haven for small birds, as well as food resources, such as insects, nectar and seeds. Include a vine to create more protective cover. Local native species that could be used include - *Gompholobium latifolium*, *Ozothamnus diosmifolius*, *Indigofera australis*, *Cordyline stricta*, *Banksia spinulosa*, *Banksia ericifolia* and *Hardenbergia violacea.*

Create an urban sanctuary for small animals

"Plant local native plants within a circle of distinct zones to create habitat, shelter and food. Also consider installing a water bath for small birds. Add rocks and logs for visual interest, and to create shelter for ground dwellers, such as blue tongue lizards."

Biodiverse shrub circle

Small attractive shrubs that provide food and shelter for birds and animals, and visual amenity for people. Local native species that could be used include - *Melaleuca thymifolia*, *Tetratheca thymifolia*, *Pultenaea villosa*, *Pimelea linifolia*, *Ricinocarpos pinifolius*, *Dianella caerulea*, *Patersonia sericea* *Prostanthera rotundifolia.*

Adaption created from original artwork by: Habitat Network
www.habitatnetwork.org

Protective circle

Spiky, protective shrubs, 1-2 m high that form a thicket for birds to hide in when closely planted. Local native species that could be used include - *Acacia ulicifolia*, *Banksia robur*, *Leptospermum juniperinum*, *Hakea teretifolia*, *Correa reflexa*, *Bursaria spinosa.*

Eating Out

Mixed native grasses and groundcovers that attract insects and seed eating birds. Include a water bath in this zone. Local native species that could be used include - *Themeda triandra*, *Poa labillardierei*, *Microlaena stipoides*, *Echinopogon caespitosus*, *Xerochrysum bracteatum*, *Brachyscome multifida*, *Viola hederacea*, *Dichondra repens.*

Biological control

Biological control involves the introduction of natural enemies such as insects, mites and plant pathogens, mostly from the native range of the target weed species, into areas where their host plant has become a weed. The aim is to reduce the density of the weed to a level that is acceptable and maintain the weed density at that level. Biological control of weeds is usually aimed at weeds that form dense stands on uncultivated land. It is a cheap form of long term control and in many cases it is the only economically-viable form of rangeland weed control. Biological control also has the advantage that the target weed and/or closely related species are the only plants damaged.

Benefits of Biological Control

* Control is usually specific to the target weed
* Environmentally friendly and non-toxic
* Self perpetuating once established
* Provides long term control
* Effect not restricted to one area
* Long term cost is low with high benefit/cost ratios
* Good against weeds where other control methods are non viable or prohibitive.

Limitations of Biological Control

* Initial research when introducing a new agent may take several years to complete resulting in high short term cost.
* Long term commitment to a program usually requires Government or other funding agency support.
* The release of natural enemies may raise unreasonable expectations resulting in the abandoning of existing control measures.
* In Australia, substantial or useful reduction of the target weed only occurs in two thirds of long term programs.

Several steps are involved in a biological control program:

1. Determine the weed's area of origin and study it's ecology and natural enemies in its native range.

2. Identify possible biological control agents

* Determine natural enemies that appear to be most damaging and are known not to attack other plants. It is important to match potential agents with the correct host.
* Request permission to import natural enemies to an Australian quarantine facility.

3. Host Testing

* Rigorously test imported agents to ensure they will not damage any Australian native or economic plants.
* Following successful testing request permission to release agents.
* The most commonly expressed fear is that the biological control agent will feed on some other plant after it has controlled the target pest. The vast majority of organisms which attack plants only attack a particular species or group of species. Host specificity testing prior to release of potential biological control agents means that the range of plants likely to be attacked by the agent is known prior to release. If the agent is not sufficiently specific it is not released.

4. Mass rear control agents and release in selected areas

5. Pre and post-release monitoring to determine impact of the imported agents.

Biological control status on the Mid North Coast of NSW.

Common name	Scientific name	Status
Alligator weed flea beetle	*Agasicles hygrophila*	established / localised
Bitou bush leaf roller moth	*Tortrix sp.*	established / localised
Bitou bush seed fly	*Mesoclanis polana*	established / widespread
Bitou bush tip moth	*Comostolopsis germana*	established / widespread
Blackberry rust fungus	*Phragmidium violaceum*	established / widespread
Bridal creeper rust fungus	*Puccinia myrsiphylli*	established / widespread
Cactoblastis Moth (Prickly pear)	*Cactoblastis cactorum*	established / widespread
Cat's claw creeper leaf mining buprestid beetle	*Hylaeogena jureceki*	establishing
Cat's claw creeper tingid	*Carvalhotingis visenda*	establishing
Cochineal (Prickly pear)	*Dactylopius opuntiae*	established / localised
Crofton weed rust fungus	*Baeodromus eupatorii*	current release program
Crown rot fungus (GPG)	*Nigrospora oryzae*	establishing
Lantana bud mite	*Aceria lantanae*	rearing for release
Lantana rust fungus	*Prospodium tuberculatum*	established / widespread
Madeira vine leaf beetle	*Plectonycha correntina*	establishing
Mist flower smut fungus	*Entyloma ageratinae*	established / widespread
Salvinia weevil	*Cyrtobagous salviniae*	established / localised

New and emerging species

The Mid North Coast is a diverse region, generally undulating to hilly, with a steeply dissected upland and plateau area and extensive coastal plains. It is a region of outstanding landscapes, ecosystems and species diversity.

The overlap of sub-tropical and temperate zones provides conditions suitable for a highly diverse range of terrestrial, freshwater and marine organisms. This coastal region of NSW has a high population base with a significant proportion residing in urban and peri urban locations.

Invasive plant species embody a diverse and significant threat with over 1,350 exotic plant species naturalised in NSW with more than 300 having detrimental impacts on the biodiversity and primary production of NSW. Invasive species typically compete with desirable species for limited resources.

The effective management of new and emerging invasive plant species is crucial to maintaining the quadruple bottom line of social, economic, environmental and good governance to ensure sustainability. To achieve this, clear and practical methods of prioritising weeds and implementing programs are most crucial to maximise short and long term benefits.

The most effective way to manage these species is to prevent their initial incursion. Invasive plants have the ability to establish rapidly in new areas and require a timely and rapid response. Many invasive plant species are already widely established in NSW, and their eradication across large areas is not achievable with existing control methods. Priorities for the control of these species must be determined, focusing resources on areas where the benefits of control will be greatest.

Currently in NSW, weeds are managed following the principals of The NSW Invasive Species Plan. This plan aims to prevent new incursions, contain existing populations and adaptively manage widespread species. The goal is to foster a cooperative culture where all relevant parties contribute with the aim of minimising the impacts of invasive species in NSW.

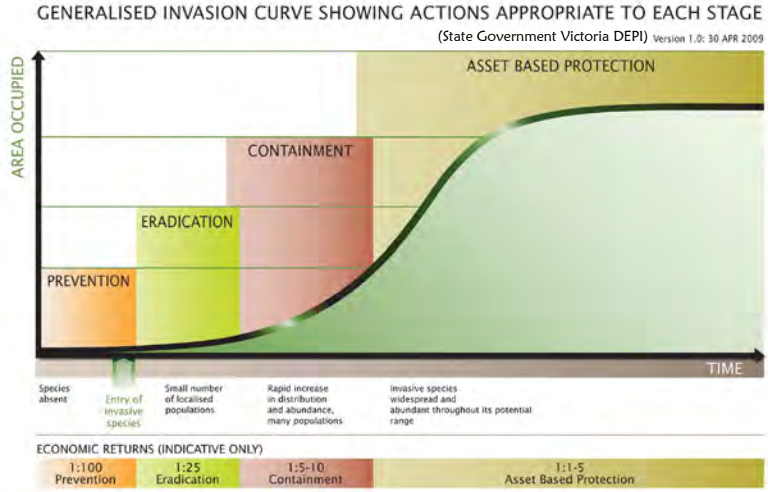
The NSW Invasive Species Plan identifies four goals to realise its vision:

1. *Exclude* – prevent the establishment of new invasive species
2. *Eradicate or contain* – eliminate, or prevent the spread of new invasive species
3. *Effectively manage* – reduce the impacts of widespread invasive species
4. *Capacity building* – ensure NSW has the ability and commitment to manage invasive species.

Weed invasion

Weeds are managed differently based on the length of time they have been established, their density, their distribution and the threat they pose to our environment and/or our economy.

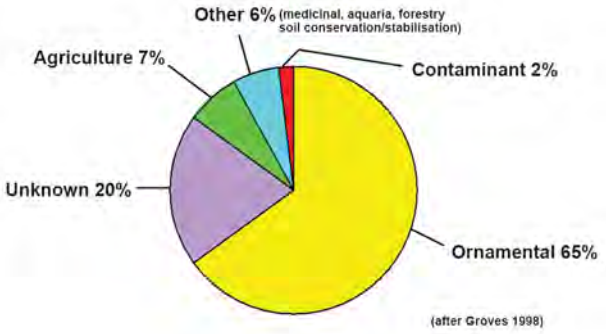
When detected early, new and emerging species like Tropical Soda Apple have a greater likelihood of eradication, so become the highest priority for management. Long established and widespread species such as Lantana or privet are managed mainly for asset protection.



Means of introduction

Over 27,000 alien plant species have been introduced to Australia. Of these about 10% (2779) are now established in Australia's environment. This number is unfortunately rising by about 10 species every year and the rate is increasing.

The following chart represents the means of introduction of invasive plant species to Australia up to 1998. Recent research indicates that between 80 and 90% of new invasive species are ornamental plants (Garden Escapees).



Noxious weeds

A noxious weed is a weed that is declared noxious by the Minister for Primary Industries in accordance with the *Noxious Weeds Act 1993*.

Priority for noxious declaration categories is determined by the detrimental effect a plant has on the environment and its ability to cause severe economic loss to agriculture.

The *Noxious Weeds Act 1993* provides for the Minister to issue an order declaring a plant noxious, either in the whole state or a portion of a state.

The Act requires declared Noxious Weeds to be listed in one of the five control categories specified in the Act. It is the landholders responsibility to control or eradicate these weeds.

A weed will only be declared noxious if there are reasonable and enforceable means of control. Weeds are declared noxious on local and state levels. Weeds may be added or deleted from declaration and categories may be changed at any time.

Categories

Class 1 Notifiable Weed (State prohibited weeds). These are the most significant weeds. The plant must be eradicated from the land and the land must be kept free of the plant. e.g. Tropical Soda Apple (*Solanum viarum*).
Class 2 Notifiable Weed (Regionally prohibited weeds). The plant must be eradicated from the land and the land must be kept free of the plant. e.g. Alligator Weed (*Alternanthera philoxeroides*) (WoNS) (see page 11 for definition of WoNS).
Class 3 The plant must be fully and continuously suppressed and destroyed. (Regionally controlled weeds) (and in some cases the plant may not be sold, propagated or knowingly distributed) e.g. Green Cestrum (*Cestrum parqui*); Groundsel Bush (*Baccharis halimifolia*).
Class 4 The growth and spread of the plant must be controlled according to the measures specified in a management plan published by the local control authority.(Locally controlled weeds) (and in some cases the plant may not be sold, propagated or knowingly distributed) e.g. Blackberry (*Rubus fruticosus*) (WoNS).
Class 5 Notifiable weed (Sale restricted) (Whole of NSW). The requirements in the Noxious Weeds Act 1993 for a notifiable weed must be complied with. e.g. African Feather Grass (*Cenchrus setaceus*).

For a full and current listing of noxious weeds on the Mid North Coast or a weed management plan for respective Class 4 weeds, visit your local Councils website as displayed on page 149 of this booklet.

Environmental weeds

These are plants that do not naturally occur in a specific area or ecosystem and that are invasive and often detrimental to that ecosystem. Environmental Weeds may:

* grow rapidly, dominating light, water, nutrients and space.
* spread readily and rapidly.
* be able to survive extreme conditions (e.g. excess nutrients, sedimentation, soil compaction, extreme heat, disturbance, flood or drought).
* alter soil chemistry to the detriment of native plants (allelopathy) e.g. Lantana, Camphor Laurel.
* alter water flow over landscape and/or increase erosion (e.g. Privet, Bitou).
* reduce plant diversity and cause habitat loss/alteration for native animals.

Fact: 65% of our environmental weeds originated in and have escaped from home gardens.

Not all environmental weeds are declared noxious, regardless of the severe threat they pose to natural systems.

Alternatives have been suggested if you want to achieve a similar appearance or function as the invasive garden plant but with a lower weed risk. However you should check with your local nursery professional that the alternative will grow well in your garden.

Weeds of National Significance (WoNS)

Under the National Weeds Strategy, 32 introduced plants were identified as Weeds of National Significance (WoNS).

This list of 32 weeds was developed based on:

Invasiveness + Potential for Spread
X
Impacts + Socioeconomic & Environmental Values

Equal weighting was given to each of these four criteria.

National management strategies have been published for many of these species.

Further information about the Weeds of National Significance program, including national management arrangements, is available from the Weeds Australia Website http://www.weeds.org.au/

Manual weed control methods

Weed control should be coordinated so as to avoid seed setting. i.e. prior to, or during flowering time.

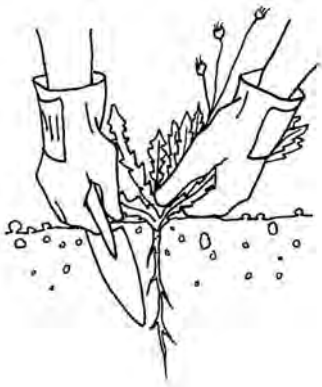
Any section of the plant capable of reproducing (e.g. seeds, fruits, tubers/roots, some shoots) should be bagged, removed from the site and disposed of by deep burial at a waste management centre. Other vegetative matter can be mulched on site or taken to a waste management centre and disposed of in green waste.

Personal Protective Equipment (PPE) must always be used when working with weed control or in the garden. Always wash hands after conducting weed control duties.

1. Hand pull/dig (using knife/trowel)

* 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.

e.g. Inkweed, Thistle.

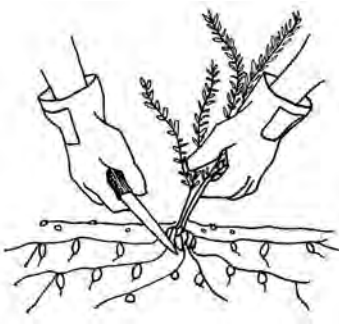


PPE: hat, gloves, long sleeves/pants, boots, sunscreen and insect repellent.

2. Crown cut (using knife)

* 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 gently pat down.

e.g. Ground Asparagus.



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

Herbicide use

Always read the label and Material Safety Data Sheets before using herbicides. At the time this publication was prepared an off label permit exists Per9907 for the use of certain herbicides to control noxious and environmental weeds. Go to http://www.apvma.gov.au for details, download the APVMA app. to your smart device, or contact the Noxious Weeds Officer at your local Council for up to date information on appropriate herbicides for use on specific weeds.

Personal Protective Equipment (PPE) must always be used when handling herbicides. Always wash hands after use.

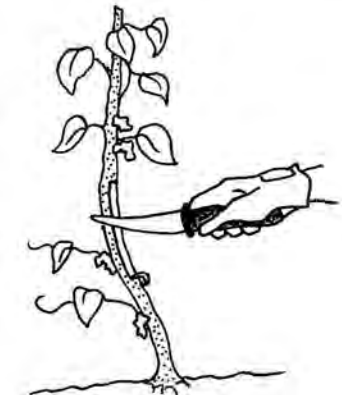
3. Skirting (using secateurs and herbicide)

* as low as possible, depending on access, gather and cut all vines around tree.
* apply herbicide IMMEDIATELY (within 10 seconds of cutting) to ground cut stems first, then aerial stems.
* check for reshooting within 6 weeks, retreating where necessary.

e.g. Morning Glory, Moth Vine, Ivy.
Note: NOT suitable for vines with aerial tubers e.g. Madiera Vine.

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

4. Stem scrape (using knife and herbicide)



* working close to ground, scrape along the stem of the plant for about 15-30 cm to expose vascular tissue.
* apply herbicide to exposed vascular tissue IMMEDIATELY (within 10 seconds of scraping).
* take care not to ringbark entire stem.
* leave plant insitu until completely dead, and re-treat if necessary.

e.g. Madiera Vine, Ochna, Senna, Morning Glory.

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

5. Cut and Paint (using saw and herbicide)

* the plant should not have 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.

e.g. Bitou Bush, Lantana, Privet.

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

6. Foliar spraying (Knapsacks and 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 to the point of runoff (until every leaf is 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, gloves, safety glasses, long sleeves/pants, boots, respirator sunscreen and insect repellent.

Illustration: Taken from Noxious and Environmental Weed Control Handbook - NSWDPI

Various spraying/control regimes and herbicide information is available for use on particular weeds. The NSW Department of Primary Industries has developed a Management guide application for smart devices entitled "NSW Weed Wise" that is available online free of charge. Contact the Noxious Weeds Officer at your local Council or visit http://weeds.dpi.nsw.gov.au/ for further details.

Vines and Scramblers

Vines, scramblers or climbing plants can trail or creep along the ground but generally require the support of others 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 on the Mid North Coast, it is recommended that all species listed be eradicated from gardens and replaced with less invasive species.

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 on their own pages but below is a list of:-

Other Problematic Vines and Scramblers:

Common Name:	Botanical Name
Aerial Yam:	*Dioscorea bulbifera*
Blackberry:	*Rubus fruticosa* agg spp. (Noxious) (WoNS)
Blue Trumpet Vine:	*Thunbergia grandiflora*
Bridal Creeper:	*Asparagus asparagoides* (see bulbous plants)
Cape Honeysuckle:	*Tecoma capensis*
Crabs Eye Creeper:	*Abrus precatorius*
Cup and Saucer Vine:	*Cobaea scandens*
Creeping Groundsel:	*Senecio angulatus*
English Ivy:	*Hedera helix* vars
Flame Vine:	*Pyrostegia venusta*
Mikania:	*Mikania micrantha* (Noxious) (Weed Alert)
Pie Melon:	*Citrullus lanatus*
Rubber Vine:	*Cryptostegia grandiflora* (Noxious) (WoNS)
Silverleaf desmodium:	*Desmodium uncinatum*
Siratro:	*Macroptilium atropurpureum*
Snail Creeper:	*Phaseolus caracalla*
Turkey Rhubarb:	*Acetosa sagittata*

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

Status: Noxious Weed

Habit: Herbaceous perennial climber with stems to more than 10 m long.

Leaves: 6-16 cm long, on a leaf stalk 2-10 cm long, with 3 leaflets each further divided into 3; margins of leaflets irregularly toothed.

Flowers: White, 4 petals, in clusters, stalk of the flower heads end in a pair of tendrils. Flowers for most of the year.

Fruit: Inflated membranous capsule, 6-ribbed, 4-8 cm long, covered with short stiff hairs, each containing 3 blackish, round seeds, about 7 mm wide.

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

Dispersal: Seeds spread by wind, water and contaminated soil (earth moving equipment, car tyres etc).

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

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.

Black Eyed Susan

Thunbergia alata

Family:	Acanthaceae
Origin:	Tropical Africa
Status:	Environmental Weed
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 (earth moving equipment, car tyres etc) and garden refuse dumping.
Control:	Hand pull/dig, scrape and paint, skirting, foliar spraying.

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
Status:	Environmental Weed (Very Poisonous Plant)
Habit:	Perennial shrub or twining climber to 6 m.
Leaves:	Green deeply 3-9 lobed, hairless except edges and veins on under surface.
Flowers:	Mauve-blue, star-shaped, 2-3 cm across in groups of up to 50 in Spring-Autumn.
Fruit:	Green berry up to 1 cm across, ripening to bright red.
Roots:	Shallow and fibrous.
Dispersal:	Seed is spread by water, animals, humans, contaminated soil (earth moving 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

Status: Environmental Weed (Very Poisonous Plant)

Habit: A climbing and trailing perennial, non-woody vine that smothers vegetation to heights of 10 m. 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 in excess of 40,000 seeds annually.

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

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

Control: Hand dig, skirting, foliar spray.

Cape Ivy / Canary Creeper

Senecio tamoides

Also known as climbing cineraria, it is naturalised in coastal parts of NSW and rapidly grows to blanket and smother surrounding vegetation.

Family: Asteraceae

Origin: South Africa

Status: Environmental Weed (Very Poisonous Plant)

Habit: A climbing and trailing perennial, long, green, smooth stems that smothers vegetation to heights of 10 m.

Leaves: Ivy shaped, palmately lobed or coarsely toothed, 4-7 cm long with 5-7 lobes, fleshy, glossy green.

Flowers: Strongly scented on warm days, yellow and daisy-like in dense clusters, 5-7 petals, 6-7 mm long. Autumn - Winter flowering.

Fruit: Small, reddish-brown with a 'parachute' of fine hairs (pappus). A mature plant can produce in excess of 40,000 seeds annually.

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

Dispersal: Vegetation and seed is spread by wind, water, animals, humans, contaminated soil and garden refuse dumping.

Control: Hand dig, skirting, foliar spray.

Stems in established stands of Cats Claw Creeper have been recorded as being up to 250 mm 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 claim for support.

Cats Claw Creeper

Dolichandra unguis-cati

Family: Bignoniaceae

Origin: Mexico to Uruguay

Status: Noxious Weed (WoNS)

Habit: Vigorous, blanketing climber in excess of 30 m 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 20 cm 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 (earth moving equipment, car tyres etc) and garden refuse dumping.

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

Dutchmans Pipe / Calico Flower

Aristolochia elegans

Flowers are pollinated by flies which are attracted by the unpleasant carrion-like odor produced by the flowers.

Family: Aristolochiaceae

Origin: South America

Status: Environmental Weed (Poisonous Plant)

Habit: A vigorous perennial climber growing 3 m to 7 m or more in height.

Leaves: Bright green above, paler below with a bluish tinge, broadly heart-shaped or slightly triangular, 3-10 cm long and 3-12 cm wide with an entire margin. The base of each leaf stalk bears an "ear shaped" appendage.

