

Kepa Bush Guide

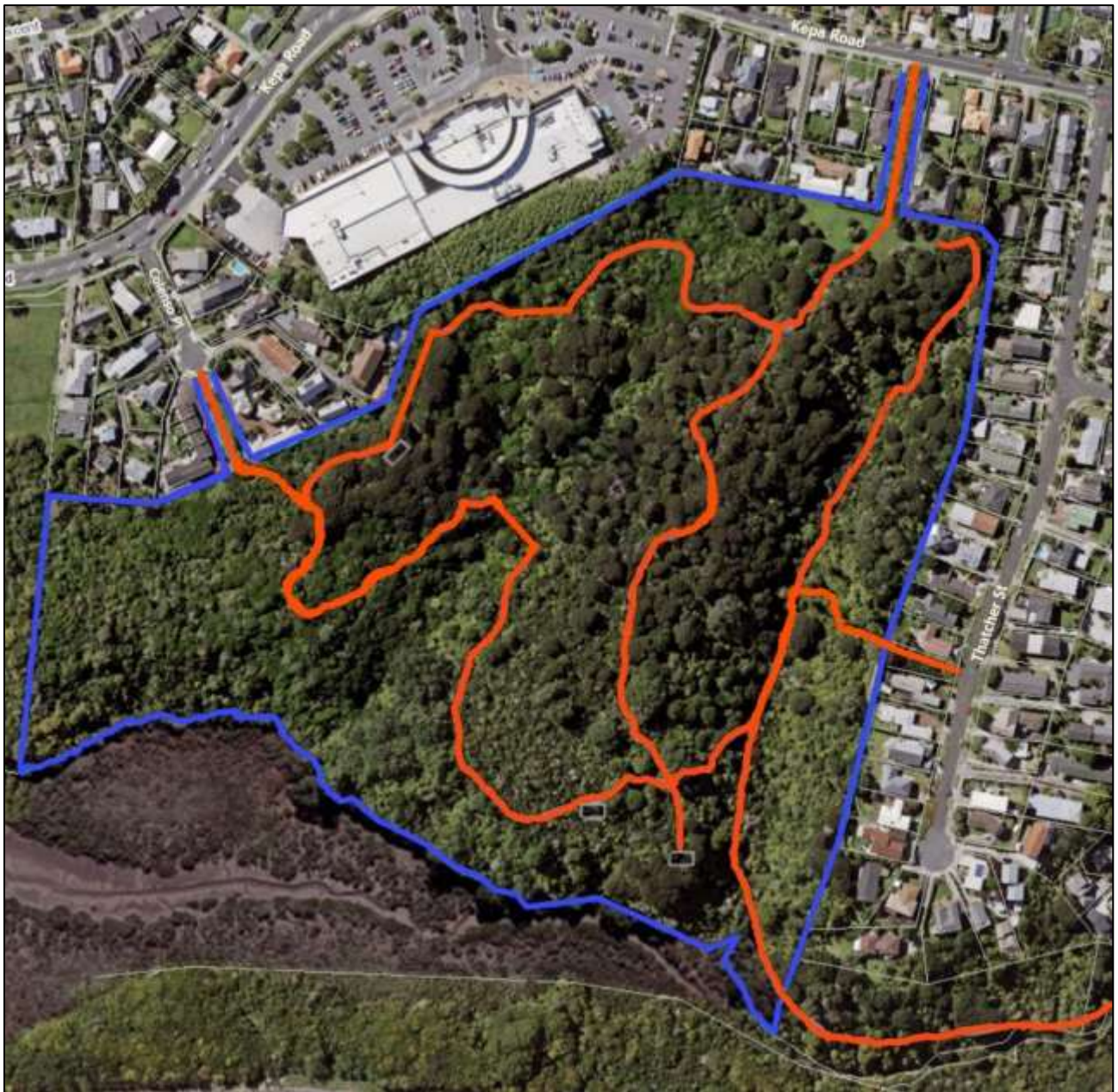
According to

Ewen Cameron,

one of Auckland's leading botanists and
Curator of Botany at Auckland Museum,

“Apart from the Hillsborough-Blockhouse Bay coastal strip,
Kepa Bush and adjacent bush is the largest piece of native bush on the Auckland isthmus.
The forest grading into a tidal estuary adds to its biological value.

This wonderful bush area,
with good walking tracks and a few weeds, in the heart of the city
is an amazing asset.”



***Kepa Bush entrances from Colenso Place, Kepa Road and Thatcher Street
with pathways shown in red.***

Image prepared by Sue La Roche on Auckland Council 2017 GeoMap base

What to Look for in Kepa Bush

Birds in Kepa Bush

Kepa Bush is part of an important ecological corridor for native birds coming to the Eastern Bays region from the predator-free island sanctuaries of Rangitoto, Motutapu and Motuihe.¹

More birds are being seen in Kepa Bush as a result of regular trapping of rats and possums by volunteers since 2003.

Five minute bird counts carried out in spring and autumn each year are showing continuing increases in bird numbers and species.

Regularly there are flocks of:

- ✎ **Tūi** – darting through trees at speed, especially when flax, kōwhai and kohekohe are in flower.
- ✎ **Kererū** – often seen and
- ✎ **Pīwakawaka** – (fantails) will regularly accompany walkers in the bush.
- ✎ **Riroriro** – (grey warblers),
- ✎ **Kōtare** – (kingfishers),
- ✎ **Pūkeko**
- ✎ **Tauhō** – (silver eyes) and
- ✎ **Rosella** – often seen
- ✎ **Kākā** – have been heard.
- ✎ **Ruru** – (morepork) heard in the evenings.
- ✎ **Moho pererū**, – (banded rail) (*Gallirallus philippensis*) seen recently near the Pourewa Estuary.



