



LOCAL NATIVE PLANTS

FLAME TREE - MILLIE CROSS

"REVERSING DEFORESTATION IS COMPLICATED: PLANTING A TREE IS SIMPLE".

- MARTIN O'MALLEY - AMERICAN POLITICIAN.

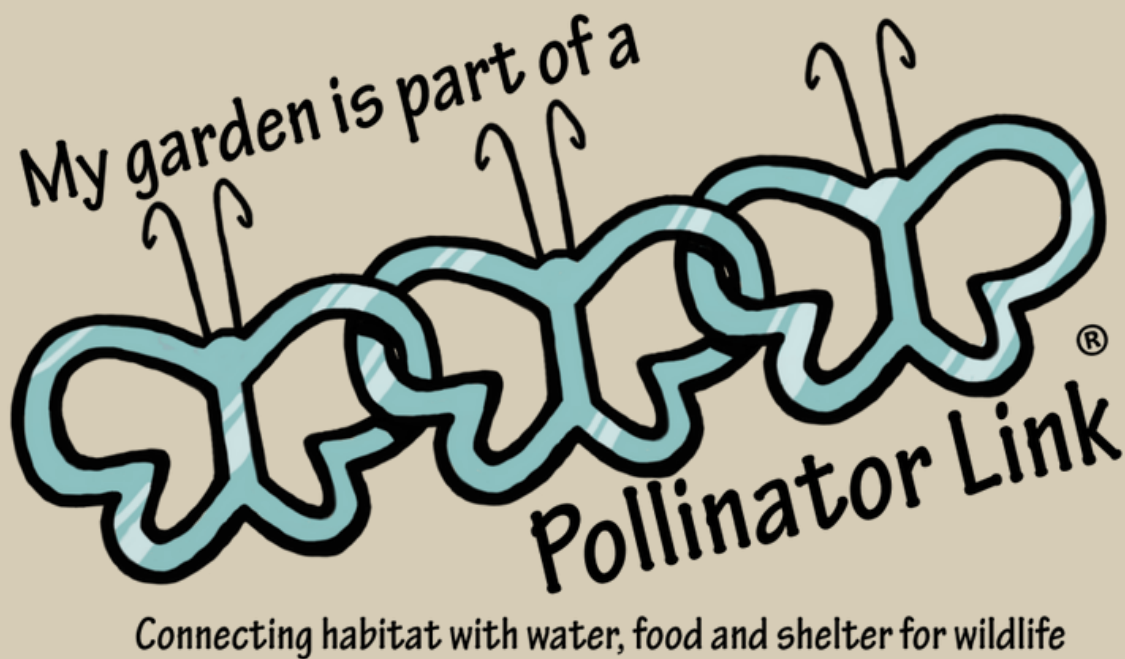
The best single thing that any resident in SE Queensland can do for their local environment is to plant a local native tree in their backyard. This is the simplest realisation of the old but useful phrase; **'Think globally, act locally'**.

Recognising biodiversity loss as a global problem forces us to concede that planting a native tree must be part of the solution. Indeed, if we imagined that every one of our planet's 7.9 billion people planted a tree that would be a considerable start...



What are the benefits of the one tree?

- ***Every tree respire, taking in carbon dioxide and breathing out oxygen.***
- ***Carbon is trapped in the tree's wood, roots, and bark, removing it from the atmosphere.***
- ***Tree planting, therefore, is part of the solution for climate change.***
- ***Each native tree provides habitat and, especially food, for an incredible range of invertebrate species and thus fuels a local ecology.***
- ***They provide food for birds and shelter for them and their nests.***
- ***Birds use mature trees to navigate around an area, so they are important links to greater areas of habitat.***
- ***Trees provide shade and thus contribute to the cooling of their surrounds making suburbs more liveable.***
- ***Trees prevent erosion. Their roots, combined with roots of other plants, bind the soil.***
- ***Their leaves drop and decay, helping form new fertile soil.***
- ***They are beautiful in their own right and link us to nature, symbolically and literally!***



BUT, OF COURSE, ONE TREE SHOULD ONLY BE THE START.

When we return a good variety of local native plant species to our backyards, we have started a real journey towards improving our local biodiversity. Our local plants have evolved with the local insect fauna and, as a result, local insect populations do not just want local native plants, they need them! Every single natural plant that has been removed, felled, or cleared has resulted in a reduction of insect life. With the reduction of insect life there has been, logically enough, a reduction in the populations of every single thing that consumes insects: lizards, frogs, birds, and mammals. And the things that eat them, too, will be reduced. As we have cleared over 50% of our planet's forests, can it be a surprise that the global number of insects has declined by a similar percentage? Is it really surprising that in Australia our threatened bird species have declined in population by 60% over the last 30 years?

According to the 2020 Living Planet Report, commissioned by the World Wildlife Fund, between 1970 and 2016, global average mammal, fish, bird, amphibian, and reptile populations fell by 68%! Jake Slinger & Michael Fox, of the excellent organisation, Pollinator Link

[<https://pollinatorlink.org/about/>], estimate in reference to Brisbane, that if only 10 per cent of Brisbane gardens provided water, food and shelter for our fauna, we would create a citywide mosaic of habitat which would bring birds, butterflies, bees and other wildlife back into our lives.

If only 10% of Brisbane's 320 000 detached houses [32 000] participated in converting their yards into habitat for biodiversity, then nearly 900 hectares of habitat would be created. It is worth considering how many more native trees and plants could be encouraged to grow in 900 hectares and how many insects, birds, frogs and reptiles could be supported on this land.

Think of what could be achieved if this process occurred throughout south east Queensland!

To counter the people who will not buy into this idea please consider devoting at least 50% of your yard space to biodiversity planting.

PLANT AS MANY DIFFERENT LOCAL NATIVE PLANT SPECIES AS POSSIBLE.