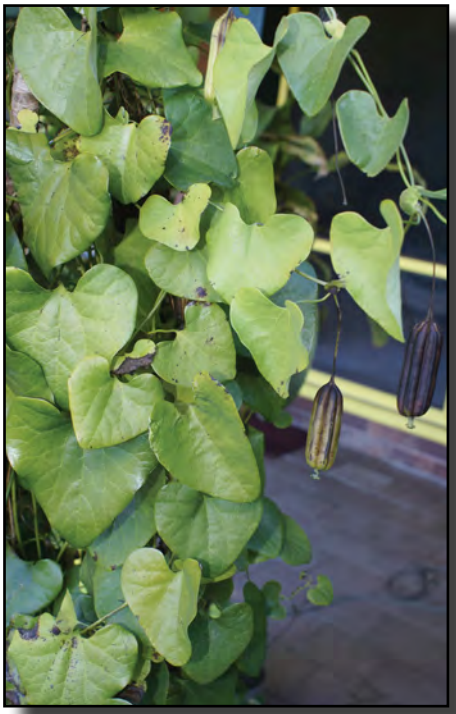
Flowers: Very ornate, solitary, cream in colour, with intricate purplish-brown markings. Heart shaped petals are fused into a bent tube resembling the shape of a "Dutchmans Pipe". Mainly Summer.

Fruit: Cylindrical capsules 4-6 cm long and 2.5 cm wide bear a short projection at their tips. Capsules open to a papery "upside down parachute" releasing hundreds of winged seeds.

Roots: Shallow and fibrous.

Dispersal: Mostly by seed spread by wind, water, animals, humans, contaminated soil and garden refuse dumping.

Control: Hand dig, skirting, foliar spray.



Hans Hillewaert

United States Botanic Gardens

German Ivy / Natal 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
Status:	Environmental Weed (Very Poisonous Plant)
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 6 cm 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:	Vegetation and seed is spread by wind, water, animals, humans, contaminated soil and garden refuse dumping.
Control:	Hand dig, skirting, foliar spray.

Glory Lily / Flame Lily

Gloriosa superba

This plant is extremely difficult to control. It is becoming a major problem in some forests and dunal systems of the NSW coast where it rapidly colonises after the removal of Bitou Bush.

Family: Liliaceae

Origin: Africa and Asia

Status: Noxious Weed (Very Poisonous Plant)

Habit: Glory lily is a perennial herb with climbing stems up to 4 m long. Top growth dies off in winter before re-shooting in the spring.

Leaves: Shiny, green and hairless with 10-20 mm long tendrils at the tips which curl around supporting plants.

Flowers: 45-70 mm wide, yellow, orange and red, borne singly on spreading stalks which arise in leaf forks. Flowers appear to be upside down with the petals pointing upwards, while 40-70 mm long stamens point downwards. Spring–Summer.

Fruit: The seed pod is bright green & shaped like a rugby ball 40-100 mm long and 10-20 mm wide before turning brown and inverting to expose initially orange to red seeds that dry to 4-5 mm diameter brown balls.

Roots: Fibrous initially, becoming a long and fleshy tuber that increases in size with age. Tuber fragments will create new plants.

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

Control: Hand dig, foliar spray.

Japanese Honeysuckle

Lonicera japonica

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

Family:	Caprifoliaceae
Origin:	China & Japan
Status:	Environmental Weed (Poisonous Plant)
Habit:	A robust climbing or scrambling shrub to 8 m high. Young stems covered with short hairs. Older stems woody and hairless.
Leaves:	A robust climbing or scrambling shrub to 8 m high. Young stems covered with short hairs. Older stems woody and hairless.
Flowers:	Paired, long and tubular (3-4 cm), very sweetly scented. White, ageing cream to yellow or pale orange. Flowers Autumn-Spring.
Fruit:	Globe-shaped berry, 4-10 mm 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 (earth moving equipment, car tyres etc) and garden refuse dumping.
Control:	Hand dig, skirting, scrape and paint, foliar spray.

Kudzu

Pueraria montana var. *lobata*

Although kudzu prefers forest regrowth and edge habitats with high sun exposure, the plant can survive in full sun or partial shade and can grow up to 20 m per year.

Family: Fabaceae

Origin: Temperate N.E. and tropical S.E. Asia

Status: Noxious Weed

Habit: A rapid growing, vigorous, tendril twining perennial vine with thick rope-like, hairy stems up to 30 m long.

Leaves: Large, sparsley hairy, alternately arranged, compound with three lobed or un-lobed leaflets, the top one usually larger. Pale green above and greyish-green below.

Flowers: Purple, blue or pink coloured pea-shaped flowers with a yellow spot are borne in elongated clusters 15-40 cm long during Summer.

Fruit: Long flattened pods 5-12 cm long and about 12 mm wide are densely covered in reddish-brown hairs, and contain 8-12 seeds.

Roots: Thickened storage roots develop into large tubers up to 1.8 m long and 15 cm wide, and travel as deep as 1 metre.

Dispersal: Mainly vegetatively but also by seed spread by water, animals, humans, contaminated soil and garden refuse dumping.

Control: Hand dig, skirting, scrape and paint, foliar spray.

Forest & Kim Starr

Forest & Kim Starr

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
Status:	Noxious Weed (WoNS)
Habit:	Vigorous, robust fleshy and extensive twining, hairless, perennial climber in excess of 30 m.
Leaves:	Fleshy broadly egg or heart shaped, alternately arranged and bright green.
Flowers:	Small, fragrant, creamy white coloured and numerous in drooping clusters to 20 cm 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:	Tubers transported by water, animals, humans, contaminated soil (earth moving 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 I. cairica, I. alba, I. purpurea, I. quamoclit

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

Family: Convolvulaceae

Origin: South America

Status: Environmental Weed (Poisonous Plant)

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

Leaves: I. indica, I. alba, I. purpurea: dark green; variably heart-shaped or 3-lobed, 20-180 mm long. I. cairica: Light green; hairless, 5-7 -lobed, star shaped leaves to 90 mm long. I. quamoclit: pinnatisect; ovate in outline.

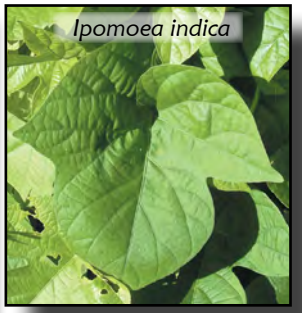
Flowers: Variable by species, trumpet/funnel shaped flowers 20-80 mm diameter; coming in shades of purple, blue, mauve, pink, red and white. Spring-Autumn.

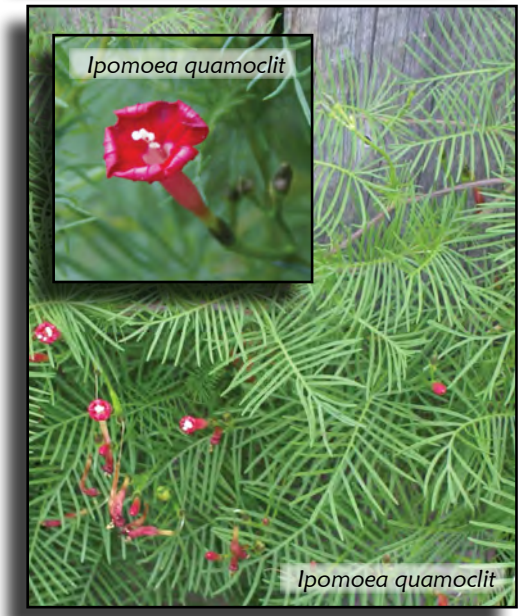
Fruit: I. cairica: 4-valved capsule containing 4-6 seeds, which have parachute-like attachments. indica, purpurea: 3-valved capsule; seeds loosely scurfy. Seed rarely set with I. indica.

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, birds, animals, humans, contaminated soil (earth moving equipment, car tyres etc) and garden refuse dumping. (particularly I. indica).

Control: Hand dig, skirting, scrape and paint, foliar spray.





Moth Vine

Araujia sericifera

Garden escapee that smothers shrubs and small trees, suppressing their growth. Weed of wasteland and forests adjoining settlement, mainly in coastal higher rainfall areas.

Family: Apocynaceae

Origin: Southern Brazil, Paraguay and Uruguay

Status: Environmental Weed (Poisonous Plant)

Habit: Twining perennial climber reaching up to 6 m on supporting vegetation. Milky latex exuded from damaged stems and leaves.

Leaves: Opposite, oblong to triangular, 3-11 cm long, 1-6 cm 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 4 mm 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 (earth moving equipment, car tyres etc).

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

Garden escapee that can form impenetrable thickets to animals and people.

Mysore Thorn

Caesalpinia decapetala

Family:	Fabaceae
Origin:	South east Asia
Status:	Noxious weed (Poisonous Plant)
Habit:	Scrambling perennial shrub with densely prickled arching canes that form self standing thickets up to 7 m high. Can climb up to 20 m on supporting vegetation.
Leaves:	Alternate, bipinnate, and somewhat hairy on both sides, dark green above, paler below.
Flowers:	Varying shades of yellow, with five petals (10-15 mm long), five sepals (9-10 mm long), ten stamens (10-16 mm long), and a style (15-20 mm long).
Fruit:	Flattened, oblong, hairy, woody pods 6-10 cm long by 25 mm wide. Green turning brown when fully mature, they split open to release 4-9 brown / black seeds 6-10 mm across, persisting for many months and scattering seeds as they break open.
Roots:	Shallow and fibrous.
Dispersal:	Seeds spread by birds, wind, water and contaminated soil (earth moving equipment, car tyres etc).
Control:	Hand pull/dig seedlings, cut or scrape and paint, foliar spray. Rootstocks will coppice if the roots are not removed or if the cut stumps are not treated with herbicide.

Passion Flower / Passion Fruit

Passiflora edulis, *P. subpeltata*, *P. tarminiana*, *P. caerulea P. suberosa*, *P. foetida*, *P. miniata*

Even edible Passionfruit spp. have become problematic weeds. Mainly due to human negligence failing to harvest ripe fruit, carelessly discarding unwanted fruit, or suckering root stock from grafted spp.

Family: Passifloraceae

Origin: Chiefly tropical South America

Status: Environmental Weed

Habit: Vigorous climber with tendrils.

Leaves: Varying with species; from 10 mm up to 150 mm 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 1-5 cm 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 or egg shaped drupes, generally pulpy, 15-50 mm 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 with penetrant.


Passiflora subpeltata


Passiflora edulis


Passiflora subpeltata


Passiflora caerulea


Passiflora suberosa


Passiflora caerulea


Passiflora caerulea


Passiflora miniata


Passiflora miniata

Red Trumpet Vine

Campsis radicans

Very rampant and invasive, it will cling to adjacent trees with small aerial roots, growing up to 10 m into the canopy. Also known as cow itch vine, handling it may cause skin irritation or allergic reaction.

Family: Bignoniaceae

Origin: Southeastern USA

Status: Environmental Weed (skin Irritant) (new and emerging species)

Habit: An extremely aggressive woody climber that will form impenetrable colonies in the wild which can choke out many plants that get in its way.

Leaves: Deciduous. Pinnately compound. Shiny dark green above and dull green below 7-11 elliptical leaflets with serrated margins.

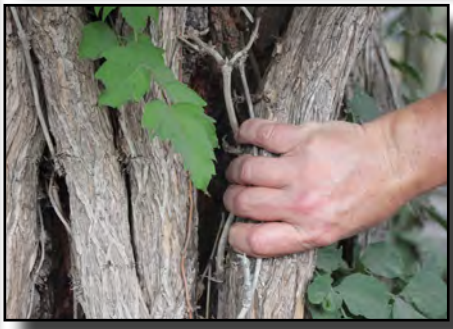
Flowers: Clusters (terminal cymes) of 4-12 orange to scarlet trumpet shaped flowers, mid Summer/early Autumn.

Fruit: Long, bean-like seed pods that dry and split as they mature, scattering hundreds of thin, brown, winged paper-like seeds.

Roots: Becoming dense and suckering profusely from underground runners. Forms aerial root for clinging to structures.

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

Control: Hand pull/dig seedlings, cut or scrape and paint stems, foliar spray with specialised chemicals.



Also known as Mysore Raspberry *Rubus niveus* is an important weed in S.E. Africa, USA, Hawaii, Galapagos, and areas of Australasia including Tasmania.

White Blackberry

Rubus niveus

Family:	Rosaceae
Origin:	Asia and Malesia
Status:	Noxious Weed (new and emerging species)
Habit:	Arching or climbing shrub to 2 m high. Primocane stems rounded or round-angled whitish tomentose at first, becoming glabrous green to purple later.
Leaves:	Deciduous. Pinnately compound. Consisting of 5-9 (less often 11) elliptic to ovate coarsely toothed leaflets, dark-green above densely white felted below.
Flowers:	About 1 cm diameter, with five dark pink to red petals. Tends to bloom and fruit throughout the year.
Fruit:	Ovoid to oblong, 8-12 mm diameter, covered in short white hairs, initially green, ripening red, maturing black.
Roots:	Becoming dense and suckering from underground runners. Plant tips take root upon touching the ground.
Dispersal:	Seed mostly spread by birds and animals, but also water, humans, contaminated soil (earth moving equipment, car tyres etc) and garden refuse dumping.
Control:	Hand pull/dig seedlings, cut or scrape and paint stems, foliar spray with specialised chemicals.

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 community.

Many of these plants are still found for sale in nurseries and local markets. Like all categories of plants in this booklet, active management is a key issue 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 Grasses section).

The main weed species are featured on their own pages but below is a list of:-

Other Problematic Ground Covers:

Common Name:	Botanical Name
Beach Daisy:	*Arctotheca populifolia*
Common Tansy:	*Tanacetum vulgare*
Coreopsis:	*Coreopsis lanceolata*
Creeping cinderella weed:	*Calyptocarpus vialis*
Crucifix Orchid:	*Epidendrum radicans*
Evening Primrose:	*Oenothera* spp.
Horehound:	*Marrubium vulgare*
Horsetail's:	*Equisetum* spp. (Noxious)
Fireweed:	Senecio madagascariensis (Noxious) (WoNS)
Ginger Lilies:	*Hedychium gardnerianum* (Noxious)
Japanese knotweed:	*Persicaria capitata*
Kosters' Curse:	*Clidemia hirta* (Noxious)
Mist Flower:	*Ageratina riparia*
Mouse-ear Hawkweed:	*Hieracium pilosella* (Weed Alert)
Obedient Plant:	*Physostegia virginiana*
Opium Poppy:	*Papaver somniferum* (Prohibited plant)
Orange Hawkweed:	*Hieracium aurantiacum* (Weed Alert)
Ox-eye Daisy:	*Leucanthemum vulgare*
Parthenium Weed:	*Parthenium hysterophorus* (Noxious) (WoNS)
Paterson's Curse/Bugloss':	*Echium* spp. (Noxious)
Pennywort:	*Hydrocotyle bonariensis*
Polka Dot Plant:	*Hypoestes phyllostachya*
Scarlet Sage:	*Salvia coccinea*
St Johns Wort:	*Hypericum perforatum* (Noxious)
Thistles:	*Carduus* spp; *Carthamus* spp; *Centaurea* spp; *Cirsium* spp; *Cynara* spp; *Onopordum* spp; *Picnomon* spp; *Silybum* spp; *Scolymus* spp; *Sonchus* spp; *Rhaponticum* spp.
Veined Verbena:	*Verbena* spp. (exotics)
Witchweed:	*Striga* spp.(except the native *S. parviflora*) (Noxious)

Blue heliotrope contains pyrrolizidine alkaloids. It competes with desirable pastures and causes toxicity to stock.

Blue heliotrope

Heliotropium amplexicaule

Family: Boraginaceae

Origin: South America

Status: Noxious Weed (Very Poisonous Plant)

Habit: A prostrate perennial, 15-30 cm tall, with very hairy, creeping, branched stems emerging from a woody rootstock.

Leaves: Dull green above and paler below, simple, alternate, sessile, oblanceolate to lanceolate 20-80 mm long and 3-20 mm wide with prominent veins and a wavy margin.

Flowers: Small tubular flowers, 4-6 mm long and 3-6 mm wide, arranged in two rows along one side of a coiled spike that straightens with age. Purple, lilac, blue or pink in colour and have a distinctive yellow throat.

Fruit: Two small rough-surfaced nutlets which separate from each other at maturity.

Roots: Combination of fibrous and a deep central taproot.

Dispersal: Seed and vegetation spread by water, humans, contaminated soil (earth moving/slashing equipment, car tyres etc) and garden refuse dumping.

Control: Hard to control. Hand pull/dig seedlings. Root fragments can regrow. Foliar spray with specialised herbicides.

Blue Periwinkle

Vinca major

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

Family: Apocynaceae

Origin: Central and southern Europe and northern Africa

Status: Noxious Weed (Poisonous Plant)

Habit: Spreading perennial herb to 50 cm high with stems that root at nodes and sometimes at tips.

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

Flowers: Violet-blue to mauve, 3-6 cm wide, tubular with 5 spreading lobes 1.3-2.5 cm 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 3.5-5 cm long, about 0.4 cm wide. Seeds flat, hairless, 7-8 mm 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.

A very popular cottage perennial. Gaura has escaped from cultivation and is now regarded as an emerging or potential environmental weed.

Butterfly Flower / Gaura

Oenothera lindheimeri
Oenothera curtiflora (noxious)
(Formerly *Gaura parviflora*)

Family: Onagraceae

Origin: USA and Mexico border region

Status: Environmental & Noxious Weed

Habit: Sprawling perennial herb, 0.6-1.2 m high with a 0.6-0.9 m spread.

Leaves: The leaves are simple, narrow, irregular and spoon shaped, 2.5-7.6 cm 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 (earth moving/slashing equipment, car tyres etc) and garden refuse dumping.

Control: Hand pull/dig, foliar spray.

At present it is mainly a weed of disturbed sites and roadsides close to where it has been cultivated, however it is also beginning to spread into more natural areas.


Oenothera lindheimeri


Oenothera lindheimeri

Caltrop / Cat-head

Tribulus terrestris

The spines of the burrs point upward, where they stick into feet and fur of animals. This causes damage to domesticated livestock and degrades wool.

Family: Zygophyllaceae

Origin: Mediterranean region, Sthn Europe, Sthn Asia and Africa,

Status: Environmental Weed (Poisonous Plant)

Habit: Branched stems radiate from the crown from a diameter of 10 cm to over 1 m. Usually prostrate, they form flat patches, although may grow taller when shaded.

Leaves: Compound, pinnate and densely hairy. Leaflets are opposite and up to 3.2 mm long.

Flowers: Solitary, lemon-yellow, 4-10 mm wide, with 5-petals, 5 sepals, and 10 stamens, Spring to Autumn.

Fruit: Green woody fruits turn brown and fall apart into 5 burrs. Each burr bears 2-4 seeds and 2-4 sharp spines, 10 mm long and 4-6 mm wide.

Roots: Fine fibrous rootlets emerge from the taproot to take advantage of minimal soil moisture. Can survive in very arid conditions.

Dispersal: Seed spread by water, animals, humans, contaminated soil (earth moving/slashing equipment, car tyres etc).

Control: Hand pull/dig all plants. Foliar spray prior to fruiting.

Flower production can be as soon as 40 days after germination, with seed development after 57 days and the production of viable seed in as little as 72 days.

Chinese Violet

Asystasia gangetica ssp. *micrantha*

Family:	Acanthaceae
Origin:	Africa
Status:	Noxious Weed
Habit:	A slightly hairy herbaceous mat-forming perennial creeper usually growing to less than 0.5 m tall. It can sprawl over supporting vegetation to a height of 1 m or more.
Leaves:	Bright green above paler below, simple, ovate, 2.5-8 cm long & 1.5-4 cm wide slightly hairy, arranged in opposite pairs along the stems.
Flowers:	Tubular 1.8-3.5 cm long and about 3 cm across, borne in clusters. Mostly white with the bottom petal having purple blotches in two parallel lines on its inside. Year round, but mainly during warm and wet conditions.
Fruit:	Club-shaped, explosive capsule which starts out green, dries brown and contain four flattened seeds.
Roots:	Fibrous. Stems root at the nodes when they come into contact with soil.
Dispersal:	Seed and vegetation spread by humans via gardening and refuse dumping, contaminated soil, water and animals.
Control:	Hand pull/dig all plants. Foliar spray prior to fruiting.


Jordan Skinner


Jordan Skinner


Jordan Skinner

Gazania

Gazania spp.

Gazania's have become naturalised on coastal dunes, parks and along roadsides from sthn 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

Status: Environmental Weed

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

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

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

Fruit: Achenes. 4 mm long; pappus scales lanceolate 2-3 mm 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.

Control: Hand pull/dig, foliar spray.

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

Impatiens / Busy Lizzy

Impatiens walleriana varieties

Family:	Balsaminaceae
Origin:	Africa
Status:	Environmental Weed
Habit:	Bushy, succulent-stemmed tender perennial that grows in a spreading mound 15-60 cm 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 5 cm 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 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

Status: Noxious Weed

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

Leaves: Ovate, with blunt short teeth; 0.5-3 cm long, 2-10 mm 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 1-6.5 cm long and usually much longer than leaves at the stalk base; petals usually lilac or pink. Flower tubes 2-3 mm long. Spring to late autumn.

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

Roots: Dense and mat forming.

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

Control: Foliar spray, pasture improvement techniques.

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.

Nasturtium

Tropaeolum majus

Family:	Tropaeolaceae
Origin:	South America
Status:	Environmental weed
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, 10 mm long.
Roots:	Fibrous and succulent.
Dispersal:	Seed and vegetation is spread by water, humans, contaminated soil (earth moving equipment, car tyres etc) and garden refuse dumping.
Control:	Hand pull/dig bagging all plant parts and removing from site, Foliar spray.

Painted Spurge

Euphorbia cyathophora

Painted spurge prefers sandy soils, particularly in disturbed sites. It is of most concern as a weed of hind-dune areas on beaches and is also relatively common in coastal and sub-coastal riparian zones.