Points of Interest and Trail Guide

It is recommended that to follow this guide the visitor should start at the **Kepa Road entrance** between Nos 251 and 253 Kepa Road where there is this large sign board.

Scanning the QR code at this entrance sign will access the online Kepa Bush Trail Guide to inform visitors as they walk around the bush.

There is so much to see, enjoy and learn.

Walk along the sealed pathway to the open lawn area where there are three picnic tables for visitors to relax and appreciate the tranquillity of this reserve.

The noise and bustle of the busy traffic on Kepa Road is left behind.

Kepa Bush History

Kepa Bush reserve was originally part of St John's College farm established by Bishop Selwyn in 1844. Auckland City Council purchased the reserve of 13.6 hectares in 1962 from the St John's College Trust Board. Regrettably livestock had roamed through the bush from 1937 until the beginning of 1960. Although there has been much regeneration of native species, particularly from the larger trees, some up to 300 years old, the scars of livestock damage have been slow to recover in some areas. Keeping weeds under control is a continuing task for Council contractors and volunteers from Friends of Kepa Bush.

It was the Ōrākei - Kohimarama Community Committee, the Royal Forest and Bird Protection Society and other community groups with the help of student labour who played a major role in developing the reserve from 1977.

Under the guidance of Frank Smith, who was appointed Honorary Ranger until his death in 1994, they formed the tracks, built picnic tables, undertook planting of natives and erected signs. Frank was instrumental in removing weeds and many exotic trees, particularly privet and hawthorn.²

Origins of Surrounding Street Names

Kepa Road and Kepa Bush are named after **Te Ranginui Te Keepa**, or Major Kemp who fought with Government forces against Te Kooti and Titokowaru in the Land Wars of the 1860s. When Te Keepa had been promoted to Major in November 1868, he became known as Meiha Keepa, or Major Kemp. His Whanganui troops were feared and revered. Te Keepa later became active in the Kotahitanga movement. This sought to implement the Treaty of Waitangi, abolish the Native Lands Acts, and achieve a degree of Māori local self-government. He died in 1898.³

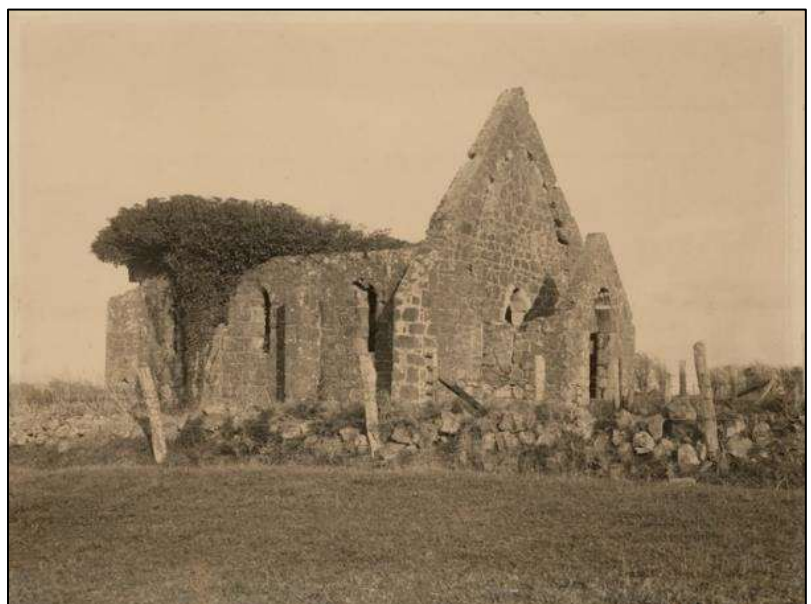
Colenso Place is named after **William Colenso**, a Cornish Christian missionary who came to New Zealand in 1834 to run the Church Missionary Society's printing press at Paihia in the Bay of Islands. Colenso was also a notable botanist, explorer and politician. He attended the signing of the Treaty of Waitangi and later wrote an account of the events at Waitangi. There is much written about his many achievements.⁴

Thatcher Street is named after **Frederick Thatcher** who was practising as an architect and surveyor in London where he was one of the first 15 associates of the Institute of British Architects. Soon after coming to New Zealand in 1843, he was appointed by Bishop Selwyn as his Superintendent of Works. Thatcher was ordained a Deacon on 24 December 1848. After becoming proficient in Māori, he was responsible under the Reverend J. F. Churton, for educational work in the parish of St Paul's, Auckland.⁵

Kempthorne Place is named after **Sampson Kempthorne**, another British Architect who immigrated to New Zealand with his wife in May 1842. He was engaged by Bishop Selwyn to build some stone churches, but his first two attempts, St Thomas's at Kohimarama (1847) and St Stephen's at Taurarua, Judges Bay (1848), proved structurally unsound.⁶

*May 1916 picture of the ruins of
Old St Thomas Church
on the corner of
Kohimarama and St Heliers Bay Roads.
Built in 1843,
abandoned in 1864,
the ruins were demolished in 1954.*

Auckland Libraries Heritage Collections 5-367



Native Trees in Kepa Bush

Kepa Bush is one of the few original pieces of native forest remaining in Auckland where large native trees can be seen.

