

# Mangakara Nature Walk

\$ 0.50  
Inc GST

## Introduction

The Mangakara Nature Walk in Pirongia Forest Park takes about one hour to complete. It is accessible (from the end of Grey Road ) to people of most ages and fitness levels but is not negotiable by wheelchairs. Numbered posts have been installed along the walk and this pamphlet describes the points of interest at each station.

## Background

Pirongia Mountain is a distinctive Waikato landmark. Its many peaks are actually volcanic cones created by successive eruptions about 2.5 million years ago. The Taupo eruption of 380 AD also helped shape Pirongia; a thick layer of ash coated the mountain and destroyed the forest cover. A period of regeneration followed, with rimu and kahikatea developing in light conditions and shade tolerant tawa and kamahi developing in the understorey. In this way the podocarp-hardwood forest seen on the Mangakara Nature Walk evolved.

Prior to European settlement the Waikato basin was home to a thriving Maori population. Pirongia's forests were a rich hunting ground, providing the local people with berries, roots, birds and many other foods. The first European settlers valued the forest more for its ready supply of timber to meet their building needs. Fortunately this part of the Park escaped the woodsman's axe, leaving this outstanding nature walk for your enjoyment.



Miro

## Track guide

### Station One – Miro

The tall miro tree to the right of the track is a member of the podocarp family. Its bark falls off in small flakes creating a distinctive 'hammered' look. On the ground you will probably find a fallen twig. Notice how the sickle shaped leaves form in two rows on either side of the stem. In autumn, miro produce small reddish-purple fruit that kereru (NZ pigeon) often feed upon.

These days the green and white plumed kereru is a threatened species, mainly through nest predation by rats, mustelids and possums. You may see kereru in this part of the forest or hear their noisy wing beats as they fly overhead.

### Station Two – Tawa

This tawa fell during a storm in July 2000. It lies here as part of the natural cycle, to decay and return essential elements to the soil and forest. Beetles and termites commence the breaking-down process. These insects have bacteria in their guts that break down the cellulose of wood. The holes and channels made by insects and their larvae are then enlarged by fungi. Water percolating through the channels and gaps then softens the wood, paving the way for attack and decomposition by microbial action. Tawa is one of the most common canopy trees in the Park.

### Station Three – Rimu

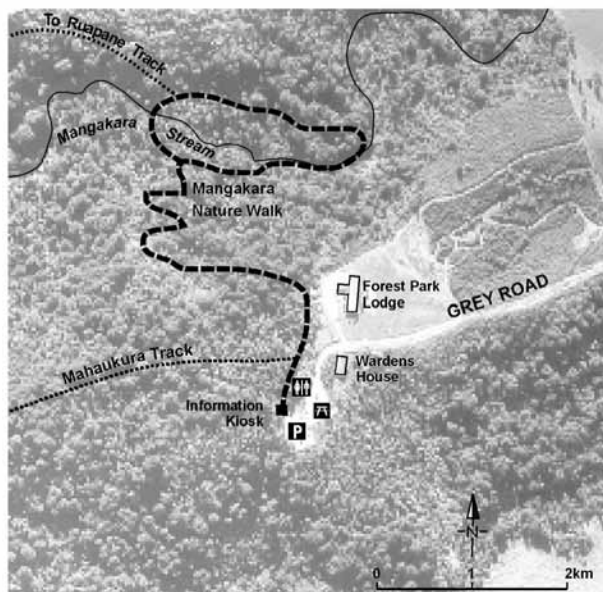
Look for the unmistakable olive-green drooping foliage and grey-brown slabby bark of rimu. These magnificent ancient members of the podocarp family have had pollen tracked back 70 million years, and can grow to over 50m tall.

From this station you should be able to identify the different forest layers. Look down the valley and you will see a layer of ferns, shrubs and seedlings. A subcanopy of tree ferns, nikau and small trees shelters the shrubs. The next layer is the canopy; here it consists mainly of tawa, pukatea and rewarewa. Emergent podocarps, like this rimu, stand out above the canopy.

### Station Four – Kahikatea

You are standing in front of a kahikatea, NZ's tallest native tree (it can grow to over 60m). The buttressed trunk and flaky grey bark can be used to identify kahikatea. The buttresses give support in swampy habitat.

The small red and blue berries were traditionally eaten by Maori and, after the arrival of Europeans, the odourless timber was milled to make butter boxes.



### Station Five – Parataniwha

This vigorous, spreading herb grows best in damp, shaded areas in lowland forests. The leaves were once used for wrapping kumara for the hangi. You'll see parataniwha on the way to the next marker post. Please note the track sign across the bridge and veer right to stay on the Nature Walk.

