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Forest Remnants of Auckland

R.O. Gardner

Some description is given of forest and landscape around the Waitemata and Manukau Harbours. Use of the past tense without any other indication refers to conditions of early European times, i.e. about a hundred and fifty years ago.

The Waitakere Range, composed of only moderately fertile andesitic volcanic material had kauri, northern rata and rimu dominant. Cheeseman's comment that tawa "probably forms three-fifths of the forest" needs critical evaluation. Taraire is almost entirely a tree of the west coast valleys.

The sandstone foothills had kauri and areas of fire-induced manuka and kanuka.

The Pleistocene clay terraces between the hills and the Waitemata were of manuka scrub with some trees in gullies and near the shore. There seem to have been only two sites fertile enough to carry forest -- Smith's Bush, Takapuna (puriri, kahikatea and taraire) and Rosebank Road Bush, Avondale (taraire, puriri, karaka, pukatea and cabbage tree).

The manuka -(Dracophyllum-Gleichenia) scrub soils contain kauri gum; the relative importance of fire and soil deterioration as causes of loss of this forest is unclear.

A few valleys and coastal places around the Waitemata escaped being burnt. On the North Shore today's forest remnants generally have kauri dominant on the ridges and broadleaved species downslope; a few hard beech, relicts of cooler times, survive where reached by sea breezes &c. On the Auckland isthmus kauri and podocarps are virtually absent, the remnants being of puriri, kohekohe, karaka, rewarewa and taraire (Grafton Gully; Purewa Creek, Orakei; Dingle Dell, St Heliers).

Coastal forest on the Waitemata Harbour cliffs would have been dominated by pohutukawa, a species whose regeneration today is made difficult by weeds and insects.

Auckland's largest mangroves grow in Purewa Creek below the early farmland of St John's College and perhaps owe their origin and size to

this circumstance.

Rangitoto Island is not usually thought of as a forest remnant but the course of succession must have been strongly influenced by the wallabies, deer and oppossums here. For example, there is heavy browsing of mangaeo, once perhaps the most likely species to succeed pohutukawa and rata, while the unpalatable tanekaha flourishes at one site (though perhaps originally a European introduction).

The basaltic cones, tuff rings and lava flows of the isthmus and the Takapuna-Devonport region were mostly covered in bracken, with some manuka, tutu, grasses, cabbage tree, kanuka, mahoe &c. The general absence of forest may be attributed to Maori fires, though ground water conditions may not have been everywhere suitable for trees. "Rock forest" survives on the basaltic north-eastern slopes of Mt Eden, the dominant species being mangaeo, titoki, houpara, puka and ngaio, over understorey mahoe and pigeonwood, and Auckland's two very characteristic shrubs kawakawa and Coprosma macrocarpa. A much less spectacular area of forest on the Mt Wellington lava flats has been lost to post-war quarrying. Gribblehurst Park has fine titoki.

On basalt and tuff around Lake Pupuke there are some large pohutukawa, and the Sylvan Park forest here has a mixture of broadleaved species, including hinau and tawa. On the inner tuff slopes of Orakei Basin are a few old karaka, puriri and kowhai.

Our smallest remnant is at Hamlin's Hill, a sandstone outlier by the Tamaki River and site of an extensive Maori village up to about the beginning of last century. At the spring on the eastern side a hollow short-boled old karaka stands in company with a venerable hawthorn. There is no other native tree on the hill. The botanical evidence for karaka being a Maori introduction is dubious; it does seem likely though that the Hamlin's Hill tree and those of other volcanic cones (e.g. at One Tree Hill; Mt Taylor, Glen Innes; "Green Mount", Otara now quarried) are Maori food trees or their descendants.

The "one tree" of One Tree Hill was a totara. An old Maori commemorative planting , it was felled early in Auckland's settlement. This species is uncommon on the isthmus but quite frequent in coastal places (sometimes with Hall's totara) on the North Shore west to the head of the harbour.

Fire and land clearance would have promoted kanuka, and some older boundaries and bush edges &c. still have such trees, e.g. at Smith's Bush. A dozen or so kanuka persist in the Auckland Domain, the largest probably more than a hundred years old but of a younger generation than those reminisced of by John Logan Campbell. In Parnell there are two old kanuka in the Rose Gardens and one at Alberon Park.

Cabbage trees dominated some swampy places on the volcanic field, e.g. Gribblehurst Park, Morningside. They were also conspicuous on the heavy clays of the Kohimarama district, persisting today above Purewa Creek and at Dingle Dell.

South of the Tamaki River are low Pleistocene terraces of clay, sand and volcanic ashes. It seems that by European times fire had reduced the vegetation here to "fern", i.e. bracken, scrub and grass. The Papatoetoe district for example was described as one of bracken, toetoe an kanuka. The pieces of forest that had survived were given names by the settlers and Maori War soldiery -- Ligar's Bush, Manurewa; Flat Bush, Otara; Chisholm's (now Kirk's) Bush, Papakura &c. They had mostly puriri and kahikatea on the lower ground and taraire, tawa, rewarewa,

kohekohe and titoki on the drier sites.

The hill country east above the Drury Fault had probably been altered by Maori fires around the habitations and tracks. Enough forest remains today to suggest that kauri once dominated on sandstone and greywacke, and taraire on the volcanics.

On the south side of the Manukau the Pleistocene terraces of the Karaka district had kauri gum in the soils but settlers found the land a waste of manuka and tauhinu. What seem to be forest remnants on today's topographical maps may be old plantings of eucalypts or Ligustrum lucidum.

Dense forest covered the basaltic hill country from Bombay to Pukekohe and Waiuku. Taraire and other broadleaved species dominated with some rimu, northern rata and occasional kauri (e.g. at Ravensthorpe). Most of today's remnants have abundant second-growth totara, the species most resistant to cattle grazing.

At the foot of the Bombay Hills there stand three giant puriri, worthy shelterers of Bishop Selwyn, flourishing despite vandal fires and a sacrilegious settler's topping.

The Awhitu Peninsula is composed of young only moderately fertile sandstones. Much kauri was logged from here but broadleaved species, particularly tarire, were probably at least as common, with pohutukawa dominating the exposed western slopes. According to S. Percy Smith, surveying there after the Maori Wars, the eastern side of the Peninsula was mostly (manuka?) scrub. The characteristic second-growth tree of this district is kanuka.

PLANTS OF THE NORTHERN OFFSHORE ISLANDS

A. E. Wright

Of the more than 600 islands lying off the New Zealand coastline, the greatest concentration lie between North Cape and East Cape. These northern offshore islands constitute one of New Zealand's major natural features. Their importance centres on their function as a refuge for plants and animals under threat on the mainland, and for their own endemic flora and fauna.

The present vegetation and individual plant species of the northern offshore islands are a result of many different factors such as the period of their isolation, distance from the mainland, climatic variation, and modification of the environment by humans - both pre-historic and historic. Human modifications include burning and clearing, earthworks, and the introduction of feral animals - e.g. rats, rabbits, goats, pigs - and plants - e.g. pampas grasses, gorse, and blackberry.

Thus the flora and fauna that is protected on the offshore islands today is not an unmodified remnant of the primaeval biota as is commonly thought. Although elements that have not survived elsewhere are present, the majority of island ecosystems have been grossly modified.