It has been the subject of various botanical studies,^{7, 8} the most recent in 2015 when Auckland Museum undertook a “Bioblitz”.⁸

Celebrated Auckland botanist Ewen Cameron

described the vascular plants at Kepa Bush in his Bioblitz report as follows;⁹

“Kepa Bush is dominated by a central ridge running north-south down to the estuary with gullies on either side supporting running creeks when raining. The forest canopy is virtually entirely native with magnificent tall **kānuka** and a few **mānuka** locally (*Leptospermum scoparium*) on the higher slopes. Groves of broad-leaved trees grow in the gullies and under the broken canopy of the taller **kānuka**.

Kohekohe is the dominant canopy species with **māhoe**, **karaka**, five finger **whauwhaupaku** (*Pseudopanax arboreus*), **ponga** and locally **putaputawētā** (*Carpodetus serratus*) in the gully bottoms.

Ponga is common throughout and **houhere** (*Hoheria populnea*) is locally present on the higher slopes.

Pūriri (*Vitex lucens*), **taraire** (*Beilschmiedia taraire*), **tītoki** (*Alectryon excelsus*) and **nikau** (*Rhopalostylis sapida*) are surprisingly uncommon, and mainly represented by a few large seedlings with single adult trees of **taraire** and **tītoki**.

Large spreading trees of **pohutukawa** (*Metrosideros excelsa*) are locally present on the main ridge and by the estuarine edge; several of the younger plants, still epiphytic on **ponga** trunks appeared to be hybrids of **pohutukawa** and **northern rātā**. Four trees of **rewarewa** were seen emergent above the canopy and a few seedlings along the track margins.

Tōtara (*Podocarpus totara*) was occasional, mainly as seedlings and saplings; however, a tall adult tree was present near the SE corner. Very few old trees of **kowhai** have survived since Cranwell (1981) reported their flowering as a feature of the area, and more recently Gardner (2009) remarked on their poor condition.

In the forest there are individual fine specimen trees of: **kānuka** (to 18m tall), **kohekohe** (a sign-posted tree with a short c.1m diam. trunk reached c.12m tall with a spreading canopy), **taraire**, **pigeonwood** (*Hedycarya arborea*), **putaputawētā**, and below Thatcher Street a giant five finger, **whauwhaupaku** and two large **tutu** (*Coriaria arborea*), both species hanging out over the tidal creek.

In the eastern gully floor, near the entrance from Thatcher Street, the forest is more humid – evident from the presence of seven finger **patē** (*Schefflera digitata*), **whēkī** (*Dicksonia squarrosa*), abundant ground ferns and single populations of two species of **filmy ferns** (*Hymenophyllum flabellatum* and *Trichomanes venosum*) on separate **ponga** trunks. (Note – St Johns Bush, c.1 km to the SE, also contained these two filmy ferns plus *Hymenophyllum rarum* and the wetland tree, **pukatea** (*Laurelia novae-zelandiae*) (Cameron 2000).

Where this eastern Kepa Bush creek enters the tidal Pourewa Creek there is an ecotone of **bolboschoenus** (*Bolboschoenus medianus*) sward > 30m long by 8m across; on the fringe of this sward was a single old **coastal daisy tree** (*Olearia solandri*), saltmarsh **ribbonwood** (*Plagianthus divaricatus*), patches of **oioi** (*Apodasmia similis*), occasional small trees of **māpou**, and a single plant of **sea rush** (*Juncus kraussii*).

Mangroves (*Avicennia marina*) to 3m tall fringe the open front edge of the **bolboschoenus**, and behind it in the freshwater a small sward of *Carex geminata* occurs with *C. virgata*.

The forest understorey shrub layer looks unnaturally open in places on the upper forested slopes, which may be caused by people walking off the tracks; alternatively, the bush may still be recovering from grazing cattle and horses over many decades (Cranwell 1981, Gardner 2009) and possibly from the soil compaction that the larger animals caused.

Apart from around the entrances to Kepa Bush from Colenso Place and Kepa Road, very little appears to have been planted in the reserve. At these entrances there are plantings of **ngaio** (*Myoporum laetum*), **mānuka**, **kānuka**, **cabbage trees**, **karo**, *Hebe stricta*, *Pittosporum tenuifolia* cultivars, **tōtara**, **pūriri** (×1), **tarata** (*Pittosporum eugenoides*) (×1), a **tawapou** (*Planchonella costata*), *Griselinia lucida* (×1), *Meryta sinclairii* (×2) and several **flax** (*Phormium tenax*).

By the upper track behind the supermarket there are several similar-sized trees (6-7m tall) of *Pittosporum tenuifolium*, **tarata** and **karo** that appear to have been planted. Twenty-five plants of **parataniwha** (*Elatostema rugosa*) were planted along the stream banks in June 2013 by Te Ngahere (Mike Smith pers. comm.).”

Over 70 environmental weed species, and possums and rodents, have been managed in Kepa Bush since 2002 by volunteers and contractors to Auckland Council. The result is that the reserve is remarkably free of weeds. Most pest plants that we saw were present only as seedlings.”

Learning about New Zealand’s Native Trees

New Zealand’s native trees are such an important feature for us all to appreciate. However native trees are more than just attractive shrubs or trees to identify. They have had many uses, not least to Māori who have used them to cure ailments and for other uses. Te Rongoā is traditional Māori medicine using native plants. These traditional medicine methods have been scientifically investigated with several of the chemicals involved being identified for their healing properties.¹⁰

However, there are very many aspects and specialist learning involved to practice rongoā. The novice should not attempt to use these methods without expert advice. Recommended publications are listed in the reference information.¹¹

There are many excellent publications on the New Zealand forest trees, birds, insects and fungi.^{12,13}

The locations of each plant or tree described are indicated on the enlarged maps of each section of the reserve, and by the number on a stake beside each tree. Many of these trees are located around the Kepa Road entrance area.

