

## Matuku Reserve 25/02/09

Situated in the centre of the Waitakere Valley behind Bethell's Beach is Matuku Reserve, a forest and wetland sanctuary, which at 120 hectares is the second largest of about thirty reserves the Royal Forest and Bird Protection Society owns in the country. Stretching two kilometres from west to east, it extends from the Waitakere River, the southern boundary of Rodney District, across the wetlands and rises steeply up the forested hills towards the ridgeline on the northern flank of the widest valley in the Waitakere Ranges.

The method of its acquisition by Forest and Bird is interesting and unique in that it was obtained in five separate stages from west to east over the years 1979 to 2002 by a combination of self-help and support from external agencies. The Waitakere Branch of the Society undertook fundraising which was greatly aided by bequests from members, donations from other groups and by major grants from the Queen Elizabeth 2 National Trust and the Nature Heritage Fund. The third and central block was obtained by an arrangement with a neighbour where two hectares were swapped for sixteen hectares.

The larger part of the reserve is native forest which could be described generally as coastally influenced lowland broadleaf, with tanekaha and kauri emergent on ridge sites. The canopy is dense with species that provide flowers or fruit for the abundant tui and kereru such as puriri, karaka, rewarewa, kowhai, maire and mamangi together with some rata, miro, rimu, tawa and kohekohe. Restricted to cliff tops are mature toatoa, and good specimens of kawaka (New Zealand cedar) and toru (in the protea family) grow at mid-altitude.

The understorey contains fruit-bearing tall shrubs or small trees including mahoe, mapou, pigeonwood and several *Coprosma* species, as well as climbing plants kiekie, supplejack, kohia, bush lawyer, three species of rata vine, and New Zealand jasmine. Three types of treefern occur and stands of mature kanuka in the canopy provide good invertebrate habitat. Smaller shrubs such as hangehange are everywhere abundant, but more site-specific are mingimingi, corokia, the scented toropapa (*Alseuosmia*), and on one ridge track named after the plant, the taranga or New Zealand daphne.

An extensive association of native tree daisies and manuka occurs on drier wind-swept heights. Growing abundantly at all levels from ground cover to canopy is nikau, the palm which eventually produces heavy crops of fruit taken by kereru. The broadly extending boughs of the massive puriri trees support loads of epiphytes, including large clumps of perching lilies, orchids and small epiphytic ferns. A luxuriant carpet of ferns and sedges covers the forest floor, except where shade is intense. In all, more than 250 species of native plants have been recorded in this forest.

Protected by these forested hills is the reserve's wetland, part of the wider Te Henga wetland, the largest, relatively unmodified, freshwater marshland in the Auckland region. In summer it gleams brilliant green with the various sedges, but

in late autumn the green becomes progressively tinged with a rich russet as the raupo succumbs to the winter cold. A board walk of 60 metres extends into the wetland from the edge of a grove of huge hollow cabbage trees (rated as regionally significant). It leads then through dense flax, raupo, swamp millet and, as the water deepens, *Baumea* and *Eleocharis* sedges, out to open ponds from where a sense of the true setting of the reserve can be gained.

From this dense reed-land on still days, the metallic dueting call of fernbird pairs can be heard, and in spring the **matuku** or bittern, the threatened bird which gives the reserve its name, punctuates the whisper of raupo with its resonant boom, a strangely mechanical sound. At dusk the “running down alarm clock” call of the extremely elusive spotless crane, a native small rail, occasionally surprises, but the much larger rail, the pukeko, is far easier to pick out. Commonly seen on open water are black swan, mallard and shag with occasional paradise shelduck, and in winter small numbers of the beautiful shoveller duck. Overhead, welcome swallows flit, swoop and twitter and harrier hawks glide slowly, hunting low over both water and reed-land.

Although the vegetated areas look like solid islands and peninsulas, many are in fact floating pontoons of vegetation more than one metre thick. When the Forest and Bird Society acquired the first part of Matuku, the wetland was covered in an almost continuous mat of these plants and there were no large areas of open water. This all changed on 1 July 1979, when heavy rain coincided with a spring tide at Bethells Beach downstream, and a full Waitakere reservoir upstream. With the water table already high and drainage impeded by the high tide, the valley flooded dramatically. For about a day, only the tops of cabbage trees and willows could be seen above the water, and the writer, the volunteer ranger of the reserve, saw displaced fernbirds in a nikau in adjacent forest. The flood rolled up huge carpets of floating vegetation and swept them out to sea, creating large open ponds in the wetland. Within twenty-four hours the floodwaters receded, but the ponds have remained, resulting in a diversity of habitat that attracts a wide range of water birds.

