

THE SUBANTARCTIC ISLANDS OF NEW ZEALAND.

Nearly 200 miles south of Stewart Island lie the Auckland Islands and some 170 miles beyond them Campbell Island. These small specks of land in the vast southern ocean have always attracted the eyes of scientists, especially those interested in the geographical aspects of biology. Hooker and Lyall collected there in 1840, and a number of species common on the mainland are based on Auckland and Campbell Island specimens as types. In 1907 a party of scientists organized by the Philosophical Society of Canterbury visited both groups, and comprehensive accounts were published in two weighty volumes in 1909. Other scientists, travelling mostly on visiting Government vessels, have been to these islands, but collecting time ashore in almost every case has been limited by the requirements of ships whose masters were unwilling to stay long in those notoriously treacherous waters.

With the war, these southern islands became of strategic importance as potential bases for raiding enemy ships. From 1941 onwards they were garrisoned by small New Zealand forces, amongst whom, through the initiative of Dr. Falla, Director of the Canterbury Museum, were included a sprinkling of scientists eager to make the most of the unprecedented chance to do field work in these normally inaccessible places. Although, regrettably, no botanist was available for inclusion in any of the parties, a great deal of plant material was collected, and this, besides adding to our knowledge of the flora of these islands, will be of great value in comparative studies of related New Zealand plants.

On September 17th we were fortunate to have talks from two members of these southern parties - Mr. Robin Oliver who spent a month on the Aucklands and then a year on Campbell Island, and Dr. J.F. Findlay, who, in a stay of a few weeks largely occupied by medical duties, managed to make representative collections from both groups.

Mr. Oliver told us of the treeless windswept Campbell Island where two species of *Dracophyllum* (*D. longifolium* and *D. scoparium*) in the gullies are the largest woody plants; elsewhere tussock, herbfield, and bog hold sway. Where the tussock cover is broken through fire or disturbance due to sheep (the remnants of an ill-fated farming venture of the early 1900's) and pigs, erosion is severe, and judging by pictures shown, fairly extensive. An active move is being made to have these animals exterminated, but the practical difficulties are considerable.

The Auckland Islands, described by Dr. Findlay, have a much more varied vegetation, with forests of southern rata (*Metrosideros umbellata*) covering the lower slopes, and tussock, bog and fall field further up.

Lantern slides and pressed specimens gave a very good survey of the vegetation and flora. Only a few of the more striking endemic plants can be mentioned here:- *Fleurophyllum speciosum* has a rosette of velvety leaves a foot or two across, raised in close, almost parallel ribs, and a tall flower stalk with dozens of big purple-centred daisies. Only slightly less attractive are *P. criniferum* and *P. hookeri*, with smoother leaves and rayless, marble-shaped flower heads. *Bulbinella* (*Chrysobactron*) *rossii* is larger and much more showy than *B. hookeri* (the yellow-flowered "Maori onion" of the New Zealand mainland) and grows in pure stands over wide areas where the original vegetation has been interfered with. *Stilbocarpa polaris* (Araliaceae) grows in great breadths near the sea and looks rather like lush rhubarb shoulder-high. *Olearia lyallii* is confined to the Auckland group and there is found only on the small Ewing Island and a restricted area of the main island nearby; it is the noblest of all *Olearias*, with leaves as tomentose as those of *O. colensoi*, but much softer and reaching as much as a foot long. The forget-me-not *Myosotis capitata* was brought back alive and has flowered in Mr. Simpson's garden in Dunedin; those who have seen the blooms would agree with Hooker's term for the colour "deep violet-blue". *Hebe benthami* is said to have flowers of deepest blue, which must look very fine against the strong green leaves each margined with a line of white down.

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