

Botanical Notes on South Westland

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The early geologists collected plants from the mountains near Wanaka and the Haast Pass and botanists know the Paringa River as the dividing line between the silver beech forests of the south and the mixed rata-podocarp bush of Westland. But so far as is known no one had collected from the valleys and mountains between Haast Pass and the Paringa mouth. Over Christmas, 1948, I was one of a party of four that tramped from the end of the road over the Haast Pass, down to the Clarke junction, up the Clarke, across the Landsborough by a rather awkward miner's cage, and continued up the Clarke and Saddle Creek to Mark's Flat at the foot of Mt. Hooker; from here we sidled above a gorge in the headwaters of the Clarke and under the foot of Mt. Hooker, then crossed into the Otoko by the lower Otoko Saddle and travelled down the Otoko and the Paringa Valley to the road.

From Hawea Flat westwards the annual rainfall increases steadily. At Makaroa it is heavy enough for bush. Silver beech, mountain beech and red beech occur as well as rimu, miro, kahikatea and totara.

The forest in the Haast and Clarke is of silver beech with various smaller trees and shrubs according to the altitude or other conditions. Silver beech was the only beech seen west of the road end. Empty cupules were plentiful on most trees suggesting that the previous season had been a heavy seed year. In the Haast the mistletoe *Elytranthe colensoi*, *Coprosma astoni* with small cherry-red berries, and kaikomako (*Pennantia corymbosa*) with a mass of white flowers were noted.

The horse track across the grass flats in the Haast and lower Clarke can readily be followed as it is lined by the introduced rush *Juncus macer* which was not noticed elsewhere. Much of the grass is blue tussock (*Poa colensoi*) and it was dotted with flowers; the white of *Mazus radicans* and of *Celmisia*, the yellow of the daisy *Microseris scapigera*, and here and there of *Potentilla anserina*.

The swampy ground is mostly covered by the sedge *Carex gaudichaudiana*, sometimes with patches of bog pine (*Dacrydium bidwillii*); *Potamogeton cheesemanii* occurs in the water channels. Near Strutts Bluff (at the Landsborough mouth) *Lycopodium fastigiatum* on the flats grew in "fairy rings".

The hillsides in the Clarke are for the most part very damp and are often clothed with sphagnum moss. The orchid *Adenochilus gracilis* (see p. 4) was not uncommon in the sphagnum. The creeping one-leaved bush-lawyer *Rubus parvus* with white strawberry

flowers was attractive under the beech on the flats. (Both were also seen in the Otoko). The dead-looking filmy fern *Hymenophyllum malingii* was also seen in the Clarke.

On Davies Flat the grass was mostly *Festuca matthewsii* with *Coprosma brunnea* in fruit amongst it.

The route above Davies Flat climbs over a rather dry rocky bluff. The mountain mop *Dracophyllum traversii* grows here under the open beech, also *Cyathodes acerosa* and *Archeria traversii*. The ordinary tea-tree *Leptospermum scoparium* was seen here, the only time on the trip except at Lake Hawea.

Mark's Flat is a wide marshy two-mile long flat covered with pools and meandering streams and lies at the foot of the 8,000 foot Mt. Hooker. Snowgrass is confined to the foot of old shingle fans on the side of the valley. Blue tussock is abundant on the damp floor of the flat and is much eaten by deer. From the slopes of Mt. Hooker it is obvious that there is a very definite and straight lower bushline which on the southern slopes cuts both silver beech and scrub from the grass of the flat. It is not due to the marshy floor for it runs some height above this, across the shingle fans and the lower part of the face of Kea Cliffs. It is suggested that cold air draining off the mountain slopes is unable to flow quickly out of the narrow exit to the flats and lies long enough to prevent bush and scrub growing right down to the edge of the flat. Deer seem to be abundant here and their favourite plants such as *Ranunculus lyallii* and *Celmisia coriacea* are confined to places inaccessible to them.