The examples shown in following pages are just a few that should be easy to recognise.

You will find seedlings and other examples of the trees pictured as you walk around the bush.

Native Fish and Glow-worms

As you walk along the path following the stream below Thatcher Street, just opposite the steps up to Thatcher Street, you will notice a sign board describing Native Fish and Glow-worms.

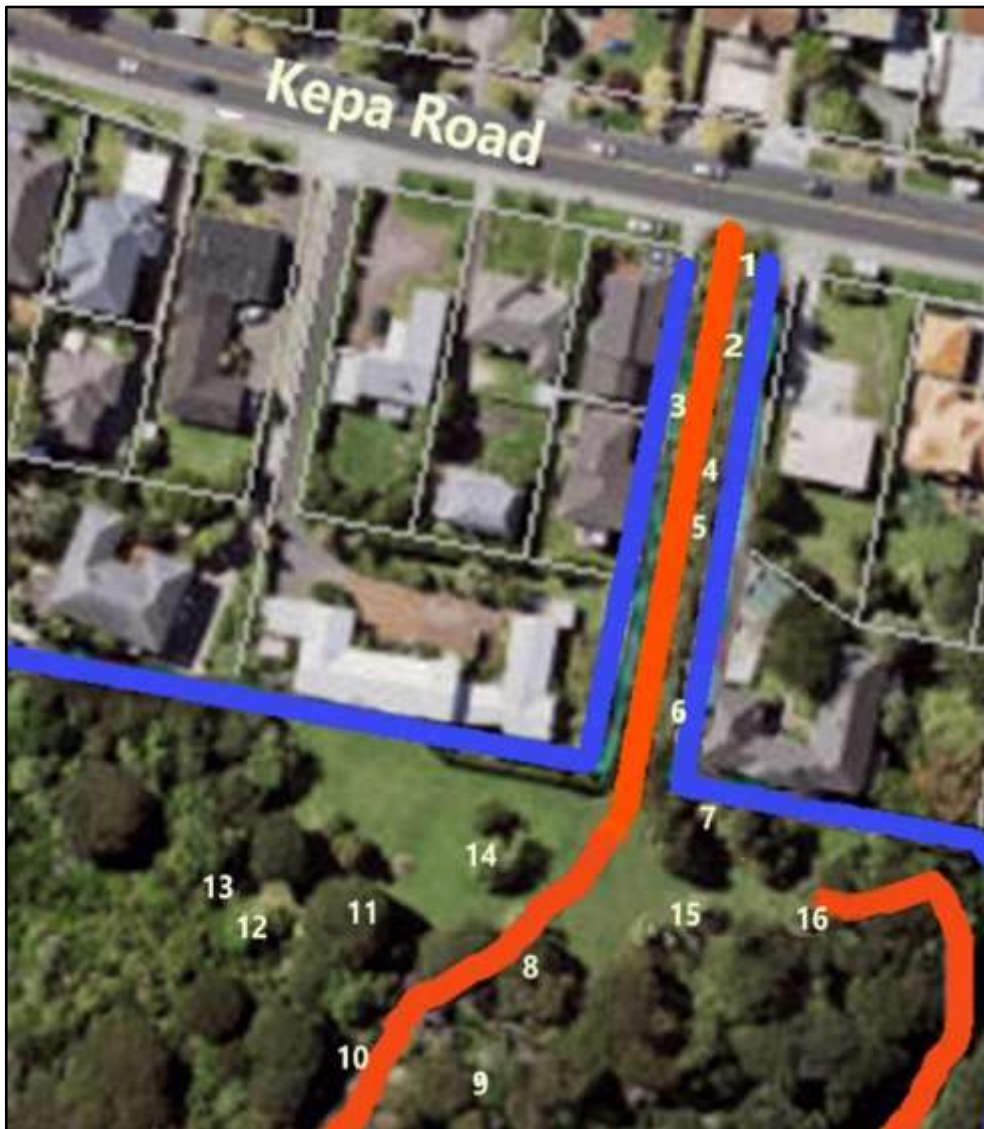
Look carefully in the pools and you may see the native kōkopu hiding in the shadows or even possibly an eel. Kōkopu and eels spend part of their life at sea before returning to their spawning ground in this creek.

If you return in the evening, you should see glow-worms on the banks near the stream, often more visible in damp conditions.

Other Bioblitz Records

For nature lovers, the 2015 Bioblitz reports on Kepa Bush covered many other life forms as well as native trees. These included fungi, lichens, ferns, bacteria, algae, liverworts, mosses, nematodes, spiders, harvestmen and false scorpions, mites, beetles, katydids, wētā and cockroaches, thrips, flies and mosquitoes, bugs, butterflies and moths, ants, wasps and bees, amphipods, isopods, molluscs, fish, birds and mammals.⁸

Kepa Road Entrance Area



1 **Karo** (*Pittosporum crassifolium*)

Karo is a common tree growing up to 10 metres tall.

Small dark red flowers appear in early spring when birds, attracted to the nectar and sticky black fruit, widely spread the seeds.

Leaves are grey-green and covered on the underside with fine white hairs.

Māori crushed the seeds to treat sore throats and hair loss.

