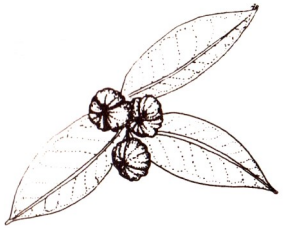
Stop 5

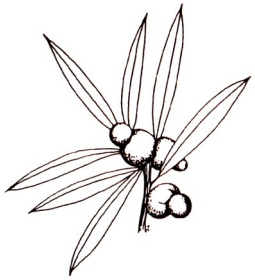
To the right is a tree with pinkish brown bark, the **Brush Bloodwood** *Baloghia inophylla.* An interesting feature of the Brush Bloodwood is that it expels its seeds from its hard and woody seed capsules with considerable velocity.



Brush Bloodwood leaves &fruit

Opposite is a very large **Coastal Banksia** and you may see some of the woody seed cones on the track.

Around the Banksia are numerous saplings of **Plum Pine** (*Podocarpus elatus*) which has very narrow glossy green leaves 3 to 25 cm long. The Plum Pine has easy to distinguish fruit, seen in the autumn months, which unusually is in two parts - a hard, dark inedible seed about 1 cm across, and a larger, fleshy, purple-black, seedless, grape-like edible 'fruit' which is actually a modified stalk.



Plum Pine leaves & fruit

Plum Pine is the only gymnosperm, or non-flowering tree, found in littoral rainforests of the Manning but they do not have cones like the other conifers. An interesting feature of Plum Pine is that it is wind-pollinated with pollen grains shaped for dispersal in air currents Huge amounts of pollen are produced so that even if only a minute fraction results in reaching the target, fertilization is assured.

As you continue, you will see lots of young saplings and large woody vines (lianes) to the left of the track, reaching up to the sunlight above the canopy.

Stop 6

You can see a section of the old dune here where the land rises up.

Near the post is a large **Deciduous Fig** *Ficus superba var. henneana* which is a type of Strangler Fig. Opposite is a large **Sandpaper Fig** *Ficus fraseri*. The leaves of the Sandpaper Fig feel rough like sandpaper. Figs produce large quantities of fruit which is an important food source for birds including fruit eating pigeons, Figbirds and bowerbirds. These Fig trees are pollinated by minute wasps, which are equally dependent on the figs as their eggs can only develop in the fig flowers and fruit. The Wonga Pigeon and 3 threatened Fruit-Doves (Wompoo, Rose-crowned and Superb) enjoy the fruits of the littoral rainforest along the NSW coastline. If you are lucky, you will hear them or see one feeding in the canopy.

Opposite, to the right, is a large but short **Cabbage Tree Palm** *Livistona australis* and a much smaller **River Lily** *Crinum pedunculatum* with its attractive strap-like leaves. They are growing on the edge of the paperbark swamp dominated by **Broad-leaved Paperbark** *Melaleuca quinquenervia.*

Stop 7

There is now a transition from the rainforest to the coast and a change of the plant species present. The groundcover is now dominated by a grass-like plant called **Mat-rush** *Lomandra longifolia.*

As you continue, the greater exposure to sea winds means the canopy is lower and many trees have narrower, multi-stemmed trunks. About 30 metres up the track you may recognize shrubs typical of beach dunes such as **Coastal Tee Tree** *Leptospermum laevigatum,* **Coastal Wattle** *Acacia longifolia subsp. sophorae* or the groundcover **Dune Fan Flower** *Scaevola calendulacea*.

Stop 8

You are now out of the rainforest and looking towards the lagoon. In front of you are the saltmarshes, then a line of **Grey Mangroves** *Avicennia marina* var. *australasica* and then the lagoon. Some clumps of **Swamp She-Oak** *Casuarina glauca* can also be seen. Many saltmarshes in southern Australia have been drained, used as land-fill sites, or have been degraded by grazing. The remaining sites are easily damaged by trampling.