- And plant as many of each one as you have space.
- Consider the size of your yard and consider thoughtfully the maximum size of trees planted.
- Consider a variety of plant types – grasses, sedges and ground covers, shrubs, vines, and trees. The thicker and more diverse your plant habitat is the greater the number and variety of critters that will use it.
- Plant the borders of your garden thickly, thus maximising habitat, food, and shelter.
- Consider layers, different heights of vegetation. Each different plant form creates new niches and habitat.
- Vertical gardens, walls of potted flowering plants, screening timbers covered in native flowering vines are all good ways to make habitat in limited space and / or break up your backyard into different 'zones'.
- Plant flower gardens filled with native flowers, herbs, lilies, ground covers, and low shrubs. Plant thickly with masses of the same species, rather than merely one lone representative of each. Bees and Butterflies will more likely utilise your yard if there are mass plantings all flowering at the same time.
- Across your backyard consider a variety of species that flower at different times throughout the year so that there is always something for pollinators...
- Consider, too, having a variety of colour of your flowers. Different insects prefer different coloured flowers. Ensure that there is a good mix of yellow flowering species, blue / purple, whites and reds

and pinks. This variety of colour will be impressive in its own right and will also attract a greater range of insects.

- Consider planting a variety of plant species for the fruits, flowers, and seeds, rather than just flowers. To have a variety of animals we must provide a variety of natural food.
- Consider specifically sourcing insect food plants, especially butterfly food plants as we do have some knowledge of these. Among the species of Lepidoptera [Butterflies and Moths] in Australia there are about 400 Butterflies. Scientists have identified a variety of the food plants [the plants that their caterpillars have evolved to safely consume] for each butterfly species. There are currently about 10 000 moths described in Australia and there could be at least that number again undescribed. Our many moths, their ecology and life histories remain poorly known yet they are essential for Australia's ecology to function: their caterpillars are obviously food for many species of invertebrate, frog, reptile, bird, and mammal] and the pollination of many our native plants. [page xxx]

And remember there is always room for one more plant!



**Sarsaparilla Vine *Hardenbergia violacea*
- Niel Wark**

LOCAL NATIVE PLANTS

South-east Queensland is a large area, covered by an impressive variety of plants that have evolved to survive here. We certainly do not have the space to discuss every single plant species as within this area there are some 2800 different native plant species.

The lists and descriptions of plants that follow are not intended as the definitive guide; they exist for illustrative purposes only. They are, however, gleaned from stock lists from Landcare nurseries across south-east Queensland as there is little point in suggesting plants not in cultivation. As noted elsewhere, when you come to source plants for your backyard, front yard, roadside verge, or bush block, please be guided by the suggestions and advice from your local Landcare or specialist native plant nursery. They are the experts, they understand the local soils and conditions and they can advise the best species to plant. They also source seed and cuttings from local plants.

One of the advantages of planning a biodiverse backyard in south-east Queensland is that there is a very large diversity of plants to choose from. One could say, too many! To make it a little easier to choose we have suggested a smaller range of plants [ten] for each plant form for you to consider for your initial purchase. Links to lists of available plants will be listed at this document's end. .

A note about names: Sadly, many organisms – plants and animals – do not have one common name, while many others labour under several or many. Scientific names are generally more uniform; however, taxonomy does occasionally change with review, affecting names. When shopping for plants, record both common and scientific names as this will help you find exactly what you are looking for.

Pictures below: Black She-oak [*Allocuarina littoralis*], Dwarf Banksia [*Banksia oblongifolia*] with Yellow-tailed Black Cockatoos, Coastal Banksia [*Banksia integrifolia*], Banana Bush [*Tabernaemontana pandacaqui*], Soap Tree [*Alphitonia excelsa*]



Photos by Eric Anderson.

10 LOCAL NATIVE VINES

It is important to consider vines for your garden, especially after your trees and shrubs have become established. Vines contribute to the layering of your garden, providing more niches and shelter for wildlife. Many of these vines attract wildlife through their fruit and flowers, while many are food plants for insect larvae. In the Butterfly food plant section, some of the species suggested will be vines other than the ones listed below.

Vines can be planted adjacent to fences so they can sprawl lazily along them however there is a range of other ideas. If you have a large wooden fence, then you can build a generous frame of lattice between each fence post to train a vine up. Or hang a metal gate off a fence or a wall. Specially made trellises can be placed anywhere where a little more shade or privacy is needed.

1. *Hardenbergia violacea* - **Native Sarsparilla** 2m Ornamental. Small scrambling vine, sometimes ground cover mainly prostrate but sometimes grows as a small shrub. Attractive purple pea-flower in spring and autumn. Widespread on sandy or stoney soils in SEQ. Flowers attract honeyeaters such as **Eastern Spinebill**, Food plant for **Common Grass-blue Butterfly** *Zizina labradus*.
2. *Tecomathe hillii* - **Fraser Island Creeper** Ornamental rainforest vine with dense glossy leaves. It produces deep pink bell shaped flowers in racemes off the vine's woody stems. Flowers in Spring and Summer.
3. *Pandorea jasminoides* - **Bower Vine** 1-6m Ornamental, Screening Vigorous rainforest vine Large tubular white to pink flowers with a crimson throat in spring and summer. Very hardy in full sun to partial shade. Has beautiful dark green foliage. Can be used as a ground cover or over screens.
4. *Pandorea pandorana* - **Wonga Vine** 2-20m Hardy, Screening Vigorous, fast-growing climbing plant 2 - 20 metres. Tubular white to cream flowers with brown throat - winter to summer. Sun to part shade.
5. *Aphanopetalum resinosum* **Gum Vine** Spreads 3.0m x 3.0m A glossy twining climber native to rainforest. Yellow green flowers displayed from late spring through summer.

From Left - Bower Vine [*Pandorea jasminoides*], Wonga Vine [*P. pandorana*] [E.Anderson]



6. *Callerya megasperma* - **Native Wisteria** 20m Ornamental, Screening Vigorous, woody rainforest climber with pendulous clusters of pale purple and white flowers in spring Hardy. Forms a canopy over surrounding vegetation. Food plant for the uncommon butterfly, the **Narrow-banded Awl**, *Hasora khoda*.

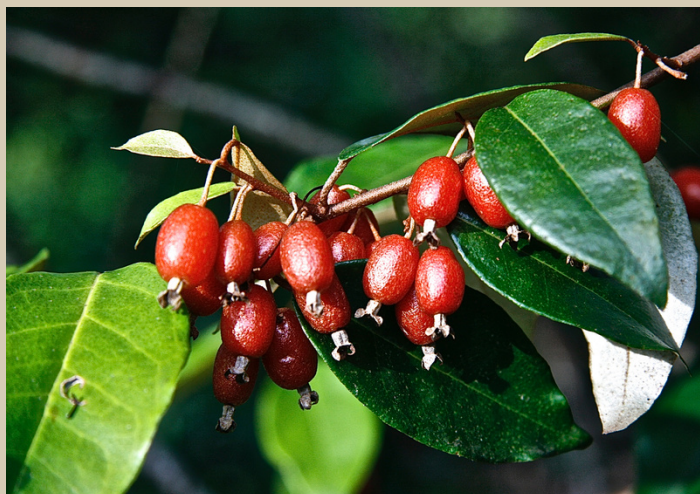
7. *Cissus antarctica* - **Kangaroo Vine** 2-5m Bush food. Robust and vigorous rainforest vine or ground cover. Small clusters of yellow flowers September through to May. Very hardy in sun or shade. Leaves are grey-green to darkgreen with serrated margins. The vine offers shelter and nesting sites for birds while the fruit is eaten by possums and many bird species.

