



# Nature Trail & Bush Tucker Plant Guide

2015





**Photo: Nature Trail at Red Rock headland, NSW**

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# Activity Ethics

Activities undertaken in the environment have the potential to disrupt wildlife, their habitat and disturb the natural regime of the environment.

Care should be taken at all times to minimise the impact that activities will have on wildlife and the surrounding environment.

This can be done by:

- Avoid stressing or disturbing wildlife.
- Avoid handling wildlife.
- Stay within designated areas and do not stray off designated paths.
- Report injured wildlife and do not handle unless authorised to do so.
- Do not put yourself or other participants in danger by acting in a reckless or inappropriate manner.
- Be aware of the impact photography can have on wildlife, avoid lingering longer than necessary and only observe wildlife in their natural state (do not disturb).
- Do not enter private property unless permission is explicitly granted.
- Obey all laws, rules and regulations pertaining to public and private areas.
- Promote the welfare of wildlife and the environment.
- Remember, 'Take only photos leave only footprints'.

# Activity Safety

Recommended list of safety items for participants (PPE):

- Sunscreen
- Hat
- Insect repellent
- Water bottle
- First aid kit
- Anaphylaxis kit (if needed)
- Mobile phone (to call if there is an emergency)

The risk of injury occurring whilst working in the wetland is considered low if the following precautions are undertaken.

Risk assessment checklist/considerations:

- ⇒ Participants are informed of rules in the wetlands – stay on the trail, walking only, appropriate behaviour, take only photos—leave only footprints unless instructed otherwise (i.e. gathering of flotsam & jetsam for the art project).
- ⇒ Guides check that the trail is suitable to use before the activity, i.e. the trail is not muddy and flooded, no branches across the trail.
- ⇒ Student guided tours need to be supervised by a teacher who waits at the beginning of the trail. Students conduct tours in pairs.

# Nature Trail Plant Guide Index

Common Plant Names	Scientific Name
Broad-leaved Paperbark	<i>Melaleuca quinquenerria</i>
Coastal Banksia	<i>Banksia integrifolia</i>
Coastal Wattle	<i>Acacia sophorae</i>
Common Couch	<i>Cynodon dactylon</i>
Grey Mangrove	<i>Avicennia marina</i>
Hairy Silkpod	<i>Parsonsia straminea</i>
Kangaroo Grass	<i>Themeda australis</i>
River Mangrove	<i>Aegiceras corniculatum</i>
Samphire	<i>Sarcocornia quinqueflora</i>
Snake Vine	<i>Sarcopetalum harveyanum</i>
Swamp Oak	<i>Casuarina glauca</i>
Tall Spike Rush	<i>Ficinia nodosa</i>
Twig Rush	<i>Baumea juncea</i>

<b>Common Invasive Plants</b>	<b>Scientific Name</b>
Bitou Bush	<i>Chrysanthemoides monilifera</i>
Broad-Leaf Privet	<i>Ligustrum lucidum</i>
Camphor Laurel	<i>Cinnamomum camphora</i>
Lantana	<i>Lantana camara</i>
Small-Leaf Privet	<i>Ligustrum sinense</i>
Yellow Waterlily	<i>Nymphaea mexicana</i>

Front page photo: Ian Brown *Paperbarks at Sunset, Myall Lakes*

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Authors online identities are listed under each image.

### **Broad-leaved Paperbark** *Melaleuca quinquenervia*

- *Melaleuca* stems from two Greek words relating to the trees' appearance, *melas*, meaning black and *leucon*, meaning white.
- Paperbarks can tolerate wet, swampy conditions.
- The bark peels off in strips and has many uses ranging from wrapping food for cooking and water storage, to making bandages and compostable raincoats.
- The nectar-rich blossoms can be soaked in water making a sweet drink or tea and can be used to treat symptoms of colds, flu and sinusitis by chewing the leaves or inhaling the steam from boiling or burning the leaves.



"(85) Paperbark" by Fir0002



### **Coastal Banksia** *Banksia integrifolia*

- Abundant flowers provide nectar and pollen to a wide range of bird species and arboreal mammals as well as many insects.
- Threatened by rising sea levels from climate change.
- The pale yellow flowers occur through autumn and are followed by woody cones shedding seed in late spring early summer. Spot flowering can occur most months of the year.



