

ART. XXII.—*Notice of the Occurrence of Leucopogon Richei, R. Br., on the Mainland of New Zealand.*

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*Leucopogon Richei* was originally discovered by Lieutenant Riche, one of the officers of a French exploring expedition which, under the command of D'Entrecasteaux, visited Australia in the year 1792. It was first described by Labillardière in the well-known "Novæ Hollandiæ Plantarum Specimen" (vol. i, p. 44, t. 60). It was quickly found to have a wide distribution on the eastern and southern shores of Australia, stretching from the south of Queensland to Victoria, Tasmania, and South Australia, and from thence westward to King George's Sound and Swan River. So far as I am aware, it is strictly confined to littoral situations, never extending more than a few miles inland, and must be looked upon as one of the most characteristic of the coastal plants of Australia.

For its first discovery in the New Zealand area we are indebted to Mr. H. H. Travers, who gathered it on the Chatham Islands during his exploration of the group made towards the close of 1863. As is well known, the botanical collections made on this occasion were intrusted to the late Baron Mueller, and formed the foundation of his excellent little book entitled "The Vegetation of the Chatham Islands" (Melbourne, 1864). At page 45 Mueller records the occurrence of the species, stating that it was abundant on sandy ground near the sea on the main island, but was rare on the adjoining Pitt Island. Since then the plant has been collected or observed by all botanists visiting the group. I have specimens in my own herbarium gathered by Mr. Travers in his second expedition in 1871; by Captain G. Mair; by Mr. J. D. Enys, in 1887; by Miss Seddon, in 1895; and by Mr. F. A. D. Cox, at various times subsequent to 1896. Judging from Mr. Travers's statement in the "Transactions of the New Zealand Institute" (vol. i, p. 176), *Leucopogon Richei* is most abundant on the tracts of sandy soil which, as we know, are common on the Chatham Islands; but Dr. Cockayne, in his paper on "The Plant Covering of Chatham Island" (Trans. N.Z. Inst., xxxiv, 269), states that it occurs on limestone cliffs and on dry heathy ridges. In all probability it is well adapted for most dry and open situations in coastal districts, and consequently has a wide range of habitats.

Up to the present time, *Leucopogon Richei* has had the distinction of being the only Australian plant found in the Chatham Islands not also known as an inhabitant of the mainland of New Zealand. And it must be admitted that its occurrence on the Chathams, quite six hundred miles to the eastward of New Zealand, and its apparent absence in the latter country, situated between the Chathams and Australia, formed a somewhat puzzling problem in botanical geography. Personally, however, I have always considered it probable that it existed on some portion of our coast-line, and have made a practice of seeking for it on any botanical explorations of my own—always, however, without success. Consequently, I was very much interested and gratified to receive from Mr. Edward Clarke, of the Geological Survey, a few small specimens, in full flower, collected

by him on the North Cape Peninsula. Mr. Clarke informs me that they were gathered close to Kerr Point, which is the north-western termination of the high table-like promontory which forms the North Cape proper. The plant appeared to be fairly plentiful, and was associated with the handsome *Veronica speciosa*, which grows in considerable quantities on the declivities leading from the top of the plateau to the edge of the cliffs. I may here remark that some years previously I passed over the actual locality where Mr. Clarke made his discovery, but without noticing the plant (see Trans. N.Z. Inst., xxix, 363). But in a flowerless state *Leucopogon Richei* might easily be taken for a stunted form of the much more common *L. fasciculatus*. Mr. Clarke's visit was fortunately made during the flowering season, when it would be impossible not to recognise the difference between the two species. *L. fasciculatus* has minute greenish-white flowers arranged in axillary or terminal drooping spikes. *L. Richei* has pure-white flowers, larger than those of *L. fasciculatus*, and these are arranged in short and dense many-flowered subterminal erect spikes. To say nothing of other important differences, this character of the inflorescence separates the two species at a glance.

The detection of *Leucopogon Richei* in the North Cape Peninsula recalls the discovery recently made by Mr. R. H. Matthews of the Chatham Island *Lepyrodiia Traversii* in another part of the same district. For many years this plant was believed not to exist in New Zealand proper. It was, however, ultimately found in the middle Waikato by myself, and subsequently by Mr. R. H. Matthews in the peaty swamps between Lake Tongongee (near Kaitaia) and the sea. Other instances of Chatham Island plants found in isolated localities in the North Island are afforded by *Hymenanthera Traversii*, detected by Sir James Hector in the Inland Patea district; and *Pomaderris apetala*, which, as a native plant, is confined to two localities between Kawhia and Taranaki. The endemic *Corokia macrocarpa* and *Coprosma chathamica* are more nearly allied to northern species than to any other; and the occurrence in the Chatham Islands of *Rhopalostylis sapida* and *Cyathea Cunninghamii* are additional instances of northern affinity. In fact, the flora of the Chatham Islands has far more connections with that of the North Island than is commonly supposed, although its chief relationships are undoubtedly with the South Island. It is, however, somewhat remarkable that there is so little affinity with the flora of the islands to the south of New Zealand, especially when it is considered that Antipodes Island is almost as near to the Chathams as New Zealand. No doubt the difference in climate and geological structure has been a powerful factor, but it hardly seems sufficient to fully account for the facts of the case, which are not without their application to the previous history of the flora of both the Chathams and the Southern Islands.

I hope to recur to the subject at greater length in a further communication.