

Quarantine Island/Kamau Taurua Ecology Map



Health and safety

Treat the island as a working farm. Please respect private areas, animals, fences and gates.

- Be careful by cliffs and on tracks. Wear outdoor footwear.
- Building and renovation work may be underway. Take care.



No dogs



No fires



Smoking only at the seaward end of the Jetty.

Our Community has a deep commitment to the care and management of the Island. We are achieving this through:

- **Ecology** - Taking care of our coastline, conserving and enhancing the native bush and wildlife.
- **Heritage** - Honouring the history of the Island, both Maori and European.
- **Sustainability** - Using resources wisely.
- **Social Justice** - Taking action.
- **Spirituality** - Connecting with nature, being mindful.



HAERE MAI

Welcome to Quarantine Island Kamau Taurua. Set within the heart of the Otago Harbour, the Island is a remnant of the ancient Dunedin volcano. It has a rich heritage. The Island has held significance for southern Maori as mahika kai (places where food and other natural resources were obtained). From 1861 to 1924, it served as Otago's quarantine station. Subsequently, there were attempts to farm before the St Martin Island Community (now the QIKT Community) took over the lease in 1958. Now, the Island is a public Recreation Reserve. It is jointly managed by the Quarantine Island/Kamau Taurua Community (Inc) and the Department of Conservation (DOC).

Walking tracks lead to open paddocks and through regenerating native bush, revealing the Island's layered history and glimpses of the resident birdlife. There are several seats along the way from which to enjoy the stunning harbour views. Allow at least 40 minutes to walk the longer loop track and 15 minutes for the shorter one. We welcome you to explore and learn about the Island.

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Shade House

Imagine the entirety of Kamau Taurua covered by native forest, right down to its rocky shores. When the island became a quarantine station in 1861, people began to cut down the forest to build and farm. The shadehouse plays an important part in the effort to reforest the Island. Native plants are potted up here. When they grow large enough, they are planted in areas fenced off from sheep. Seeds from mature trees are also collected and grown in the shade house for a continuous supply of plants to expand the bush.



Macrocarpa / Monterey cypress (*Cupressus macrocarpa*)

Exotic trees such as these macrocarpa, which were intended to form a hedge, were planted to shelter people and animals once the forest was gone. Other exotic trees, such as scotch pine, were planted around the cemetery. In the early years of the St Martin Island Community, members experimented with planting trees that could survive in such harsh conditions, including other non-native and native trees such as pohutukawa. Now, only endemic species are planted.



'KCC' Cove

To the north is 'KCC' cove, so named because the reforestation of this coastal cove was spearheaded by Ken Mason with the help of the Kiwi Conservation Club (KCC) and Students for Environmental Action (SEA) beginning in 1996. At the base of the grassy cove, hardy species such as ngaio were used to shelter more sensitive plants from harsh northeastern winds. Species requiring damp, sheltered, and humid conditions form multiple canopy layers behind the ngaio. Someday, kotukutuku/tree fuchsias growing at the base of the cove could be ideal bird nesting areas.



Expanding the Bush

To the west you can see a former pasture which is being planted with native species known to have grown on the island pre-colonisation. Planting started in this section in 2010 by school children from around the harbour. Strong wind, exposure to extreme heat and cold, and smothering from invasive grasses are all challenges facing plants when growing in exposed pasture. Distributing native plants into dense clumps helps ease these pressures. Compare this young section to the established forest beyond, which was fenced off around 1960.



Ti Kōuka / Cabbage Tree (*Cordyline australis*)

As you sit on the bench, look down upon a large ti kōuka and appreciate how old and grand it is. Māori use of ti kōuka included planting them to define paths, boundaries, and urupā (cemeteries). The rhizome (root/kōpura), stem, and leaf hearts are edible and are a good source of starch and sugars. Ti kōuka was the most important source of carbohydrates for southern Māori because kumera cannot be grown in cooler climates.



Pillars of Mingimingi (*Coprosma virescens*)

These pillar-shaped mingimingi have grown on either side of the trail, forming a passageway leading into the bush. Endemic to Aotearoa/New Zealand, mingimingi is extremely hardy and its small black-and-white speckled berries are an important food source for birds and skinks. Before the bush was cleared, a shady totara canopy would have protected water retaining plants which kept soil moist during droughts. Once cleared, the soil became very dry. Shrubs planted here must be hand-watered by volunteers.



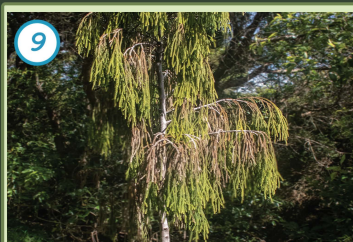
Kōkihi / New Zealand Spinach (*Tetragonia* sp.)