### Station Six – Mahoe

This leafy green tree is something of an oddity. It is in fact two trees - mahoe and kohekohe. They have grown so closely together that they now appear to be one.

Mahoe grows to 10m, making it the largest violet in the world. Its long smooth leaves are dark green on top and light green underneath. Mahoe is also known as 'whitey wood' because of the colour of its bark, though this example is green with moss.

Kohekohe has a large, glossy, broad leaf and its flowers grow directly out of the trunk. Kohekohe are a favourite food of possums and many trees have been killed by possum damage.

This is a good part of the forest to watch and listen for birds. Look for the darting piwakawaka, or fantail. They often follow you through the bush, feeding on insects as they go. Usually heard but rarely seen is riroriro, the grey warbler. This tiny bird has a distinctive trill, often repeated several times. The pipiwharuroa or shining cuckoo often lay their eggs in riroriro nests. Their monotonous call of five or six upward notes, followed by a final downward whistle, is a common sound in this forest.

### Station Seven – Boulder

No one is sure how this large boulder came to be here. It may have been thrown out in one of Pirongia's eruptions, though they were generally not very violent. It appears well worn by flowing water, so may once have been part of a stream bed.

### Station Eight – Rewarewa

The leaves of rewarewa, also known as NZ honeysuckle, change as the tree ages. In young trees the leaves are longer and acutely toothed. Mature trees, like this one, have shorter, coarsely toothed leaves. Rewarewa have striking red flowers that are rich in nectar. It is an important feeding tree for tui and bellbirds.

The shiny black tui has a distinctive tuft of white feathers at its throat while the bellbird is smaller with olive green colouring. Both birds have similar songs with pure, bell-like tones. They can be hard to tell apart, but the tui intersperses its song with various clicks and wheezes.

### Station Nine – Kareao

On either side of this station you will see long black vines known as kareao or supplejack. This vine was called supplejack by the crew of Captain

Cook's ship. 'Supple' because it bent in many directions, and 'jack' because it was useful for many tasks. A single vine can have up to 50 branches, making parts of the forest impenetrable. Maori used kareao for ropes and woven baskets.

Another vine, kiekie, flourishes here. It has whitish, ringed stems and long, blade-like leaves, often with orange blotches. Kiekie grows on tree trunks and the forest floor. Maori prized its tasty fruit and kiekie is also said to be the food of the Patu Paiarehe, the 'people of the mist'. These mythical, fairy-like beings from the peaks of Pirongia reputedly emerge only under cover of darkness or in thick mountain mists.

### Station Ten – Life in the river

Look closely at the colourful rocks in the stream bed. These have been washed down from Pirongia's volcanic slopes and most are very hard.

Life flourishes in the stream, though at first glance it may not be obvious. Touch the rocks and feel the slippery algae growing on them. Hiding between the rocks you might see the larvae of insects like caddisflies and stoneflies; these are an important source of food for the kokopu, a small native trout. Koura (native freshwater crayfish) and eels live in areas of slow-moving water.

### Station Eleven – Pukatea

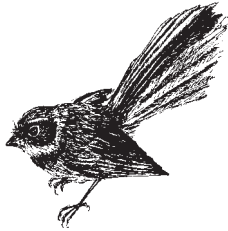
A feature of pukatea is protruding flange-like buttressed roots that provide support and absorb oxygen. Mature trees reach a height of 35m. Maori used the juices from the bark of pukatea to alleviate toothache and constipation.

The reddish-brown roots descending down the rear side of the trunk belong to a rata. Rata begins life as an epiphyte (a plant that grows on, and gets support from a 'host' tree), eventually sending roots down to the ground. These roots can grow so large that the rata becomes a self-supporting tree.

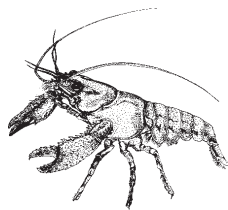
### Station Twelve – Nikau

There are several nikau palm trees to the left of the track. The nikau is NZ's only mainland native palm and the most southern naturally growing palm in the world. Its name can be translated to mean 'barren coconut' as it bears little fruit in comparison to its well-known relative.

The heart and undeveloped leaves were occasionally eaten by Maori, but as this killed the tree it is no longer permitted. The colourful nikau berries are edible but they are very hard. They were eaten by kaka, which were present in the Park until the 1960s. Kokako were also present but are now almost certainly extinct in this area.



Piwakawaka



Koura

### For more information

Contact the Department of Conservation at Level 5, 73 Rostrevor Street, Private Bag 3072, Hamilton Telephone (07) 838 3363 Fax (07) 838 1004