"B integrifolia integrifolia1" by Cas Liber

### **Coastal Wattle** *Acacia sophorae*

- Other common names include Boobyalla, False boobyalla, Sallow wattle
- Often suffers from competition with Bitou Bush, a weed from South Africa.
- Protein-rich seeds of the coastal wattle can be eaten after steaming the pod.
- With over 900 species of acacia they are the largest group of flowering plants in Australia.
- This fast-growing acacia is used for sand stabilisation on beaches.



"*Acacia-longifolia*-branch" by Josh Jackson

### **Common Couch** *Cynodon dactylon*

- Other common names include Couch grass, Bermuda grass, Twitch grass
- Widely distributed around the world.
- Regarded as being native in Queensland and New South Wales and introduced in Victoria, South Australia, Tasmania, Northern Territory.
- In Western Australia is thought to be native to the northern parts of the state and introduced to the southern part.
- Spreads quickly by creeping stems.



"*Cynodon dactylon* 2" by Bidgee

## Grey Mangrove *Avicennia marina*

- Most common and widespread mangrove found along the mainland coast of Australia.
- Grey Mangroves have 'aerial roots' called pneumatophores (Photo 2) which allow the mangrove to receive oxygen in its environment.



"Avicennia marina (grey mangrove)" by AntanO



Photo 2

Photo 2 by Maureen Marsh

**Hairy Silkpod** *Parsonsia straminea*

- Other names include Monkey Rope, Common silkpod.
- Was used as a string or rope by indigenous people.
- Family: Apocynaceae.



"*Parsonsia straminea* Coffs H" by Poyt448 Peter Woodard

### **Kangaroo Grass** *Themeda triandra*

- Wide distribution: found in all States and Territories in Australia.
- Can grow approximately 1.5 m tall and 0.5 m wide.
- *Themeda* - means a depression in which water lies after rain, drying in summer.
- *triandra* - of Greek origin; *treis* (three) and *aner* (man).



"*Themeda triandra* - kangaroo grass" by Peripitus



### **River Mangrove** *Aegiceras corniculatum*

- Usually grows as a bushy shrub up to 2m—3m high but can reach up to 6m in height.
- Lives in poorly drained mud that is usually periodically inundated with salt water.
- Excess salt is excreted via glands on the leaves and can usually be seen on the surface of the leaf.
- Can tolerate both fresh and salty water.



"*Aegiceras corniculatum*" by M Cheung

### **Samphire** *Sarcocornia quinqueflora*

- Other common names include beaded samphire, glasswort or bead weed.
- Grows as an edge plant in highly saline environments.
- Found in Victoria, south west Western Australia, eastern New South Wales and eastern Queensland.
- Accumulates salt in the base of the leaf which is eventually removed, thus, removing extra salt from the plant.



"*Sarcocornia quinqueflora*" by Melburnian



**Snake Vine** *Sarcopetalum harveyanum*

- Other common names include Pearl vine, Big-leaf vine, Tape vine.
- Mostly found in the coastal areas of eastern Australia.
- *Sarcopetalum harveyanum* means 'fleshy petals'.



"*Sarcopetalum harveyanum*" by Mark Marathon

## Swamp Oak *Casuarina glauca*

- Other common names include Swamp white oak, Casuarina.
- A large tree with distinctive needle-like foliage which are in fact its branches. The leaves are minute teeth located at various intervals along the branches.
- There are male and female trees; female trees have small tuft-like red flowers and male trees have small rusty-coloured flowers at the ends of the branches. The fruit is a round knobby woody capsule, and its seeds are pale brown with a broad papery tail.
- It drops the leaves into a dense mat beneath itself so that nothing can grow there and steal its food and water.
- Canoes were made from the thick fibrous bark of several species, carefully cut away in whole sheets.



"Starr 040120-0213 *Casuarina glauca*" by Forest & Kim Starr

### **Spike Rush** *Eleocharis Calva*

- Family: Cyperaceae in which the *Eleocharis* genus contains more than 250 species.
- Can grow underwater, and appear as a submerged plant, and in periods of drought.
- Important species in wetland habitats.
- Fruits provide a meal for a wide variety of wetland bird species.



"Starr 081230-0543 *Eleocharis calva*" by Forest & Kim Starr

## Twig Rush *Baumea juncea*

- Other common names include Smooth sawgrass, Bare twig-rush.
- Grows its roots onshore or underwater in wet sand, bogs and along alkaline (saline) shores.
- The roots were used to make small baskets and the stems used to make tubes for medicine.
- Can grow up to 2 metres in height.