Family: Euphorbiaceae

Origin: Tropical North America, the Caribbean and South America

Status: Environmental weed (Poisonous Plant and Skin Irritant)

Habit: Annual herb to 70 cm high with main stems erect, often with lateral branches. Stems and leaves contain a milky sap.

Leaves: Opposite at base of plant, alternate up the stem, often fiddle-shaped. Uppermost leaves usually pinkish-red towards the base.

Flowers: Inconspicuous 'flowers' are actually tiny cup-like structures each containing several tiny male flowers and one yellow female flower. Most of the year.

Fruit: Three-lobed capsule, 3-4 mm long and 5-6 mm wide with three inner compartments, each containing a single seed. Seeds are egg-shaped 2-3 mm long and 1.5 mm wide.

Roots: Fibrous root system.

Dispersal: Seed is spread by water, humans, contaminated soil and garden refuse dumping. Seed capsules open explosively when mature, expelling the seeds short distances.

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

The Great Lakes area on mainland New South Wales, and Lord Howe Island are thought to be the northern most extent of sea spurge in NSW.

Sea Spurge

Euphorbia paralias

Family: Euphorbiaceae

Origin: W. & S. Europe, Canary Islands, N. Africa and W. Asia

Status: Environmental weed (Poisonous Plant and Skin Irritant) (new and emerging species)

Habit: Glaucous perennial herb to 70 cm high, with multiple stems branching from a woody base. Stems are somewhat fleshy, contain a milky sap, Fertile stems are divide into branches near their tips.

Leaves: Greyish-green, stalkless leaves, 5-30 mm long, 2-15 mm wide are crowded along the stems.

Flowers: Inconspicuous 'flowers' are actually tiny cup-like structures each containing several tiny male flowers and one yellowish-green female flower. Spring to early winter.

Fruit: Capsule, 3-5 mm long and 4.5-6 mm wide, containing three seeds. Seeds are egg-shaped 2.5-3.5 mm long.

Roots: Fibrous root system.

Dispersal: Seed is spread by water, humans, contaminated soil (beach grooming equipment, sand dredging etc). Seed capsules open explosively when mature, expelling the seeds short distances. Seeds are also buoyant in sea water, and can be spread very large distances by ocean currents.

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

Sea Holly

Eryngium maritimum

Sea holly cannot grow in the shade, so shading may be a control strategy. In Elizabethan times in England, sea holly roots were believed to be a powerful aphrodisiac.

Family:	Apiaceae
Origin:	Europe
Status:	Environmental Weed (Edible plant)
Habit:	Robust perennial herb with spiny 'holly-like' leaves to 50 cm high.
Leaves:	Grey, basal leaves circular to broad-ovate, up to 10 cm long and 15 cm wide, deeply 3-5-lobed and coarsely spinose-toothed, with stout petioles to 15 cm long; stem leaves smaller, and usually sessile.
Flowers:	Grey and pale mauve, globose, burr-shaped heads 13-22 mm long, 11-20 mm diameter bearing a sheath of spinose-toothed leaves. December to May.
Fruit:	Burr-like, 4.5- 6 mm long, densely covered with acutely pointed scales and crowned by the persistent sepals.
Roots:	Very long, deeply rooted and sweetly scented.
Dispersal:	Seed and root fragments. spread by wind, water, animals, humans, contaminated soil (earth moving equipment, car tyres etc) and garden refuse dumping.
Control:	Hand pull/dig making sure to remove all roots, shading, foliar spray including penetrant.


Júlio Reis


Roger Culos


Júlio Reis

Seaside Daisy

Erigeron karvinskianus

This species is regarded as an environmental weed in N.S.W., Vic, Tas and S.A. and as a "sleeper weed " in other parts of Australia. It is highly tolerant of poor, dry soils and grows in a wide range of conditions.

Family:	Asteraceae
Origin:	South Mexico to Venezuela
Status:	Environmental Weed
Habit:	An aggressive spreading perennial herb to about 50 cm 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 32 mm long by 13 mm wide.
Flowers:	Small daisy flowers 1-2 cm 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:	Dandilion-like tufts; 1 mm long hard dry seed (achene) attached to a pappus of fine whitish hairs, 2 mm 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 New South Wales. Also naturalised in Florida, Malaysia and on Pacific Islands.

Family: Asteraceae

Origin: Mexico to Argentina

Status: Environmental Weed

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

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

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

Fruit: Seeds 4-5 mm long, tuberculate and topped with Dandilion-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.

A very old fashioned plant the Spider or Ribbon plant is still popular in rockeries or hanging baskets because of its ability to withstand drought conditions.

Spider Plant/Ribbon Plant

Chlorophytum comosum

Family:	Anthericaceae
Origin:	South Africa
Status:	Environmental Weed
Habit:	A tufted grass-like perennial herb, to 60 cm high.
Leaves:	Linear strap/grass-like leaves to 1 cm wide and 60 cm 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 5-10 cm 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 (earth moving 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*, *Callisia fragrans* (Basket Plant)

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*).

Family: Commelinaceae

Origin: South America

Status: Environmental Weed

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 (1-2 cm) 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.

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


Tradescantia albiflora


Tradescantia zebrina


Commelina cyanea

This strap leaf plant could easily be replaced with the Australian native Mat Rush *(Lomandra longifolia)* or the Blue Flax Lily *(Dianella caerulea)*

Wild Iris

Dietes bicolor
Dietes iridioides

Family:	Iridaceae
Origin:	South Africa
Status:	Environmental Weed
Habit:	Perennial rhizomatous clumps of erect sword-shaped leaves. The adult plant is approximately 1 m wide and 1 m tall.
Leaves:	Leathery, sword shaped, strappy leaves 1-2 cm wide to 60 cm 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 1-2 mm in diameter.
Roots:	Rhizomatous and fibrous, will re-shoot from any rootstock left in soil.
Dispersal:	Seed is spread by water, humans, contaminated soil and garden refuse dumping.
Control:	Hand pull/dig, foliar spray.

These plants need active management in all gardens. This may be as simple as **actively removing spent flower stalks prior to seed set,** or as comprehensive as complete removal from gardens.

Main photo: *Dietes bicolor*
Inset: *Dietes iridioides.*

Dietes bicolor

Bulbous & Succulent Plants

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

In this group of plants we have included 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.

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.

The main weed species are featured on their own pages but below is a list of:-

Other Problematic Bulbous & Succulent Plants:

Common Name:	*Botanical Name*
Aloes:	*Aloe* spp.
Cabbage Tree:	*Cordyline australis*
Cactus/Prickly Pears:	*Opuntia* spp. (Noxious) (WoNS)
Cactus/Prickly Pears:	*Harrisia* spp. (Noxious) (WoNS)
Cactus/Prickly Pears:	*Cylindropuntia* spp. (Noxious) (WoNS)
Century Plant:	*Agave americana*, *Agave* spp.
Coastal Gladiolus:	*Gladiolus gueinzii*
Freesia:	*Freesia hybrida*
Gladiolus:	*Gladiolus* spp.
Macho Fern:	*Nephrolepis biserrata*
Mother-in-law's Tongue:	*Sansevieria* spp.
Naked Lady:	*Amaryllis belladonna*
Onion grass:	*Romulea rosea* (Noxious)
Soursob/Shamrock/Wood Sorrel:	*Oxalis* spp. (Noxious)
Various Succulent's:	*Sedums*, *Kalanchoe*, and many other Genera

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

Agapanthus

Agapanthus spp.

Family: Alliaceae

Origin: Africa

Status: Environmental Weed (Poisonous Plant)

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

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

Flowers: Small (30 mm) trumpet shaped blue or white flowers that form large spherical clusters (umbels) at the end of long (1200 mm) 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 (earth moving 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 as comprehensive as complete removal from gardens.

Arum Lily

Zantedeschia aethiopica

Used extensively in floral arrangements all *Zantedeschia* spp. are highly toxic. 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

Status: Environmental Weed (Very Poisonous Plant)

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

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

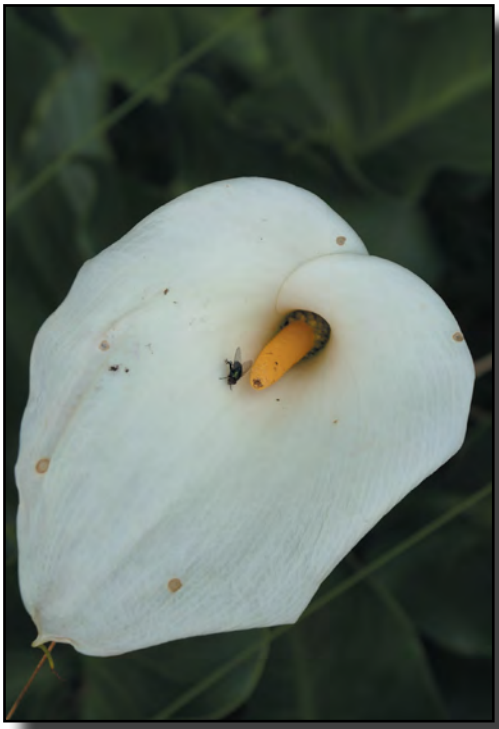
Flowers: Pale yellow spike to 9 cm long surrounded by a pure white funnel shaped spathe to 25 cm coming to a point. Winter-Summer.

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

Roots: Fleshy tuberous rhizome.

Dispersal: Rhizomes, cormlets and Seed is spread by water, humans, contaminated soil (earth moving 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.



Bridal creeper is 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.

Bridal Creeper - Asparagus

Asparagus asparagoides

Family: Asparagaceae

Origin: South Africa

Status: Noxious Weed (WoNS)

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

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

Flowers: White, 6-petalled flowers, 5-8 mm 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 and garden refuse dumping.

Control: Difficult to control - Foliar spray, crowning of mature plants. Ensure crowns are removed off site. Remove and bag berries. Follow-up - hand pull all emerging seedlings. Biological control is effective.

Similar Native Species: Wombat Berry (*Eustrephus latifolius*)

Bridal Veil - Asparagus

Asparagus declinatus

Most populations are located in the coastal areas of south-eastern South Australia, but it is also naturalised in the coastal districts of south-western Western Australia and in western Victoria.

Family: Asparagaceae

Origin: South Africa

Status: Noxious Weed (WoNS)

Habit: Highly invasive, herbaceous perennial. Sprawling ground cover or semi-climber up to 3 m that forms dense mats. Above ground stems dieback annually during summer. Soft and thornless.

Leaves: Soft, greyish or bluish-green needle-like cladodes up to 20 mm long and 0.5-1.5 mm wide form in groups of three along stem segments.

Flowers: White sometimes with greenish or brownish markings. Borne in pairs or solitary, 5-8 mm across. Mainly during winter.

Fruit: Round or egg-shaped berry, 8-15 mm long and around 7 mm wide, turning from green to bluish-grey or white with age. Each berry generally contains 5 -8 but sometimes up to 14 seeds.

Roots: Extensive, perennial, underground rhizomes and tubers.

Dispersal: Seed and rhizomes spread by water, animals, birds, humans, contaminated soil and garden refuse dumping.

Control: Difficult to control - Foliar spray, dig or grub out mature plants. Ensure that rhizomes and tubers are removed off site. Remove and bag berries. Follow-up - hand pull all emerging seedlings.

Old world garden plant. Mainly found in riparian areas and near forest margins, or in disturbed sites near human habitation; can germinate in conditions from full sun to rainforest with >80% canopy closure.

Broom - Asparagus

Asparagus virgatus

Family: Asparagaceae

Origin: Eastern and southern Africa

Status: Noxious Weed (WoNS)

Habit: Erect perennial herb or shrub with stiff stems, 0.4-0.8 m high; can attain very large and continuous infestations.

Leaves: Needle-like cladodes, 3-6 in each axil, cylindrical, 3-15 mm long 0.5-1 mm wide.

Flowers: Solitary, greenish white, stalks 7-12 mm long, petals 3-4 mm long mainly spring-summer.

Fruit: Orange berry round - egg shaped, 4-6 mm diameter containing 1 seed. Fruits most of year.

Roots: Fibrous, forming an extensive rhizomatous root mass.

Dispersal: Seed and rhizomes spread by water, animals, birds, humans, contaminated soil and garden refuse dumping.

Control: Difficult to control - Crowning, ensure that the crown and rhizomes are removed off site. Remove and bag berries. Follow-up - hand pull all emerging seedlings. Foliar spray, possibly with lower rates of herbicides.

Climbing - Asparagus

Asparagus plumosus

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

Family: Asparagaceae

Origin: South Africa

Status: Noxious Weed (WoNS)

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 4-5 mm across that turn black when ripe and contain 1-3 seeds. Autumn.

Roots: A woody crown with rhizomes at base of stems, with a fleshy root mass radiating out from the crown. (No distinct tubers).

Dispersal: Seed spread by water, animals, birds, humans, contaminated soil and garden refuse dumping.

Control: Difficult to control - Cut & paint, basal bark, foliar spray, crowning. Ensure that the crown is removed off site. Remove and bag berries. Follow-up - hand pull all emerging seedlings.

A. africanus has only become naturalised in the last 30 years or so, and is still spreading. It scrambles over other vegetation and climbs up to 12 m into the canopies of taller trees.

Climbing - Asparagus

Asparagus africanus

Family:	Asparagaceae
Origin:	Eastern and southern Africa
Status:	Noxious Weed (WoNS)
Habit:	Perennial climber or scrambling shrub with woody stems 8-12 m long. Spines on older stems to 10 mm long.
Leaves:	Needle-like Cladodes, 7-12 in each axil, cylindrical, 8-15 mm long, 0.5 mm wide produced in a clusters. Branches and cladodes spirally arranged.
Flowers:	White, produced in small clusters, stalks 5-10 mm long, petals 3-4 mm long in mainly spring.
Fruit:	Green berry turning orange when ripe, round, 5-6 mm diameter containing 1 seed. Fruits may be present most of year.
Roots:	Central crown, with rhizomes and fleshy roots (no distinct tubers).
Dispersal:	Seed spread by water, animals, birds, humans, contaminated soil and garden refuse dumping.
Control:	Difficult to control - Cut & paint, basal bark, foliar spray, crowning. Ensure that the crown is removed off site. Remove and bag berries. Follow-up - hand pull all emerging seedlings.

Fern - Asparagus

Asparagus scandens

A. scandens is thought to have a much greater potential range than it currently inhabits. It could seriously impact on Australia's biodiversity in future years if it is not managed correctly.

Family: Asparagaceae

Origin: South Africa

Status: Noxious Weed (WoNS)

Habit: Perennial climber with thornless, wiry scrambling stems to 2 m long. Stems branch in one flat plane.

Leaves: Bright green, flattened leaf-like cladodes in clusters of 3 of unequal length, 5-15 mm long, 0.5-1 mm wide, with a distinct midrib, tapering at the base.

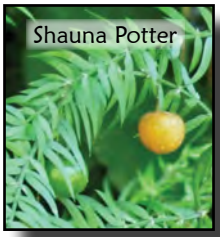
Flowers: Small, white to pale pink, bell shaped solitary flowers or in clusters of 2-3 produced in winter and early spring.

Fruit: Orange-red berry round to egg shaped, 5-7 mm diameter containing 1 seed. Fruits until summer.

Roots: Small central crown with fibrous roots andslender tubers

Dispersal: Seed spread by water, animals, birds, humans, contaminated soil and garden refuse dumping.

Control: Difficult to control - Cut & paint, foliar spray, crowning mature plants. Ensure that the crown is removed off site. Remove and bag berries. Follow-up - hand pull all emerging seedlings.


Shauna Potter


Sheldon Navie


Sheldon Navie


Sheldon Navie

A very popular pot plant because of its ability to withstand low light and neglect. Ground asparagus is naturalised in sand dunes and rainforests infesting Thousands of hectares on the NSW coast.

Ground - Asparagus

Asparagus aethiopicus

Family:	Asparagaceae
Origin:	South Africa
Status:	Noxious Weed (WoNS)
Habit:	Highly invasive, herbaceous perennial. Sprawling ground cover with short sharp spines and branched stems up to 2 m. A tough, woody crown is formed at base of stems. Dense mats smother low native vegetation and suppress natural regeneration.
Leaves:	Bright green, flattened leaf-like cladodes up to 20 mm long, with a distinct midrib and abrupt point. Single or in clusters of 2-5.
Flowers:	Small, white to pale pink, bell shaped flowers in clusters of 4-8 produced during Summer.
Fruit:	Pale green berries that ripen to red in late winter early spring.
Roots:	Central crown with a thick mat of fibrous roots, rhizomes and fleshy tubers extending from the centre.
Dispersal:	Seed and rhizomes spread by water, animals, birds, humans, contaminated soil and garden refuse dumping.
Control:	Difficult to control - Cut & paint, foliar spray, crowning mature plants. Ensure that the crown is removed off site. Remove and bag berries. Follow-up - hand pull all emerging seedlings.

Steve Howard

Pompom - Asparagus

Asparagus macowanii

This species is sometimes confused with *A. retrofractus*, but they are easily separated (See differences below).
It is recommended that in future *A. macowanii* be called 'Pompom Asparagus' and *A. retrofractus* 'Zigzag Asparagus' to prevent further confusion.

Family: Asparagaceae

Origin: South eastern Africa

Status: Noxious Weed (WoNS)

Habit: Shrubby perennial with smooth erect stems, 1-2.5 m tall, bearing short recurved spines on lower part of stems only.

Leaves: Cladodes, 8-15 mm long, <0.5 mm wide, clustered in each axil (clusters are densely packed & globose especially near the ends of the branches).

Flowers: Small, white, more or less in dense clusters appearing on branches before the cladodes have fully developed).

Fruit: Dark purplish to black berry, round to egg shaped, 7-10 mm diameter usually containing 1-2 seeds.

Roots: Central underground crown, with fibrous or semi-succulent roots.

Dispersal: Seed spread by water, animals, birds, humans, contaminated soil 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. Cut & paint, basal bark, foliar spray.

Asparagus macowanii
- densely clustered cladodes in 'pompoms'.
- straight smooth stems.
- Purplish to black fruits.
- erect stems with fewer & smaller spines.

Asparagus retrofractus
- sparsely clustered cladodes.
- zigzaged & ribbed stems.
- orange-red fruits.
- longer more scrambling stems & numerous obvious spines.


Sheldon Navie


Karen L Wilson


Sheldon Navie

Recorded as naturalised in Sydney, Wyong, Lake Cathie and Port Macquarie in NSW, growing in Littoral Rainforest, Wet Sclerophyll, Swamp Oak and Subtropical Rainforest ecological community types.

Sicklethorn - Asparagus

Asparagus falcatus

Family:	Asparagaceae
Origin:	Eastern and southern Africa, the Arabian Peninsula, India and Sri Lanka
Status:	Noxious Weed (WoNS)
Habit:	Robust climber with woody perennial stems to 5-7 m long, with stout hooked spines to 3 cm long;
Leaves:	Cladodes, 30-90 mm long, 3-7 mm wide, linear, most are slightly sickle-shaped.
Flowers:	Small, white, fragrant, numerous arranged in branched cluster. Spring - summer.
Fruit:	Reddish, round berry 7-10 mm wide, contain 1-3 seeds. Mature in winter.
Roots:	Central underground crown, with fibrous roots to swollen tubers that resemble sweet potatoes.
Dispersal:	Seed spread by water, animals, birds, humans, contaminated soil 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. Cut & paint, basal bark, foliar spray.


Sheldon Navie


Sheldon Navie


Sheldon Navie


Sheldon Navie

Canna Lily / Indian Shot

Canna indica
Canna x generalis

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.

Family:	Cannaceae
Origin:	Tropical and South America
Status:	Environmental Weed
Habit:	Erect, herbaceous perennial to 2 m 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 25 cm), arranged alternately on stems.
Flowers:	Tubular flowers (yellows oranges, reds and pinks) formed in asymmetrical clusters. Spring-Autumn.
Fruit:	Black, globular seeds 5-7 mm long borne in capsule, and spread by birds.
Roots:	Extensive, fleshy rhizome formed underground.
Dispersal:	Seed and rhizomes spread by water, humans, contaminated soil (earth moving 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.

Taro is a staple food source of the Pacific Islands and is also very popular throughout many parts of Asia. The tuber can substitute potato in almost any dish, baked, boiled or made into chips.

Elephants Ears / Taro

Colocasia esculenta

Family:	Araceae
Origin:	S.E. Asia, Hawaii, and the Pacific Islands
Status:	Environmental Weed (Poisonous Plant)
Habit:	Erect, rhizomatous tuberous, evergreen perennial herb to 1.5 m 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 5-10 mm long containing about 4 yellow-brown seeds.
Roots:	Fleshy tuberous rhizome.
Dispersal:	Roots, tubers and seed is spread by water, humans, contaminated soil (earth moving 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 due to its ability to withstand low light and neglect. A local native on the far north coast of NSW and Lord Howe Island, this plant has become weedy from Sydney to the mid north coast of NSW.

Family:	Davalliaceae
Origin:	North Eastern Australia
Status:	Environmental Weed
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 over lapping at base, to 1 m. Leaflets to 6 cm 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 local native species: Rasp Fern *Doodia aspera* & 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)
Status:	Environmental Weed
Habit:	Deciduous perennial herb with annual flowering stalks 1-2 m 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 (earth moving 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.

Montbretia

Crocosmia x crocosmiiflora

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

Family: Iridaceae

Origin: South Africa

Status: Environmental Weed

Habit: Erect deciduous perennial herb to 0.9 m.

Leaves: Basal linear strap like flat leaves around 30-80 cm long and 1-2 cm 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 (earth moving 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.

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.

Mother of Millions

Bryophyllum spp.

Family: Crassulaceae

Origin: Madagascar, South Africa

Status: Noxious Weed (Very Poisonous Plant)

Habit: Erect, smooth fleshy succulent stems to 2 m, 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).