8. *Elaeagnus triflora* - **Millaa Millaa Vine** Bush Tucker and Wildlife attracting. Vigorous climber or sprawling shrub. Attractive silvery-gold foliage and small fragrant creamy flowers and red tasty edible fruit. The fruit has a sweet tangy flavour and contains four times the amount of the antioxidant lycopene than any other fruit in the world, 10x more than tomatoes. Food plant to **Indigo Flash Butterfly, Four-barred Swordtail, Pale Triangle, Eastern Dusk-flat**.

9. *Eustrephus latifolius* - **Wombat Berry** 1-5m Hardy, Screening. Wiry climbing twiner to 1m, but often scrambles over itself lower. Pink or white flowers in drooping clusters. Fruit is a round orange edible berry. Common understory plant in semi-shade. Hardy. Attracts Moths, Hoverflies and native bees.

10. *Geitonoplesium cymosum* - **Scrambling Lilly** 3-4m Ornamental, Hardy. Twining climber to 4 metres. White sweetly-scented flowers in spring. The fruit is dark green, then black, distinguishing it from the larger orange fruit of the similar Wombat Berry. The fruit attracts birds. Hardy after being well watered in initially. Grows in semishade or full sun. Common in remnant dry rainforest.

Clockwise from top left - **Native Wisteria** [*Callerya megasperma*], **Scrambling Lilly** [*Geitonoplesium cymosum*], **Millaa Millaa Vine** [*Elaeagnus triflora*] [E. Anderson]



10 LOCAL GRASSES & SEDGES

Australian grasses and sedges, with the exception of *Lomandra*, are used too rarely in our gardens. They are excellent plants for appearance, diversity and biodiversity, attracting butterflies and moths and providing valuable shelter for a pleasing variety of animals.

1. *Carex appressa* - **Tall Sedge** 1.2m Clumping Sedge that is great for wet spots although capable of handling dry. Grass like in appearance. Host plant for the **Evening Brown** *Melanitis leda* and **Spotted Sedge-skipper** *Hesperilla ornata* butterflies.
2. *Dianella caerulea* - **Common Flax Lily** c.1m Ornamental Bird attracting. Blue flowers with yellow centres in warmer months. Purple-blue berries. Hardy. Aboriginal food plant [berries & flour from pounded roots]. Group planting.
3. *Dianella longifolia* - **Pale Flax Lily** c.1m Ornamental Bird attracting. Perennial lily-like herb with pale blue flowers in spring & summer. Purple Fruit. Fast growing, long lived, very hardy. Wallum woodlands and dry eucalypt forests. The base of the dark green, strap like leaf blades has a reddish colour.
4. *Doryanthes palmeri* **Spear Lilly** 3m Ornamental Bird attracting, Australian endemic. Leaves can reach 3 metres, flowers on a stalk may reach 5 metres in spring. It requires a sheltered position in full sun. Flower attracts pollinators and nectar eating birds.
5. *Lomandra longifolia* - **Spiny-headed Mat Rush** 0.5 - 1m Butterfly food plant. Clumping, Spiky clusters of creamy male and female perfumed flowers. Hardy but requires ample water early. Can form large and dense communities. Food plant for Ochres [a genus, Trapezites, of small butterflies], including **Heath Ochre, Southern Silver Ochre, Yellow Ochre, Splendid Ochre, Black-ringed Ochre, and Orange Ochre.**

From left - Spiny-headed Mat Rush [*Lomandra longifolia*], Common Flax Lily [*Dianella caerulea*] [E.Anderson]



6. *Lomandra hystrix* - **Creek Mat Rush** 1m Ornamental clumping plant suited to shady places. Related closely to *L. longifolia*. It grows beside watercourses shaded by rain forest. Food plant for **Splendid Ochre Butterfly**.

7. *Cymbopogon refractus* - **Barbed-wire Grass** 1m Perennial clumped grass. Red-brown flower spikelets February to April. Hardy. The flowering stem is reddish-green and the red-brown flower spikelets are turned back like the ties on barbwire fencing, hence its common name. Provides habitat & shelter for small animals. Seed eaten by birds. Food plant for **Evening Brown butterfly**.

8. *Poa labillardierei* - **Common Tussock-grass** 120cm Ornamental, Hardy. An attractive, low maintenance, native ornamental. Open forest communities & grassy woodland. Flowers spring to summer. Food plant for **Banded Grass-skipper** *Toxidia parvulus*.

9. *Ottochloa gracimilla* **Graceful Grass** 15cm Short grass adapted to shady conditions. Found mostly in open Eucalyptus forests. With slender leaves and stems up to 15cm high, it has delicate seed heads. Can die back in the dry season but will return with rain. Food plant for **White-banded Grass-skipper** *Toxidia rietmanni* - a butterfly.

10. *Themeda triandra* - **Kangaroo Grass** 1.5m Tufted Grass. Widespread species. Flowering period is from December to February. It produces distinct large red-brown spikelets, which occur on branched stems. This attractive grass can be used as an ornamental in rockeries, as part of a native habitat garden. Excellent habitat providing cover for skinks, legless lizards, frogs, native insects, and mammals. Seeds important food for finches and parrots. Food plant for **Evening Brown Butterfly, Common Brown Butterfly, and White-margined Grass Dart** *Ocybadistes hypomeloma*.