"*Baumea juncea* (6055519729)" by John Tann



"*Baumea juncea* (6055524523)"  
by John Tann

# Common Invasive Plant Species



**Bitou Bush** *Chrysanthemoides monilifera*

- Bitou bush is listed as a 'noxious' weed in all coastal areas.
- It grows quickly forming dense bushels and competes with native vegetation usually replacing it.
- In 2000 it was listed as a Weed of National Significance.
- Current distribution is along the coast of NSW and South-East Queensland.
- Bitou bush invasion is a threat to biodiversity.



"*Chrysanthemoides monilifera* subsp rotundata, blomme en vrugte, lphithi NR" by JMK



## **Broad-Leaf Privet** *Ligustrum lucidum*

- Regionally prohibited weed, if seen contact the local weeds council officer, the NSW Invasive Plants and Animals Enquiry Line 1800 680 244 or email [weeds@dpi.nsw.gov.au](mailto:weeds@dpi.nsw.gov.au)
- Plant flowers/pollen is known to cause allergic reactions and the onset of hayfever.
- Occurs in coastal and tableland areas of NSW.



"Flowering *Ligustrum lucidum* Tree" by Fanghong

### **Lantana** *Lantana camara*

- Native to tropical regions of Americas and Africa however is an introduced species in Australia where it is considered to be a noxious weed.
- Lantana leaves are poisonous to most animals except the swamp wallaby (*Wallabia bicolor*), however the fruit is enjoyed by most birds and so contributes to the spread of this invasive species.
- Flower clusters are a mix of red, orange and yellow or yellow, white and pink.



*"Graphium sarpedon WQXGA"* by Laitche



## Camphor Laurel *Cinnamomum camphora*

- Due to its rapid growth and mass seed production and lack of predators or diseases camphor laurel has competitive advantage over native species.
- Mature trees can be up to 100 years old with some found to be up to 500 years old in native habitat.
- Grows in areas of high rainfall averaging 1000mm growth per year.



"*Cinnamomum camphora* - Botanic Gardens" by Peripitus



"*Cinnamomum camphora* Turrumurra railway" by Poyt448 Peter Woodard

### **Small-Leaf Privet** *Ligustrum sinense*

- Other common names include Chinese privet, Hedge privet.
- Native to parts of Asia - Hong Kong, Laos, Vietnam, China & Taiwan, it is considered an invasive species in Australia and is distributed along the coast of eastern Australia.
- Regarded as a significant weed in NSW and QLD, and a potential weed in Victoria and the ACT.
- Commonly grows up to 3 metres but can reach 4-5 metres in height.



"*Ligustrum sinense* Variegatum2" by KENPEI

### **Yellow Waterlily** *Nymphaea mexicana*

- Other common names include Mexican waterlily, Yellow waterlily, Banana waterlily.
- Native to Mexico and South east Asia.
- Commonly invades slow or still waterways forming a dense mat up to 2 metres in depth which blocks waterways.
- Is a noxious weed in wetlands outside its natural range.



"Nymphaea mexicana (21) 1200" by Fan Wen

# Bush Tucker Plant Guide

# Bush Tucker Activity Safety

Some wild food plants are dangerous, and the author and the publisher accept no responsibility for any mishaps arising from the tasting of plants mentioned herein.

**This book is only a guide, if you are in doubt about the identity of a plant do not touch it, leave it alone.**

- Many species are difficult to identify
- Some plants are highly toxic, some are deadly. When sampled the edible parts should be consumed in minute portions as some parts are toxic if consumed in large quantities.
- Remember plants are protected within National parks and you cannot pick fruits or flowers or otherwise interfere with plants.
- When travelling through Aboriginal land, remember permission is required before fishing or gathering.
- Not all parts of a plant are edible ie. Even if the fruits are edible parts such as the root or stem can be toxic.
- ***Never eat any part of any wild growing plant*** unless you are certain you can 100% identify it. Being certain means you have developed a maturity of skill in identifying plants.
- **WARNING:** Never eat plants that are growing in an area where they may have been sprayed with pesticides or herbicides (weed killers), or where the water supply to the area could be polluted, such as from urban or industrial run-off.