The plants on the way up to the Lower Otoko Pass were a good excuse to linger. *Ourisia sessifolia* and *O. ceaspitosa* were in flower, *Ranunculus sericophyllus* with its golden cups and the greyish *Celmisia hectori* were amongst the rocks. *Dracophyllum menziesii*, a sprawling reddish plant about 18 inches high with broad recurved leaves, was a new but not unexpected record; it had been noted by the late Mr. J. W. Butcher at the head of the Landsborough the previous season. *Drapetes lyallii*, *Pygmaea ciliolata* and *Aciphylla crenulata* were other new records. Five or six *celmisias* were present; one with long greenish leaves turning silvery on drying and resembling those of *C. major* is perhaps an undescribed plant.

A forget-me-not with white or faint lilac starry flowers was the only plant seen on the moraine at the head of the Otoko. Above the lake at the head of the valley there is a band of alpine scrub which has been very badly battered by the deer. *Olearia lacunosa*, *O. moschata*, *O. nummularifolia*, *O. ilicifolia*, *Dracophyllum traversii*, *D. uniflorum*, ribbonwood (*Hoheria glabrata*), *Aristolelia fruticosa*, leatherwood (*Senecio bennettii*), mountain flax (*Phormium colensoi*), hookgrass (*Uncinia* sp.), snowgrass (*Danthonia flavescens*), native broom (*Carmichaelia* sp.) and the fern *Polystichum vestitum*—practically everything in the association—are eaten or trampled: a sorry sight. Downstream from the lake broadleaf (*Griselinia littoralis*)

and *Olearia arborescens* are eaten by the deer and *O. aricenniaefolia* and *O. macrodonta* are sometime eaten too.

The Otoko is just on the boundary between the beech forests of the south and the southern rata (*Metrosideros umbellata*) and podocarp forests of Westland. In the upper valley, generally speaking, the flats are in beech, the ridges and fans in ribbonwood, fuchsia, olearias and other shrubs or lower down, in pure rata, or under mixed bush with such trees as kamahi (*Weinmannia racemosa*). Well down river, rimu, totara and miro come in, and on the flats of the lower Otoko and Paringa the needle-leaved totara (*Podocarpus acutifolius*) is common. Deer tracks are thick everywhere in the valley.

NEW RECORDS

- Hymenophyllum malingii*, Metten. Clarke River.
Trichomanes colensoi, Hook. f. Otoko River.
Petriella colensoi, (Hook. f.) Zotov. Mark's Flat.
Carex carsei, Petrie. Saddle between Saddle Creek and Mark's Flat.
Rubus parvus, Buchanan. Clarke River, Otoko River.
Drapetes lyallii, Hook. f. Slopes of Mt. Hooker.
Epilobium pernitens, Ckn. et Allan. Mark's Flat.
Aciphylla crenulata, J. B. Armstrong. Slopes of Mt. Hooker.
Archeria traversii, Hook. f. Clarke River, Saddle Creek.
Dracophyllum menziesii, Hook. f. Slopes on Mt. Hooker.
Pygmaea ciliolata, Hook. f. Slopes of Mt. Hooker.
Celmisia walkeri, Kirk. Mark's Flat.
Olearia lacunosa, Hook. f. Otoko River.

REQUESTS FOR PLANTS

Cotula: Mr. G. Simpson (165 Crawford Street, Dunedin) would like live pieces of as many different kinds as possible for cultivation and study. As some have unisexual flowering heads, a number of pieces of each species or variety should be collected from well-separated plants so that there will be a fair chance of both sexes being represented.

Craspedia: Mr. A. P. Druce (Pinehaven Road, Heretaunga) would be glad to have live plants from different parts of the country, especially in the South Island. In the Manual one species and three varieties are listed, but there are now known to be at least ten different craspedias in New Zealand. More may turn up with further collecting.

Mr. Brockie is always pleased to receive plants to grow at Otari, Wellington, especially little known, rare or local species. The exact original locality of a plant should be given whenever possible.

Members requiring plants for study or growing are invited to use this section of the Bulletin to let others know what they want.