Welcome to HARBURY Reserve (version 2 in 2021)

The Trust for Nature owns Harbury to ensure the preservation of the flora and fauna of this beautiful forest. It is twenty hectares of bushland between Gembrook Rd and Bessie Creek Rd. There are three creeks including the Bessie Creek within the property. The property has diversity of flora associated with the fern gullies, as well as with the different north and south facing slopes.

This area provided home and sustenance to the Wurundjeri people and the Bunurong people of the Kulin nation passing through in times past.

* The simple walking tracks are subject to debris and fallen trees and can be uneven and slippery at times
* Please try to remain on the trail
* Please ensure all litter is removed from the property
* Leave the plants and animals in their natural state
* Do not light fires
* No horses permitted
* No pets including dogs permitted
* Wear stout shoes and preferably trousers tucked into socks to avoid bites and stings
* Phone reception may be poor within the property
* There are no toilet facilities on site, nearest facility is at Gembrook.

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These notes have the Latin botanical names on page 7. Common names are used for the Trail notes.

The stops are numbered to 20 and are on the right side of the track. Allow **at least** one hour for the circular walk

**STOP 1 Vegetation storeys**

Look at and feel the bark of this gum tree. It is commonly called a Messmate stringybark tree. Eucalypts (or gum trees) like this one are the tallest plants of the forest. The forest is like a multi-storey building with the Eucalyptus foliage forming the top storey. This one has different sided edge shape to each side of the leaf (ie oblique as its Latin name indicates). In the car park the Stringybark is the Brown Stringybark.

The next level is made up of smaller trees and tall shrubs like Spike Wattle and Daisy bush.

Small shrubs form the next floor below. Look for Hop Goodenia (yellow flower), Platylobium formosum (large egg and bacon flower), Pultanea scabra (small egg and bacon flower), Dampiera stricta (blue flower), Bauera rubioides (white flower) and Tetratheca stenocarpa (pink flowers with black centre). This particular species of Tetratheca is a rare plant in Victoria.

Finally, grasses and ferns with a carpet of leaf litter and twigs form the ground floor.

Each vegetation storey is important as a habitat for different animals. Eastern Rosellas are seen in the tree tops cracking eucalyptus nuts, Ring tailed possums nest in the wattles, wallabies like to eat the Mint bush leaves, wombats fossick for shoots and roots in the ground cover, and insects and caterpillars build up and enrich the soil by acting as decomposers in leaf letter. Unfortunately, in recent years, deer have become a major feral animal problem. Local properties are involved in culling programs, but you will no doubt see the nibbling and bark peeling effect of deer on the shrubs and trees as well as their foot prints pugging up the ground especially near creeks.

# STOP 2 Another Eucalyptus tree

The common name for this tree is the Silvertop Ash. You will see why when you note the rugged bark on the trunk and the smooth silvery bark on the high branches. In the Spring the top branches are often blood red when the new growth comes.

As well as the different appearance of bark on different eucalypts there are differences with the appearance of the flowers, leaves, buds and fruit. The Silvertop Ash will flower in Spring but these trees are very tall and usually have a relatively small canopy so flowers are hard to see from the ground.

The leaves are curved, shiny green both sides and veins running along the length. Juvenile leaves are broad and thick. Buds of the Silvertop Ash are club shaped, in clusters of 5 to 15 and on an angular peduncle. You may find one below the tree. Fruit (ie where the seeds are) is pear shaped, usually with three valves at rim or enclosed in the reddish disc

**STOP 3 Memorial plaque**

Diana Craig (nee Mann) donated Harbury to the Trust for Nature in 1978. The Trust now manages the property for the people of Victoria by preserving its native flora and fauna.

In all, Diana brought together five allotments by purchasing them between 1965 and 1972 to make up the area of Harbury.

Diana Craig had an Uncle Jack (John Mann) who lived in Mt Eliza. His house nestled amongst the ti-tree and was called Harbury. Mann Rd still exists in Mt Eliza. Diana’s interest in birds and plants came from visiting Jack because he loved the natural habitat and many birds of different varieties visited his property.