# Bush Tucker Plant Guide Index

Bush Tucker Plant Guide	Scientific Name
Blady grass	<i>Imperata cylindrical</i>
Coastal Banksia	<i>Banksia Integrifolia</i>
Common Lilly Pilly	<i>Syzygium (Acmena) smithii</i>
Davidson's Plum	<i>Davidsonia jerseyana</i>
Lomandra (Long leaf mat-rush)	<i>Lomandra longifolia</i>
Macadamia Nuts	<i>Macadamia</i>
Native Ginger	<i>Alpinia caerulea</i>
Pigface	<i>Carpobrotus glaucescens</i>
Pink-flowered Native Raspberry	<i>Rubus parvifolius</i>
Sweet Sarsaparilla	<i>Smilax glycyphylla</i>
Sandpaper Fig	<i>Ficus coronate</i>

### **Blady Grass** *Imperata cylindrical*

- Leaves are thin, tough and coarse when felt.
- They grow to approximately 0.5m—1m
- It is an abundant grass that grows in impoverished soil and usually grows quite dense.
- Blady grass is related to sugar cane and similar how they both grow stems rich in sugar

**EDIBLE PART:** The roots are the sweetest part and can be sucked like sugarcane. The leaf part can also be eaten raw in which the base is chewed on but not swallowed.



"Blady grass habitii" by Mark Marathon

### Coastal Banksia *Banksia integrifolia*

- Abundant flowers provide nectar and pollen to a wide range of bird species and arboreal mammals as well as many insects.
- The pale yellow flowers occur through autumn and are followed by woody cones shedding seed in late spring early summer. Spot flowering can occur most months of the year.
- Widespread in Eastern Australia commonly occurring on beaches and coastal areas.

**EDIBLE PART:** The sweet nectar from the banksia can be shaken onto your hand and consumed or flowers can be soaked in water to make a sweet tea. When squeezed a nectar rich flower should feel somewhat sticky.



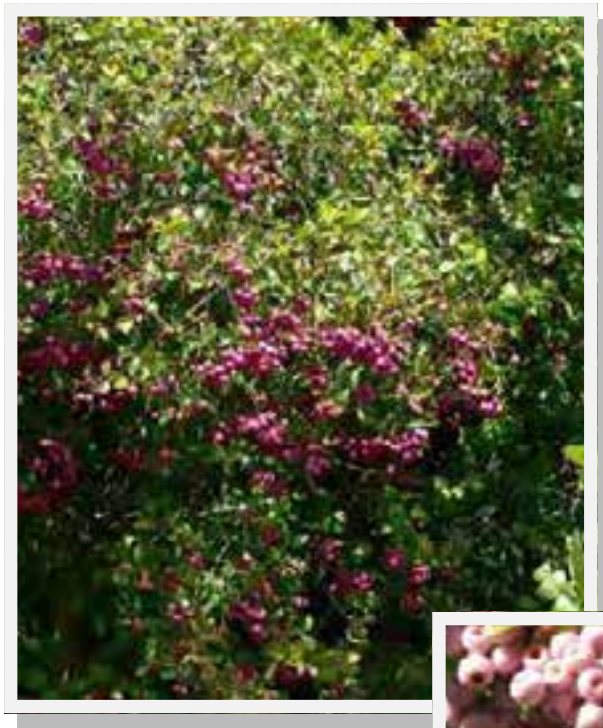
"B integrifolia integrifolia1" by Cas Liber



## Common Lilly Pilly *Syzygium (Acmena) smithii*

- The fruits can be pink, white or purplish, and approximately 8-20mm in diameter.
- Fruits ripen from April to August
- Typical to a rainforest however can grow in coastal areas but usually only grows to approximately 1-2m in coastal areas.

**EDIBLE PART:** Fruits can be eaten raw and are sweeter when they are softer.



"Syzygium smithii 2" by Stan Shebs



"Syzygium smithii" by Melburnian

### **Davidson's Plum** *Davidsonia jerseyana*

- Leaves have a 'toothed' saw-like edge and are covered in minute hairs that can cause irritation.
- Fruits are approximately 3-6cm and round/oblong shaped and dark purple in colour when ripe.
- Contains seeds.
- Fruits around summer
- They contain 100 times the Vitamin C found in oranges and packed with other vitamins such as zinc, calcium, magnesium, potassium and manganese.