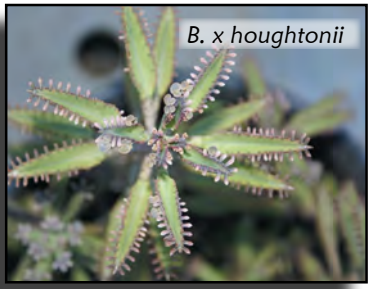
Flowers: Produced in a cluster at the tip of long stems. Flowers are drooping, bell-shaped, orange-red to scarlet, 4-lobed to 2-3 cm long. Flowers mainly Winter-Spring.

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 Lily / Christmas Lily

Alstroemeria psittacina
Alstroemeria pulchella

This species is becoming widely naturalised in the coastal districts of southern and eastern Australia. Also naturalised on Lord Howe Island.

Family: Alstroemeriaceae

Origin: South America

Status: Environmental Weed (skin Irritant)

Habit: An erect, long stemmed perennial lily to 1 m high, with sprays of red and green spotted flowers from clusters of tubers.

Leaves: Pale green, alternate, spoon-shaped, 3-10 cm long, 10-35 mm wide with a long, narrow, base, a rounded tip and entire margin, twisted on the petioles so that the undersides face up Petiole 1-6 cm long.

Flowers: Solitary or borne in umbels. Perianth red and green, spotted black. Summer flowering.

Fruit: Globe shaped, three valved capsule with prominent ribs, 10-15 mm diameter. Reddish brown seeds 2.5-3 mm diameter.

Roots: Fibrous roots forming rhizomes and tubers.

Dispersal: Rhizomes, tubers and seed are spread by water, humans, contaminated soil and garden refuse dumping. Possibly also spread by animals and birds.

Control: Difficult. Hand pull/dig, bagging all plant parts and removing from site, cut and paint, foliar spray with herbicide and penetrant.

Commonly cultivated, this garden escapee is found on roadsides and sand dunes of the Mid North Coast. Very difficult to control due to spiny nature of plant creating impenetrable thickets.

Spanish Bayonet

Yucca aloifolia
Yucca spp.

Family:	Agavaceae
Origin:	North & Central America and the West Indies
Status:	Environmental Weed
Habit:	Evergreen, herbaceous, 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, 0.3-1 m long, 2-5 cm wide, apex acute with terminal spine 10-20 mm long, margins finely toothed, surfaces glabrous.
Flowers:	Creamy white, multi flowered panicle 1-3 m long.
Fruit:	Oblong purplish capsule, 6-8 cm 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 'bulbillifera'

Once widely, planted as an ornamental. Major environmental weed of disturbed bushland and roadsides, particularly near water. Serious weed in W.A., S.A., Vic and N.S.W.

Family: Iridaceae

Origin: South Africa

Status: Environmental Weed

Habit: Erect perennial herb to 2 m.

Leaves: Basal linear/Sword-shaped leaves up to 0.6 m long with distinct midrib are arranged in a fan-like formation. Above ground parts die back 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 (earth moving 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.

The Grasses are commonly overlooked, however, exotic grass species have invaded reserves and bushland in the Mid North Coast region where they are aggressively displacing the native ground covers. Grasses are the most successful and widespread group of plants known to man.

Although many of these species are desirable pasture and turf grasses in home lawns, parks and playing fields, they are also problematic bushland and garden weeds because they are capable of setting copious volumes of viable seed within a short time after 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.

All of the species in *Pennisetum* have now been moved into the genus *Cenchrus*.

The main weed species are featured on their own pages but below is a list of:-

Other Problematic Grasses:

Common Name:	Botanical Name
African Feather Grass:	*Cenchrus macrourus* (Noxious)
African Love Grass:	*Eragrostis curvula*
Bahia Grass:	*Paspalum notatum*
Broadleaf Paspalum:	*Paspalum mandiocanum*
Buffalo Grass:	*Stenotaphrum secundatum*
Chilean Needle Grass:	*Nassella neesiana* (Noxious)
Columbus Grass:	*Sorghum almum*
Common Couch:	*Cynodon dactylon*
Parramatta Grass:	*Sporobolus africanus*
Coolatai Grass:	*Hyparrhenia hirta* (Noxious)
Fine Bristled Burr Grass:	*Cenchrus brownii* (Noxious)
Giant Pigeon Grass:	*Setaria verticillata*
Giant Parramatta Grass:	*Sporobolus fertilis* (Noxious)
Giant Paspalum:	*Paspalum urvillei*
Giant Rats Tail Grass:	*Sporobolus pyramidalis* (Noxious)
Grader Grass:	*Themeda quadrivalvis*
Johnson Grass:	*Sorghum halepense* (Noxious)
Kikuyu:	*Cenchrus clandestinus*
Large Quaking Grass:	*Briza maxima*
Mossman River Grass:	*Cenchrus echinatus* (Noxious)
Olive Hymenachne:	*Hymenachne amplexicaulis*
Red Natal Grass:	*Melinis repens*
Rhodes Grass:	*Chloris gayana*
Slender Pigeon Grass:	*Setaria parviflora*
Spiny Burr Grass:	*Cenchrus longispinus* (Noxious)
Spiny Burr Grass:	*Cenchrus spinifex* (Noxious)
Thatch Grass:	*Hyparrhenia rufa*
Whiskey Grass:	*Andropogon virginicus*

Bamboo - Rhizomatous

Phyllostachys spp.

Widely cultivated as a garden ornamental or for privacy. Rhizomatous bamboos almost invariably escape cultvation and invade natural areas or impact on others and owners.

Family: Poaceae

Origin: China

Status: Noxious Weed

Habit: A long-lived bamboo with erect stems usually growing 2-8 m tall, but occasionally higher. Often forms dense stands from creeping underground rhizomes that form suckers emerging into new canes.

Leaves: Stem leaves lanceolate to narrow-lanceolate, bent downward, sometimes wrinkled, quickly dying away. Foliage leaf blades lanceolate, usually 5-15 cm long, 6-22 mm wide, covered with dense soft-hairs or almost hairless.

Flowers: Rarely produced in Australia.

Fruit: Seeds rarely produced in Australia.

Roots: Robust, creeping above and below ground rhizomes.

Dispersal: Mainly by rhizome creep from deliberate plantings, contaminated soil and garden refuse dumping. Rarely if ever grows from seed.

Control: Cut and paint individual stems. An off label permit exists for foliar spraying with specialised herbicides, by professional weed managers, in certain situations.

Stems of *Phyllostachys* spp. have a prominent groove, called a sulcus, that runs along the length of each segment. This feature makes them one of the most easily identifiable genera of bamboo.

Phyllostachys aurea

A very popular landscape grass, it is now an offence to sell, propagate or knowingly distribute *Cenchrus setaceus*.

Crimson Fountain Grass / Swamp Foxtail Grass

Cenchrus setaceus (Noxious)
Cenchrus purpurascens

Family:	Poaceae
Origin:	Africa, Eastern Australia
Status:	Noxious and Environmental Weeds
Habit:	Tufted or clump-forming perennial grass to 1 m.
Leaves:	Thin leathery, arching leaves to 80 cm 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 30 cm long, P. alopecuroides, seed heads to 8 cm 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.

Used extensively in Landscaping industry, for its eye-catching seed heads. Banned in NZ.
Purple Fountain Grass, is considered to be less weedy and able to be sold if labeled correctly as *Cenchrus advena* '*Rubrum*'

Giant Reed

Arundo donax

Giant reed has become a weed in many countries, earning a place on the IUCN, (International Union for Conservation of Nature) list of 100 of the world's most invasive species. Giant reed invades both disturbed and natural areas, even those in good ecological condition.

Family: Poaceae

Origin: Asia and the Mediterranean region

Status: Noxious Weed

Habit: Long-lived perennial grass growing in dense clumps up to 8 m in height. Giant Reed can grow up to 10cm a day.

Leaves: Large, elongated, alternate, lance-shaped with a pointed tip, 5-100 cm long, 1-8 cm wide.

Flowers: Feathery plumes 40 to 60 cm long are often seedless or rarely fertile. Late spring through to early winter.

Fruit: The feathery plumes break apart at maturity leaving small oblong grains 1-2 mm long enclosed in papery bracts. Grains are rarely fertile.

Roots: Robust rhizomes and fiberous roots.

Dispersal: Seed sand rhizomes spread by water, and garden refuse dumping. Reproduces mainly by creeping rhizomes and rhizome fragments. Can repoduce by seed.

Control: Hand pull/dig juvenile plants, foliar spray adult plants.

Giant reed often grows in wetlands or near waterways and seriously depletes water supplies, imbibing as much as 2,000 litres of water per standing metre of growth.

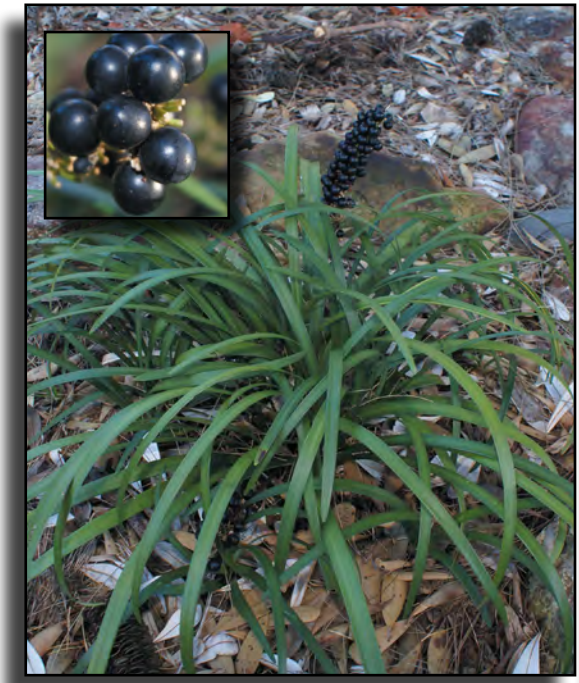
A very popular garden plant that is used extensively in landscaping for its hardiness in extreme conditions. It is just starting to become a problem at Port Macquarie in shaded riparian areas.

Liriope / Lily Turf

Liriope spp.
especially *L. spicata*

Family:	Asparagaceae
Origin:	East Asia
Status:	Environmental Weed
Habit:	Clump forming and spreading, grass like perennial lily.
Leaves:	Glossy dark green, narrow strap like, dense linear foliage from 20-50 cm 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, birds 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.

Active management is necessary in all garden situations to prevent this plant from degrading bushland and riparian areas.



Mexican Feather Grass

Nassella tenuissima

Initially mislabelled and sold as an ornamental in Australia under the names Elegant Spear Grass, Pony Tail and Angel's Hair. Mexican Feather Grass is not known to be naturalised in Australia to date.

Family: Poaceae

Origin: South America

Status: Noxious Weed

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

Leaves: Leaf blades to 0.5 mm 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 2.5 mm long.

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

Seed: Lemma to 3 mm long, awn narrow, straight or obscurely twice bent, 4.5–9 cm 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.

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.

Alan Maguire

Palm grass prefers damp shady sites and is a weed of urban bushland, closed forests, forest margins, riparian areas, roadsides, gardens, disturbed sites and waste areas.

Palm Grass

Setaria palmifolia

Family:	Poaceae
Origin:	China, southern Japan, Taiwan, India and south-eastern Asia
Status:	Environmental Weed
Habit:	Large, tufted, long-lived grass to 1.5 m tall.
Leaves:	Large, linear-elliptical palm-like leaf blades with a pleated appearance, 27-90 cm long, 3-12 cm wide.
Flowers:	Spikes are arranged in large branched drooping or erect clusters (panicles) 20-50 cm long, 2-10 cm wide.
Fruit:	Grain-like, pale brown, flattened oval seeds 2 mm long, and remain enclosed within the flower spikes.
Roots:	Fibrous clump.
Dispersal:	Reproduces only by seed spread by water, birds, humans, contaminated soil and garden refuse dumping.
Control:	Hand pull/dig, bag all seed heads. Foliar spray.

Pampas Grass

Cortaderia jubata (Pink Pampas Grass)
Cortaderia selloana (Pampas Grass)

A very popular garden plant in the 1960's and 70's, Pampas Grass has earned its status as a declared noxious weed.

Family:	Poaceae
Origin:	South America and New Zealand
Status:	Noxious Weed
Habit:	Large, long lived perennial tussock forming ornamental grass to 4.5 m tall.
Leaves:	Light green, up to 2 m long and finely tapering with prominent midrib and sharp edges that will cut the skin. A rim of hairs (to 3 mm long) at leaf base (ligule).
Flowers:	Large feathery heads on stems to 3 m 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 (2 mm), 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 (earth moving equipment, car tyres etc) and garden refuse dumping.
Control:	Crowning, slash and hand dig with mattock, foliar spray. Bag all seed heads.


Cortaderia selloana


Cortaderia selloana

An aggressive, perennial grass almost constantly in seed, Ehrharta spreads rapidly excluding many small native ground cover species.
Similar Native Species: Weeping Meadow Grass (*Microlaena stipoides*).

Panic Veldtgras

Ehrharta erecta

Family: Poaceae

Origin: South Africa

Status: Environmental Weed

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 5-20 cm long, 2-10 mm wide, Stems rounded, prominent mid-vein on the underside of leaf.

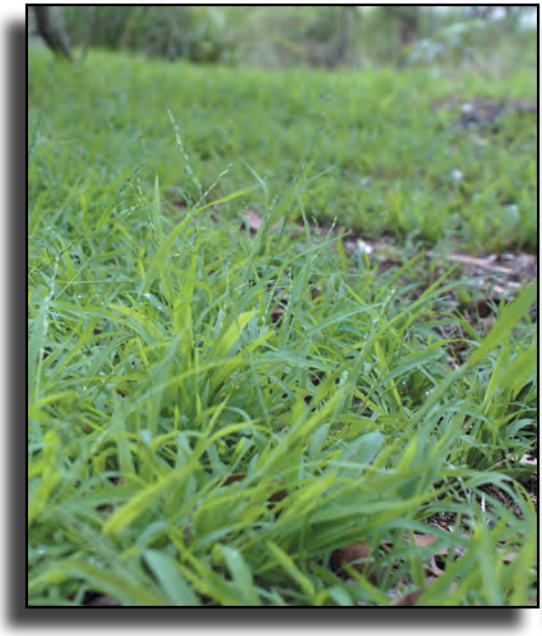
Flowers: Inflorescences borne on stems, 10-80 cm long and grow at any time during the year. The stem can be upright or curved, often branched near the base and sometimes tinged red.

Seed: Profuse and rapid production of 3 mm 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 (earth moving equipment, car tyres etc) and garden refuse dumping.

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



Shrubs

Shrubs are woody plants that form single or more commonly multi-stemmed bushes. They can range in size from 0.5 m-3 m and are quite often thorny plants that can form impenetrable thickets and/or have colourful, succulent berries that become bird and animal "lollies". Some shrubs form scramblers that, with the support of larger trees can grow taller (e.g. Lantana, Bitou Bush).

Most of the shrub weeds are escaped garden plants and the main problem arises from the irresponsible dumping of garden waste in bushland and reserves or 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. Escaped invasive garden plants are the biggest source of agricultural and environmental weeds, and just one escaped invasive garden plant - Lantana - now degrades over 4 million hectares of Australia's environment.

> Lantana fact: First record of Lantana camara in Australia was in 1841 in the old Adelaide Botanic Gardens. It was first recorded in cultivation in NSW in 1843 near Sydney. The species quickly spread northward and was recorded as naturalised in the 1850's, in Brisbane in 1861, and in the Hastings and Clarence catchments of NSW in the late 1860's. In 1895 it was listed as one of the ten worst weeds in NSW and currently it has earned its Status as a Weed of National Significance, one of the twenty worst weeds in Australia.

The main weed species are featured on their own pages but below is a list of:-

Other Problematic Shrubs:

Common Name:	Botanical Name
Butterfly Bush:	*Buddleja davidii / Buddleja madagascariensis*
Castor Oil Plant:	*Ricinus communis*
Crofton Weed:	*Ageratina adenophora*
Elderberry:	*Sambucus nigra*
Gorse:	*Ulex europaeus* (Noxious) (WoNS)
Groundsel Bush:	*Baccharis halimifolia* (Noxious)
Hawthorns:	*Crataegus* spp.
Mimosa:	*Mimosa pigra* (Noxious) (WoNS)
Mimosa Bush:	*Vachellia farnesiana*
Narrow-leaved Cotton Bush:	*Gomphocarpus fruticosus*
Orange Jessamine:	*Murraya paniculata* (seed grown species)
Oleander:	*Nerium oleander* (single flowering species)
Spanish Heath:	*Erica lusitanica*

Planted in eastern Australia between 1946-1968 to stabilise dunes after sand mining. It survives a wide range of habitats, from exposed coastal dunes to shaded forests.

Bitou Bush[1] / Boneseed[2]

Chrysanthemoides monilifera ssp. *rotundata*[1]
Chrysanthemoides monilifera ssp. *monilifera*[2]

Family: Asteraceae

Origin: South Africa

Status: Noxious Weed (WoNS)

Habit: A sprawling woody evergreen shrubs to 2-3 m (will grow much higher if supported by taller vegetation).

Leaves: Simple, alternate, practically hairless except for a cottony down on young leaves. Bitou Bush[1]: obovate to broad-obovate or broad-elliptic 3-8 cm long and 1.5-5 cm wide, usually smooth edged or irregularly toothed. Boneseed[2]: obovate to elliptic tapering at the base 2-9 cm long and 1.5-5 cm wide very coarsely toothed and have pointed tips.

Flowers: Bright lemon yellow daisy like flower 2.5-3 cm in diameter, clustered at the ends of branches for much of the year. Main flowering period Autumn. Bitou Bush[1]: 5-13 petals. Boneseed[2]: 4-8 petals.

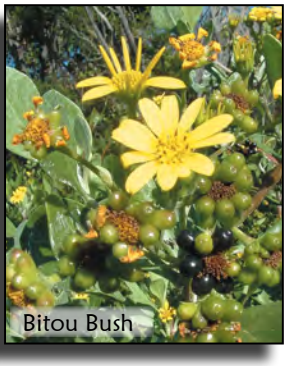
Fruit: Fleshy green berries 5-7 mm in diameter that turn black on ripening. The berries are produced in clusters formed at the ends of branches. Each berry contains one seed. Bitou Bush[1]: obovoid to ellipsoid, black seed. Boneseed[2]: globose to subglobose, white seed.

Roots: Generally shallow in young plants, becoming extensive with age. On dunes, roots become deep due to constant sand accruement.

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

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


Bitou Bush


Bitou Bush

Californian Geranium / Velvet Groundsel

Roldana petasitis

Cultivated as an ornamental, occasionally naturalised in S.E. Qld, coastal districts of northern and central NSW and Southern Vic. Also naturalised on Lord Howe Island and in New Zealand.

Family: Asteraceae

Origin: Southern Mexico and Central America

Status: Environmental Weeds (Poisonous Plant)

Habit: Shrub or perennial herb 1.5-2 m high, softly hairy.

Leaves: Circular to broad-ovate, 10-20 cm long and wide, margins palmately lobed with 9-13 lobes.

Flowers: Yellow; multi-headed hairy corymbs; 4-6 petals 8-10 mm long. Winter flowering.

Fruit: Seeds brown to black, 2.5-4 mm long, each possessing a (pappus) tuft of white silky hairs that aid its spread by wind.

Roots: Generally shallow and fibrous with a tap root.

Dispersal: Seed spread by water, wind, animals, humans, contaminated soil (earth moving equipment, car tyres etc). Seeds may be blown long distances.

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

Wendy Bushell

Garden escape, widely naturalised in southern and eastern Australia on roadsides, wasteland and disturbed areas.

Canadian Goldenrod

Solidago canadensis var. *scabra*

Family:	Asteraceae
Origin:	Eastern Canada and eastern USA
Status:	Environmental Weeds
Habit:	Stoloniferous, shrub with a hairy or rough texture, 0.8-2 m high. Stems are unbranched below inflorescences.
Leaves:	Sessile, alternate, narrow, lance-shaped, tapered at both ends 2-12 cm long, 4-20 mm wide, margins entire to toothed, upper surface densely rough, lower surface hairy or rough.
Flowers:	Dense, elongated, pyramid-shaped clusters, 5–25 cm long, Each flower head consists of 9 to 17 yellow ray flowers surrounding fewer than 10 yellow disk flowers.
Fruit:	Seeds orange, 0.8-2 mm long, each possessing a (pappus)tuft of white silky hairs that aid its spread by wind.
Roots:	Extensive, very deep and fibrous with 50-125 mm long rhizomes emerging at the base of stems. Rhizomes are often reddish.
Dispersal:	Seed spread by water, wind, animals, humans, contaminated soil (earth moving equipment, car tyres etc). Seeds may be blown long distances.
Control:	Hand pull/dig juvenile plants, cut and paint, foliar spray adult plants.

Cassias - Winter Senna[1], Popcorn Senna[2], Smooth Senna[3]

Senna pendula var. *glabrata*[1]; *S. didymobotrya*[2]; *S.septemtrionalis*[3]

A similar species, *Senna acclinis* is a threatened native plant on the Mid North Coast of NSW.

Family: Fabaceae

Origin: South America[1]; Africa[2]; Mexico[3]

Status: Environmental Weeds

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

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

Winter Senna[1]: Medium sized at 2-4 m tall.
Leaves: Compound, 3-6 pairs of obovate leaflets with rounded tips, 20-50 mm long; 10-20 mm wide with prominent yellowish coloured margins.
Flowers: Bright yellow, to 3 cm borne in abundance in loose clusters.
Seed pods: Relatively straight, hairless and almost cylindrical, occasionally with one or more constrictions, 10-20 cm long; 8-12 mm diameter.

Popcorn Senna[2]: Medium sized at 2-3 m tall.
Leaves: Compound with 7-15 pairs of oblongish, opposite leaflets, pubescent underneath, 15-60 mm long; 6-20 mm wide.
Flowers: Bright yellow with dark persistent upper bracts, borne in erect, spike-like clusters 10-40 cm long carried well above the leaves.
Seed pods: oblong, flat, 7-10 cm long, 15-20 mm wide, glabrescent depressed between the seeds.