Clockwise from top left - Creek Mat Rush *Lomandra hystrix* insitu [E.Anderson], Common Tussock -grass [*Poa labillardierei*] [Macleay Grass Man] Kangaroo Grass [*Themeda triandra*] understorey [E.Anderson]

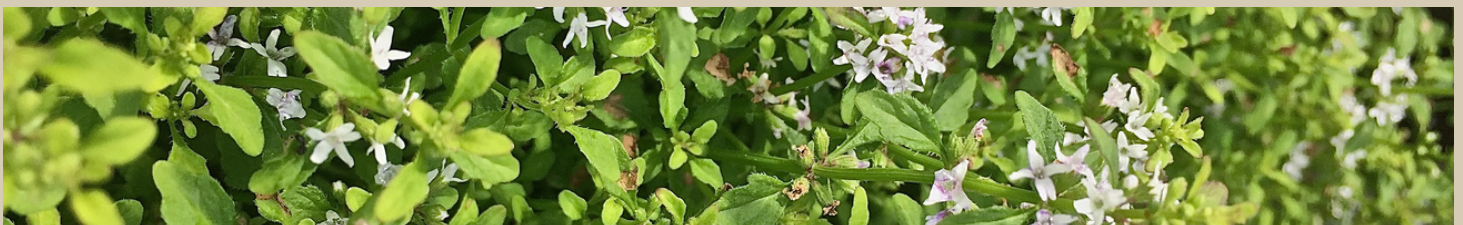


LOCAL GROWDCOVERS

The following plants are all native to south-east Queensland and they should add diversity and colour to your garden, All should be able to be sourced from your local land / bush care nursery.

1. *Lobelia trigonocaulis* - **Forest Lobelia** 60cm Shady,position, Ornamental. It is a creeping or trailing herb, found in moist forest areas. Blue to mauve flowers form between the months of December and May.
2. *Hibbertia vestita* - **Hairy Guinea Flower** 0.2 ~ 0.4 m high spreading 20 -40 cm. a yellow flowered groundcover. Cultivar available - *Hibbertia* sp 'Golden Sunburst' - Guinea Flower with masses of golden flowers in spring and autumn.
3. *Goodenia rotundifolia* - **Star Goodenia** 1-2m spread Butterfly host, Hardy Perennial herb - prostrate groundcover with runners. Bright yellow flowers throughout the year Hardy and versatile groundcover for full sun or in an understorey situation. Host plant of the **Meadow Argus butterfly**.
4. *Geranium solanderi* var *solanderi* **Native Geranium** 0.5m high. It is a perennial, spreading herb with the ends growing upward. Small pink flowers grow on long hairy stems.
5. *Chrysocephalum apiculatum* - **Yellow Buttons** 20-30cm Ornamental Perennial herb to 60cm, with mat-like growth. Soft grey-green hairy leaves, yellow pom-pom flower heads. A stunning groundcover that can flower most of year. Food plant of the **Australian Painted Lady Butterfly**.
6. *Mentha satuireioides* - **Native Mint** 20-40cm Bush food, Bee attracting herb. The unique mint flavour is a feature of this low clumping plant. The leaves can be used as you would use exotic mint. It will send out runners and will spread to fill whatever space it is given, but it tolerates pruning for your kitchen.

From top to bottom - **Hairy Guinea flower** [*Hibbertia vestita*], **Yellow Buttons** [*Chrysocephalum apiculatum*], **Native Geranium** [*Geranium solanderi*], **Native Mint** [*Mentha satuireioides*]. [E.Anderson]



7. *Pseuderanthemum variable* - **Love Flower** 30 cm Small perennial herb. Pink, white or mauve flowers in threes to fives, Sep to May. Widespread in shaded, damp areas, but surprisingly hardy and prolific. Plant in groups of 3, each group about 10 cm away for an effective display. Food plant for five butterfly species - **Australian Leafwing, Blue Argus, Blue-banded Eggfly, Common or Varied Eggfly, and Danaid Eggfly**. Also attracts native Hoverflies.

8. *Scaevola albida* - **Pale Fan Flower** 30-50cm Ornamental, Hardy It is a prostrate shrub, forming a mat on the ground around 30-40 centimetres across. Its leaves are bright green, semi-succulent and slightly hairy. In spring or early summer, the plant bursts into a striking mass of small flowers, which range in colour from snow white, through to pale blue or lilac. It germinates readily from fresh seed and also strikes easily from cuttings. Food plant for the **Meadow Argus butterfly**.

9. *Viola banksii* - **Native Violet** c.50cm spread Ornamental, Hardy Perennial creeping herb. Small white and violet edible flowers most of the year. Likes a moist but well drained spot, full or part shade; will tolerate full sun but not dry conditions. It is also a native bush food; the flowers can be used in salads or as a decorative garnish.

10. *Plumbago zeylanica* **Native Plumbago** 60cm Perennial spreading plant with pale lilac flowers. Food plant for **Plumbago or Zebra Blue Butterfly**.

Clockwise from top left - Love Flower [*Pseuderanthemum variable*] [E.Anderson], Pale Fan Flower [*Scaevola albida*] [K.Cross], Plumbago Blue [K. Cross], Native Violet [*Viola banksii*] [Brian Walters].



RAINFOREST PLANTS

FOR THE MOMENT we will ignore rainforest trees to suggest a few smaller species that have evolved in our se Queensland rainforests and work well in small suburban gardens. Many of these plants are common in gardens in se Queensland and some might be surprised to know that they are actually native.

1. *Calochlaena dubia* **Soft Bracken [Fern]** A common plant of wet eucalypt forests, forming a dense understory of soft-to-touch ferns. Grows to 1.5m.

2. *Adiantum hispidulum* **Rough Maidenhair Fern** This fern, too, is popular in cultivation and grows into a small, upright clump to about 45cm high. The young fronds are often pink and mature to green or a green-bronze colour. They are branched with fan-shaped leaf segments and have a rough texture.

3. *Alocasia brisbanensis* **Cunjevoi** 1.5m Bird attracting, Rainforest clumping plant with large spade-like leaves. Fragrant but poisonous yellow-green flower; juicy but toxic sweet-smelling red fruit Cultivation: Prefers semi-shaded moist sites. Food plant for moth species.

4. *Alpinia arundelliana* **Native Ginger** c. 2 metres Perennial with pale green erect leaves with lovely red undersides, pinkish/white flowers in Summer and attractive blue edible fruit. Young rhizome tips also edible & taste like ginger.

5. *Alpinia caerulea* (Red Form) **Red Back Native Ginger** c. 2m This ginger is a versatile plant traditionally used by Aboriginal people for food and crafting. Both the spicy root and bright blue fruit may be eaten. The ginger-scented rhizome may be used, like other ginger roots, in savory dishes, desserts, jams, marmalades, candies and tea. Fragrant white flowers appear from late Spring to early Summer, eventually leaving blue berries that may be picked and eaten straight off the stem. To harvest the root, simply dig it up and prepare for cooking.