**EDIBLE PART:** The sour fruit can be eaten whole.

**WARNING:** contains seeds.



"Davidsonia jerseyana fruit1" by John Moss

**Lomandra (long-leaf mat rush)** *Lomandra longifolia*

- Strap shaped leaves approximately 1 cm in width
- Grows in thick clumps approximately 1-2m tall
- Lomandra can be woven to make baskets and other useful items

**EDIBLE PART:** The paler base part of the lomandra stalk can be chewed on for a refreshing snack.



"Lomandra hystrix inflorescence" by Ethel Aardvark

## Macadamia Nuts *Macadamia*

- There are 2 species of macadamia however both demonstrate slender leaves and produce nuts.
- *Macadamia integrifolia* has smooth leaves with smooth round nuts
- *Macadamia tetraphylla* has pointy rough leaves with toothed edges and rough round nuts
- *Macadamia ternifolia* is similar however is inedible as the nuts are bitter (distinguished by sharp tipped leaves)

**EDIBLE PART:** The macadamia contains a softer green outer shell which opens when the macadamia is ripe and a hard brown shell will fall to the ground. The hard brown shell needs to be cracked and the soft white nut inside can be eaten raw.



"Macadamia integrifolia, buds" by Tau'olunga



"Bolivia Macadamia (4370865469)" by CIAT



"MacNut2"

### Native Ginger *Alpinia caerulea*

- Dark green leaves up to 2m tall
- Fruits are bright blue with a soft outer skin and harder inner shell with a white pulp which encloses the seeds.
- Fruits ripen during autumn
- Fruits are approximately 1.5cm in diameter which differentiates them from a smaller ginger with fruits only 0.8-1cm wide.

**EDIBLE PART:** The white pulp underneath the bright blue soft outer skin is sucked on (not chewed) as it has a soft ginger flavour.



"Alpinia caerulea plant" by Ethel Aardvark



"Alpinia caerulea fruit" by Ethel Aardvark



### **Pigface** *Carpobrotus glaucescens*

- Grows along the ground with thick fleshy leaves and bright pink flowers with many small spindly petals.
- Common along dunes, headlands and beaches.
- There are approximately four species of pigface however the *Carpobrotus glaucescens* is known as the 'Eastern pigface' as it occurs in Queensland and New South Wales.
- Fruits are in season around January and February.

**EDIBLE PART:** Fruits are purplish red, 2-4cm long, with two horn like nodules extending from the top of the fruit. The fruit pulp can be eaten raw and has been likened to the flavour of sweet strawberries, figs and kiwifruit. The fruit skin is discarded.

Pictured below is the flower not the fruit however the fruit appears alongside the flower according to the description above. It is not recommended that you consume the flower pictured.



"Carpobrotus glaucescens 01" by No machine-readable author provided.

### **Pink-flowered Native Raspberry** *Rubus parvifolius*

- Small shrub with spindly long prickly stems producing flowers which are followed by small red fruit which is approximately 1 cm in width.
- Fruits ripen in late summer and autumn.
- Can grow in low rainfall areas such as dry inland and coastal areas.

**EDIBLE PART:** The small red fruit similar to the cultivated raspberry can be eaten raw . A tangy bitter taste is associated with this fruit.



"Rubus parvifolius fruit" by Nadiatalent

### Sweet Sarsaparilla *Smilax glycyphylla*

- Grows as a thorny climber with large thick oblong shape leaves that have three distinctive veins running the length of the leaf.
- Typical mainly of coastal regions in Eastern Australia.
- Chewing on a raw leaf is known to naturally quench thirst.

**EDIBLE PART:** Leaves can be used to make a medicinal tea and the fruits are consumed when they ripe (black).



'Smilax glycyphylla fruit' by John Moss



### **Sandpaper Fig** *Ficus coronata*

- The sandpaper fig gets its name from the rough hard texture of the leaves similar to sandpaper.
- Commonly found in subtropical rainforest however also grows along creek beds.
- Fruits can be found around January to June.

**EDIBLE PART:** The ripe fruits can be eaten raw and are available during January to June.



"Ficus coronata foliage and fruit" by Mark Marathon

## References:

Front page photo: Ian Brown *Paperbarks at Sunset, Myall Lakes*

Images of plants and animals within this guide booklet have been sourced and/or adapted from Wikipedia and Flickr under Creative Commons. Authors online identities are listed under each image.

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