If you walk along the track to the right and then turn and look back to the rainforest you will see the tall Coastal Banksias and the remnant sand-dune that protect the rainforest from the salt-laden winds from the ocean.

A weed to keep a look out for is **Bitou Bush** *Chrysanthemoides monilifera* subsp. *rotundata*. This yellow flowered plant can grow from numerous seeds or vegetatively from stems that touch the ground. It out-competes native plants.

If you continue to the right along the lagoon edge you will reach the back of the caravan park and then the break-wall.

Text: Daintry Gerrard, Pieta Laing and Geoff Williams 2017
Illustrations: Rodney Falconer, Tanya Cross

More info: www.midcoast2tops.org.au/walks

Harrington Rainforest Walk

A short walk which starts at the sign on Crowdy Head Rd Harrington (a few hundred metres north of the caravan park, towards Crowdy Head) and goes through to the lagoon

Manning **Coastcare** Group Inc.

The Harrington Rainforest walk takes you through littoral or coastal rainforest which has formed on old sand-dunes. The rainforest is sub-tropical and has a great diversity of plant species. It is the best remaining remnant of the rainforest which once stretched north from here to Crowdy Head. Sand mining in the 1960s and early 1970s took its toll on the rainforest. The saving grace of the rainforest pocket was that it contained historical grave sites.

Manning Coastcare Group has played a continuing role in protecting and restoring this area.

The current challenges to preserving this important native vegetation are weed invasion (which suppresses regeneration of the rainforest) and the threat of bush fire.

At the track entrance

Here on the edge of the rainforest you will see some common coastal plants. On the right corner of the track entrance is a small **Cheese Tree** *Glochidion ferdinandi*. The pumpkin-shaped fruit, which start out green and turn red, resemble a small round Edam cheese. The leaves are 3 to10 cm long and are alternatively arranged on the stem.

As you step onto the track it is immediately obvious you are under the rainforest canopy.

Just inside the track entrance, to the left, there is a large **Coastal Banksia** *Banksia integrifolia*. The large trunk is growing up at an angle towards the grass footpath area. This species is not normally associated with rainforest but because it grows behind sand-dunes it is a prominent feature of many littoral rainforests and often emerges above the canopy. Coastal Banksias can be distinguished from other Banksias by the leaves which have smooth margins and are much paler (silver-white) on the underside.

The large, multi-trunked tree growing next to the Banksia is a **Red Ash** *Alphitonia excelsa* which is a pioneer species associated with regenerating rainforests. The leaves are green and glossy and have a pale silvery underside.

Adjacent to the Banksia and Red Ash is a young **Tuckeroo** *Cupaniopsis anacardiodes* which is a dominant species in many littoral rainforests. It can be recognized by the compound leaves of 6-8 leaflets which are tough, hairless, and have a strong central vein on both sides. The ends of the leaflets are rounded and sometimes notched. The bright yellow to orange fruits are 12-20mm wide.

Stop 1

About 6 m from the track you can see a good example of the **Small Leaved Fig** *Ficus obliqua* which is one of five species of Fig occurring in the Harrington rainforest. It is a large strangling species that first establishes in the canopy of a host tree, but whose roots eventually grow and finally encapsulate the host tree.

As well as the tall trees in the rainforest there are layers of smaller trees, shrubs and seedlings. On the other side of the track you can see **Cordyline** *Cordyline stricta,* with its long strappy leaves and palm-like look and **Rough Saw-sedge** *Gahnia aspera* which is a tall grass-like plant. As you continue walking there is a lot of Saw-sedge on the left-hand side of the track.

