

Mt William Reserve

Mike Wilcox

A very enjoyable field trip to Mt William Reserve (Cameron et al. 1997) was held on 20 February 1999 under the able leadership of Ross and Jessica Beever, and attended by an enthusiastic group of 24 people. A general description and species list was compiled by Rhys Gardner in 1979 (Gardner et al. 1981). Beever (1980) has also furnished a species list. This is a 46 ha Department of Conservation reserve in the Bombay Hills, behind the Ahead sawmill on SH 2, Pokeno, accessible from McMillan Road, off Irish Road. It lies within the Hunua Ecological District and has an altitudinal range of 70-250m. Mesozoic greywacke is the main underlying rock, with outcrops of Pleistocene basalt from the adjoining Bombay volcanic field.

General botany of the mixed podocarp broad-leaf forest

Everyone was impressed by the diversity of tree species in this lower section of the reserve, on obviously rich soil. No one species was dominant everywhere, there being a mixture comprising taraire (*Beilschmiedia tarairi*), tawa (*Beilschmiedia tawa*), pukatea (*Laurelia novae-zelandiae*), puriri (*Vitex lucens*), and rewarewa (*Knightia excelsa*), karaka (*Corynocarpus laevigatus*), titoki (*Alectryon excelsus*), hinau (*Elaeocarpus dentatus*), pigeonwood (*Hedy-carya arborea*), kaikomako (*Pennantia corymbosa*), Hall's totara (*Podocarpus hallii*), kahikatea (*Dacry-carpus dacrydioides*), kohekohe (*Dysoxylum spec-tabile*), miro (*Prumnopitys ferruginea*), matai (*Prumnopitys spicatus*), and rimu (*Dacrydium cupres-sinum*). Mangeao (*Litsea calicaris*) was also recorded. A highlight here was the abundance of fallen fruit of pukatea, the green club-seed cases, opening to reveal the wind-dispersed hair-covered dry fruits.

The forest understorey was dominated by nikau (*Rhopalostylis sapida*), ponga (*Cyathea dealbata*), and shrubs such as heketara (*Olearia rani*), mahoe (*Meliclytus ramiflorus*), kawakawa (*Macropiper excel-sum*), and hangehange (*Geniostoma rupestre*). There was a rich flora of epiphytes and lianes, with several fine examples of puka (*Griselinia lucida*), perching high in the trees, and with large cable-like roots, distinctively strongly grooved, descending to the forest floor. A specimen of gully fern (*Cyathea cunninghamii*) was identified. Broadleaved mahoe (*Meliclytus macrophyllus*) was seen near the exit of the track on to farmland. A common colonial ground fern here is *Asplenium lamprophyllum*.

Kauri-tanekaha-hard beech ridge forest

This forest type was remarkably different from the

mixed forest, though adjacent to it, and is typical of the kauri-softwoods-hardwoods-beech forest class occurring on broken terrain along the southern outskirts of the Hunua Range (Clarkson & Clarkson 1993). The soil is shallow, well-drained, and of obvious low fertility. The forest comprises pole stands of kauri (*Agathis australis*) and tanekaha (*Phyllocladus trichomanoides*), together with mostly old, mature hard beech (*Nothofagus truncata*) on ridges, with occasional miro, kanuka (*Kunzea ericoides*), lance-wood (*Pseudopanax crassifolius*), nikau, and rewarewa.

The understorey was sparse or absent, the commonest species being mingimingi (*Leucopogon fasciculatus*), *Coprosma spathulata*, *Coprosma lucida*, mapou (*Myrsine australis*), heketara (*Olearia rani*), with occasional tawheowheo (*Quintinia serrata*) epiphytic on tree fern trunks, and *Cordylina banksii*. Two noteworthy ferns on the generally bare forest floor were *Blechnum discolor* and *Lindsaea trichomanoides*. Examples of the epiphytic orchids *Drymoanthus adversus* and *Bulbophyllum pygmaeum* were found on nikau stems. The very bare forest floor can partly be attributed to goat browsing - fairly fresh droppings were noticed.

Several dense seedling colonies of some exotic species were noted including lilly pilly (*Acmena smithii*) and holly (*Ilex aquifolium*), pointing to dispersal by birds from nearby gardens. Other potential woody weeds growing on the adjoining farm were hawthorn (*Crataegus monogyna*) and barberry (*Berberis glaucocarpa*), but these do not appear to have penetrated into the forest. There were also some old trees of radiata pine (*Pinus radiata*), and one very big *Acacia longifolia*, fortunately with no sign of regenerating seedlings. A few clumps of purple pampas (*Cortaderia jubata*), which is very prominent around Auckland at this time of year, have taken hold on the perimeter of the reserve.

Openings along the track entrances to bush were lined with the grasses *Rytidosperma gracile*, *Oplismenus imbecillus*, and *Microlaena stipoides*.

Gully forest with king fern

The previously recorded site of king fern (*Marattia salicina*) was visited with immediate success, with several colonies of young plants located on a moist stream bank. The species is obviously still thriving here. There were also extensive populations of parataniwha (*Elatostema rugosum*) in the gullies,