

THE VEGETATION OF THE COLLINGWOOD DISTRICT.

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Collingwood on the narrow coastal plain of Golden Bay lies north and west of Wellington. The long Farewell sandspit and a belt of rough mountains provide shelter from the prevailing westerly winds. There is ample sunshine, though the rainfall is high (70 to 100 inches per annum), much of it sweeping through the Karamea and Aorere gaps.

The geology of the district is very diverse and coal, iron ore, and dolomite have been or are being worked. Since the mining boom of fifty or sixty years ago the population has greatly decreased as land suitable for farming is limited. Access, formerly exclusively by boat, is now chiefly by road.

DUNE VEGETATION. The great Farewell Spit on its exposed northern side is moving drift sand, but more sheltered parts are fixed and at one time carried some forest with white pine. Burning has been rife, and there is now scrubby manuka and flax in the hollows and common sand-binding plants on the rises. Wild Irishman persists, and there is some gorse and blackberry.

TIDAL SWAMPS: With a tide range of sixteen feet and many tidal inlets, the local inhabitants are very tide conscious. At Collingwood itself the tide literally goes out of sight. Zostera beds are extensive.

On the broad salt marshes Leptocarpus simplex, the jointed rush, makes a pattern of orange and grey with Juncus maritimus and Scirpus americanus. Bald-looking leafless shrubs of Plagianthus divaricatus stand out here and there. Mats of Samolus (our only representative of the primrose family), Selliera, and Cotula are charming in flower.

COASTAL CLIFFS: Plants of special interest are Whau (Entelea arborescens), reinga lily (Arthropodium cirrhatum), and a beautiful pink-flowered Hebe.

PAKIHI LAND: This is the name given to broad areas where an iron pan in the subsoil prevents drainage. The hollows are swampy, the open parts too dry, and everywhere the soil is poor. Miners wishing to make gardens first sowed gelignite to break up the iron pan!

Though everywhere the vegetation is stunted it is not without interest. Manuka (two species) is dominant, often with a good deal of the Australian immigrants Hakea acicularis and H. saligna. Dracophyllum longifolium, the erect white-flowered Epacris pauciflora, the bog sundew Drosera arcturi, Gleichenia dicarpa (umbrella fern) and Schizaea bifida are characteristic plants. Stumps and logs of yellow pine (Dacrydium colensoi) lie buried all through the pakihi lands, and large stocks of firewood were unearthed when a sports-ground was levelled recently in Collingwood.

Stunted manuka also covers the poor gravelly conglomerate country at the base of the Spit, after frequent burning. Pinolea longifolia is abundant here, and Celmisia gracilentia.

FOREST: From the service car on the Takaka hill heavy beech forest is seen on the limestone. The very fine Treadwell's kowhai (Sophora longicarinata) flourishes here; the one at Collingwood itself is coarser.

Local endemic forest species are Senecio hectori (notably not damaged by goats), Pittosporum dallii in the Aorere Valley, and Dracophyllum townsonii, which is intermediate in size between D. latifolium and D. menziesii. Cockayne lists 39 species endemic to the North-West Botanical District, but most of those are alpine.

The forest near Collingwood and towards West Wanganui has a great variety of trees, some predominantly northern (marked in list with asterisk), some of wider occurrence in the South Island:-

Nothofagus truncata^x, N. menziesii, tawa^x, pukotea^x, Ascarina lucida, hinau, pokaka, titoki, kamahi, Quintinnia acutifolia, Phyllocladus trichomanoides^x, P. glaucus^x (apparently a new record), Libocedrus doniana^x, Suttonia salicina^x, kaikomako, matai, rimu, Podocarpus dactyloides (white pine), Dacrydium colensoi (yellow pine), D. intermedium (silver pine), totara, rangiora, putaputawota, Griselinia littoralis, G. lucida, Pittosporum cornifolium^x, lancewood, nikau^x, kiekie, Cordyline indivisa, Hoheria sestyllosa, huketara, mahoe, tarata. Among smaller plants, the miniature tree fern Blechnum fraseri^x and abundant tussocks of Gahnia were conspicuous.

THE FLORULA: The most interesting part about the Collingwood florula is that it contains many species otherwise found only further north. The list shows distribution outside North-west District as recorded by Cheeseman:

- Blechnum fraseri - Taranaki northwards.
Adiantum aethiopicum - plentiful north of Waikato, rare in Taranaki.
Lycopodium cernuum - abundant north of Thames and Waikato.
Bromus arenarius - abundant north of East Cape and Taranaki.
Astelia Banksii - Hawkes Bay, Taranaki and northwards.
Pterostylis puberula - Thames, Middle Waikato and northwards.
Corysanthus cheesemanii - Auckland and Kaitiaki (a tiny winter-flowering species easily missed).
Hibiscus trionum - Auckland and North Cape (Cockayne considers Lyall's South Wanganui record possibly an error.)
Metrosideros parkinsonii - elsewhere only on Great Barrier Island.
Epacris pauciflora - rare and local south of Thames and Waikato.
Dracophyllum latifolium - Hawkes Bay and Taranaki and northwards.
Phyllocladus trichomanoides - Marlborough, Taranaki, Hawkes Bay and northwards.
P. glaucus - Rainbow Mountain (Rotorua district) and northwards.
Libocedrus doniana (= L. plumosa) - Hawkes Bay, Taranaki and northwards.

CLIMATE: The records are rather inadequate, but along with good sunshine and high rainfall there are winter temperatures considerably below those of New Plymouth. Climate does not seem to provide any good reason for the presence of many northern species.

PHYTOGEOGRAPHY: The relations of Collingwood plants were briefly discussed. Migratory birds, ocean currents, and high upper winds were suggested as most likely agents in continuous and still continuing spread of species.

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NEW RECORDS AND NEW SPECIES.

In the Transactions of the Royal Society of New Zealand, vol. 75, pages 187-202, September, 1945, Mr. G. Simpson published No. 4 of the series "Notes on Some New Zealand Plants and Descriptions of New Species". The notes include records of new localities, details about flowers and fruit, etc., to supplement existing descriptions, and critical discussions of some doubtful species. New varieties are described in Swainsona novae zelandiae, Leptospermum ericoides, Leucopogon fraseri, Shawia paniculata, Olearia colensoi, and two for O. virgata. New species from the South Island are Ranunculus porrectus, Epilobium porphyrium, Hebe domissa, Coprosma intertexta, Brachycome montana, Olearia serpentina, Celmisia spedeni, and Helichrysum intermedium. For Wahlenbergia ramosa the type locality is Seatoun, Wellington. Reading these descriptions without specimens at hand, one cannot help wishing that botanists would adopt the zoologist's practice that a description of a new species includes a brief comparison with the most closely allied species previously recognized.

Papers of this series emphasize the fact that there is still much work of this kind awaiting attention in every district. It is to be hoped that it will not be long before a new "Flora" incorporates in convenient form, the information scattered in many papers published since Cheeseman's Manual of 1925.

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