Below: L to R: Rough Maidenhair Fern [*Adiantum hispidulum*], **Cunjevoi** [*Alocasia brisbanensis*]. **Pictures - E. Anderson**



6. *Asplenium australasicum* - **Birds Nest Fern** 1m Hardy shade loving epiphytic fern that sends out large fronds from a central point, making a lovely nest shaped plant. Once established, they can grow quite large, making a dramatic statement for a shaded or semi shaded position. They can grow in trees, on rocks, or can grow in a well drained but moist soil. They also make good container plants.

7. *Cordyline petiolaris* - **Broad-leaved Palm Lily** 3-5m Bird attracting, Ornamental An evergreen plant. Flowering occurs from late winter to spring, being white or lilac in colour. Fruit is a red berry, 7 to 10 mm in diameter. This species propagates easily from seeds or stem cuttings.

8. *Cordyline rubra* - **Red-Fruited Palm Lily** 3 - 4m ornamental evergreen plant. Flowering occurs from summer, being lilac in colour. The fruit is a bright red berry. It is a resilient plant and can tolerate neglect.

9. *Sphaeropteris (Cyathea) cooperi* - **Scaly Treefern** to 12m Ornamental, Hardy Large lacy fronds, narrow stemmed fern. This species will make an impression in any rainforest setting. Tree ferns love high humid conditions with plenty of moisture. Frogs will also utilize a tree fern environment for the benefits of this moist habitat.

10. *Platycterium sp* **Staghorn and Elkhorn** - *Platycterium* is a genus of about 18 fern species. Ferns in this genus are widely known as staghorn or elkhorn ferns due to their uniquely shaped fronds. The species *Platycterium bifurcatum* [**Elkhorn**] and *Platycterium superbum* [**Staghorn**] are commonly cultivated as ornamental plants. These oddly shaped ferns grow on trees and rocks and can be found in moist sub-tropical gardens. These new plants can then be attached to board mounts or be strapped to trees until they take to the tree themselves.

Clockwise from top left - Bird's Nest Fern [*Asplenium australasicum*], *Cordyline rubra*, Staghorn [*Platycterium superbum*] E. Anderson



SMALL SHRUBS <5M

Ten species barely seems enough with this category of plant, however, other small shrub species will be mentioned in other sections. Hopefully this small sample can provide some ideas for a beginning garden and please ask for suggestions from your local Landcare native nursery.

1. *Xanthorrhoea johnsonii* - **Forest Grass Tree** 0.2-5m Ornamental, Bee attracting. Grass-like, clumping plant to 3m. Flower spikes up to 3m late autumn to spring Cultivation: Hardy, slow growing [c. 1cm per year], prefers full sun. Suits rock gardens and bush design landscapes. Birds, bees, and butterflies are all attracted to flower spike.

2. *Westringia species* - **Native Rosemary** - 1.2m and dense. Ornamental, Wildlife Attracting. White to lilac flowers in Spring. Attractive grey green foliage, fast growing, hardy. Many cultivars available. Useful as hedging and thus good dense habitat for birds and reptiles. Attracts hoverflies, native bees & night feeding moths. Food plant for the **Rayed Blue Butterfly**.

3. *Tabernaemontana pandacaqui* - **Banana Bush** - c 3m - Ornamental under storey shrub. White, windmill-shaped, sweetly-scented flowers spring - summer. Decorative non-edible yellow fruit resembling tiny bananas. Best in good light without direct sun. Reported as a food plant for **Emperor Moth**.

4. *Sannantha similis* - **Twiggy Myrtle** - 2 - 4m - Ornamental, Wildlife Attracting. Hardy, dense, native shrub with small dark leaves on cascading stems, and bearing masses of small white flowers in summer and autumn. Great for screening and adaptable to a range of conditions. Good for attracting birdlife, bees, and butterflies to the garden.

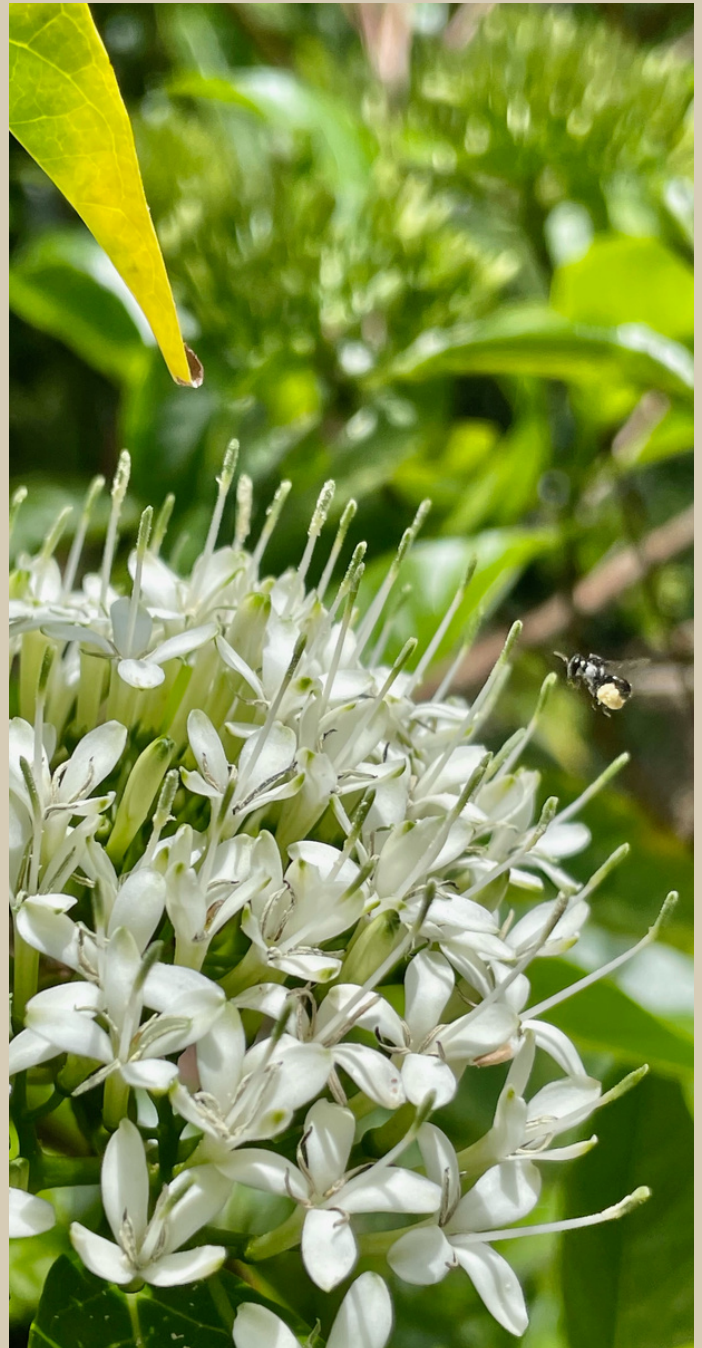
5. *Pultenaea retusa* **Blunt-leaved Pea** & *Pultenaea villosa* **Hairy pea Bush** - These two related plants are sometimes called **Eggs and Bacon** for their orange yellow pea flowers- 1m - Ornamental, Butterfly host Small shrubs. Flowers during winter and spring. Food plant for the **Fringed Heath Blue Butterfly**.

