

It is interesting to note that many species have different forms in different habitats. The manuka on the mineral belt has very small leaves while on the lowlands it has very broad leaves. The southern rata, a form with small leaves, was found only on the mineral belt. The gontian, probably a form of *Geopelia*, in the bog of Bald Spur has very large flowers while those further down the hill have small ones. In the burnt beech there is one *Pimelea longifolia* while further up the mountain is the small leaved *P. glandia*; in between one finds intermediates which may be hybrids. There is need of transplant experiments to help to elucidate the questions which these forms raise.

Dr Oliver gave answers to several questions. He stated that only six rewarewa trees were noticed and these were in the saddle south of Attempt Hill. The beech is mostly *N. truncata* with *N. fusca* here and there; *Nauclea* occurs in the mineral belt and in wet forest. There are half a dozen orchids among which is *Pterostylis barbata*; *Epine* and *Dendrobium* are on the serpentine belt and *Phyllophylum pygmaeum* occurs in sheets on the rocks; there are several colour forms of *Thelymitra longifolia*.

In moving a vote of thanks Dr Cone said how fortunate we were to have had the opportunity to hear an account of such an important piece of work, with its problems of epharmacy and hybridism.

#### EXCURSION TO PETONE WATER WORKS RESERVE, April 11th, 1943.

An innovation for the Society was an excursion to which secondary school pupils and their teachers were especially invited. Four schools were represented and the total attendance, including members was 43. The following account, contributed by a group of girls, shows that useful notes were taken, and that the experiment might well be repeated.

"On the cleared hillsides *Pennantia cornubosa* was abundant, while *Paraonia heterophylla* with long pods hanging down, was climbing over everything. Weeds noted were the native *Acaena sanguisorbae*, *piripiri*, and an exotic *Geranium*, the cranesbill.

The predominant tree in the bush was *Beilschmiedia tawa*.

*Podocarpus ferrugineus* (miru) was found with a scarlet rata vine growing up it, and *Griselinia lucida* and an *Astelia* epiphytic in the forks.

We found a number of juvenile forms, and altogether the bush seemed very young. Among the juveniles we distinguished between *Elaeocarpus dentatus* (hinau) and *Knightia excelsa* (rewarewa) and we found all stages in the development of the growth of *Pennantia cornubosa*. *Putarutaweta* (*Carpodetus serratus*) was also found in the juvenile and mature forms.

Other plants we found were:- *Rhipogonum scandens* (supple-jack), *Olea lanceolata* (white Maire), member of the olive family, *Suttonia salicina* (to'o), *Fuchsia excoaricata* (native fuchsia), *Brachyglottis repanda* (raugiora), *Geniosoma ligustrifolia* (privet-leaved *Geniosoma*), *Uncinia* sp., a sedge with hooked fruits, *Coprosma grandifolia*, male and female flowers, dioecious, *Muehlenbeckia australis* in flower, buckwheat family, *Pseudowintera*, *Wintera*, or *Drimys willardii* (horopito), *Schiffelia digitata* (pate) in flower, *Notopanax arboreum* (wauwauhaupaku), *Hedyotis arborea* (Porokaiwhiria), common name pigeonwood, *Laurelia Novae-Zelandiae* (Tuketea) which has stems flattened at the nodes, and large brown shelf fungi, two epiphytic orchids, *Bulbophyllum pygmaeum* and *Sarcocollum adersus*, *Coprosma foetidissima* (stink-wood), nikau in flower, the liverwort *Marchantia*, and many *Blechnum*, *Asplenium* and *Polypodium*.

*Leycesteria formosa* was common in parts. This is an introduced plant which has a distinct juvenile form with lobed leaves, while the mature ones are entire. The stem is smooth, round and hollow. Mr Duncan showed how to make fine whistles from it. Large red fruits hang down surrounded by tiers of red bracts, from which the local name Pagoda plant arises."