Cascading down coastal rock ledges, sand dunes, and cliff faces, the succulent leaves of kōkihi are a salty snack for trampers. Stems are often red or pink and leaves may be tinged red or orange; green leaves are best for eating. Kōkihi tastes salty because it is happy to grow in areas that are regularly doused by ocean spray. Māori ate kōkihi and used the red dye from berries for women's moko and as an ink for early writing. Captain Cook used it to abate scurvy aboard the Endeavour.



Kōwhai Grove - Kōwhai (*Sophora prostrata*)

Exposed to strong winds from the southwest, these kōwhai have grown short, compact, and bent towards the northeast. Volunteers are planting more native trees to create shelter from extreme wind and salt spray. Flax frond shelters will help protect these kōwhai as the shelterbelt grows. The kōwhai in this grove may look young, but they were planted here in 2011. Their trunks have grown very thick, anchoring them in place on the rocky slope.



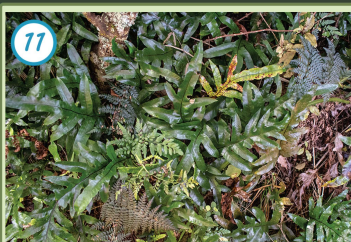
Rimu (*Dacrydium cupressinum*)

Rimu is a large evergreen coniferous tree endemic to New Zealand that can live up to 900 years. Rimu gum can be applied to wounds and burns to stop bleeding. These rimu are small now but may someday grow up to 50 meters tall. These rimu add some diversity to the podocarp forest which was dominated originally by totara. Rimu and totara wood make very good building materials and were used by Māori to make waka (canoes), spears, and tools.



Horoeke / Lancewood (*Pseudopanax crassifolius*)

Notice the horoeke and how young trees change as they grow taller. Adult leaves are less than half the length of the juvenile's leaves and twice the width. Some speculate that horoeke evolved to have juvenile and adult forms as a response to moa browsing, and that once the leaves grew out of reach of the moa, they no longer needed the special defences of their juvenile leaves. An alternative explanation suggests that when young trees reach above the canopy they grow broader leaves to catch more sunlight.



Forest Floor

Observe how grasses don't grow in the established bush and how the composition of the forest floor changes as you walk along the track. Under the protection of mature trees, healthy soil supports a diverse understory of native plants, including ferns. Bright, glossy, and green, paraharaha/hound's tongue fern (*Microsorium pustulatum*) is commonly seen growing on the ground, over rocks, and on tree branches. Paraharaha was used by Māori as a lining in baskets to add flavor when cooking tawa kernels.



Skink Habitat

Large stones warmed up by the sun make perfect basking areas for skinks. Gaps between rocks make fine hiding spots for skinks looking for safety from airborne predators. Although, skinks have to watch out for mice with the same plan. Keep your eyes peeled for southern grass skinks and other species that may appear. Native plants provide habitat for insects which become food for skinks. Berry producing plants have also been planted nearby as skinks love to eat soft juicy fruits.



Seed Dispersal

Harakeke seed evolved to be carried on the wind in order to spread to new locations. Southerly winds carried these seeds from a large group of mature harakeke (flax) up into the pasture where some have taken root and established a new group of young plants. Volunteers have re-planted many native shrubs and trees by hand. However, all plants have evolved ways to reproduce and spread, which helps our reforestation effort.



**Harakeke / Common Flax (*Phormium tenax*)
Wiwi / Rush (*Juncus* sp.)**

Harakeke and wiwi provide food and shelter for birds, insects, and spiders. The moist soil in this area is what these wetland plants need to thrive. A pair of pūtangitangi (paradise duck) are often seen sheltering themselves here. Harakeke was the most important fibre plant to Māori and early colonists because of its strength and durability. When harakeke are harvested, care is taken to only collect the outermost 'grandparent' leaves, so the 'parent' leaves remain to protect the 'child' leaves.



Ken's Special Place

This slope is buffered by southerlies as evidenced by the slow growth of planted trees, some of which were planted more than 20 years ago. However, near the sheltered base of the slope exists a small, natural spring which provides a perfect area for moisture loving trees like kotukutuku/tree fuchsia, houi, kahikatea, and tree ferns. Ken Mason was a passionate ecologist who provided leadership to volunteers and was integral to the reforestation effort. Ken was the first to notice the potential of this special microclimate.



Gorse (*Ulex europaeus*)

Gorse was planted as hedgerows by Scottish colonists as early as 1835 and was deliberately planted well into the 1900s and has become a weed. However, gorse can be a useful nursery for native bush regeneration. As gorse shrubs become leggy they create sheltered conditions for native seeds to germinate underneath. Native seedlings grow through the gorse, cutting it off from light and eventually replacing it. Gorse can also help add nitrogen to nutrient poor soils because of nitrogen fixing bacteria found in gorse roots.