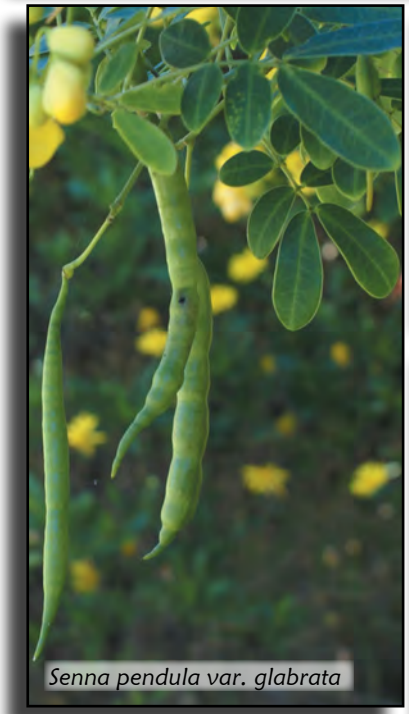
Smooth Senna[3]: Medium sized at 1-3 m tall.
Leaves: Compound, 3-5 pairs of ovate, opposite leaflets with pointed tips, 45-70 mm long; 15-35 mm wide.
Flowers: Bright yellow, to 3 cm borne in loose elongated clusters.
Seed pods: Straight, hairless and almost cylindrical 7-8 cm long 10-15 mm diameter.


Senna pendula var. glabrata


Senna pendula var. glabrata


Senna didymobotrya


Senna didymobotrya


Senna pendula var. glabrata


Senna septemtrionalis


Senna septemtrionalis

Coral Berry

Ardisia crenata

A common indoor plant due to it low light requirements, Ardisia has escaped cultivation and is recorded as being weedy from the Mullumbimby area to Sydney.

Family: Myrsinaceae

Origin: NE India, China to Japan

Status: Environmental Weed (Poisonous Plant)

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

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

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

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

Roots: Shallow and fibrous.

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

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

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

Cotoneaster

Cotoneaster spp.

Family: Malaceae (often included in Rosaceae)

Origin: China, Asia

Status: Environmental Weed (Poisonous Plant)

Habit: Evergreen shrub or small tree to 4 m high usually with arching branches.

Leaves: Varying with species but, usually elliptic to ovate 1.5-4 cm wide, green above paler or silvery below. Young growth often woolly.

Flowers: White clusters. Each flower about 8 mm wide, 5-petalled. Flower stalk densely hairy. Spring and summer.

Fruit: Red fleshy fruit (pome) 6-10 mm 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 (earth moving 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.

Cotoneaster franchetii

Cotoneaster pannosus

Cotoneaster glaucophyllus

Firethorn

Pyracantha spp.

Firethorn seeds need to be chilled (stratified) before they will germinate so they may become more of a problem in cooler climate areas such as Bulahdelah to Gloucester.

Family: Malaceae (often included in Rosaceae)

Origin: Southern Europe to Western Asia

Status: Environmental Weed

Habit: Scrappy, large, evergreen shrub 3-6 m high and 3.5 m wide armed with sharp thorns at the ends of the arching branches.

Leaves: Varying with species but usually dark, glossy green, ovate to lance shaped to 3.5 cm long sometimes with a toothed margin.

Flowers: Clusters of small white flowers appear as corymbs up to 5 cm across in spring in masses.

Fruit: Varying with species. Green, round flattened berries 0.6 cm in diameter ripen to shades of red, orange, or yellow in Autumn/ Winter.

Roots: Substantial woody tap and lateral root system.

Dispersal: Seed spread by water, animals (mainly birds), humans, contaminated soil (earth moving equipment, car tyres etc) and garden refuse dumping. The main problem is that people plant Firethorn to attract birds to the garden.

Control: Hand pull/dig juvenile plants. Cut and paint or scrape and paint mature plants.

Mainly found in the coastal districts of eastern Australia from the far north coast of NSW to S.E. Qld.

Giant Devils Fig

Solanum chrysotrichum

Family:	Solanaceae
Origin:	Mexico and Central America
Status:	Environmental Weed (Poisonous Plant) (new and emerging species)
Habit:	upright and spreading shrub or small tree 1.5-4 m high with prickly stems and leaves.
Leaves:	Very large, 9-35 cm long; 5.5-30 cm wide, usually bearing 7-13 deep lobes. Densely hairy underneath the mid-veins sometimes have some small prickles 2-6 mm long. Prickles are absent from the upper surfaces of adult leaves, but may be present on the leaves of younger plants.
Flowers:	Star-shaped, white 3-4.5 cm across, arranged in branched clusters containing up to 50 or more flowers. Autumn - spring.
Fruit:	Globular berry 10-15 mm diam., turn from green to yellow or orange-yellow as they mature.
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 (possums, bats & birds), humans, contaminated soil (earth moving equipment, car tyres etc) and garden refuse dumping.
Control:	Hand dig/pull juvenile plants. Cut and paint, scrape and paint, basal bark or foliar spray.


Kim Curtis


Kim Curtis


Kim Curtis

Indian Hawthorn

Rhaphiolepis indica

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

Family: Malaceae

Origin: Asia, especially India and southern China

Status: Environmental Weed (new and emerging species) (weed alert)

Habit: Drought hardy, salt tolerant evergreen, low growing, spreading shrub to 1-1.5 m high.

Leaves: Dark green on top, paler below; thick, leathery, serrated, ovate to elliptic or obovate, 3-7 cm long, 5-30 mm wide, pubescent or hairy at first, sharply toothed.

Flowers: Panicle of star shaped flowers 10 mm 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 (earth moving equipment, car tyres etc) and garden refuse dumping.

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

Garden varieties while 'sterile', may cross pollinate wild varieties and alter the gene pool hampering biological control efforts.

Lantana

Lantana camara (Common)
Lantana montevidensis (Spreading)

Family:	Verbenaceae
Origin:	South America
Status:	Noxious Weed (WoNS) (Very Poisonous. Some types are more toxic than others)
Habit:	An evergreen, prickly, square stemmed, scrambling woody thicket forming shrub 2-4 m high. Will climb to 10 m if supported.
Leaves:	Pale to mid green, ovate, arranged in opposite pairs, roughly hairy, finely toothed margins and highly scented.
Flowers:	Rounded heads to 3 cm wide of numerous small tube-shaped flowers of various colours including pink, red, yellow, orange and white produced all year. Common Lantana-usually multi coloured combinations; Spreading Lantana-usually solid colours.
Fruit:	Clusters of succulent green berries ripening black to 5 mm wide, each containing one seed.
Roots:	Extensive lateral, woody and relatively shallow. Will re-shoot from any root stock left in the ground.
Dispersal:	Vegetation & seed spread by water, animals (mainly birds), humans, contaminated soil (earth moving equipment, car tyres etc) and garden refuse dumping.
Control:	Hand pull/dig juvenile plants. Cut and paint, foliar spray.


Lantana montevidensis


Lantana camara


Lantana camara (Pink)


Lantana camara (Red)

Mickey Mouse Plant

Ochna serrulata

Ochna has naturalised in bushland throughout the Mid North Coast, as the copious supply of seeds from suburban gardens is readily available to foraging birds.

Family: Ochnaceae

Origin: South Africa

Status: Environmental Weed

Habit: A dense evergreen shrub 2-4 m high with rough stems. Bark has numerous lenticels (corky spots) protruding outwardly.

Leaves: Alternately arranged oblong to lanceolate leaves to 6 cm 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 8 mm 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 (earth moving equipment, car tyres etc) and garden refuse dumping.

Control: Hand pull/dig juvenile plants. Scrape and paint. *Very hard to kill.

Also known as Cape Broom, this plant was widely cultivated as a garden ornamental and hedging plant, particularly in temperate regions.

Montpellier Broom / Cape Broom

Genista monspessulana

Family:	Fabaceae
Origin:	Northern Africa, southern Europe and western Asia
Status:	Noxious Weed (WoNS) (Poisonous Plant)
Habit:	An upright and spreading shrub 1-3 m tall with pubescent stems.
Leaves:	Tri-foliolate; leaflets obovate to oblanceolate, pubescent, 5-20 mm long, 2-10 mm wide.
Flowers:	Pea shaped, yellow, mostly 8-12 mm long in clusters of 3-7, at the ends of stems and lateral branches. Spring and summer.
Fruit:	Pod, narrow-oblong, 15-25 mm long, flat, densely hairy with 6-7 black long-lived seeds 2.5 mm long.
Roots:	Extensive with a stout taproot and laterals.
Dispersal:	Seed spread by water, animals, humans, contaminated soil (earth moving equipment, car tyres etc) and garden refuse dumping. Seedpods can eject seeds up to 3 m from the plant.
Control:	Hand pull/dig. Cut and paint or scrape and paint, foliar spray.

Broom Milkwort

Polygala virgata

Broom milkwort has long escaped cultivation as a garden ornamental and become naturalised on roadsides, disturbed sites, in coastal dunes, wetlands and open woodlands.

Family: Polygalaceae

Origin: Southern Africa

Status: Environmental Weed

Habit: Erect slender shrub, usually 1-3 m high, lower branches and stem often leafless with knobbly scars from fallen leaves.

Leaves: Leaves linear or oblanceolate to narrow-elliptic, usually 10-50 mm long, 1-5 mm wide, sparsely hairy.

Flowers: Pea shaped 12-15 mm long often forming terminal panicles 4-12 cm long. Purple to pale lilac. Keel shorter than lateral petals, crested with 2 finely branched appendages 4-5 mm long.

Fruit: Capsule oblique-obovate, around 10 mm long.

Roots: Minor tap and lateral root system.

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

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

Polygala has been widely cultivated as a garden ornamental, particularly in the temperate regions of Australia.

Myrtle-leaf Milkwort

Polygala myrtifolia

Family:	Polygalaceae
Origin:	Southern Africa
Status:	Environmental Weed
Habit:	Erect and broadly spreading shrub, usually 1-2.5 m high, densely leaved; stems smooth or with fine curled hairs.
Leaves:	Alternately arranged, thick and leathery, rounded tips and entire margins. 1-5 cm long and 6-15 mm wide, usually oval in shape.
Flowers:	Pea shaped at the tips of the branches, 10-20 mm long, pink to pale purple/lilac. Keel longer than lateral petals and crested with 2 multi-branched appendages 4-6 mm long throughout year, mostly September-October.
Fruit:	Rounded capsule 8-10 mm across with a small 1 mm wide wing along one side. It contains several broadly egg-shaped seeds 4-5 mm long that are covered with scattered hairs.
Roots:	Substantial tap and lateral root system.
Dispersal:	Seed spread by water, animals (mainly birds), ants, wind, humans, contaminated soil and garden refuse dumping.
Control:	Hand pull/dig. Cut and paint or scrape and paint, foliar spray.

Pigeon Berry / Golden Dewdrop

Duranta erecta cultivars

This new vogue plant to the Mid North Coast has become naturalised in some areas. It requires active management in all gardens.

Family: Verbenaceae

Origin: West Indies, Central and South America

Status: Environmental Weed (Very Poisonous Plant)

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

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

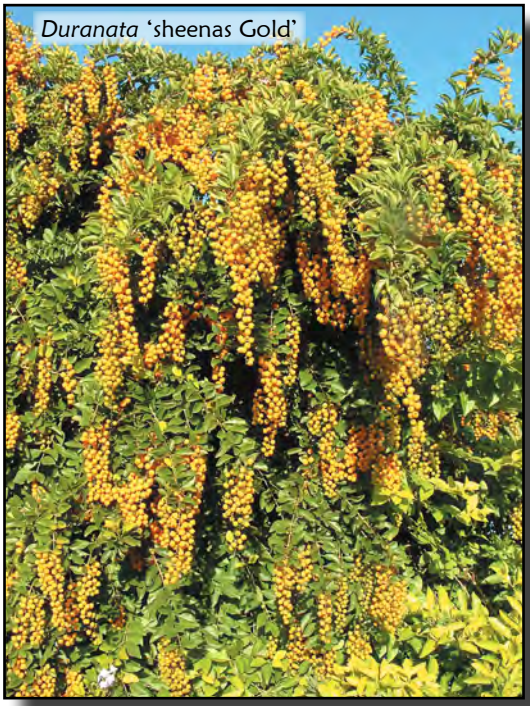
Flowers: Showy inflorescences bloom almost all year long in terminal or lateral racemes up to 15 cm long. The individual flowers are tubular with five petals, white, light blue, violet or purple, and spread out at the mouth about 1cm across.

Fruit: Spherical yellow berry to 1.5 cm 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 (earth moving equipment, car tyres etc) and garden refuse dumping.

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



Duranata 'sheenas Gold'

Duranata 'Geisha Girl'

Duranata 'Geisha Girl'

Introduced to Australia in the 1800s as an ornamental. A major woody weed of temperate areas, especially the Barrington Tops, NSW. There are other hybrids and species with different coloured flowers that may also naturalise.

Scotch Broom

Cytisus scoparius

Family:	Fabaceae
Origin:	Native to Europe
Status:	Noxious Weed (WoNS) (Very Poisonous Plant)
Habit:	Large, Erect, perennial, woody, semi-deciduous shrub to 4 m tall.
Leaves:	Sparse, tiny grey-green leaves with three leaflets; older plants may be almost leafless.
Flowers:	Numerous yellow, Pea-like, 1.5-2.5 cm long late winter to summer.
Fruit:	Seedpods 2-7 cm long and about 1 cm wide containing up to 22 seeds per pod but often less. Seed greenish to brown. Seeds are released explosively from ripe pods.
Roots:	Extensive with a stout taproot and laterals that sucker readily.
Dispersal:	Seed spread by water, animals, humans, contaminated soil (earth moving equipment, car tyres etc) and garden refuse dumping. Seedpods can eject seeds up to 4 m from the plant.
Control:	Hand pull/dig. Cut and paint or scrape and paint, foliar spray.

Mark Tull

Mark Tull

Siam Weed

Chromolaena odorata

Young Siam weed looks similar to blue Billy goat weed (Ageratum spp.), but mature plants have a growth habit similar to lantana. Some graziers have referred to Siam weed as 'white lantana'.

Family: Asteraceae

Origin: Central and South America

Status: Noxious Weed (Poisonous Plant)

Habit: In the open, Siam weed grows as a dense tangling bush to 2-3 m high. However, it can scramble up to a height of 20 m with support. Multiple stems develop from the crown of the plant. The stems are smooth, round and fairly brittle, becoming woody at the base when old.

Leaves: Soft, green, hairy and triangular in shape 5-12 cm long, with forward facing serrations and a distinctive three-vein 'pitchfork' like pattern. New growth exhibits a purple tinge.

Flowers: Terminal flat-topped clusters of white to pale lilac heads of flowers. Masses of pale lilac flowers that appear white from a distance and turn a darker lilac when mature. Winter.

Fruit: Seeds brown to black, 4–5 mm long, each possessing a (pappus) tuft of white silky hairs that aid its spread by wind.

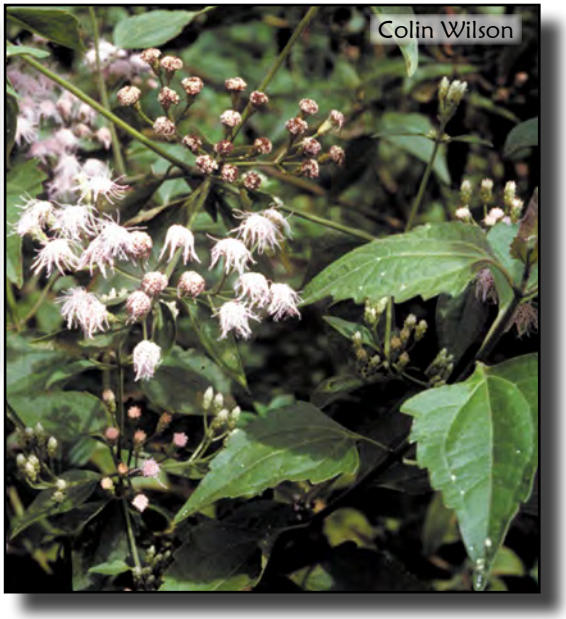
Roots: Fibrous and shallow. Develops a swelling at the junction of the stem and root, which is referred to as the basal ball.

Dispersal: Seed & fragments spread by water, wind, animals, humans, contaminated soil (earth moving equipment, car tyres etc). Seeds may be blown long distances.

Control: Hand pull/dig, making sure to exlude all contact with soil or else regrowth will occur. Cut or scrape and paint, foliar spray.


Qld, DAFF


Colin Wilson


Colin Wilson

Foliage of TSA is unpalatable to livestock, reducing carrying capacities. Prickles on this plant can restrict grazing, and thickets can create a physical barrier preventing access to shade and water. The plant contains solasodine which is poisonous to humans.

Tropical Soda Apple

Solanum viarum

Family: Solanaceae

Origin: N.E. Argentina, S.E Brazil, Paraguay and Uruguay

Status: Noxious Weed (Poisonous Plant)

Habit: An aggressive and very prickly, perennial shrub 1-2 m high. It invades open to semi-shaded areas including pastures, forests, riparian zones, roadsides, recreational areas, horticulture and cropping areas.

Leaves: Ovate; green on both sides; 10-20cm long and 6-15cm wide bearing 5-7 lobes; covered with short hairs and white prickles. Prominent veins are cream-coloured on both sides of the leaves.

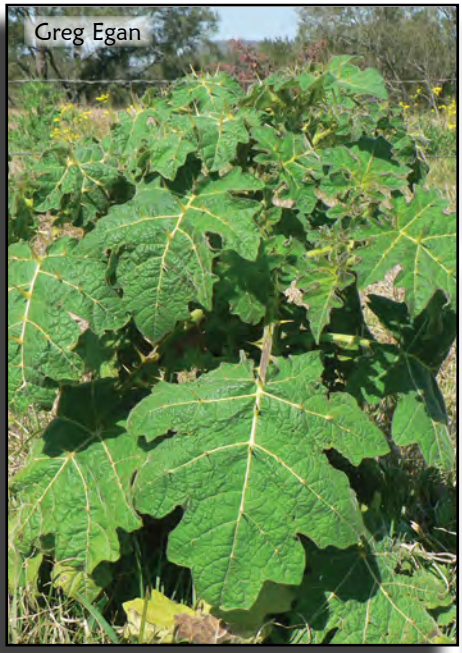
Flowers: White, star shaped with 5 petals, 1.5-2 cm wide, occuring in clusters of 3-6. Autumn to winter.

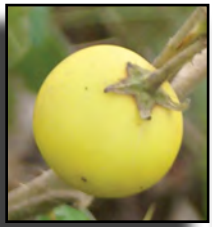
Fruit: Mature fruit are yellow and golf ball-size 2-3 cm in diameter. Immature fruit are pale green with dark green veins, and resemble immature water melons. Palatable to animals. Winter.

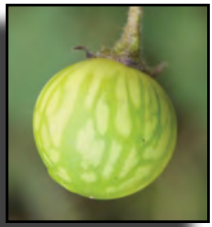
Roots: Substantial tap root that gives rise to many laterals. Will re-shoot from any root stock left in ground.

Dispersal: Seed spread by water, animals (cattle, birds, feral pigs, deer) contaminated hay, contaminated soil.

Control: Hand pull/dig, making sure that all roots and stem fragments are removed. Cut or scrape and paint, foliar spray.







Trees

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.

Olive fact: *Olea europaea* and ssp. was an early introduction to Australia and is now naturalised widely throughout southern regions, especially South Australia. Its fruit are readily dispersed by birds and foxes. Between 1995 and 2005 over 7 million trees were planted and with expansion of popularity the potential for further dispersal into bushland has also increased. European olives are widely available for sale in nurseries. The only possible reduction in its spread depends on modern breeding techniques which could produce radically improved cultivars with sterile seeds as well as superior fruit. Unfortunately the incentive for research to achieve this lies almost certainly in the promise of higher oil yield rather than one of reduced weed potential.

The African olive is currently the main species naturalised in NSW. and, is still sold in nurseries. It has escaped from ornamental hedges in home gardens.

The main weed species are featured on their own pages but below is a list of:-

Other Problematic Trees:

Common Name:	Botanical Name
African Tulip Tree:	*Spathodea campanulata*
Athel Pine:	*Tamarix* spp. (Noxious)(WoNS)
Cadaghi Gum:	*Corymbia torelliana*
Cecropia :	*Cecropia* spp. (Noxious)(Weed Alert)
Coffee:	*Coffea arabica*
Cootamundra Wattle:	*Acacia baileyana*
Ice Cream Bean:	*Inga edulis*
Jacaranda:	*Jacaranda mimosifolia*
Leucaena:	*Leucaena leucocephala*
Loquat:	*Eriobotrya japonica*
Mount Morgan Wattle:	*Acacia podalyriifolia*
Night Scented Jasmine:	*Cestrum nocturnum*
Norfolk Island Hibiscus:	*Lagunaria patersonia*
Paper mulberry :	*Broussonetia papyrifera* (Noxious)(Weed Alert)
Prickly Acacia:	*Acacia nilotica* ssp. *indica* (Noxious) (WoNS)
Princess Tree:	*Paulownia fortunei*, *P. tomentosa*
Pond Apple:	*Annona glabra* (Noxious) (WoNS)
Rhus Tree:	*Toxicodendron succedaneum* (Noxious)
Tagasaste:	*Chamaecytisus palmensis*
Tree of Heaven:	*Ailanthus altissima* (Noxious)
Tung Oil Tree:	*Vernicia fordii*
Willows:	*Salix* spp. (Noxious Some exemptions apply)(WoNS)

Brugmansia, Datura and other tropane-bearing plants are potentially very dangerous and can cause serious mental and physical reactions or death if consumed.