L to R - Banana Bush [*Tabernaemontana pandacaqui*], Forest Grass Tree [*Xanthorrhoea johnsonii*] E. Anderson



6. *Psychotria daphnoides* - **Turkey Bush or Smooth Psychotria** 1-3m - Butterfly host
Attractive, open shrub with narrow glossy leaves and small white flowers Spring/Summer & succulent edible creamy white fruit. Rainforest edge species.
7. *Leptospermum polygalifolium* - **Wild May** - 2 - 3m - A rounded shrub with masses of white flowers in spring.
8. *Pavetta australiensis* - **Butterfly Bush or Pavetta** 2-4m Ornamental, Butterfly attracting. Rainforest understorey Clusters of white perfumed flowers in large heads winter and spring attract butterflies. Fruit is a globular black berry ripening Feb - March. Moderately fast growing and quite hardy.
9. *Melastoma malabathricum* - **Blue Tongue** - 2m Bush food, Ornamental with Large pink/mauve flowers throughout the year Edible blue-black fruit attracts birds. Hardy and adaptable. Birds are attracted to the fleshy fruits. Food plant for **Coral Jewel butterfly** *Hypochrysops miskini*.
10. *Melaleuca thymifolia* - **Thyme Honey Myrtle** - 1m - Ornamental, Bee attracting. Small spreading aromatic wallum shrub with splendid mauve-pink flowers throughout the year. Hardy, although flowers best in full sun. Pruning after flowering will encourage strong new growth. This is a useful addition for rockeries and banks and is particularly suitable for a massed effect.

Clockwise from top left - **Blue Tongue** [*Melastoma malabathricum*] [E.Anderson], **Butterfly Bush** [*Pavetta australiensis*] [N.Wark], **Wild May** [*Leptospermum polygalifolium*] Vanessa and Chris Ryan - <http://www.rymich.com/girraween/>

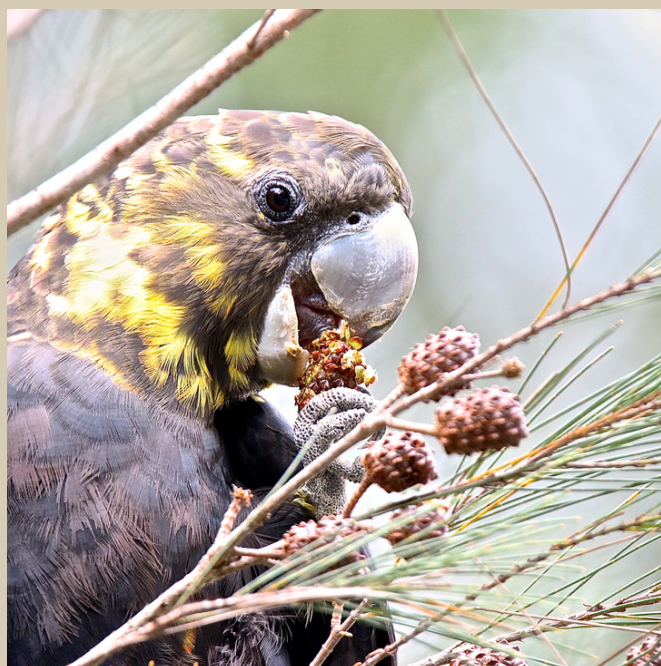


SMALL TREES <10M

It is very difficult to suggest just ten species for each list and it is difficult to accurately suggest the height for some of these species as in the literature the height suggested fluctuates quite widely [sometimes within the same text]. Suffice to say some trees and shrubs grow larger in the wild than in gardens and, in some, the reverse happens. Often as a garden plant you can determine the growth height and width with some pruning. The difference between trees and shrubs? There is no fine line although often you read that a tree is over 4 metres in height and has just one central trunk. A shrub then has multiple trunks branching before any height. I am unsure whether this rule fits every situation in Australia.

1. *Abrophyllum ornans* - **Native Hydrangea** - 3-8m - Ornamental, Hardy, Bird attracting. Understory shrub with large attractive leaves and showy white flowers, clusters of purple-black fruit, bird and butterfly attracting. Prefers a moist shady site.
2. *Acacia leiocalyx* - **Early Flowering Black Wattle** - to 6m - Small open forest tree with yellow fluffy flower spikes in winter. Hardy and fast growing. Food plant for **Felder's Lime Blue butterfly**. Every Australian, if possible, should have a wattle in their yard. It is the plant featured on our coat of arms.
3. *Allocasuarina littoralis* - **Black She-oak** - to 10m - Open forest tree with black fissured bark. Hardy, adaptable and fast growing in variety of sites. Distinct foliage, a little like pine needles. Food plant for the vulnerable **Glossy Black-Cockatoo**, which have a diet specialising on the cones of the *Allocasuarina* cones.
4. *Cupaniopsis serrata* - **Smooth Tuckeroo** - 10m - Ornamental, Rainforest Rainforest understory tree with cream to pink flowers from late winter to summer. Hardy but slow growing. Very attractive growth habit with colourful red/pink new growth. The fruit are eaten by many species of birds.
5. *Davidsonia pruriens* - **Davidson's Plum** 5-8m - Bush food, Ornamental rainforest shrub with large, edible blue-black fruit ripening in mid-summer. A brilliant red pulp, rather sour, but delicious when made into jam. The plum-like, blue-black fruit are coated with fine golden hairs which should be handled with care less they cause itching.