Karo is often used for hedges or shelter planting because it is very resilient to wind and salt spray.



2 Māpou (*Myrsine australis*) or Red Matipo

Māpou can be a shrub or small tree up to 6m tall with bright red twigs bearing wavy yellow-green leaves. Māpou flowers in clusters during mid-summer producing black fruit that are eaten by birds.

In Māori tradition, māpou is regarded as 'rākau tapu' (sacred tree). Its main use historically was ceremonial. A twig was dipped in sacred water by a tōhunga and sprinkled onto people or objects for cleansing such as baptisms, tangi and for planting kūmara.

The leaves were boiled and the liquid was taken for tooth ache.



3 Taupata (*Coprosma repens*)

Taupata, sometimes known as naupata is normally a shrub or small tree that can grow up to 8 metres tall, forming large clusters of berries in May that are eaten by birds.

Along with other *Coprosma* species, Māori tōhunga would use a wand of green taupata as a cleansing ritual to forestall spiritual contamination or illness.

Early settlers roasted and ground the seed to make coprosma coffee.

Many cultivars with brightly coloured leaves have been developed from this species and are popular in private gardens.



4 Karaka (*Corynocarpus laevigatus*)

Karaka can grow up to 15 metres tall.

The flowers are small and greenish but the large orange fruit produced in summer and autumn are important food for birds.

Māori often planted karaka near their villages for shade and as an important food source.

Although the ripe flesh of the fruit is edible, seed kernels are poisonous until baked and sun dried.

Wound healing was promoted by placing the shiny upper surface of leaves over wounds.





5 Harakeke (*Phormium tenax*) or Flax

Harakeke, unique to New Zealand, is one of our most ancient plant species. Harakeke flowers are an abundant food resource for native birds, particularly tūī.

For Māori the leaves had many uses, particularly in spiritual healing. The blanched base of the leaf or root was beaten to a pulp, heated or roasted, then applied hot to abscesses, tumours or swollen joints.

The gum from the base of the leaves was applied to burns, wounds and old sores. It was taken internally for diarrhoea.

Māori had many other uses for harakeke, for making kete (baskets), special forms of weaving as well as to make clothing, matting, baskets and sandals.

Flax fibre was New Zealand's largest export industry in the 19th century.

6 Tarata (*Pittosporum eugenioides*) or Lemonwood tree

Tarata can grow up to 12 metres in height.

The leaves are an oval shape, light green with a wavy-edge. It has dense sprays of yellow flowers and small dry fruits that attract the birds.

Crushed leaves have a strong lemon smell.

Māori used tarata flowers by mixing with bird fat to make hair oils and perfume to anoint the body.

The resinous gum from the bark was mixed with the juice of pūhā (sow thistle) to make a ball which was chewed for bad breath.

The gum made a great glue.



7 Mānuka (*Leptospermum scoparium*)

Mānuka, or tea tree, is a common shrub, usually 2 metres to 5 metres in height, but it can grow into a tree of up to 15m tall. Mānuka and kānuka are often confused; mānuka leaves are prickly, while kānuka leaves are soft. Mānuka seed capsules are much larger than those of kānuka.



Māori used the water in which bark was boiled as a medicine for inflamed breasts. An infusion of the bark was used as a sedative and to treat burns, while ash from the bark was used to treat skin diseases.

Because the wood is hard and durable, it was used for paddles, weapons, spade blades and bird spears.

Captain Cook used the leaves to make tea, but the most important modern use for mānuka is for honey. The anti-bacterial properties are used for wound healing and to soothe sore throats.

The hard wood has often been used for tool handles.

Mānuka saw dust, when used to smoke fish and meat, provides delicious flavours.



8 Kānuka (*Kunzea robusta*)

Kānuka trees are common throughout Kapa Bush growing up to 15 metres tall, often with the bark peeling off in long strips. The leaves are narrow up to 25mm long pointed at the tip. The white or pale pink flowers look similar to mānuka, both being valuable for honey.

Kānuka was important to Māori who used its properties in a similar way to mānuka. An infusion of the leaves was used as a drink for kidney and bladder problems, to reduce coughing in adults and fever in children. For diarrhoea and dysentery, a decoction made from the bark was used. The seeds were chewed as cure for stomach complaints. A poultice of crushed and boiled seeds would heal an open wound.

The wood is very hard and used for wharf piles and tool handles. It is valued as hot-burning firewood.



9 Tōtara (*Podocarpus totara*)



Tōtara can grow up to 30 metres in height and 2 metres in diameter. Its narrow, sharply pointed leaves are up to 30mm long.

Māori, who referred to tōtara as '*Rākau Rangatira*' – the chiefly tree – as its timber was prized above all others for carving and to make waka (canoes).

Smoke from burning tōtara was used to treat hakihihi, a skin complaint, and for paipai, venereal disease in women.

The inner bark when boiled with mānuka and kept in a closed bottle for a week was used to treat

fever. Tōtara is hard, straight-grained and very resistant to rot, especially its heartwood. It is often used for fence posts, floor pilings and railway sleepers.



10 Hohere (*Hoheria populnea*) or Lacebark

Hohere is a fast growing native tree that can reach 10 metres in height.

The fibrous inner bark has a lacy texture, hence the name Lacebark. Nectar for birds from white scented flowers is produced from January to March.

Māori used strips of the inner bark for decorative weaving, making kete and head bands.

An infusion from the bark was used for colds. After the bark was soaked in cold water for two days to form a jelly, old people used it to treat sore eyes.