Angels' Trumpet

Brugmansia suaveolens
Brugmansia x candida
(rarely naturalised)

Family:	Solanaceae
Origin:	The Andies, Northern South America
Status:	Environmental Weed (Very Poisonous Plant)
Habit:	Untidy, evergreen shrub or small tree to 4.5 m high, branching low from a short trunk.
Leaves:	Dull green, oval, velvety leaves with wavy margin are arranged alternately, but confined to the branch tips.
Flowers:	Large, white, pale violet, pale orange or peach, highly night scented, pendulous, trumpet shaped flowers to 30 cm long are borne in the Summer.
Fruit:	Green, egg-shaped to narrowly oval berry, up to 20 cm long containing many seeds 8-12 cm across.
Roots:	Woody, branching and relatively shallow.
Dispersal:	Vegetation & seed spread by water, animals (foxes, rats & birds), humans, contaminated soil (earth moving equipment, car tyres etc) and garden refuse dumping.
Control:	Hand dig/pull juvenile plants. Various foliar spray methods (drill-injection; frilling; cut and paint).


Brugmansia x candida


Brugmansia x candida


Brugmansia x candida

Black Locust

Robinia pseudoacacia & cv's.

Black locust is naturalised in WA, SA, Vic, NSW and Qld. It is still available at nurseries in NSW. The rootstock is utilised for the grafting of cultivars and may sucker and dominate when disturbed or stressed.

Family: Fabaceae

Origin: North America

Status: Environmental Weed (Poisonous Plant)

Habit: Deciduous large shrub or small tree to 15 m, bearing many large rose like prickles.

Leaves: Compound 8-15 cm long, pinnate with 11-21 leaflets 2-5 cm long, 1-2.5 cm wide with entire margins.

Flowers: Sweetly perfumed, white, pink or purple pea-like flowers borne in racemes 10-15 cm long. Spring.

Fruit: Small brown glabrous pods 3-8 cm long, 10-15 mm wide with several hard black seeds.

Roots: Strong root system capable of coppicing and suckering when disturbed or stressed.

Dispersal: Seed spread by water, animals, humans, contaminated soil (earth moving 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.

Broad Leaf Pepper Tree

Schinus terebinthifolius

Broad leaf pepper tree has been in cultivation in Australia for almost 150 years and is recorded in nursery catalogues in Victoria in the mid 1860s.

Family:	Anacardiaceae
Origin:	Brazil, Argentina and Paraguay
Status:	Noxious Weed (Poisonous Plant)
Habit:	Small tree up to 6-10 m tall and 4.5 m wide bearing a short trunk with multiple branches. Dioecious i.e. there are separate male and female trees.
Leaves:	Compound, pinnate with 3-9 leaflets Leaflets to 3-8 cm long, mid to dark green, Main stem red tinged, peppery aroma when crushed.
Flowers:	Inflorescence a panicle. Flowers small, 5 petals, cream to white in clusters at ends of branches. Intermittent Spring-Autumn.
Fruit:	Round drupe, green ripening to glossy red, about 0.5 cm across.
Roots:	Strong root system capable of coppicing and suckering.
Dispersal:	Seed spread by water, animals (foxes, rats & birds), humans, contaminated soil (earth moving 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.

Camphor Laurel

Cinnamomum camphora

Once a common park & paddock shade tree, Camphor Laurels are now extensively naturalised & declared noxious in many areas of NSW.

Family: Lauraceae

Origin: China, Japan, Taiwan, Vietnam and Cheju-do (Korea)

Status: Noxious Weed (Poisonous Plant)

Habit: A large, hardy evergreen spreading tree 20-30 m in height. Grey-brown, textured bark, becoming fissured with age.

Leaves: Leaves 5-11 cm 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 coppicing and suckering.

Dispersal: Seed spread by water, animals (foxes, rats & birds), humans, contaminated soil (earth moving 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 Australia in 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.

Naturalised in damp areas, particularly along banks of waterways, in S.E. Qld and to a lesser extent in N.E. N.S.W. A problematic environmental weed in these areas. Commonly found on clay soils. Seeds rarely survive for more than two years.

Chinese Celtis

Celtis sinensis

Family:	Ulmaceae
Origin:	China, Korea and Japan
Status:	Noxious Weed
Habit:	Deciduous tree to 15 m to 20 m high with Smooth, silvery grey bark covered with lenticels (small corky spots).
Leaves:	Ovate; Mature leaves 4-10 cm long, 2-4.5 cm wide, shiny, dark green and mostly hairless above, paler below with hairs on veins. Upper leaf edges only coarsely toothed, leaf bases asymmetrical.
Flowers:	Inflorescences of few tiny, flowers bearing 4 creamy petals, 4 purplish sepals and 4 stamens. Flowers late winter to early spring.
Fruit:	Globe-shaped, succulent, 6-8 mm wide, on stalk 0.4-1 cm long, green aging to orange/red in summer-autumn.
Roots:	Strong tap root system capable of suckering.
Dispersal:	Seed mainly spread by water and animals, but may also be distributed by humans, contaminated soil (earth moving 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.

Chinese Holly / Mahonia

Mahonia lomariifolia

Mahonia can form dense thickets which exclude other understorey vegetation. Assessed as a very high weed risk, the priority is to prevent its establishment as a weed in north-east NSW.

Family: Berberidaceae

Origin: Asia; Yunnan, Sichuan, northern Burma and east to Taiwan

Status: Noxious Weed (new and emerging species)

Habit: Tall, narrow shrub or small tree, up to 4-5 m high with a single stem or many upright branches and interesting fissured bark.

Leaves: Compound; holly-like; borne in tufts at the top of the stems. Made up of 14-21 pairs plus one terminal, long, shiny, narrow leaflets bearing many coarse spinose teeth on the margins.

Flowers: Fragrant yellow flowers are borne in dense terminal racemes up to 25cm long and in clusters of up to 20, Winter to Spring.

Fruit: Green ovoid or globose berries that turn frosted blue as they ripen. Spring.

Roots: Strong root system that may be capable of suckering.

Dispersal: Seed spread by animals (mainly birds), humans, contaminated soil and garden refuse dumping. Can reproduce vegetatively.

Control: Hand dig/pull juvenile plants. Drill-injection; frilling; cut and paint.


Andel Früh


Plant lust.com


Stefano Bolognini

Beginning to naturalise on roadsides and in parks & gardens of the Mid North Coast of NSW.

Chinese Rain Tree / Golden Rain Tree

Koelreuteria elegans ssp. *formosana*
Koelreuteria paniculata

Family: Sapindaceae

Origin: Taiwan

Status: Environmental Weed (new and emerging species)

Habit: Small - medium deciduous trees 5-18 m tall with a sturdy trunk and a domed crown that may achieve a spread of 10-15 m when mature.

Leaves: Compound; (*K. elegans* - bipinnate; K. *paniculata* - pinnate); up to 35cm long. Leaflets have irregularly toothed margins, pointed tips and a terminal leaflet if present.

Flowers: Butter-yellow; small with five petals to 20 mm in length, borne in branched clusters at the stem tips. Late spring or early summer.

Fruit: Inflated papery capsule to 50 mm long that splits into three parts and are borne in large drooping clusters. Deep rose in colour, they turn light pink and eventually brown as they mature. late Summer to Autumn. Seeds are small, black and round and about 5 mm in diameter.

Roots: Substantial tap and lateral root system.

Dispersal: Seed mainly spread by water and animals, but may also be distributed by humans, contaminated soil (earth moving 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.

Chinese Tallow Tree / Chinese Tallowood

Triadica sebifera

Still a popular park and Autumn foliage tree, Chinese Tallowood's are naturalised, and now listed as Noxious in many areas of NSW. The milky sap in both the leaves and the berries is poisonous to animals.

Family: Euphorbiaceae

Origin: China and Japan

Status: Noxious Weed (Poisonous Plant)

Habit: A hardy deciduous medium tree to 7 m in height. Grey-brown, textured bark, becoming fissured with age.

Leaves: Diamond shaped, abruptly pointed at the tip, simple, alternate and 5-8 cm long. In Autumn the leaves turn brilliant shades of scarlet, orange, yellow and maroon.

Flowers: Yellowish green catkins on the branch tips produced in Spring.

Fruit: Three-lobed capsule with one seed in each lobe. Seeds are covered with vegetable tallow, a white waxy coating.

Roots: Strong tap root system capable of suckering.

Dispersal: Seed spread by water, animals, humans, contaminated soil (earth moving 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.

Commonly cultivated, becoming widely naturalised, especially in coastal districts along drains & streams. Council recommends the removal of this species.

Cockspur Coral Tree

Erythrina crista-galli

Family:	Fabaceae
Origin:	Brazil, Bolivia, Paraguay, Argentina and Uruguay
Status:	Noxious Weed
Habit:	Deciduous tree to 5-9 m 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 30-40 cm 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 (earth moving 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 wood chips should not be used as mulch unless composted. Has the potential to invade natural areas such as hind-dunes, rainforests, wetlands, creeks, and saltmarshes.

Family: Fabaceae

Origin: Uncertain

Status: Environmental Weed

Habit: Deciduous tree 10-15 m high by 15-20 m wide with a dense rounded canopy, short stout truck 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, 7-20 cm long, 7-12 cm wide mid green.

Flowers: Racemes usually 8-30 cm 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.

Control: Hand dig/pull small plants. Various foliar spray methods also drill-injection; frilling; cut and paint. Very difficult to control.

Cherry guava has been ranked as one of the world's 100 worst invasive weeds by the International Union for the Conservation of Nature (IUCN).

Cauva - Cherry / Strawberry

Psidium cattleianum var. cattleianum

Family: Myrtaceae

Origin: South America

Status: Environmental Weed (Noxious Weed on Lord Howe Island)

Habit: A shrub or small tree usually 1-3 m tall, but occasionally growing up to 10 m in height, baring characteristic grey-green to reddish-brown mottled bark.

Leaves: Simple, opposite, dark shiny green, thick & leathery, elliptical to obovate, 4-8 cm long & 2.5-4.5 cm wide with shortly pointed tips.

Flowers: Single, white, 15-25 mm wide with five petals, numerous stamens & borne in the upper leaf forks, during spring & summer.

Fruit: Rounded, fleshy berries 2-3.5 cm wide, turn from green to purplish-red when ripe (rarely yellow), during autumn and winter. They contain numerous seeds and a whitish pulpy flesh.

Roots: Substantial tap and lateral root system capable of suckering.

Dispersal: Seed spread by water, animals (pigs, bats & birds), humans, contaminated soil and garden refuse dumping.

Control: Hand dig/pull juvenile plants. Drill-injection; frilling; cut and paint, basal bark, foliar spray.


All photos: LHIB

Green Cestrum

Cestrum parqui

Prized for its sweet night scented flowers, Green Cestrum was widely planted as a garden hedge in 19th century Australia. All vegetative parts are toxic to sheep, cattle, pigs, poultry and horses. Even dead sticks can prove fatal to livestock.

Family: Solanaceae

Origin: Central and South America

Status: Noxious Weed (Very Poisonous Plant)

Habit: Large woody evergreen shrub 3-4 m high.

Leaves: Dull grey/green colour above paler below, alternate, narrow and lance shaped, 2-7 cm long, usually 1-5 cm wide; the leaf stem (petiole) can be up to 1 cm long. Leaves have an unpleasant odour when crushed.

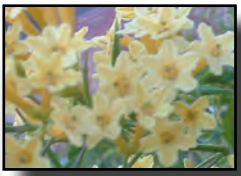
Flowers: Loose terminal clusters of greenish to bright yellow, tubular flowers to 3 cm long with 5 lobes. Very sweetly night scented. Flowers most of year.

Fruit: Green egg-shaped berry ripening to black, about 10-15 mm in length, seeds dark green or brown, 3–4 mm long.

Roots: Substantial tap root that gives rise to many laterals. Suckering habit. Will re-shoot from any root stock left in ground.

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

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



Commonly cultivated as a street and garden tree, particularly in the warmer parts of eastern Australia. Beginning to spread from cultivation and locally showing its potential as a weed with the carpets of seedlings produced after seeding.

Himalayan Ash

Fraxinus griffithii

Family:	Oleaceae
Origin:	Indian Sub-continent, China, Taiwan and S.E. Asia
Status:	Environmental Weed (weed alert)
Habit:	Small to medium evergreen tree up to 10 m tall.
Leaves:	Compound; bright green and glossy; 10-25 cm long with 5-11 leaflets. Leaflets are 2-10 cm long and 1-5 cm wide with entire margins and pointed tips.
Flowers:	Small white flowers are arranged in branched clusters 10-25 cm long borne at the tips of the stems. Summer.
Fruit:	Winged seeds 2.5-4 cm long and 4-5 mm wide that start green, turn pinkish and then brown as they mature. Summer - Autumn.
Roots:	Substantial tap and lateral root system. Capable of spreading laterally via root suckers.
Dispersal:	Seed spread by wind, water, animals and humans, contaminated soil (earth moving equipment, car tyres etc) and garden refuse dumping.
Control:	Hand dig/pull juvenile plants. Cut and paint, scrape and paint basal bark or foliar spray.

Honey Locust

Gleditsia triacanthos

Introduced as a fodder tree and cultivated as an ornamental. Found in dense thickets along watercourses on the central & mid north coast, western slopes and tablelands of northern NSW and in S.E. Queensland.

Family: Fabaceae

Origin: Central & Eastern North America

Status: Noxious Weed

Habit: Spreading deciduous medium to large tree 15 m to 25 m, bearing single or branched clusters of large savage thorns 2-10 cm's long.

Leaves: Compound, 15-20 cm long, usually bipinnate with 2-7 pairs of pinnae and 12-30 pinnules per pinnae; leaflets elliptic to ovate, 10-35 mm long, 5-12 mm wide, sparsely toothed.

Flowers: Fragrant, brownish-yellow pubescent pea-like flowers borne in racemes 10-15 cm long in spring as leaves develop or after leaves appear.

Fruit: Pod slightly sickle shaped, 15-40 cm long, 3-4 cm wide, dark brown not opening at maturity, containing 15-25 hard brown seeds.

Roots: Strong root system capable of coppicing and suckering when disturbed or stressed.

Dispersal: Seed spread by water, animals, humans, contaminated soil (earth moving 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.

George Wisemantel

The main problem is that people fail to harvest fruit, leaving it for birds and animals to eat and spread.

Olives

Olea europaea ssp. *cuspidata* - African Olive[1]
Olea europaea ssp. *europaea* - European Olive[2]

Family:	Oleaceae
Origin:	Mediterranean region of Europe, Portugal, South Africa
Status:	Environmental Weed
Habit:	Much branched evergreen tree 5-15 m high with drooping branchlets. Thin greyish bark covered by protruding lenticels.
Leaves:	Simple, narrow, opposite, lance-shaped, 5-10 cm long and up to 2 cm wide with prominent midrib, dark green on upper surface; African Olive[1] - yellowish-brown on lower surface, often with a hooked tip. European Olive[2] - silvery-grey on lower surface, pointed tip.
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 Olive[1] - round 1-2 cm in diameter. European Olive[2] - oval shaped 2-5 cm 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 (earth moving equipment, car tyres etc) and garden refuse dumping.
Control:	Hand dig/pull juvenile plants. Drill-injection; frilling; cut and paint, basal bark, foliar spray. Bag and dispose of all berries.


European Olive
Dr Stephen Johnson


African Olive
John Hosking

Palm - Canary Island

Phoenix canariensis

This species is naturalised in many parts of Australia. Also naturalised overseas in Europe, N.W. Africa, Mexico, southern USA and New Zealand.

Family: Arecaceae

Origin: Canary Islands

Status: Environmental Weed

Habit: Palm-tree to 15-20 m high; trunk single, erect, stout, to at least 1 m diam and topped with a large canopy of feathery plumes that persist for many months after death.

Leaves: Spreading, to 6 m long, 50 cm wide, petiole very short; leaflets stiff, deeply channelled, to 40 cm long and 3 cm wide, basal leaflets short, thick and modified to extremely spines.

Flowers: Many yellowish flowers in panicles form the inflorescence in Summer.

Fruit: Masses of bright yellow to reddish, ellipsoid "date-like" fruits 1.5–2.3 cm long, fleshy layer is rather thin.

Roots: Substantial fibrous root system capable of uplifting paths and garden edging.

Dispersal: Seed spread by water, animals (bats, rats & birds), humans, contaminated soil and garden refuse dumping.

Control: Hand dig/pull juvenile plants. Cut down older trees bag all seeds.

Piece of Eden Garden Blog

Once widely used in landscaping because of their hardiness, they are now commonly being removed because of the abundance of messy seed that are produced.

Palm - Cocos

Syagrus romanzoffiana

Family:	Arecaceae
Origin:	Brazil, Paraguay and northern Argentina
Status:	Environmental Weed
Habit:	Palm tree 15-20 m high with a smooth straight grey trunk ringed with evenly spaced leaf scars and topped with a large canopy of feathery plumes that persist for many months after death.
Leaves:	Dark glossy green fronds to 4.5 m have a double rows of leaflets to 1 m long and to 3 cm wide that droop to the ground.
Flowers:	Many cream flowers in panicles form the inflorescence in Summer.
Fruit:	Masses of bright orange oval "date-like" fruits (actually miniature coconuts) to 2.5 cm hang in heavy bunches to 2 m long that drop to the ground and rot.
Roots:	Substantial fibrous root system capable of uplifting paths and garden edging.
Dispersal:	Seed spread by water, animals (bats, rats & birds), humans, contaminated soil and garden refuse dumping.
Control:	Hand dig/pull juvenile plants. Cut down older trees bag all seeds.

Privet - Large Leaf

Ligustrum lucidum

Was widely cultivated as a hedge plant, now a widespread weed of coastal bushland and wasteland, especially along streams; also extending to the western slopes of NSW and adjacent areas in Old.

Family: Oleaceae

Origin: China, Korea & Japan

Status: Noxious Weed (Poisonous Plant)

Habit: Evergreen shrub or small tree to 12 m high.

Leaves: Ovate to elliptic or narrow-ovate, 4-13 cm long, 3-5 cm wide, dark green above, paler below with entire margin.

Flowers: Inflorescence is a dense, panicle 15-25 cm long. Flowers fragrant with 4 white petals, each 3-5 mm long; Spring–Summer.

Fruit: Berry 6-8 mm long, purple-black and succulent when ripe. Seeds dark-brown, finely pitted, about 5 mm long. Fruits in autumn and winter.

Roots: Substantial tap and lateral root system capable of invading plumbing pipes.

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

Control: Hand dig/pull small plants. Various foliar spray methods also drill-injection; frilling; cut and paint. Relatively easy to control.

Privet - Small Leaf

Ligustrum sinense

Often still cultivated as a hedge. Widely naturalised, especially along fence lines in cleared areas, wasteland, stream banks and margins of rainforest.

Family:	Oleaceae
Origin:	China, Hong Kong, Taiwan, Laos and Vietnam
Status:	Noxious Weed (Poisonous Plant)
Habit:	Evergreen to semi-deciduous (in cooler areas) shrub to small tree 3-5 m high.
Leaves:	Elliptic to ovate, mostly 2-5 cm long, 1.5-2.5 cm wide.
Flowers:	Inflorescence is a dense, panicle 5–10 cm long. Flowers fragrant with 4 white petals each 3-5 mm long with pink/purple pollen. Late winter to spring.
Fruit:	Berry ovoid 4-7 mm long, black and succulent when ripe; seeds 3-4 mm long.
Roots:	Substantial tap and lateral root system capable of invading plumbing pipes.
Dispersal:	Seed spread by water, animals (mainly Currawongs), humans, contaminated soil (earth moving equipment, car tyres etc) and garden refuse dumping.
Control:	Hand dig/pull small plants. Various foliar spray methods also drill-injection; frilling; cut and paint. Relatively easy to control.

Pine Trees
Radiata Pine[1] / Slash Pine[2]

Pinus radiata[1].
Pinus elliottii[2]

Pines have become widley naturalised on the mid north coast of NSW, particularly near forestry plantations. They are a weed of roadsides, urban bushland, open woodlands, disturbed sites and waste areas.

Family: Pinaceae

Origin: California[1], SE U.S.A. to Central America, West Indies[2]

Status: Environmental Weeds (Forestry Plantation trees)

Dispersal: Seed spread by wind, water, birds, humans, contaminated soil garden refuse dumping and deliberate plantings.

Control: Hand pull/dig seedlings, low cut and fell juvenile or adult plants.

Radiata Pine[1]: Large tree to 30m with dark, often deeply ridged bark.
Leaves: Needle-like, relatively short and twisted, 8-15 cm long, usually borne in groups of three (rarely in twos).
Male cones: Cylindrical 1-1.5 cm long and clustered at the tips of the branches.
Female cones: Large, asymmetrical, 7-17 cm long, borne on short curved stalks.

Slash Pine[2]: Tall tree to 30m with horizontal branches high on the trunk and grey to reddish-brown bark that sheds in thin scales.
Leaves: Needle-like, relatively long at 15-30 cm and borne in groups of two or three (usually in twos).
Male cones: Purplish, cylindrical, 2.5-6 cm long are and borne in clusters.
Female cones: Large, symmetrical, 7-20 cm long, borne on short stalks.


Pinus elliottii


Pinus elliottii


Pinus radiata

Mature seedpods produce a rattle sound when shaken, which is where the plant gains it's common name Rattlepod. This plant is easily confused with Wild Tobacco Tree before it flowers. Rattlepods are considered poisonous to livestock.

Rattlepod (Giant)

Crotalaria lunata

Family:	Fabaceae
Origin:	India
Status:	Noxious Weed (Poisonous Plant) (new and emerging species)
Habit:	Erect shrub or small tree, 2-5 m high; stems densely pubescent.
Leaves:	Simple, ovate or elliptic, 6-13 cm long, 33-80 mm wide, upper surface glabrous (smooth & glossy), under surface densely greyish pubescent (hairy).
Flowers:	Large; pea-like; varying shades of yellow in racemes up to 15 cm long; Winter - Spring.
Fruit:	Pod 50–70 mm long, glabrous; seeds c. 5 mm long, glossy, minutely papillose Pods often present throughout the year.
Roots:	Substantial tap and lateral root system.
Dispersal:	Seed spread by water, animals, humans, contaminated soil (earth moving equipment etc) and garden refuse dumping.
Control:	Hand dig/pull juvenile plants. Cut and paint, scrape and paint or foliar spray.