L to R - Native Hydrangea [*Abrophyllum ornans*], **female Glossy Black-Cockatoo on a Black She-oak** [*Allocasuarina littoralis*] [E.Anderson]



6. *Glochidion ferdinandi* - **Cheese Tree** - 6 - 10m - Wildlife attracting compact tree with small glossy leaves and pumpkin or edam cheese wheel shaped fruit. Flowers appear between winter and summer, they are small and greenish -yellow in colour. Useful small tree for gardens with a dense shady canopy or for providing a screen. Hardy. Fruit attracts many bird species.

7. *Hibiscus splendens* - **Pink Hibiscus** - 6m - Bush food, Ornamental. Also known as the Pink Hibiscus. Large shrub or small tree with showy pale pink flowers and bristly hairy rosella-like fruit. Fast growing.

8. *Homalanthus populifolius* - **Native Bleeding Heart** - 7m - Fast growing pioneer species. Ornamental Large rainforest shrub with tiny green flowers in spring. Dull purple fruit in summer attract Brown Cuckoo Doves. Ants visit and defend the nectar on this tree.

9. *Pipturus argenteus* - **Native Mulberry** - 8m - Bush food, Wildlife Attracting. Fast growing small rainforest tree with succulent, edible white fruits that mature in winter. Full sun or part shade. Small, white flowers are borne in clusters during summer; the females developing into white, fleshy fruits like spiky mulberries that are sweetish and edible. Attracts fruit and insect-eating birds. Food plant for several butterflies: **Jezabel Nymph, Yellow Admiral, Speckled Line Blue.**

10. *Elaeocarpus reticulatus* - **Blueberry Ash** - c.10m - Ornamental, Fast growing rainforest tree with dainty white or pink scented flowers resembling ballerina skirts. Small blue berries in winter attract birds. Elongated leathery grey-green leaves with serrated edges; this species, is characterised by the brilliant orange-red old leaves

Clockwise from top left - Cheese Tree [*Glochidion ferdinandi*] [E.Anderson], Native Mulberry [*Pipturus argenteus*] [K.Cross], Native Bleeding Heart [*Homalanthus populifolius*] [E.Anderson]





10 Pioneer Species – Sub-Tropical Rainforest

These species are good for big backyards or if you have a little more land and would like to start a little re-vegetation project. Many of the following species would also be useful as street trees.

1. **Brown Kurrajong** *Commersonia bartramia*
2. **Koda** *Ehretia acuminata*
3. **Blue Quandong** *Elaeocarpus grandis* [right]
4. **Sandpaper Fig** *Ficus fraseri*
5. **Cudgerie or Bumpy Ash** *Flindersia schottiana*
6. **Silky Oak** *Grevillea robusta* [below]
7. **Native Frangipani** *Hymenosporum flavum*
8. **Brush Box** *Lophostemon confertus*
9. **Sweet Pittosporum** *Pittosporum undulatum*
10. **Celery Wood** *Polyscias elegans* [below right]

Pictures - E. Anderson



TREES >10M

1. *Alphitonia excelsa* - **Soap Tree** - c15m - Pioneer tree, hardy and adaptable. Masses of tiny white flowers followed by black berries attracts birds. Leaves are dark green but silver underneath making for an attractive effect during wind. Indigenous people used it for soapy baths and liniments. The crushed leaves contain saponin and create a lather when rubbed in water, which is how the tree gained its common name. It serves as a food plant for the **Moonlight Jewel**, and the **Small Green-banded Blue**.

2. *Archontophoenix cunninghamiana* - **Piccabeen Palm** - 25m - Bird attracting, Butterfly host. Tall feather palm with Pinkish-mauve flowers in Aug. to Dec. followed by bright red berries, resembling a bunch of dates; Dec.to May. Native birds of many species are attracted to the fruit. Food plant for Both the **Orange and Yellow Palm-darts**.

3. *Banksia integrifolia* - **Coastal Banksia** - 15m - Bird Attracting, Hardy ornamental. Ornamental yellow cylindrical flower spikes, bird and insect attracting. Most nectar is produced during the night and early in the morning, with only small amounts produced during the day meaning that moths and bats are important pollinators. *B. integrifolia* was first collected at Botany Bay on 29 April 1770, by Sir Joseph Banks and Dr Daniel Solander, naturalists on the Endeavour during Lieutenant (later Captain) James Cook's first voyage to the Pacific Ocean. It is a popular choice for parks and streetscapes.

4. *Barklya syringifolia* - **Crown of Gold Barklya** - c15m - Dense and spectacular rainforest tree producing clusters of golden flowers in early summer. Much smaller in gardens and flowers when only two metres high. Bird and insect attracting.

5. *Brachychiton acerifolius* - **Flame Tree** - to 40m - Ornamental tree, Butterfly host. Large rainforest tree with stunning display of red, bell-shaped flowers over summer. The flowers are followed by edible seeds, that have a nutty flavour. Hardy and fast growing. Blooms attract birds while the leaves provide food for the **Penciled Blue, Tailed Emperor, and Common Aeroplane butterflies**.

L to R- **Piccabeen Palm** [*Archontophoenix cunninghamiana*], **Coastal Banksia** [*Banksia integrifolia*], **Crown of Gold Barklya** [*Barklya syringifolia*], **Flame Tree** [*Brachychiton acerifolius*]. [E.Anderson]



6. *Diploglottis australis* - **Native Tamarind** - 12-30m - Bush food, Butterfly host rainforest tree with creamy-brown flowers spring to early summer. Edible orange yellow fruit ripen over summer. This tree makes an excellent specimen tree for larger gardens. Food for the **Pale Blue Triangle** butterfly.

7. *Elaeocarpus grandis* - **Blue Quandong** - to 30m - Ornamental, Wildlife Attracting. Fast growing Rainforest tree with masses of white fringed bell-shaped flowers in autumn. Large bright blue berries attract birds and wildlife. These berries fall to the ground where they eaten by a range of wildlife. The fruit and flowers are a favourite of many bird species including rainforest pigeons and fruit doves.

8. *Ficus macrophylla* - **Moreton Bay Fig** - up to 50m - Ornamental. Wildlife Attracting. Large strangling fig producing edible orange to purple fruit ripening throughout the year. This impressive tree grows in wet and dry rainforest with a huge trunk that is widely buttressed. Its roots are aggressive and invasive. Tall, broad and spreading with a dense canopy it makes a beautiful shade tree and is widely used as a feature tree in parks and gardens around the world. Fruit attracts both birds and Flying foxes.