The exuding liquid of the inner bark, when mixed with finely cut butts of flax leaves, was applied to burns.



11 Pūriri (*Vitex lucens*)

Pūriri can grow up to 20 metres tall. They have dark green leaves made of three or five wrinkled leaflets, 10 to 20mm long, radiating from the top of a stalk. Attractive red-pink curved tubular flowers appear from early winter forming bright red berries attractive to native birds.

Māori used pūriri for palisades at fighting pā, for weapons and implements. Berries were taken as a laxative. Water from the boiled leaves was used to treat cuts and sores, easing sore throats, bathing sprains and for sore backs.

Due to the timber's rot and borer-resistant properties, there are still many pūriri fence posts 60 to 100 years old. Because the wood is exceptionally hard, a special staple was necessary to attach fencing wire to pūriri posts.



12 Kōwhai (*Sophora chathamica*)

There are eight species of kōwhai found in the Auckland region.

The Kepa Bush variety *chathamica*, is very common around Auckland and the Hauraki Gulf.

As the name suggests, it is also found in the Chatham Islands. This species can grow into a tree up to 20 metres tall, often with one or more trunks.

In Kepa Bush kōwhai flowers, loved by tūī, are often high above and only obvious when fallen flowers are seen on the ground.

Māori used the bark as a purgative, to relieve itching, as a poultice for sprains or to dress wounds. An infusion of the inner bark was used occasionally as a tonic.



13 Tītoki (*Alectryon excelsus*)

Tītoki, a fairly common tree can grow to 9 metres tall. Small purple flowers in spring produce red berries with black seeds that take a year to mature.

By pounding seeds in a flax bag with a club, Māori extracted tītoki oil.

The oil was used to anoint the body and applied to sores, wounds, painful breasts, sore eyes, bruises and painful joints.

Red pulp from the berries was used to relieve blood spitting caused by tuberculosis. A soft cloth soaked in oil was used for baby's navel (belly button) inflammation.

The fruit and seeds are attractive to birds and possums.





14 Ngaio (*Myoporum laetum*)

Ngaio can grow as a shrub or tree to 10 metres tall. Its glossy yellow-green to dark green leaves are heavily studded with toxic oil glands, particularly poisonous to live stock.

Māori used the bark as a cure for toothache and as an infusion for cuts, bruises and swellings.

The leaves when bruised and warmed to release the oil, make an effective pack for septic wounds. Juice made from ngaio leaves is a good insect repellent for sandflies and mosquitoes.



15 Tī kōuka or Cabbage Tree (*Cordyline australis*)

Tī kōuka, the cabbage tree is the world's largest member of the lily family.

They can grow up to 20 metres in height, flowering from mid-spring. Māori used cabbage trees as a food, fibre and medicine. The root, inner branched leaves and heart are all edible, being good sources of starch and sugar.

The leaves were woven into baskets, sandals, rope, rain capes and other items. An infusion made from the leaves was used to cure diarrhoea and dysentery.

Tī kōuka, since they are generally long-lived, were also planted to mark trails, boundaries, urupā (cemeteries) and births.

Early European settlers used the fire-resistant trunk to make chimneys for their huts. They also brewed beer from the root.



16 Kaihua (*Parsonsia heterophylla*)



New Zealand Jasmine. Look up into the kānuka tree to see a kaihua, parsonsia vine.

Kaihua is common in many places throughout Kapa Bush, often seen as large diameter vines, sometimes twining around themselves and growing up into the trees high above.

Māori often fastened flowers of kaihua to the perches of bird-traps as a lure.

**Eastern Gully below Thatcher Street and
Saltmarsh Area on Path to Selwyn Bush**





17 Ponga (*Cyathea dealbata*) Silver fern

Ponga can grow up to 10m in height, distinguished by the silver-white undersides to the fronds. The silver fern leaf symbol is used by many New Zealand sports teams and Air New Zealand aircraft.

Māori used ponga pith, the pulpy heart of the trunk, for its antiseptic properties as a poultice to treat running or seeping wounds. Young fronds were boiled and the extracted juice was applied to boils, acting to draw out the infection. Gum from the ponga tree was given by mouth to expel worms from the gastrointestinal tract. The trunks were also used to build whare (house) walls and for making fortifications.

Ponga trunks have been popular for modern landscaping.

18 Māhoe (*Melicytus ramiflorus*) Whiteywood

Māhoe is a relatively fast growing tree that can reach up to 10 metres in height. Flowers in late spring have a strong, pleasant fragrance producing small violet coloured berries favoured by kererū and tūī.

Māori boiled the leaves to make a liquid that was used to bathe parts of the body affected by rheumatism.

Boiled leaves were used to bandage skin surfaces with scabies and to cover stomach wounds. The inner bark was frayed and applied over burns. Māhoe charcoal was used for gunpowder and the black juice made from berries was used for tattooing.



19 Hangehange (*Geniostoma ligustrifolium*)

Hangehange, a common shrub in Kapa Bush can grow up to 3 metres in height. Tiny greenish flowers appearing in late spring are highly perfumed.



Māori used the bark to make an infusion for gastro-intestinal diseases and relieve stomach ache. The leaves were used as a poultice for boils. It was also used for children's sores and itchy skin.

Hangehange leaves were used as flavouring in cooking by wrapping around food for a hangi oven.

The bark when beaten made a black dye.



20 Putaputawētā (*Carpodetus serratus*)

There are many putaputawētā trees in Kepa Bush some growing into up to 10m tall.