Umbrella Tree

Schefflera actinophylla

First introduced to NSW as a potted indoor plant, it has now become naturalised in many areas of the coast. Sometimes epiphytic on rainforest trees. Native of Nth Qld.

Family: Araliaceae

Origin: Northern Queensland

Status: Environmental Weed

Habit: A straggly often multi-stemmed, open perennial tree to 10 m, with dense foliage confined to the ends of trunks.

Leaves: Bright, glossy green, compound, leaves on stalks up to 50 cm long. Leaflets to 30 cm long, arranged in a palmate whorl (umbrella-like).

Flowers: Small red flowers in long sprays at top of plant, radiating from stem apex. Multiple flower spikes produced at the crown of each trunk. Flowers Summer-Autumn.

Fruit: Dark red, to 0.5 cm long each containing a single seed.

Roots: Substantial tap and lateral root system capable of uplifting buildings and invading plumbing pipes. Will reshoot from root fragments left in ground.

Dispersal: Seed spread by water, animals (mainly birds) and garden refuse dumping.

Control: Hand dig/pull juvenile plants. Cut and paint or scrape and paint. Grows readily from stem pieces, so all cut plant material should be removed from site.

Miconia is a serious weed in Hawaii (a.k.a. 'the purple plague') & French Polynesia (a.k.a. 'the green cancer') where it has devastated local native flora & fauna.

Velvet Tree / Miconia

Miconia calvescens

Family:	Melastomataceae
Origin:	Central to South America - Mexico - Brazil
Status:	Noxious Weed (new and emerging species) (weed alert)
Habit:	Small to medium evergreen tree growing up to 15 m tall and bearing very large showy leaves with a purple underneath.
Leaves:	Very large; 17-40 cm long and 7-25 cm wide (occasionally up to 1 m long) oval in shape with pointed tips. Green upper surfaces and striking purple underneath with three distinct veins that run from the base to the tip of the leaf.
Flowers:	Numerous small, short lived, fragrant flowers with five white or pinkish petals, 2-3 mm long, 1-2 mm wide, are borne in large clusters 20-50 cm long at the tips of the branches.
Fruit:	Small fleshy berries 6-7 mm across that turn bluish, black or purple as they mature, are produced in large clusters. Each berry contains around 50-230 tiny seeds.
Roots:	Substantial tap and lateral root system.
Dispersal:	Seed spread by water, animals (mainly birds), humans, contaminated soil (mud on shoes, machinery etc) and garden refuse dumping.
Control:	Hand dig/pull juvenile plants. Cut and paint, scrape and paint, basal bark or foliar spray.

Wattle - Crested

Paraserianthes lophantha ssp. *lophantha*

Widely naturalised in many parts of eastern NSW, Vic, Tas, S.A. and on Norfolk Island. Also naturalised beyond its native range in W.A.

Family:	Fabaceae
Origin:	Western Australia
Status:	Environmental Weed (new and emerging species)
Habit:	Erect shrub to medium-sized tree usually growing 2-8 m tall, but occasionally reaching up to 10 m in height.
Leaves:	Twice-compound (bipinnate) leaves 15-30 cm long with have 7-14 pairs of branchlets. Each leaf branchlet bears 15-40 pairs of small leaflets (4-11 mm long).
Flowers:	Yellow - greenish-yellow with numerous prominent stamens 6-8 mm long, arranged in elongated clusters 4-8 cm long, borne singly or in pairs in the upper leaf forks.
Fruit:	Flattened pods 6.5-12 cm long and 1.5-3 cm wide; each containing 6-12 dark brown or black oval seeds 6-8.5 mm long, 4.5-5.5 mm wide and 3-4 mm thick.
Roots:	Substantial tap and lateral root system.
Dispersal:	Seed spread by water, animals, humans, contaminated soil (earth moving equipment etc) and garden refuse dumping.
Control:	Hand dig/pull juvenile plants. Drill-injection; frilling; cut and paint, basal bark, foliar spray.

Golden Wreath Wattle self sows and suckers freely and should not be used for landscaping or planting in areas near bushland in the eastern states.

Wattle - Golden Wreath

Acacia saligna

Family:	Fabaceae
Origin:	Western Australia
Status:	Environmental Weed
Habit:	Erect or spreading tree or shrub 2-8 m high with weeping new growth.life-span of only 10-20 years.
Leaves:	Simple, relatively narrow, 7-30 cm long and 2-20 mm wide green or bluish-green in colour, either straight or sickle-shaped.
Flowers:	Round, bright or golden yellow fluffy balls, borne in small clusters 9-12 mm across that are arranged into larger elongated compound clusters of 25-55 flowers, or rarely up to 75. July–September.
Fruit:	Pods are flat, long and narrow, straight to strongly curved, and slightly constricted between seeds, 5-14 cm long, 4-6 mm wide.
Roots:	Substantial tap and lateral root system capable of suckering.
Dispersal:	Seed spread by water, animals (ants and birds), humans, contaminated soil (earth moving equipment etc) and garden refuse dumping. The long-lived seeds can remain dormant in the soil for more than a decade.
Control:	Hand dig/pull juvenile plants. Drill-injection; frilling; cut and paint, basal bark, foliar spray.

Wild Tobacco Tree

Solanum mauritianum

Widely naturalised and very common in the coastal districts of Queensland and New South Wales. Also present in South Australia, some parts of Victoria, on Lord Howe Island and Norfolk Island.

Family: Solanaceae

Origin: South America

Status: Environmental Weed (Poisonous Plant)

Habit: A straggly, open perennial shrub to 5 m tall. All parts of the plant are covered with silvery-grey hairs.

Leaves: Large, alternately arranged, grey-green, elongated ovate shape 20-30 cm long, with prominent mid-vein.

Flowers: Small purple-white flower with five petals and yellow stamens, to 1cm diameter. Flowers Spring-Summer.

Fruit: Clusters of large succulent berries to 2 cm ripening from green to yellow in summer.

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 (possums, bats & birds), humans, contaminated soil (earth moving equipment, car tyres etc) and garden refuse dumping.

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

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

Yellow Bells

Tecoma stans

Family:	Bignoniaceae
Origin:	Central and South America. Mexico, Peru and Equador
Status:	Noxious Weed
Habit:	Evergreen many branched shrub or small tree 4-7 m high.
Leaves:	Compound leaves to 8-25 cm long, comprised of 5-13 leaflets. Leaflets are toothed and pointed, 2.5-10 cm long and 8-30 mm 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, 10-22 cm long x 20 mm 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 (earth moving 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.

Aquatic Plants

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 accidentally spread between farm dams via fish, yabbie and eel traps or as a contaminant with back yard traded water lilies.

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 Councils Weeds Officer for expert identification, advice and assistance in preparing a control plan.

The main weed species are featured on their own pages but below is a list of:-

Other Problematic Aquatic Plants:

Common Name:	Botanical Name
Arrowhead:	*Sagittaria montevidensis* (Noxious)(WoNS)
Anchored Water Hyacinth:	*Eichhornia azurea* (Noxious)
Bog moss:	*Mayaca fluviatilis*
East Indian Hygrophila:	*Hygrophila polysperma* (Noxious)
Elodea:	*Elodea canadensis*
Eurasian Water Milfoil:	*Myriophyllum spicatum* (Noxious)
Frogbit:	*Limnobium laevigatum* (Noxious) (Weed Alert)
Horsetails:	*Equisetum* spp. (Noxious)
Hydrilla:	*Hydrilla verticillata* (Native)
Hydrocotyl:	*Hydrocotyle ranunculoides* (Noxious)
Lagarosiphon:	*Lagarosiphon major* (Noxious)
Olive hymenachne:	*Hymenachne amplexicaulis* (Noxious)
Peruvian Primrose:	*Ludwigia peruviana*
Smart weed:	*Persicaria* spp. (Natives and exotics)
Spongeplant:	*Limnobium spongia* (Noxious) (Weed Alert)
Water Caltrop:	*Trapa natans* (Noxious)
Water Primrose:	*Ludwigia peploides* ssp. *montevidensis* (Native)
Water Soldier:	*Stratiotes aloides* (Noxious)
Yellow Burrhead:	*Limnocharis flava* (Noxious)

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

Alligator Weed

Alternanthera philoxeroides

Family:	Amaranthaceae
Origin:	South America
Status:	Noxious Weed (WoNS)
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 9 cm 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 weed threats. 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.

Cabomba / Fan Wort

Cabomba caroliniana

Cabomba has been dispersed throughout the world by the aquarium trade. One of Australia's worst aquatic weed threats. Dense infestations interfere with recreational and agricultural use of waterbodies. Difficult to control once established in large reservoirs.

Family: Cabombaceae

Origin: South America

Status: Noxious Weed (WoNS)

Habit: Submerged perennial, with stems to 5 and rarely 10 m long. Submerged leaves and stems are covered with a sticky mucus like coating.

Leaves: Floating leaves to about 2 cm long; submerged leaves finely divided and fan-shaped, submerged opposite leaves divided into linear segments on a leaf stalk that varies from about 3 cm long on lower leaves to almost absent on upper leaves.

Flowers: Solitary, 6 white to pale yellow petals on stalks raised above the water surface. Summer.

Fruit: Seed information is limited at present with this species in Australia. Overseas seeds are oblong, 1.5–3 mm long and 1–1.5 mm wide with rows of minute wart-like projections.

Roots: Fibrous matted root.

Dispersal: Vegetation spread by water, boats and humans. The main method of spread is by human activities including deliberate and accidental spread via backyard plant trading, aquarium dumping and fish/eel trapping trade.

Control: Herbicides control is now a viable option. Mechanical/manual control may only offer short term options. Contact your local weed officer.

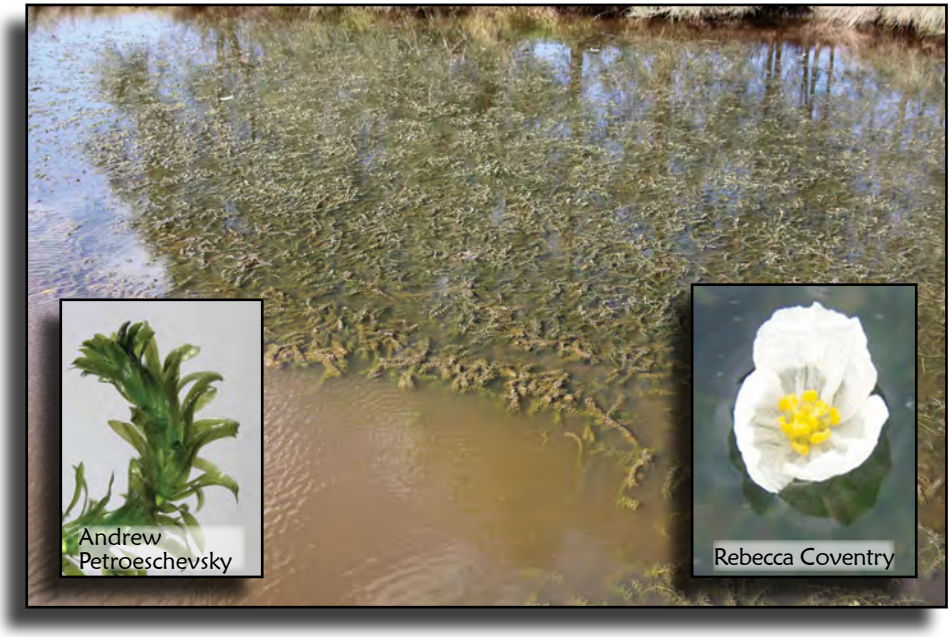
Andrew Petroeschevsky

Submerged plant, forming extremely dense, surface reaching, masses that can seriously displace native aquatic plants and hinder water flow.

Dense Water Weed / Leafy Elodea

Egeria densa

Family:	Hydrocharitaceae
Origin:	South America
Status:	Noxious Weed
Habit:	Submerged aquatic plant, growing to 4 m depth, bearing cylindrical stems up to 2 m or longer. Flowing and standing water bodies, grows well in clear water.
Leaves:	Linear to ovate, 2-5 mm wide, up to 4 cm long with tiny serrations on the margins, generally in whorls of 4 or 5 (sometimes up to 8) and are mostly densely clustered at branch ends near growing tips.
Flowers:	Solitary, 3 white petals on stalks raised above the water surface from upper leaf axils, Male and female flowers produced on separate plants, only male plants recorded from Australia. Summer and Autumn.
Fruit:	Fruit (overseas) a transparent capsule.
Roots:	Fibrous; firmly rooted to the substrate.
Dispersal:	Vegetation spread by water, boats and humans. The main method of spread is by human activities including deliberate and accidental spread via backyard plant trading, aquarium dumping and fish/eel trapping trade.
Control:	Herbicide control are currently being assessed. Mechanical/ manual control may only offer short term options. Contact your local weed officer.



Hygrophila

Hygrophila costata

Sold as an aquarium plant. Now a significant water weed in northern coastal NSW and south eastern Qld where it displaces most other species in shallow water and neighbouring damp soil.

Family: Acanthaceae

Origin: Southern Mexico to Argentina

Status: Noxious Weed

Habit: Aquatic and semi-aquatic herb to 2 m high. Stems bluntly 4 angled and hairless to shortly hairy, often reddish.

Leaves: Opposite, lanceolate to elliptic, 3.5–18 cm long, 0.5–5 cm wide, margins entire to undulate.

Flowers: Inflorescence of 10 or more flowers in axillary whorls. White, about 5-10 mm long and 1.5–3 mm wide, petals joined in a 2-lipped tube, upper lip shortly 2-lobed and hooded, lower lip 3-lobed, with sepals joined below half way. Flowers all year.

Fruit: Spindle-shaped capsule, 6–8 mm long, containing approximately 20 seeds. Seeds pale brown, round, flattened, about 0.3 mm wide.

Roots: Dense fibrous mat, rooting at stem nodes.

Dispersal: Seed and fragments spread by water, animals, humans, contaminated soil (earth moving equipment etc, deliberate planting for sale on the black market) and pond or aquarium dumping.

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

Kidneyleaf mudplantain is popular as an ornamental pond plant, and escaped plants have established to threaten local aquatic habitats.

Kidneyleaf Mud Plantain

Heteranthera reniformis

Family: Pontederiaceae

Origin: North, Central and South America

Status: Noxious Weed (new and emerging species) (weed alert)

Habit: A sprawling annual or perennial plant, forming dense mats in open shallow water bodies, such as wetlands and creeks, threatening local freshwater aquatic habitats.

Leaves: Kidney-shaped, bright green and glossy, up to 5 cm wide and arranged alternately along the stem. They are attached to a stalk 2-13 cm long and are either floating or emerging above the water. Leaves of seedlings are very narrow broadening with age.

Flowers: Very small 3-6.5 mm; very short lived; with six white-to-pale blue petals; 2-8 flowers appear in spikes 1-9 cm long.

Fruit: Capsules 0.5-0.9 mm long and contain 8-14 winged seeds.

Roots: Forms dense fibrous / fleshy mats along the mud and on damp soil at the water's edge.

Dispersal: Vegetation and seed spread by water, animals, contaminated earth moving equipment and humans. Vegetative parts will establish and are spread by dumping from ornamental ponds and aquariums into waterways.

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

Charlie Mifsud

Sue Haywood

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 metre.

Family: Onagraceae

Origin: South America from Brazil to Argentina

Status: Noxious Weed

Habit: Spring/Summer growing, woody, perennial, single stemmed or multi branched, erect, shrub ranging from 0.5 m to 2.5 m tall. Red, narrow, angular stems with unusual wing like characteristics.

Leaves: Simple, dark green linear to lanceolate/oblanceolate, up to 15 cm long and 2.5 cm wide, reducing in size up the stem.

Flowers: Solitary, 40-50 mm 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 10-40 mm long, 4-8 mm 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 (7344) is available for spraying biactive Glyphosate. Contact your local weed officer.

Forms dense stands that impede flow, especially in nutrient enriched water. If male plants are introduced the species may become even more of a problem. This species is now widespread throughout the world.

Parrots Feather

Myriophyllum aquaticum

Family:	Haloragaceae
Origin:	South America
Status:	Environmental Weed
Habit:	Perennial submerged and emergent, aquatic herb, with spreading and erect stems.
Leaves:	Blue-green emergent leaves, hairless, crowded towards tip. 2.5–3.5 cm long, 0.5-0.8 cm wide with 18-36 teeth, in whorls of 4-6; submerged leaves to 4 cm long.
Flowers:	Male and female flowers produced on separate plants. Only female plants found in Australia. Flowers have 4 triangular white sepals, 0.4-0.5 mm long; petals absent.
Fruit:	Lack of fruit and seed (in Australia).
Roots:	Fibrous mat rooted to substrate. Stems rooted at lower nodes.
Dispersal:	Vegetation spread by water, humans, animals (live stock), contaminated soil, earth moving machinery and boats. Cultivation as an ornamental has been the biggest cause of spread.
Control:	Best achieved by herbicides, as mechanical controls can lead to further spread by fragmentation. Contact your local weed officer.

Sagittaria

Sagittaria platyphylla
Sagittaria montevidensis
(photos & details are for *S. platyphylla*)

Becoming increasingly common in dams, drains, shallow creeks and wetlands in parts of NSW including Sydney, Newcastle, Gloucester and Bulahdelah. Shade tolerant. Forms dense patches, obstructing water flow and competing vigorously with local native waterplants.

Family: Alismataceae

Origin: USA to Panama

Status: Noxious Weed (WoNS)

Habit: Emergent, perennial aquatic 1-1.2 m high with tubers commonly formed.

Leaves: Submerged leaves translucent, strap-like, to 50 cm long. Emergent leaves lanceolate to linear-lanceolate, blade to 28 cm long and to 10 cm wide on a long stalk.

Flowers: Inflorescence bourne on a stem below leaf height, containing 2–12 flowers. Female flowers with 3 white petals and 3 sepals, male flowers 3 cm wide and with reflexed sepals. Flowers mainly spring to autumn, depending on latitude.

Fruit: Fruit a cluster (head) 0.5–1.5 cm across, consisting of 1-seeded segments, each segment flattened, winged, 1.5–3 mm long.

Roots: Fleshy tubers and rhizomes.

Dispersal: Seed, rhizomes, tubers spread by water and humans via contaminated soil, earth moving machinery and garden refuse dumping. Also being cultivated as an ornamental has aided its spread.

Control: Mechanical and manual removal making sure of complete removal of tubers and rhizomes, foliar spray. Contact your local weed officer.


Sagittaria platyphylla


Sagittaria platyphylla

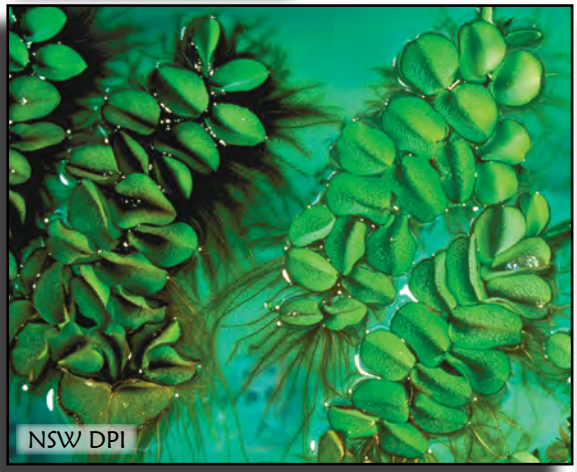
A serious weed that will choke and cover wetlands and lakes, excluding fish and invertebrates. In optimum conditions, it is capable of doubling its density in just a few days.

Salvinia

Salvinia molesta

Family:	Salviniaceae
Origin:	South America - Southern Brazil and Paraguay
Status:	Noxious Weed (WoNS)
Habit:	A perennial free floating fern that forms dense mats via multi-branched, horizontal stems. Individual plants are 5-30 cm long and invade still or slow moving water bodies.
Leaves:	Fronds are produced in whorls of three at each branch node, two of which 'float' and one of which is submerged and acts as a 'root'. In new infestations, the fronds lie flat on the water and the upper surface is covered in papillae, but as infestation expands, the fronds become dense and folded.
Flowers:	Nil.
Fruit:	Does not produce fertile spores. Reproduces vegetatively.
Roots:	A modified frond, covered in fine brown filaments. This trails below each pair of aerial fronds.
Dispersal:	Vegetation spread by wind, water, boats and humans. The main method of spread is by human activities including deliberate and accidental spread via the aquarium and fish/eel trapping trade.
Control:	Mechanical and manual removal, foliar spray. Contact your local weed officer.

The Salvinia Weevil (*Cyrtobagous salviniae*) is a very successful biological control agent that can reduce the impact of Salvinia. Contact your local weeds officer for details. Adult weevils are approximately 2 mm in length. (pictured left).



Senegal Tea Plant

Gymnocoronis spilanthoides

Wanderer butterflies pollinate the flowers and are sometimes used to identify isolated infestations during the flowering period. Stems are hollow between the nodes, allowing the plant to float on water.

Family: Asteraceae

Origin: Tropical and subtropical America, from Mexico to Argentina.

Status: Noxious Weed (new and emerging species) (weed alert)

Habit: Perennial plant growing in dense stands or as rounded bushes up to 1 m high, impacting on aquatic environments. Capable of growing over the water surface or in wet, boggy soils.

Leaves: Shiny dark-green; elliptic to lanceolate or ovate, 4-20 cm long, 1.5-8 cm wide, margins irregularly toothed.

Flowers: White; pompom like; 15-20 mm in diameter occur in groups at the ends of stems. Late Spring to early Autumn.

Fruit: Achene, yellow-brown, 5 mm in diameter, and ribbed.

Roots: Fibrous, often forming at nodes along the stems.

Dispersal: Vegetation and seed spread by wind, water, animals, contaminated earth moving equipment and humans. Vegetative parts will establish and are spread by dumping from ornamental ponds and aquariums into waterways.