Jack Mann named his property after his family village Harbury in the Stratford-on-Avon district of Warwickshire, England. The village in England has ancient origins and the name was probably derived from a woman tribal chief of 500BC called Hereburgh. A map in 1637 names it as Harberbury.

Diana suggested the name Harbury to the inaugural Victoria Conservation Trust meeting for the property at the Shire offices in August 1978 and it was adopted by the new Committee of Management. Diana Craig, Elizabeth Fraser and Kate Walsh (Diana’s nieces), two Shire representatives and Colonel Ian Wilton from the Vic. Conservation Trust were at that meeting.

Diana Craig liked to look out over the gully from this point and it is a fitting place for her memorial. The words are from a poem written by Lady Maie Casey (1891- 1983) and chosen partly because it fits the feel of Harbury as a green haven, and partly because Lord and Lady Casey were local identities. Ethel Marian (Maie) (Ryan)Casey was distantly related by marriage to Diana through Diana’s uncle Hubert who married Denise Ryan who, like Maie Casey, was a niece of Ellis Rowan. Both Diana and Maie shared a great respect for Ellis Rowan (nee Ryan)(1848-1922) the remarkable Wildflower artist. She worked with Baron von Mueller from the Royal Botanic Gardens in recording so many of Australia’s flora.

Warning! There has long been a nest of Bull Ants or sometimes called Bulldog ants (Myrmecia sp) at the base of this memorial … the guards! They are easily upset and have a nasty venomous sting so do not walk near the memorial, stay on the walking track. They can be quite big and have very good eyesight. They eat nectar as well as animal prey which they carry back to their nest. They live in a communal nest mounded up slightly and guards are often visible at the entrance. A bite can be dangerous for people who are allergic , but is always painful- apply ice, or bush remedy is juice from broken bracken stem which may stop the discomfort.

**STOP 4 Changing vegetation**

The vegetation changes as you walk further into the gully. Dry conditions exist above the track and it is cooler and moister below the track. This north facing slope receives more sun than the south-facing slope opposite. The moist conditions persist further up the hill on the other slope.

There are two species of ground fern here. One is the bracken fern, and the other is called rainbow fern. The latter has a paler, more delicate appearance than the bracken. There are many species of fern in Harbury. They can be recognised generally by their soft feathery fronds. Ferns do not have flowers but reproduce from their tiny spores which, in these two ferns, develop on the back of the frond.

You will also notice some dry scrub vegetation here particularly on the high side of the track. The Wire grass is very rough if you run your fingers carefully up the stem. This rough surface offers special protection for the plant to stop animals eating them. Many soft-leaved plants grow up in the wire grass tangle where they are protected from being eaten by wallabies.

**STOP 5 Eucalypt growing deeper in the gully**

The Mountain Grey Gum on the opposite side of the track, has a smooth trunk and rough bark at the base. It sheds its old bark in long sections on the ground. These form a protective habitat for insects on the forest floor. This gum tree likes to grow in damp gullies.

**STOP 6 More ferns**

There are many rainbow ferns here as well as gristle fern, bracken and tree ferns along the track here.

Hollows in the old eucalypts are valuable nesting and hiding places for birds and animals

**STOP 7 Wattle**

There is a high suspended wire servicing the property next door which requires clearing beneath it from time to time, hence the lower vegetation.

From here you can see through to Bessie Ck Road so the narrowness of this property is apparent making lots of risks for animals with the road frontages and also risk of rubbish dumping and weed invasion. These are all called “edge effects” for conservation properties which require extra management attention.

**STOP 8 Stop, Look and Listen**

When the creek below is running strongly, you can hear it from here. You may also be able to hear bird sounds, including the lyrebird.

One of the ground ferns here is the Gristle fern. The young fronds are often a delicate pink colour and can be seen uncurling when new. The vegetative fronds have pinnae characteristically alternate to each other except for the lowermost, which are almost opposite and slope downwards. The fertile fronds are brown with spores if present.

Further down the track on the right is the Hard Water fern.

 The tree ferns here are the Rough Tree ferns. The base of the fronds is rough to the touch. The fronds break off each year so the age of the tree fern can be estimated from the number of rows of frond butts on the trunk. Possums and Black Cockatoos like to eat the tender, young uncurling fronds. Deer cause damage to the crowns of ferns sometimes by bashing their antlers on them. The spores on the backs of the fronds are characteristically arranged in different ways for each species.

