

ART. XLVIII.—On the Occurrence of the Genus *Sporadanthus* in New Zealand.

By T. F. CHEESEMAN, F.L.S.

[Read before the Auckland Institute, 2nd June, 1879.]

THE plant now constituting the genus *Sporadanthus* was originally discovered by the well-known naturalist, Dr. Ernst Dieffenbach, in the Chatham Islands, in 1840. Neither flowering nor fruiting specimens were obtained, and it was therefore impossible to determine, with accuracy, the systematic position of the plant, although Dr. (now Sir Joseph) Hooker, in the "Flora Novæ-Zealandiæ," ventured to provisionally refer it to the genus *Calorophus*. During the interval which elapsed between the publication of the "Flora" and that of the "Hand-book," no additional information was obtained. Neither does it appear that the plant was observed during Mr. Henry Travers' first visit to the Chathams in 1863-64, for it is not mentioned in the list of species collected by him and recorded in Baron Von Mueller's "Vegetation of the Chatham Islands;" although casually referred to in the introduction as "a doubtful *Calorophus*, mentioned by Dr. Hooker." On Mr. Travers' second visit in 1871, he was more successful, and I believe a good series of specimens was obtained. Some of these, including male flowers, were forwarded to Baron Von Mueller, and from their study he described the plant under the name of *Lepyrodia traversii*.\* Shortly afterwards, fruiting specimens were also received, which proved that the plant has nucular and not capsular fruit as in all true species of *Lepyrodia*. This discovery necessitated its removal from that genus; and ultimately Baron Von Mueller proposed a new genus—*Sporadanthus*—for its reception. Under this name it appears in Mr. Buchanan's list of the "Flowering Plants and Ferns of the Chatham Islands."†

Up to the present time, it had been supposed that *Sporadanthus* was entirely confined to the Chatham Islands. In January last, however, while travelling by rail from Hamilton to Ohaupo, in the Waikato District, I noticed that the extensive swamp through which the railway passes before reaching Ohaupo, was in many places entirely covered with a tall-growing *Restiad*, quite new to me. A few days later, I walked through the swamp for the purpose of identifying the species, and found that it was evidently the Chatham Island plant above referred to. Since then I have learnt from Mr. Percy Smith that it is abundant in some parts of the extensive Piako swamp, and Mr. R. E. M. Campbell also informs me that it occurs in profusion in the centre of the marshy district between Cambridge and Rangiaohia, known as the Moanatuatua swamp. Very probably it will be found in all the larger morasses of the Upper Waikato basin.

\* *Fragmenta Phytographiæ Australiæ*, Vol. VIII., p. 79.† *Trans. N.Z. Inst.*, Vol. VII., Art. XLVII.

In the Ohaupo locality, *Sporadanthus* is seldom found near the margin of the swamp; but toward the centre, where there is a great depth of peat which affords ample room for its creeping rhizomes and long stringy roots, it occurs in immense abundance, often covering hundreds of acres to the exclusion of almost all other vegetation. Mr. J. Stewart, C.E., informs me that the workmen engaged in constructing the railway dreaded to encounter it, as its thick matted roots not only made it difficult to open out the drains, but were also a sure sign of a bad part in the swamp. In habit it is quite peculiar, and very distinct from any other New Zealand plant. Single clumps, with the stiff, erect stems bare at the base, but branched above, the branches all terminated with brown panicles, and gently drooping outward at the tips, are by no means devoid of elegance; but when seen covering large areas its general appearance is dreary and monotonous.

The discovery of *Sporadanthus* in New Zealand proper, taken in connection with the fact that *Myosotidium* (or the Chatham Island Lily, as it is absurdly called by our gardeners) is known to occur on the Snares, has deprived the Chatham Island Florula of any claim to an endemic genus; and brings into still greater prominence the relationship existing between its vegetation and that of New Zealand; a relationship so close that hardly a dozen species out of the 200 known to inhabit the group are specifically distinct from New Zealand plants.

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ART. XLIX.—*A short Sketch of the Flora of the Province of Canterbury, with Catalogue of Species.*—By J. B. ARMSTRONG.

[Read before the Philosophical Institute of Canterbury, 2nd October, 1879.]

THIS short essay is intended as an introduction to the botany of that portion of New Zealand included within the boundaries of the Provincial District of Canterbury.

For the purposes of botanical demonstration, the Province may be conveniently divided into four districts, each differing considerably in its floral features from the others. These are—

1. The Littoral District.
2. The Banks' Peninsula District.
3. The Lowland, or Middle District.
4. The Alpine District.

*The Littoral District* extends along the coast, and inland about a mile and a half, usually ceasing when the land attains an altitude of twenty or twenty-five feet above the sea level. This district is composed of sand-hills