The main vines seen here are Smilax or Lawyer Vine and White Supplejack. **Smilax** *Smilax australis* has 5 to 15 cm long glossy leaves which have 5 prominent longitudinal veins. The prickly climbing stems are up to 8 metres long and have coiled tendrils that are up to 20 cm long. It is endemic to Australia. **White Supplejack** *Ripogonum album* also has longitudinal veins on the narrower leaves which can be opposite each other, alternate or in whorls of 3. It is a stout climber, with stems up to 15 metres long. Flowers are greenish white, and the fruit is a round red berry. Indigenous Australians used the stems for making traps for catching crayfish. Both of these vines have leaves which have a drip-tip – a feature common to many rainforest species which enables rain drops to run off quickly to avoid growth of fungus and bacteria in the warm, wet environments. You might also notice on the wire fence a vine with very fine leaves – the native **Scrambling Lily** *Geitonoplesium cymosum.*

Hard Corkwood *Endiandra sieberi*, seen here, has distinctive coarse and fissured bark and is one of the dominant canopy trees in this rainforest. The fruit of this Corkwood tree is an important food source for fruit-eating pigeons and other wildlife.

In the 1990s and before, Coastal Banksia and Brush Kurrajong had colonized this regenerating section of rainforest and formed a low canopy. Now these species have been replaced with a variety of rainforest species which have formed a dense canopy.

Stop2

About 30 metres further on to the right, **Brush Kurrajong** *Commersonia fraseri* can be seen doing its job of recolonizing an area where the canopy has been opened by a fallen tree. You can also see the remnant of the canopy tree lying on the ground nearby. Tree seedlings often stay small for many years waiting for a gap to open in the canopy when a tree dies. Brush Kurrajong is a large shrub or small tree identified by the largish leaves 5 to 17cm long with toothed margins that become heart-shaped with age and the whitish leaf undersides are covered in a fine fur.

Off to the right of the track you might notice some rocks amongst the ground cover. These are not naturally occurring here and would most likely be ballast rocks from the old railway line which ran from Crowdy Head Back Beach Quarry to the Harrington Breakwall.

Stop 3

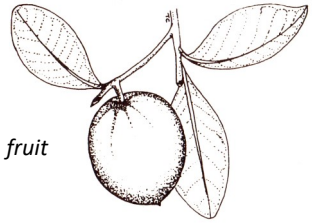
The large canopy trees here are Tuckeroos and there are many saplings of a variety of species growing up towards the light.

In 1998 there had been a gap in the canopy here for more than twenty-five years and a number of the canopy trees had 'salt burn'. Now, the gap has closed, and the rainforest is protected from salt-laden winds. The old dunes are now stable whereas previously they were quite mobile.

Progressive weed control activities by volunteers and contractors in this rainforest since 1995 have assisted this successful rainforest restoration. Weeds in the rainforest such as Asparagus weed, Cassia and Bitou Bush, smother seedlings and reduce the rainforest's chance of recovering when the canopy is damaged. Previously, Ground Asparagus weed was thigh high and in some places the Climbing Asparagus weed was chest high and climbing into the tree canopies. Asparagus weed generally takes a couple of years to flower and seed so it is important to remove it when it is young so it doesn't set seed. Of course, mature plants also need to be removed.

Stop 4

There is a small stand of **Black Apple** *Pouteria australis* here. They are small trees common in the understorey and you may be lucky and see the large black plum-like fruit on the forest floor in early summer. The fruit is edible and can be made into a jam.



Black Apple leaves & fruit

Opposite, just behind the fence further up, is a very tall **Wattle** *Acacia maidenii.* The opening of the canopy here, helped by the track, has enabled this species to thrive. Normally it grows on the margins of rainforest where there is more sun.

Can you find a **Long Leaf Water Vine** *Cissus sterculifolia* on the fence. The compound leaves have 5 leaflets (sometimes 3) and each leaflet is about 8 to 17 cm long.

A little further on, where the track turns to the right is a **Silver Basswood** or **Celery Wood** *Polyscias elegans.* It is a palm-like tree with an umbrella-shaped crown. The large compound leaves have pointed leaflets which are up to 13 cm long and are pointed. The purplish black fruit is another important food source for birds.