

In the case of *Hierochloa*, the holy grasses, the NZ Maori name is the same as that of the Austro-Pacific *Cymbopogon refractus* (in Tahiti, 'aretu). This grass is also sweet-smelling, though of lemon not coumarin. It is present in CI (Rarotonga) today but lacks a name there — presumably it has been forgotten.

Sarcocornia quinqueflora The name ureure, a reduplication of the Maori word for penis, has traditionally been applied in New Zealand (and in CI, one speculates) to the phalloid fruits of *Freycinetia*, but Solander got it for our glasswort, *Sarcocornia quinqueflora*. No other early botanist confirms such a usage — in fact, *Sarcocornia* apparently lacks a Maori

name, proper or not (Beever 1991). It might have been an informant's joke on Solander — if so the joke has been revived by Crowe (1981).

Sigesbeckia orientalis The CI name for this weedy herb is kamika. Similarly it is 'ami'a or 'amiami in Tahiti and 'ami'a on Rapa. The name seems to occur even in the language of the western Polynesian outlier of Tikopia : "kamika ... bush with spiky flower, common on edge of cultivation (Firth 1985). The NZ Maori name however is punawaru, so linguistics gives no support to the idea that *S. orientalis* might have been an accidental Polynesian introduction to New Zealand.

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Plant records from the Swansea Bay –Mt Taylor area, Kawau Island

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We visited Kawau Island on 9 March 2005 to explore the plants at the head of Bon Accord Harbour, taking in Swansea Bay, the Mount Taylor Stream valley, and Mount Taylor. This was a follow-up study to investigations in the North Cove – Vivian Bay area (Wilcox *et al.* 2004).

The sheltered estuaries have mangroves (*Avicennia marina*), with *Chenopodium ambiguum* common on the shell banks, and *Plagianthus divaricatus* forming marginal thickets. The dominant rush-like plants are *Apodasmia similis*, *Ficinia nodosa* and *Baumea juncea*, and with a colony of *Baumea articulata* - a new record. Low carpets of *Lilaeopsis novae-zelandiae* were a feature, and some of these also had populations of *Ranunculus acaulis* (another new record).

The Mount Taylor Stream valley is mainly open kanuka forest (Fig. 1), with an occasional puriri (*Vitex lucens*) but the lower reaches abound with various exotic plants, many of which are introductions or escapes dating from the early settlements in Bon Accord Harbour. Particularly prominent are ladder fern (*Nephrolepis cordifolia*), stinking iris (*Iris foetidissima*),

agapanthus (*Agapanthus orientalis*), elephant's ear (*Alocasia brisbanensis*), taro (*Calocasia esculenta*), arum lily (*Zantedeschia aethiopica*), buttercup bush (*Senna semptemtrionalis*), kahili ginger (*Hedychium gardnerianum*), fairy crassula (*Crassula multicava*), Australian sedge (*Carex longibrachiata*), pampas (*Cortaderia selloana*), belladonna lily (*Amaryllis belladonna*) and Shasta daisy (*Leucanthemum maximum*). We also found several clumps of the large monocot *Furcraea foetida*. Tobacco (*Nicotiana tabacum*) grows wild under an area of open kanuka (Fig. 2). Beside the stream we also found *Scrophularia auriculata* (found on Kawau Island also at Mansion House Bay, E.K. Cameron, *pers. comm.*), *Myosotis laxa* and *Epilobium nerterioides*. Prominent native plants along the stream flats are *Carex virgata* and *Juncus sarophorus*, together with very extensive stands of three ferns – *Deparia petersenii*, *Diplazium australe*, and *Hypolepis ambigua*. The climbing fern *Microsorium scandens* is very prominent on tree trunks in the open kanuka stands (Fig. 3).



Fig. 1. Kanuka forest with ferns and monocots along the Mount Taylor Stream valley.

On the southern slope of Mt Taylor is a remnant patch of native bush comprising c. sixty healthy kauri trees (40-70 cm diameter), and with various associated broadleaved trees, the commonest being tawaroa (*Beilschmiedia tawaroa*), white maire (*Nestegis lanceolata*), hinau (*Elaeocarpus dentatus*), rewarewa (*Knightia excelsa*), taraire (*Beilschmiedia tarairi*) and towai (*Weinmannia silvicola*). We found one, moribund mangeao (*Litsea calicaris*). There is no understorey, thanks to wallabies. The shaded gully heads have considerable numbers of turepo (*Rhabdothamnus solandri*), and the liverwort *Monoclea forsteri* is prominent on shaded, damp stream banks.