The wetland is a healthy and functioning system, but does have its problem species such as three introduced water weeds and crack willow, the last of which is the subject of a programme of control shared by two councils. There has been the deliberate and misguided release of three introduced noxious fish: *Gambusia*, koi carp, and rudd. Sadly, the introduced but welcome frogs are rarely seen or heard these days, suffering probably the same fungal malaise which is affecting the group worldwide. However, native fish present are two species of eel, inanga, and a bully. In several streams flowing into the marsh are abundant native crayfish (koura) and commonly the banded kokopu after which a track and stream have been named.

The forest on this northern side of the valley was heavily logged in the early 1920s by the Kauri Timber Company, ironically at about the same time as our Society was being formed. This wider valley slope, then called “Snow’s Bush”, was the site of the company’s last logging operation on the mainland, as from

there it moved directly to Great Barrier Island to continue the pillage of trees. Later these slopes suffered a firewood cut, and some burning and clearing in parts. The rest of the history of the reserve and environs is one of slow recovery, and more recently of assisted restoration through noxious animal control. When Forest and Bird purchased the first part of Matuku in 1979, damage from a herd of goats had resulted in a thinner understorey of shrubs, and possums were taking a toll of some species of trees in the canopy, with negative consequences for bird life. The adjacent farmer assisted by fencing the herd out of the reserve and on to his farmland. Within about seven years, parts of the forest that once could be seen through easily became so dense with a shrubby undergrowth that it was not possible to push through much of it, and for many years it seemed it would remain like that. However, the understorey began to open up after a further twelve years, but this time for the right reasons. These species have now matured sufficiently into a sub-canopy, so that vistas are reappearing. Improved forest health is also shown in a greater abundance and density of ground covering ferns, herbs and small shrubs.

In 1980, emergency releases of over 40 brown kiwi were made on the reserve, but with predator control lacking the birds survived no longer than five years. Therefore restoration at Matuku now includes intensive control of possums and rats, all carried out by volunteers. Building on "Operation Forestsave", a successful possum control programme run in the Waitakeres by the Auckland Regional Council, poison bait stations were laid at closer spacings suitable to control both these noxious species. Pest control was then expanded to include the more difficult stoats and ferrets, which are trapped in kill traps, a much more labour intensive process. This is to be continued on a large scale using the most efficient techniques known at the time.

The results have been startling. Insects, the often unnoticed inhabitants that bring life to forests, are booming. Recent monitoring has shown many more of the larger invertebrates such as three types of weta, and the native land snails. The numbers of fantails are up dramatically, tui and kereru are more numerous, and previously absent tomtits have begun to return. Taraire and mangeao, both most uncommon in the ranges, have been arriving (via kereru) as seeds and surviving as seedlings.

*(Such success has encouraged the establishment, only four kilometres away at the Cascades, of a much larger and more ambitious Waitakere Branch restoration project, "The Ark in the Park". This joint Forest & Bird / ARC "Mainland Island" is allowing the safe reintroduction of species absent from the Waitakere Ranges for many years.)*

Matuku Reserve is protected, both by having Queen Elizabeth 2 National Trust Open Space Covenants, and by being gazetted as Protected Private Land for scenic purposes under the Reserves Act. The primary purpose of the reserve is to protect its natural features. Scientific study is also important and encouraged. It has inspired several theses, and major entomological discoveries have been made, some from high up under the canopy, on a former platform in a large puriri

tree. Matuku is a type locality for one species of beetle, and has an extensive species list of plants, birds and insects.

Several features thrill visitors to the reserve and these can all be enjoyed from a track system which offers a choice of walks, with some fairly steep sections, from one to three hours, and which is mapped on information boards. Although technically a private reserve for members, people of goodwill are welcome. It is rare to come to Matuku and not see or hear at least several kereru, and also many tui whose singing can be delightfully obtrusive when they gather in numbers around flowering kowhai in spring.

There is a spectacular view from a cliff down onto lush forest incorporating nearly 200 nikau in one view, spreading puriri, and the unusual sight of pohutukawa and tawa trees growing next to one another. Into this gorge a slender waterfall tumbles over a tall overhanging cliff, coloured yellow, orange, white, black and green by algae, lichens, fungi and mineral salts, and then splashes into a large semi-circle of moss and parataniwha. The track then takes the visitor through the dry zone behind the curtain of cascading water. There is no site or sight quite like it in the Waitakere Ranges.

- John Staniland, Ranger