**STOP 9 Animals in Harbury**

Look for signs that animals live in Harbury. You may notice wombat burrows, animal droppings, scratching in the soil, little paths through the undergrowth, hollow logs or tree hollows. Dead trees are valuable in the bush for animal habitats. Animals living in Harbury include lyrebirds, wallabies and a variety of possums and gliders.

Another small tree here on the left has leaves grouped in threes, and has white flowers. Crush one of the leaves and smell it. The common name of the tree is Stinkwood. It is growing with a Hop Goodenia and Gristle fern. On the right is Sword grass, the sharp edged leaves can be sharp to touch but it is a good coloniser plant.

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**STOP 10 Deep in the Gully**

Take a temporary deviation from the path towards the creek to see the mosses, liverworts, and lichens growing in this shady spot. The sun does not penetrate and these more primitive plants thrive in the moist conditions. They grow on both living and dead plants, and aid in the decay process to build up new soil. The thick leaf litter here is also contributing to the humus.

An exciting and unusual plant is growing up high on the dead tree fern by the creek. It is called the fork-fern and belongs to one of the oldest living orders of plant related more to ferns than mosses. Due to loss of overhead trees it is vulnerable now to drying effect of sun.

Two other ferns grow here –Fan fern and the Hard Water fern. The latter has separate fertile and vegetative fronds. The vegetative fronds are quite course to touch.

Return to the main path before continuing.

Look carefully on the right side after climbing over the log, and you may notice a scar in the trunk where black cockatoos have been ripping into the slender Hazel Pomaderris to seek grubs. Sometimes this actually cuts the tree down! How do they know there is a grub in there?

**STOP 11 Interference in the bush**

Over the small bridge there was a saw mill here in the early 1900s where Blackwood Wattle logs were cut for timber. The large stump on the left is a legacy from that time. It has notches cut in the side so that the woodcutter could stand on a plank placed in the hole while he sawed the tree down using a crosscut saw. There was also a woodcutter’s shack here. Some remnants of hydrangeas and lilies from his garden were removed in the 1990s as they started to spread – they were weeds in this setting.

In 1983 much disruption occurred as a result of bulldozer tracks put through after the Ash Wednesday fires. The area has now revegetated naturally with a beautiful stand of Silver Wattles (the seeds germinate readily after fire), but it was a continuous job by volunteers at Harbury to remove blackberry, capeweed and ragwort from colonising the area while waiting for the native plants to grow. Now that the bush has regrown, these plants will not have as much opportunity to grow although weeding needs to be done periodically along the walking tracks.

Also if you look back along the bridge to the large stringy bark tree you may notice the bark has been stripped off the sides with sap seeping sometimes – this is a yellow bellied glider feeding tree. At night they puncture holes in the bark and suck the sweet sap.

**STOP 12 Logging Track**

Turn left at the T-intersection to continue on the Nature trail. Watch out for little orchids on the track in Spring.

This track follows the original logging track where draught horse or perhaps bullock teams would once have worked so it has been established a long time. The culverts for the creek crossing were put in after Ash Wednesday. Friends of Harbury removed a lot of weed species after this interference … Cape weed, blackberry and South African Selaginella.

Sadly, the two large dead eucalypts on the left have been shown to have phytophthora infestation. As you continue up the slope on the track you will see more dead trees along the gully-- all likely from this infestation. It is important to practice good boot cleaning practices as you leave the property.

The soft leafy plant sometimes seen here and further along the track is White Elderberry. It comes up in the Spring and grows in shaded moist areas. Hop Goodenia is also present with its yellow flowers and shrub appearance.

**STOP 13 Giant Mountain Grey Gum**

The huge blackened grey gum log across the old logging track was burnt in 1983 on Ash Wednesday. And in high winds and torrential rain of 2021 it fell across the track. We recognize its possible 700 year life as a living tree, nearly 30 year life as habitat hollow old stump and now its continuing habitat for wildlife from insects to creatures. Harbury is home for Powerful Owls and Sugar Gliders so these big old trees are important for nesting and for the nectar of their flowers. But even as rotting logs their habitat role continues. One of the second storey trees here is the Blanket leaf which has soft undersides to the leaves.