9. *Melaleuca salicina* - **Willow Bottlebrush** - 10m - Ornamental, Wildlife Attracting. It is a small tree with soft, pink new growth and white or grey papery bark. Flowers are white or creamy-white and arrive in spring. Attracts a range of nectar eating birds.

10. *Melicope elleryana* - **Pink Euodia** - 12 - 25m - Ornamental, Bird attracting. Rainforest tree producing pink flowers in summer attracting birds and butterflies. Hardy, adaptable and fast-growing. The tree commences flowering when only two or three years old. Honeyeaters adore the blossom while Bowerbirds come in for fruit.

Clockwise from top left - Pink Euodia [*Melicope elleryana*], Willow Bottlebrush [*Melaleuca salicina*], Soap Tree [*Alphitonia excelsa*] E. Anderson.



FUNGI AND LICHENS

It would be an unforgiveable error not to mention an entire kingdom of organisms in a booklet on the topic of biodiversity. Fungi, since the 1970's have been recognised as a Kingdom in their own right. They are not plants and do not photosynthesise. As far as we know they diverged from other life forms some one billion years ago!

They are, though, amazing, abundant, ubiquitous, and essential organisms.

When most of us think of a fungus, we picture mushrooms. Mushrooms, beautiful and fascinating as they are, however, are just the fruit of the organism; so, a minor part. Most fungi survive safely out of our sight quietly supporting nearly every living system. Much of fungus consist of a mass of threadlike structures called hyphae that weave throughout the soil, wood, lawn, leaf litter and animal dung in which it grows.

Plants need fungi. 500 million years ago when evolution began allowing plants to leave the water fungi was there acting as root systems, allowing the plants to access minerals and nutrients before evolving root systems of their own. This relationship continues today with, at minimum, 85% of plants having a mycorrhizal association with fungi – a symbiotic relationship - which allows the plant to access an enhanced supply of water and minerals from the soil while the fungus gains carbohydrates from the plant. If any of your garden plants fail to thrive, one explanation could be that the absence of a specific fungus.

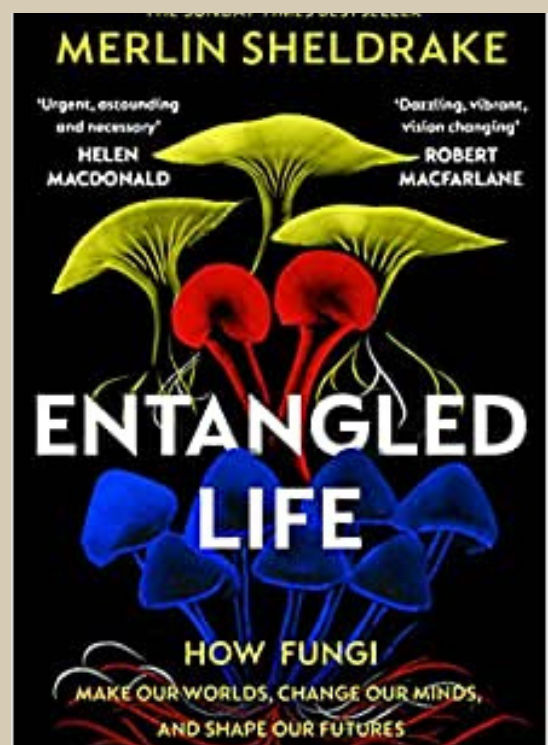
Dead things need fungi. Fungi are important decomposers. They break down and recycle dead or dying plant or animal material, releasing vital nutrients, particularly carbon and nitrogen, into the soil.

Globally we know little about fungi and we have described very few of the species. Some Mycologists estimate that we probably have some three million species of fungi. So far we have described a mere 148 000. On Australian fungi little is known comparatively.

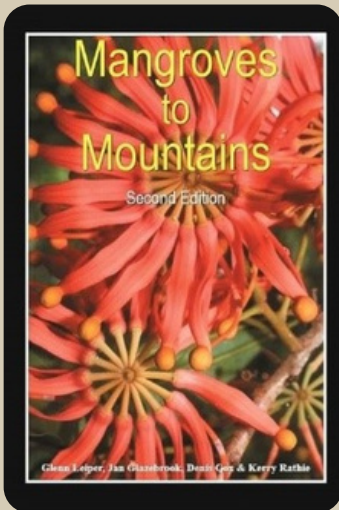
To try to identify some fungi from your garden visit the [website of the Queensland Mycological Society](#) and / or consider some of the [reference material on fungi of Australia](#) listed on their site.

Also recommended is the book, [Entangled Life – How Fungi make our worlds, change our minds and shape our future](#) by Merlin Sheldrake. This is a great natural history book that offers a wonderful tour of the kingdom, explaining how they adapt, communicate with each other, share nutrients and spread to almost every corner of the globe.

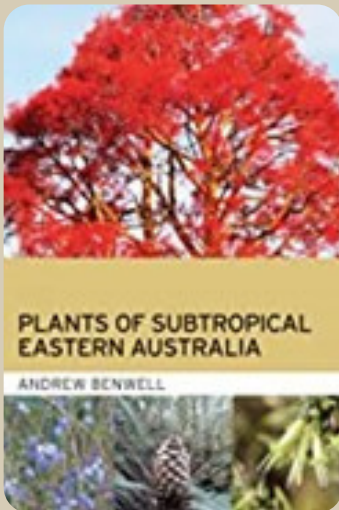
Lichens are lumped here with fungus, for good reason; a lichen is a composite organism that arises from algae or cyanobacteria living among filaments of multiple fungi species in a mutualistic relationship. Lichens have properties different from those of their component organisms.



RESOURCES



Mangroves to Mountains: A Field Guide to the Native Plants of South-East Queensland Revised
by Glen Leiper, Jane Glazebrook, Denis Cox & Kerry Rathie
January 2020



Plants of Subtropical Eastern Australia
by Andrew Benwell |
December 2020



Noosa's Native Plants 4th Edition
Stephanie Haslam



GroNATIVE is a free app that will promote the use of native plant species in gardens and urban landscapes. It will allow users to select distinct gardening styles and looks and how to match this using native planting palettes.
You will be able to download this free app from the following page - <https://www.natural-pacific.com/gro-native-app-launched-today/>