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

Rebecca Coventry

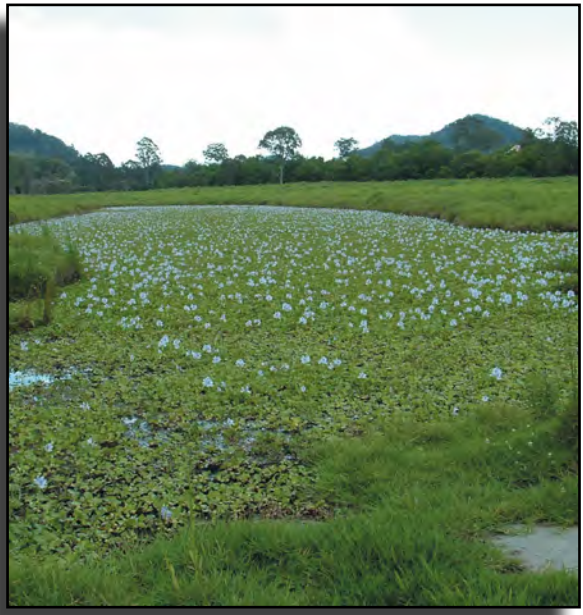
Graham Pritchard

Attractive but troublesome plant that has spread worldwide, obstructing waterways, reducing fish production, harbouring mosquitoes, and severely disrupting life in some communities along rivers and lakes.

Water hyacinth

Eichhornia crassipes

Family:	Pontederiaceae
Origin:	South America
Status:	Noxious Weed (WoNS)
Habit:	A free-floating fleshy perennial water weed to 65 cm tall that forms dense raft of vegetation across still or slow moving fresh water bodies.
Leaves:	Glossy, dark green waxy/fleshy, spoon-shaped leaves on swollen, bulbous stalks.
Flowers:	Showy clusters of pale blue/lavender short lived flowers on an upright spike, with a botch of yellow and purple on upper petals. Spring-Summer.
Fruit:	Ovate-oblong, ribbed to 1 mm long, released into water when flower is spent. May remain viable for up to 15-20 years.
Roots:	To 1 m long, feathery, black to purple, usually shorter if water is nutrient rich.
Dispersal:	Daughter plants are produced on stolons from mother plant. Vegetation and seed spread by wind, water, animals, contaminated earth moving equipment and humans. Vegetative parts will establish and are spread by dumping from ornamental ponds and aquariums into waterways.
Control:	Mechanical and manual removal, foliar spray. Contact your local weed officer.



Water Lettuce

Pistia stratiotes

Reproduces mainly by daughter plants. Under ideal conditions in nutrient rich water, it will produce luxuriant growth, expand rapidly and form obstructive mats. Frost sensitive.

Family: Araceae

Origin: Asia, Africa, equatorial America. Considered native to Australia's Northern Territory

Status: Noxious Weed

Habit: Lettuce-like, stoloniferous, floating, perennial herb with rosettes up to 15 cm tall and 30 cm diameter.

Leaves: Spathulate to broad-ovate, 3-15 cm long, 2-8 cm wide, hairy, longitudinally ribbed, petiole shortened and inflated.

Flowers: Inflorescence small, whitish green, 1.5 cm long, amongst the leaf bases. Pistil partly fused to spathe. Male zone a whorl of stamens terminating a short free part of the spadix above a flap of spathe tissue. All year.

Fruit: Greenish berry, ovoid to ellipsoid, 6-10 mm long; Seeds oblong, about 2 mm long.

Roots: Long, brownish, dense and feathery.

Dispersal: Daughter plants are produced on stolons from mother plant. Vegetation and seed spread by wind, water, animals, contaminated earth moving equipment and humans. Vegetative parts will establish and are spread by dumping from ornamental ponds and aquariums into waterways.

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

The first and only known occurrence of Water Star Grass naturalised in Australia was recorded in Port Macquarie in December 2011.

Water Star Grass

Heteranthera zosterifolia

Family: Pontederiaceae

Origin: South America

Status: Noxious Weed (new and emerging species) (weed alert)

Habit: A long-lived and fast-growing plant of variable habit depending on environmental conditions. Capable of growing above or below the water surface. Can form very dense mats in shallow water.

Leaves: Bright glossy green, formed in star shaped clusters, dense, narrowly oval in shape up to 4 cm long, with roundish tips when emergent; longer, stalkless and relatively narrow up to 5 cm long with pointed tips when submerged.

Flowers: Small, often borne in pairs at or above the water surface. They are short lived, bearing six long, narrow bluish-purple petals darker at the bases, three stamens with yellow anthers.

Fruit: A small capsule containing numerous tiny seeds.

Roots: Fibrous, often forming at nodes on long running stems.

Dispersal: Vegetation and seed spread by water, animals, contaminated earth moving equipment and humans. Vegetative parts will establish and are spread by dumping from ornamental ponds and aquariums into waterways.

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

Yellow Water Lily / Mexican Water Lily

Nymphaea mexicana

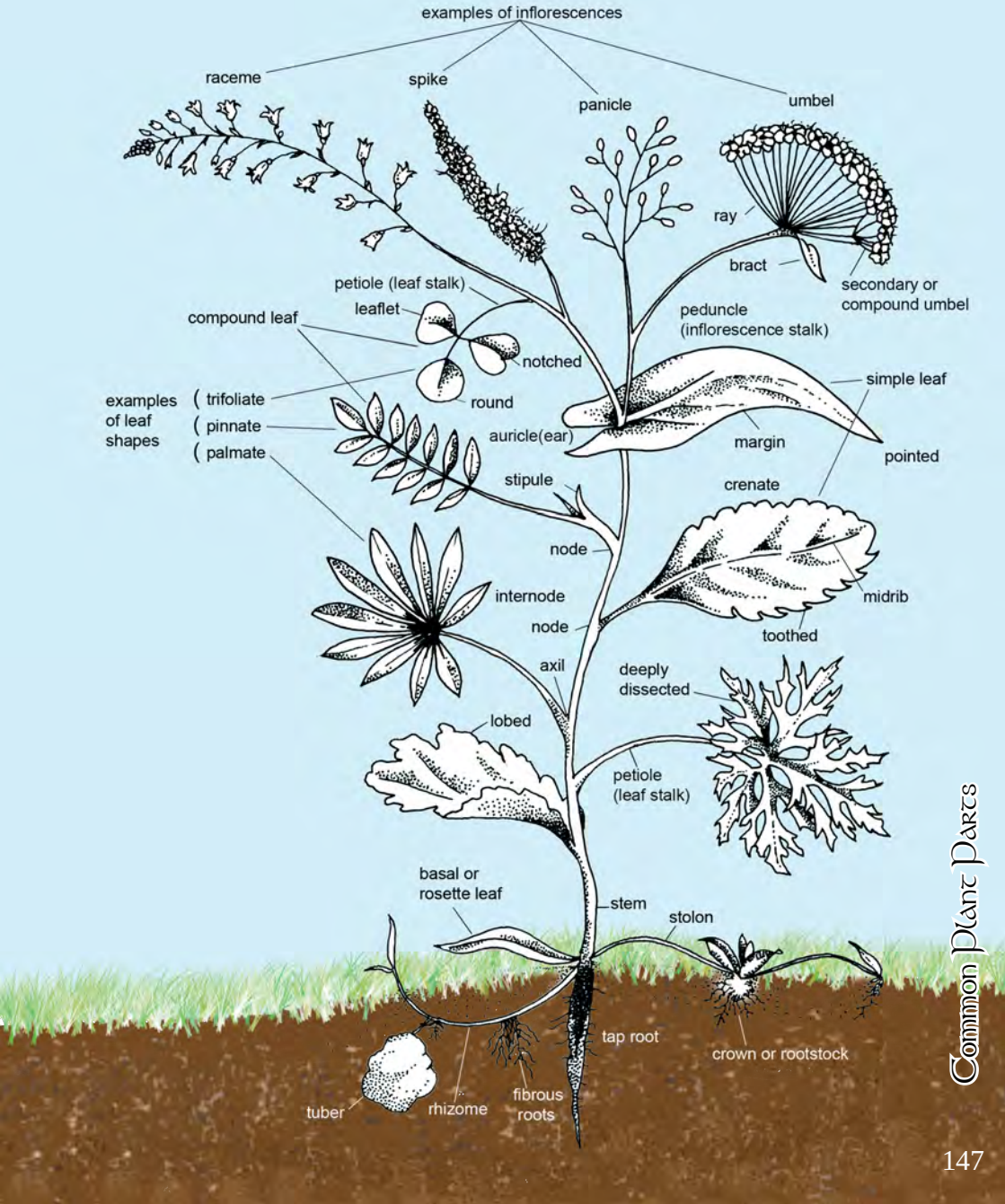
Grown as a water feature plant. Dies back in winter in NSW. Yellow Waterlily has the potential to spread into coastal lagoons, especially where waters are nutrient rich.

Family:	Nymphaeaceae
Origin:	Mexico and south eastern USA
Status:	Environmental Weed (Noxious weed in some areas)
Habit:	Aquatic perennial with leaf blades and flowers above the water level. Leaf stalks arise from vertical rhizomes.
Leaves:	Floating broad elliptic leaves with wavy margins, spreading on water surface or erect when crowded; blade to 25 cm long, young leaves often with brown markings.
Flowers:	Yellow, up to 12 cm wide opening during the day and closing at night; petals numerous merging into petal-like stamens. Sepals 4, yellowish green; Flowers Spring to Autumn.
Fruit:	Seeds rarely formed in Australia, if formed globe-shaped and about 5 mm wide.
Roots:	Vertical rhizomes to 30 cm long and 4 cm thick; long spongy stolons also produced at the top of the rhizome.
Dispersal:	Daughter plants are produced on stolons from mother plant. Vegetation spread by wind, water and humans. Cultivation as an ornamental is the biggest cause of spread.
Control:	Mechanical and manual removal, foliar spray. Contact your local weed officer. Very difficult control.

Common Plant Parts

Basic terminology for the most common parts of plants

Illustration adapted from: Efficient Weed Management, Protecting your investment in the land. (adapted from Healy 1982)



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* (6th ed'n) Rod Ensbey NSW DPI 2014.

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.

Grasses of the North Coast of NSW (2nd ed'n); Harry Rose, Carol Rose and Tac Campbell, NSW Department of Industry and Investment 2010.

Legumes and Herbs of the North Coast of NSW; Harry Rose, Carol Rose and Trevor Rose, NSW Department of Industry and Investment 2009.

Weeds of the South-East – an identification guide for Australia; F.J. Richardson, R.G. Richardson and R.C.H. Shepherd 2006, R.G. and F.J. Richardson publishing.

Jumping the Garden Fence: Invasive Garden Plants in Australia and their environmental and agricultural impacts. Groves, R.H., Boden, R. & Lonsdale, W.M. 2005. CSIRO report prepared for WWF-Australia.

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.

Bush Regeneration, R.A. Buchanan, NSW TAFE Student Learning Publications, 1991.

The National Trust Bush Regenerators' Handbook (2nd edn.), National Trust of Australia (NSW), 1999.

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Administration Centre: 2 Pulteney Street Taree
PO Box 482 TAREE NSW 2430
Ph: (02) 6592 5399 Fax: (02) 6592 5311 email: gtaree@gtcc.nsw.gov.au
Website: http://www.gtcc.nsw.gov.au/

Kempsey Shire Council
Administration Centre: 22 Tozer Street West Kempsey
PO Box 78 WEST KEMPSEY NSW 2440
Ph: (02) 6566 3200 Fax: (02) 6566 3205 email: ksc@kempsey.nsw.gov.au
Website: http://www.kempsey.nsw.gov.au/

Port Macquarie-Hastings Council
Administration Centre: Burrawan Street (cnr Lords St) Port Macquarie
PO Box 84 PORT MACQUARIE NSW 2444
Ph: (02) 6581 8111 Fax: (02) 6581 8123 Email: council@pmhc.nsw.gov.au
Website: http://www.pmhc.nsw.gov.au/

Lord Howe Island Board
Administration Office: Bowker Avenue
PO Box 5 Lord Howe Island NSW 2898
Ph: (02) 6563 2066 Fax: (02) 6563 2127 email: administration@lhib.nsw.gov.au
Website: http://www.lhib.nsw.gov.au/

Local Land Services
Hunter: 815 Tocal Rd, (Private Bag 2010) Paterson NSW 2421
Phone: (02) 4939 8967 email: admin.hunter@lls.nsw.gov.au
North Coast: 83 Belgrave Street, (PO Box 108) Kempsey NSW 2440
Phone: (02) 6563 6700 email: admin.northcoast@lls.nsw.gov.au
Website: http://www.lls.nsw.gov.au/

NSW Department of Primary Industries
Head Office: 161 Kite Street, Orange
Locked Bag 21, ORANGE NSW 2800
Weeds hotline: 1800 680 244 email: weeds@dpi.nsw.gov.au
Website: http://weeds.dpi.nsw.gov.au/

NSW National Parks and Wildlife Service
Head Office: 59-61 Goulburn Street, Sydney
PO Box A290, SYDNEY SOUTH NSW 1232
Ph: (02) 9995 5000 Fax: (02) 9995 5999
Website: http://www.nationalparks.nsw.gov.au/

North Coast TAFE Taree Campus
Montgomery Crescent Taree
PO Box 669 TAREE 2430
Ph: (02) 6591 3600 Fax: (02) 6591 3799 email: daryn.apolony@tafensw.edu.au
Website: http://www.northcoasttafe.edu.au/

Plant Me Instead

The following list has been devised to assist the land manager and home gardener with a selection of indigenous (local native) plants. These are but a few of a very wide range of plants suitable for the Mid North Coast of NSW. Click on the plant name for a link to view plant in flora online. (Contact Lord Howe Island Board for a list of species suitable for planting on Island.)

Vines and Scramblers

Australian Wax Plant *(Hoya australis)*
Beach Bean *(Canavalia rosea)*
Climbing Guinea Flower *(Hibbertia scandens)*
Desmodium *(Desmodium rhytidophyllum)*
Dusky Coral Pea *(Kennedia rubicunda)*
Forest Clematis *(Clematis glycinoides)*
Love Creeper *(Glycine clandestina)*
Milk Vine *(Marsdenia rostrata)*
Native Passionfruit *(Passiflora herbertiana)*
Old Man's Beard *(Clematis aristata)*
Pearl Vine *(Sarcopetalum harveyanum)*
Purple Coral Pea *(Hardenbergia violacea)*
Scrambling Lily *(Geitonoplesium cymosum)*
Shining Grape *(Tetrastigma nitens)*
Small Supplejack *Ripogonum fawcettianum)*
Snake Vine *(Stephania japonica)*
Stiff Jasmine *(Jasminum volubile)*
Sweet Morinda *(Morinda jasminoides)*
Water Vine *(Cissus antarctica)*
Water Vine (Five leaf) *(Cissus hypoglauca)*
Wombat Berry *(Eustrephus latifolius)*
Wonga Vine *(Pandorea pandorana)*

Grasses

Australian River Grass *(Potamophila parviflora)*
Barb Wire Grass *(Cymbopogon refractus)*
Gymea Lily *(Doryanthes excelsa)*
Kangaroo Grass *(Themeda triandra)*
Narrow Leaf Palm Lily *(Cordyline stricta)*
Saw Sedge *(Gahnia* spp.*)*
Spiny-headed Mat Rush*(Lomandra longifolia)*
Stout Bamboo Grass *(Austrostipa ramosissima)*
Tussock Grass *(Poa labillardierei)*
Mat Rush *(Lomandra hystrix)*
Weeping Grass *(Microlaena stipoides)*

Ferns & Orchids

Birds Nest Fern *(Asplenium australasicum)*
Bungwahl Fern *(Blechnum indicum)*
Elkhorn (*Platycerium bifurcatum*)
Maiden Hair Fern *(Adiantum aethiopicum)*
Pink Rock Orchid *(Dendrobium kingianum)*
Rasp fern *(Doodia aspera)*
Rock Lily *(Dendrobium speciosum)*
Rough Maiden Hair Fern *(Adiantum hispidulum)*
Rough Tree Fern *(Cyathea australis)*
Soft Tree Fern *(Dicksonia antarctica)*
Staghorn *(Platycerium superbum)*

Ground covers, Bulbous & Herbaceous Plants

Aneilema *(Aneilema acuminatum)*
Blue Flax Lily *(Dianella caerulea)*
Bush Lily *(Tripladenia cunninghamii)*
Christmas Bells *(Blandfordia nobilis)*
Common Fringe Lily *(Thysanotus tuberosus)*
Cunjevoi Lily *(Alocasia brisbanensis)*
Cut-Leafed Daisy *(Brachyscome multifida)*
Everlasting Daisy *(Coronidium elatum)*
Flannel Flower *(Actinotus helianthi)*
Fan Flower *(Scaevola calendulacea)*
Ivy-Leaved Violet *(Viola hederacea)*
Kidney Weed *(Dichondra repens)*
Native Bluebell *(Wahlenbergia gracilis)*
Four-leaved Peperomia *(Peperomia tetraphylla)*
Pastel Flower *(Pseuderanthemum variabile)*
Purple flag lily *(Patersonia* spp.*)*
Sand Pigface *(Carpobrotus glaucescens)*
Settlers Flax *(Gymnostachys anceps)*
Swamp Lily *(Crinum pedunculatum)*
Tufted Blue Lily *(Thelionema caespitosum)*
Woolly Frogmouth *(Philydrum lanuginosum)*

Shrubs & Small Trees

Australian Indigo *(Indigofera australis)*
Boobialla *(Myoporum boninense subsp. australe)*
Bleeding Heart *(Homalanthus populifolius)*
Broad-leaf Wedge Pea *(Gompholobium latifolium)*
Coastal Canthium *(Cyclophyllum longipetalum)*
Coffee Bush *(Breynia oblongifolia)*
Coastal Bearded Heath *(Leucopogon parviflorus)*
Coastal Rosemary *(Westringia fruticosa)*
Coastal Wattle *(Acacia longifolia* ssp. *sophorae)*
Curracabah *(Acacia concurrens)*
Dog Rose *(Bauera microphylla)*
Elderberry Panax *(Polyscias sambucifolia)*
Hairy Pittosporum *(Pittosporum revolutum)*
Hairpin Banksia *(Banksia spinulosa)*
Heath Banksia *(Banksia ericifolia)*
Lemon Scented Tea Tree *(Leptospermum petersonii)*
Midgen Berry *(Austromyrtus dulcis)*
Native Fuchsia *(Correa reflexa)*
Native Gardenia *(Atractocarpus benthamianus)*
Native Rosella *(Hibiscus heterophyllus)*
Pink Doughwood *(Melicope elleryana)*
Pink Hibiscus *(Hibiscus splendens)*
Purple Paperbark (*Melaleuca thymifolia*)
Rice Flower *(Ozothamnus diosmifolius)*
Slender Rice Flower *(Pimelea linifolia)*
Shining Burrawang *(Lepidozamia peroffskyana)*
White Native Fuchsia *(Correa alba)*
Willow-Leaf Hakea *(Hakea salicifolia)*

Larger Trees

Bangalow Palm *(Archontophoenix cunninghamiana)*
Blackwood *(Acacia melanoxylon)*
Black She-Oak *(Allocasuarina littoralis)*
Blueberry Ash *(Elaeocarpus reticulatus)*
Blue Lily Pilly *(Syzygium oleosum)*
Broad-Leaf Paperbark *(Melaleuca quinquenervia)*
Brush Cherry *(Syzygium australe)*
Brush Box *(Lophostemon confertus)*
Cabbage Tree Palm *(Livistona australis)*
Celerywood *(Polyscias elegans)*
Cheese Tree *(Glochidion ferdinandi)*
Christmas Bush (*Ceratopetalum gummiferum*)
Coast Banksia *(Banksia integrifolia)*
Flame Tree *(Brachychiton acerifolia)*
Grey Myrtle (*Backhousia myrtifolia*)
Hard Quandong *(Elaeocarpus obovatus)*
Lily Pilly *(Acmena smithii)*
Magenta Lily Pilly *(Syzygium paniculatum)*
Morton Bay Fig *(Ficus macrophylla)*
Native Celtis *(Celtis paniculata)*
Native Olive *(Olea paniculata)*
Native Frangipani *(Hymenosporum flavum)*
Native Guava *(Rhodomyrtus psidioides)*
Plum Pine *(Podocarpus elatus)*
Port Jackson Fig *(Ficus rubiginosa)*
Red Ash *(Alphitonia excelsa)*
Red Cedar *(Toona ciliata)*
Red Forest Oak *(Allocasuarina torulosa)*
Sandpaper Fig *(Ficus fraseri)*
Saw Banksia *(Banksia serrata)*
Small-Leaf Fig *(Ficus obliqua)*
Tuckeroo *(Cupaniopsis anacardioides)*
Water Gum *(Tristaniopsis laurina)*
Weeping Bottlebrush *(Callistemon viminalis)*
Willow Bottlebrush *(Callistemon salignus)*
Weeping Lily Pilly *(Waterhousea floribunda)*

Key Websites

The following websites are full of information on weeds.
Many were used as a point of reference for the compilation of this booklet.

Flora Online - http://plantnet.rbgsyd.nsw.gov.au/floraonline.htm
Weeds Australia - http://www.weeds.org.au/
Weeds of Australia, Biosecurity Qld - http://keyserver.lucidcentral.org/weeds/
CRC for Australian Weed Management - http://www.weeds.crc.org.au/index_flash.html
HunterRegional Weeds Committee - http://www.huntercentralcoastweeds.com.au/
North Coast Weeds - http://www.northcoastweeds.org.au/
AABR - Australian Association of Bush Regenerators - http://www.aabr.org.au/
Nursery & Garden Industry NSW & ACT - http://www.ngina.com.au/
Lord Howe Island user guide (PDF download) - http://www.naturetourismservices.com.au/

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Landcare Australia

KEMPSEY Shire Council

Lord Howe Island Board

PORT MACQUARIE HASTINGS

COASTCARE

Gloucester Shire Council

Mid North Coast Weeds Coordinating Committee

Great Lakes COUNCIL

Greater Taree City Council

NSW GOVERNMENT Local Land Services Hunter

north coast TAFE NSW

NSW National Parks and Wildlife Service

Bushland friendly Garden

NSW no space 4 weeds

Weedbusters weedbusting Australia