The ground is covered in a club moss which becomes quite brown and dry in the summer, but springs to life after rain and then looks like tiny pine trees. It is called Dawsonia superba. Mosses need water to spread and germinate so this damp area is ideal.

# STOP 14 Maidenhair fern

This delicate fern is a common garden fern but is seen here growing in its natural habitat.

Below the path are Silver Wattles and Blackwood wattles.

**STOP 15 More plants on logging track**

As you progress along this logging track you will find graceful drooping bushes with slender reddish stems. They have tiny flowers in the axils of the leaves in Spring. The gracefully arching stems are strong and tough when stripped of their leaves. They give the plant its common name of Bootlace bush but it is more correctly called Pimelea.

There are also several small prickly Currant Bushes here. They have a tiny red berry which is edible and very high in Vitamin C!

You may see a variety of orchids in the Springtime. They are often tiny and inconspicuous so tread carefully!

Volunteers have been working hard to remove Selaginella kraussiana which is an introduced plant from Africa. It is commonly found in nursery hanging baskets in Australia. This weed had established itself here as a carpet of green and was in danger of taking over native mosses. Unfortunately wet weather conditions suit it well !

**STOP 16 Wattle trees**

Turn left at this point. The path will take you across the dry gully to complete the circle of the walk.

The track now passes giant Blackwood Wattles. These trees are much prized for their timber. In the 1930s the wood cutter who lived in Harbury logged this area and the logs were dragged out to the Bessie Ck Rd along the logging track. Silver wattles are also here and the area is a splash of yellow in the Spring from the flowers. Unfortunately the bush here is changing rapidly with tree death from Phytophthora infection opening up the overstory.

In the heat of the summer the seed pods can be heard cracking open high up in the branches. Wattle trees often produce copious amounts of seed which falls to the ground from the pods. Many of these seeds are eaten by birds and insects. Some are also transported to other sites by these creatures in their droppings. In disturbed areas young wattles germinate in large numbers but not all get to maturity as a tree.

As you go down the slope you will see a ground fern growing vigorously at the base of tree ferns mainly on the left edge of the track. This is the Shiny Shield fern.

The next stop has the indicator post on the left of the track so don’t miss it!

**STOP 17 Ferns in the gully**

Look carefully at the tree fern here and compare the appearance and feel of the base of its fronds with the previous tree fern at Stop 8. This one is commonly called the Soft tree fern as it has smooth stems. The spores are arranged at the very edges of the pinnae on the fronds.

Another fern growing and spreading over the ground here is the Mother Shield fern. The mother fern reproduces by spores but also by growing “baby” ferns or bulbils on the end of its fronds. The frond is eventually weighed down to the ground by the young fern which then takes root. The old fern frond eventually rots away and the young fern is then independent. You may be able to find examples of each stage.

# STOP 18 Dry gully

In this area it is often possible in winter to see lots of strands of whitish “rootlike” vegetable matter spreading over the decomposing litter of the forest floor. This is the mycelium of the Horsehair fungus (Marasmius equinus). The fruiting body of this fungus is a very dainty little brownish toadstool on a long slender stem. The toadstool cap is about 1cm in diameter.

The environment here is changing with the death of some wattles and gum trees which means that more light is penetrating the forest floor. This allows the wire grass and native violets to carpet the ground but also weeds such as black berry to take hold if not eradicated. Other ground covering plants here are Hounds Tongue, Shade nettle, Stellaria and Stinging Nettle.

There are some beautiful white trunked Manna Gums here too often with bark ribbons in strands dangling from the corners of branches.

This area has recently shown considerable signs of deer breaking down the vegetation. Feral animals such as deer (generally Sambar or Fallow locally) can destroy the biodiversity of the bush by wallowing in creeks, bashing the tree ferns and trees with their antlers, crashing through the undergrowth, leaving vegetation destroyed on paths with their hoofs. Foxes destroy lyrebird nests, and eat the bush creatures.