The Māori, putaputawētā name means “many wētā,” because wētā live in the holes left by pūriri moth caterpillars. Māori called it ‘kaiwētā’, the tree on which many wētā feast, particularly at night when wētā eat the leaves and fruit of the putaputawētā tree.

The leaves are small and leathery, particularly in the juvenile form, often known as marble leaf. It is widely used in gardens in its juvenile form when it has zig-zag branches.



21 Mamaku (*Cyathea medullaris*) Black tree fern

Mamaku, with black frond stalks up to 5 metres long, can grow up to 20 metres in height. Māori used mamaku fern to treat pus eruptions and boils.

The exterior covering of the trunk, just below the young fronds, was stripped away and the material under it removed. This material was then crushed, wrapped up and heated before placing on the affected area, being changed every four hours.

For wounds and bruising, the pith of the mamaku was applied raw to sores and areas of chafing as a dressing. The gum was also applied to cuts to stop bleeding.

The young coiled shoots were boiled and drunk to help remove the placenta after childbirth. A poultice made from young fern fronds was used for inflamed breasts.



22 Kawakawa (*Piper excelsum*)

Kawakawa can be seen close to the path in many places. Its heart shaped leaves are often full of holes caused by caterpillars of the kawakawa looper moth (*Cleora scriptaria*).

The fruit catkins, when ripened in January-February, are sweet to eat and favoured by kereū and tūi.

Kawakawa is one of the most important herbs in traditional herbal Māori medicine. A decoction made from the leaves was used to treat cuts, wounds, skin infections and to relieve toothache.

A branch of kawakawa was used to welcome guests to the marae.

At a tangi, a wreath of kawakawa leaves was worn on the head.





23 Nīkau (*Rhopalostylis sapida*)

Nīkau, New Zealand's only native palm can grow up to 15 metres in height. It flowers between November and April, forming fruit in large clusters off the main trunk. Kererū have a great liking for the fruit and help to distribute the seed.

Māori found many uses for nīkau. The bases of the inner leaves and the young flower clusters were eaten raw or cooked. The inner pith has a mild laxative quality, taken as a drink to treat diarrhoea and dysentery.

Food was wrapped in the leaves for cooking, and the old fibrous leaves were used for weaving kete (baskets), floor mats, and as waterproof thatch for buildings.

Strangely there are no mature nīkau in Kepa Bush. Those like the one shown have grown from seeds excreted by birds feeding on local garden sources. Unfortunately, the fruit of other exotic palms such as Bangalow and Phoenix palms are also attractive to birds, creating an on-going weed problem in Kepa Bush.



24 Rewarewa (*Knightia excelsa*)

Rewarewa trees can grow to up to 30 metres as tall, slender trees, such as this specimen close to the Thatcher Street pathway. Rewarewa produce red flowers in spring, favoured by native birds for the nectar.

Māori collected the flowers in late spring to extract the nectar by tapping it out into a gourd container. To stop bleeding and promote healing, the inner bark was bandaged over a wound. The wood was used by Māori for river posts and palisade walls.



The timber was prized by Europeans for its decorative speckled grain. When dried, the wood is very hard and was used as brake blocks for bush tramways.

Rewarewa honey has a deep reddish colour and a caramel-like flavour, also known for its antioxidant properties.



25 Patē (*Schefflera digitate*) or Seven finger

Patē can grow up to 8 metres in height.

Although known as seven finger, there can be between three to nine leaflets. It produces greenish yellow flowers in late summer and rounded white to purple berries.



Māori used the sap to treat ringworm and sores.

It was also used to make fire by the friction of rubbing two pieces together.



26 Whauwhaupaku (*Pseudopanax arboreus*) or five finger,

Whauwhaupaku can form a multi-branched tree up to 8m in height. The leaves are usually arranged in fans of 5 but occasionally can be seven. It is a very common tree often in regenerating forest. Flowers are purple producing purple-black berries that ripen in summer.

Māori used the gum to join water vessels and stop leaks. The bark was used to make green skids for hauling canoes. The wood of trees growing in exposed locations was used to make flutes.

27 Mānawa (*Avicennia marina*) or Mangrove

Mānawa can grow to a tree of up to 10 metres tall. It is limited to the north of New Zealand, but also grows in many other parts of the world. To allow the tree to gain oxygen, deficient in the marine mud environment, aerial roots up to 20cm in height called pneumatophores are produced under the tree.

The aerial roots provide a habitat for crabs and young fish, also trapping sediment from the land.

Māori gathered food including mullet (kanae), oysters (parore tio), sea snail (karahu) and eel (tuna) from under mānawa trees.



28 Tarangārara (*Gahnia lacera*) Cutty Grass.

Tarangārara is common in many places throughout Kēpa Bush. It grows mainly in coastal and lowland areas. Māori used the reed for dart throwing games.



Southern Pathway to Bridge and Northern Pathway below Eastridge



29 Pōhutukawa (*Metrosideros excelsa*)

There are many large pōhutukawa in Kepa Bush, particularly along the central ridge. New Zealand's Christmas tree, pōhutukawa, becomes a blaze of red flowers around Christmas time. Growing up to 25 metres in height, they are common in coastal regions of the North Island. Often multi-trunked, they are sometimes seen in precarious positions overhanging cliff faces.



For Māori, pōhutukawa is a sacred tree, for it was from pōhutukawa trees on the cliffs at the northern tip of New Zealand, Te Rēinga, that spirits of the dead departed this land. The red of the flowers comes from mythical hero Tāwhaki, who fell to his death from the sky.