The top of Mt Taylor (Fig. 4) is an open monoculture of kanuka with the typical Kawau bryophyte carpet dominated by the mosses *Dicranoloma billardierei*, *D. menziesii*, and *Leucobryum candidum*, and with the liverwort *Chandonanthus squarrosus*. Another liverwort, *Lepidolaena taylorii* commonly grows in reddish-brown colonies on exposed rocks near the kauri trees.



Fig. 2. Wild tobacco (*Nicotiana tabacum*) – a legacy of early self-sufficient settlers.



Fig. 4. Gwenda Cruickshank, Maureen Young and John Millett at the top of Mount Taylor.



Fig. 3. Impressive *Microsorium scandens* on kanuka stems, Mount Taylor Stream valley.

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Species List (additional to those recorded in Wilcox *et al.* 2004).

* = exotic species

Ferns & fern allies

Anarthropteris lanceolata
Lastreopsis hispida
Lastreopsis microsora
Tmesipteris elongata
Tmesipteris lanceolata
Tmesipteris sigmatifolia

Dicot trees, shrubs & climbers

*Acacia mearnsii**
Entelea arborescens
Eucalyptus tereticornis (cult.)*
Griselinia lucida
Hebe stricta

Litsea calicularis

Passiflora tetrandra

*Ulex europaeus**

Dicot herbs

*Callitriche stagnalis**
Epilobium nerteroides
*Leucanthemum maximum**
Myosotis laxa
*Nicotiana tabacum**
Ranunculus acaulis
*Scrophularia auriculata**
*Vicia disperma**

Monocots

*Aloe saponaria**
Baumea articulata
Deyeuxia quadriseta
Dichelachne crinita
Echinopogon ovatus
*Hedychium gardnerianum**
Ichthyostomum pygmaeum
Isolepis prolifera
Juncus sarophorus
Potamogeton cheesemanii
Winika cunninghamii

Plants of Mangere Mountain

Mike Wilcox & Peter Maddison

Introduction

Mangere Mountain (alt. 104 m), in Mangere Bridge, Manukau City, is one of Auckland's 48 small volcanoes, and among the best preserved. It erupted 18 000 years ago, to form a scoria cone, and with basaltic lava flows stretching down to the Manukau Harbour (Cameron *et al.* 1997). It is thought that Mangere Mountain was once home to about 3000 people, making it one of the largest pre-colonial Maori settlements.



Fig. 1. Mangere Mountain viewed from Hillsborough.

The mountain is a Manukau City Reserve, and is mostly open pastures that are grazed by cattle, but also includes sports fields, and the Mangere Mountain Education Centre on the site of a former quarry. Grassland dominates, with some planted exotic and native trees.

Grassland

The upper slopes and ridges, where the soil is sometimes thin, comparatively infertile, and prone to summer drought are clothed in mixed grassland vegetation. Dominant species are sweet vernal

(*Anthoxanthum odoratum*), danthonia (*Rytidosperma racemosum*), cocksfoot (*Dactylis glomerata*), ratstail (*Sporobolus africanus*), Yorkshire fog (*Holcus lanatus*), meadow grass (*Poa trivialis*), annual rye grass (*Lolium rigidum*), perennial rye grass (*Lolium perenne*), brown top (*Agrostis capillaris*), grey sedge (*Carex divulsa*), white clover (*Trifolium repens*), sub clover (*Trifolium subterraneum*), narrow-leaved plantain (*Plantago lanceolata*), catsear (*Hypochoeris radicata*), hawksbeard (*Crepis capillaris*), pale flax (*Linum bienne*), spreading hedge-parsley (*Torilis arvensis*) and wild carrot (*Daucus carota*). Grey sedge and spreading hedge-parsley are very prominent plants on Mangere Mountain, both on open sites, and on slopes shaded by trees. A very characteristic grass of shaded sites beneath trees is barley grass (*Critesion murinum*). The driest ridge tops support populations of clustered clover (*Trifolium glomeratum*).

The damper, lower slopes and crater valleys have kikuyu grass (*Pennisetum clandestinum*) and prominent populations of hairy buttercup (*Ranunculus sardous*). Arum lily (*Arum italicum*), which the cattle avoid, is fairly common throughout the lower slopes. Small-leaved wireweed (*Polygonum arenastrum*) is a characteristic "track weed" of pathways.

Rock outcrops and bluffs

Some interesting plants can be found clinging to rocks or at the base of bluffs. Prominent herbs of this habitat include Paterson's curse (*Echium plantagineum*), small herb Robert (*Geranium pupureum*), yellow flax (*Linum trigynum*), tolpis (*Tolpis barbata*) [Wilcox 2003], catchfly (*Silene gallica*), allseed (*Polycarpon tetraphyllum*), scarlet pimpernel (*Anagallis arvensis*), centaury (*Centaureum erythraea*), mouse-ear chickweed (*Cerastium fontanum*), sorrel