# STOP 19 North facing slope near Gembrook Rd

There are remains of dead eucalypts up the hill in this area of Harbury. These were narrow-leaved Peppermint eucalypts, which like to grow on this north-facing slope well up from the creek. The eucalypts here were infested with an insect called a psyllid which is a sap-sucking insect. Usually the lerps are kept under control by the insect eating birds, but the area also had a large population of Bell Miners. They are belligerent birds which tend to drive away the other insect eaters when they infest an area thus upsetting the balance. Because they eat the lerp covering but not the insect, this has the effect of allowing the insect population to multiply, and thus destroy the trees. This area of Harbury was populated by Bell Miners from 1989 until 1996 and during this time the Peppermint eucalypts became covered with lerps and scale insects and then gradually died. You will see just a few healthy Peppermints now amongst the grey gums, silvertop ash and stringy bark gums. And the Bell Miners have long ago moved on!

The name Peppermint comes from the strong aroma of the leaves when crushed. It has persistent fibrous looking bark and narrow drooping leaves.

**STOP 20 Another fern**

The delicate Screw fern grows on quite dry soil along the path here.

Turn right in a couple of metres at the boot cleaning stand to go out to the carpark area on Gembrook - Pakenham Rd.

Thank you for visiting Harbury

Visit Trust for Nature: wwwTrustfornature.org.au

**Useful references for further information:**

* Corrick Margaret G. And Fuhrer Bruce A, Bloomings Books Australia Wildflowers of Victoria
* Costermans Leon, New Holland Publishers (Australia) PtyLtd 2008 Native Trees and Shrubs of South eastern Australia
* Fuhrer Bruce, Bloomings Books 2005 A field guide to Australian Fungi
* Jones D.L & Clemesha C, A. H & A.W Reed Pty Ltd 1976 reprinted1978 Australian Ferns and Fern Allies

**Botanical (Latin) Names of Plants seen on your** **walk**

**Acacias (wattle trees)**

Black wood wattle: A. melanoxylon

Silver Wattle: A. dealbata

Spike Wattle: Acacia oxycedrus

Varnish Wattle: A. verniciflua

**Eucalyptus trees (gum trees)**

Brown Stringy bark: E.baxteri

Manna Gum: E. viminalis

Messmate Stringy bark: E. obliqua

Mountain Grey Gum: E. cypellocarpa

Peppermint Gum: E. radicata

Silvertop ash: Eucalyptus sieberi

**Ferns**

Bracken fern: Pteridium esculentum

Fan fern: Sticherus lobatus

Fishbone water fern:Blechnum nudum

Fork fern: Tmesipteris sp

Gristle fern: Blechnum cartilagineum

Hard Water fern : Blechnum wattsii

Hard Tree fern: Cyathea australis

Maidenhair fern: Adiantum aethiopicum

Mother Shield fern: Polystichum proliferum

Oak fern or Batswing fern:Histiopteris incisa

Rainbow fern: Calochlaena dubia

Screw fern: Lindsaea linearis

Shiny Shield fern: Lastreopsis shepherdii

Soft Tree fern: Dicksonia antarctica

Strap Water fern: Blechnum patersonnii

**Other vegetation mentioned**

Black eyed Susan: Tetratheca stenocarpa

Blanket leaf: Bedfordia arborescens

Bauera rubiodes

Daisy bush Olearia Lirata

Dampiera stricta

Egg and Bacon: Platylobium formosum

or Pultanea scabra (leave shape like a scabbard)

Hazel Pomaderris: Pomaderris aspera

Hop Goodenia: G. ovata

Hounds Tongue: Cynoglossum australe

Mint Bush or Christmas Bush: Prostanthera lasianthus

Bootlace Bush: Pimelea axiflora

Prickly Currant Bush: Coprosma quadrifida

Shade Nettle: Australina pusilla

Stellaria: Stellaria pungens

Stinging Nettle:Urtica incisa

Stink wood: Zieria arborescens

Swordgrass: Lepidosperma laterale

Ti tree : Leptospermum juniperinum

White Elderberry: Sambucus gaudichaudiana

Wire grass:Tetrarrhena juncea