An infusion of the inner bark was used for diarrhoea, dysentery, sore throats and wounds.

Pōhutukawa wood being dense and strong, was used extensively in ship building particularly to provide strong knees (angled pieces). It is a very popular garden and street plant.

30 Taraire (*Beilschmiedia tarairi*)



Taraire can grow up to 22 metres high. This large specimen is the only mature taraire in Kepa Bush. However, taraire are quite common in bush around Auckland and Northland. Taraire has large leathery oval leaves, flowering in November to produce large purple fruit in late summer.

Māori boiled the berries for food, but its strong taste of turpentine was not agreeable. Māori used taraire to light fires when hollowing out logs for waka.



The timber is light, splits easily and is not durable.

As a medicine, Māori used it in vapour baths and the wood was used to make flutes and as a mouthpiece for shell trumpets.

31 Porokaiwhiri (*Hedycarya arborea*) or pigeonwood

Porokaiwhiri, commonly known as Pidgeonwood, is a small tree that can grow up to 12 metres in height. Its thick leathery leaves have a shallow serrated edge.



Their bright orange berries are eagerly consumed by birds, particularly kererū hence the name Pidgeonwood.



Birds often leave easily recognised orange droppings on the ground when they have been feeding on the orange berries above.



32 Kohekohe (*Dysoxylum spectabile*)

There are many large Kohekohe growing in Kepa Bush.

The one pictured at the lookout platform is estimated to be over 300 years old.



They can grow into a tree up to 15 metres in height. Kohekohe are unusual because the white flowers and fruit grow directly from the trunk, a feature normally associated with tropical trees.

Flowering can be seen in May or June.

Māori boiled the bark in water and used it as a tonic. Leaves were used as a decoction for urinary complaints and the vapour was inhaled for colds. The white gum was applied to scalds and burns. Young shoots were chewed and swallowed for dysentery.



Kohekohe was often called NZ Mahogany because the timber had a grain that polishes up to a fine red colour.



References

Kepa Bush Guide

- 1 Lukies K. A. 2020: *Ecological Corridors Eastern Bays Songbird Project*
- 2 Smith Frank, Alfred, Obituary North Shore Times, 7 June 1955 Volume 23 No 5, Auckland Libraries Heritage Collections
- 3 Anthony Dreaver. '*Te Rangihwinui, Te Keepa*', Dictionary of New Zealand Biography, first published in 1990. Te Ara – the Encyclopedia of New Zealand, <https://teara.govt.nz/en/biographies/1t64/te-rangihwinui-te-keepa> (accessed 27 February 2022)
- 4 David Mackay. '*Colenso, William*', Dictionary of New Zealand Biography, first published in 1990. Te Ara – the Encyclopedia of New Zealand, <https://teara.govt.nz/en/biographies/1c23/colenso-william> (accessed 27 February 2022)
- 5 Margaret Alington. '*Thatcher, Frederick*', Dictionary of New Zealand Biography, first published in 1990. Te Ara – the Encyclopedia of New Zealand, <https://teara.govt.nz/en/biographies/1t92/thatcher-frederick> (accessed 27 February 2022)
- 6 Sampson Kempthorne Wikipedia https://en.wikipedia.org/wiki/Sampson_Kempthorne
- 7 Cranwell L. M. 1981: *The Botany of Auckland*, Auckland Institute and Museum, Auckland
- 8 Blom W.M. 2017: *Pourewa and Kepa Bush, Bioblitz Summary Report of the Species Found*, March 27 and 28 2015. Auckland War Memorial Museum
- 9 Cameron E.K., Beever J.E., Fife A.J., Braggins J.E., Wilcox M 2015: *Bioblitz 2015.: Pourewa Reserve and Kepa Bush Auckland, 27-28 March 2015*, Auckland Botanical Society Journal Volume 70 (2) P109- 135
- 10 Brooker S.G., Cambie, R.C., Cooper R.C. 1987: *New Zealand Medicinal Plants*, Reed Books (Professor Con Cambie's approval to use information is gratefully acknowledged).
- 11 Williams P. M. E. 1996: *te Rongoa Māori Māori Medicine* Raupo Book Penguin Group
- 12 Kerr, S. 2020: *A Field Guide to New Zealand Fungi*. <https://www.kaimaibush.co.nz/fungi/fungi-books.html>
- 13 Dawson J., Lucas R. 2000: *Nature Guide to the New Zealand Forest*, Godwit Book, Random House.
- 14 Wikipedia – Wikipedia the free on-line encyclopaedia provides excellent information about most New Zealand trees. (Wikipedia Information has been used frequently to describe trees)
- 15 Landcare Research's Māori plant use is another reliable source of information. <https://Māoriplantuse.landcareresearch.co.nz/WebForms/default.aspx>
- 16 Ōrākei Local Board 2018: *Kepa Bush Reserve Integrated, Plan* Auckland Council <https://www.aucklandcouncil.govt.nz/about-auckland-council/how-auckland-council-works/local-boards/all-local-boards/Ōrākei-local-board/Documents/kepa-bush-reserve-integrated-plan-2018.pdf>

Acknowledgements

Ewen Cameron I am very grateful to our botanist Ewen, who is thanked for permission to use part of his paper on the 2015 Bioblitz.

Auckland Council Archives have generously assisted by providing historical information.

Sarah Powrie, Glenys Griffiths and Sherrill Rhind

I am also very grateful to these ladies for their reviews of this section.

John La Roche, voluntary author, 2022