

### III.—BOTANY.

ART. XXXVIII.—*Preliminary Notes on Mr. H. H. Travers' Recent Collections of Plants from the Chatham Islands.*

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[Read before the Wellington Philosophical Society, 20th July, 1872.]

DURING the last spring and summer the Chatham Islands were revisited by Mr. H. H. Travers, with the view of exploring still further these islands for zoological and phytological purposes. The plants collected have also on this occasion been submitted to me for examination. But as the careful elaboration of all the species—many of variable form—will require some time, I have thought it advisable to offer meanwhile a few preliminary notes on these new collections. The latter comprise the *Dicotyledoneæ*, *Monocotyledoneæ*, and Ferns brought this time by Mr. Travers, and they increase the 67 genera and 87 species obtained in 1864 to 123 genera and 183 species, 56 genera and 96 species being added. Accordingly the *Dicotyledoneæ*, known to belong to these isles, comprise now 72 genera and 94 species; the *Monocotyledoneæ* 34 genera and 52 species; and the *Filices* and closely allied plants, 17 genera and 37 species. A few of the cotyledonous plants are evidently introduced; yet, after deducting these, there still remain a comparatively large number of indigenous species for so small an area, particularly if it is considered that no high mountains exist in this group as in Lord Howe Island.

The plants now brought by Mr. Travers still further prove the vegetation of the Chatham Islands to be almost identical with that of New Zealand; for even the apparently few endemic plants are almost all closely allied to New Zealand species. The total absence of *Myrtaceæ* and *Pittosporæ* seems remarkable. The *Cordylines*, so conspicuous in the vegetation of New Zealand, are also absent; and many common plants of the latter and also of other countries, for instance *Adiantum æthiopicum*, have not yet been found. A few additions to the phanerogamic flora may still be expected among insignificant water-weeds, such as *Lemna*, or among the oceanic *Monocotyledoneæ*, such as *Zostera*, *Cymodocea*, and *Halophila*, otherwise Mr. Travers' search seems to have been almost exhaustive. The Mosses, Lichenastra, Lichens, Fungi, and Algæ, have been more extensively collected only during Mr. Travers' second

stay on the islands; none of these have I yet seen, as they were not arranged for distribution. But the Algæ of Mr. Travers' first collection have been elaborated with masterly knowledge by Professor J. G. Agardh of Lund (in "Ofrirsigt af Kongl. Vetenskaps Akademiens Förhandlingar," Stockholm, 1870), and from manuscript notes of Professor Agardh a list of these Algæ appeared also in the third volume of the *Transactions* of the New Zealand Institute, p.p. 213–215. The cotyledonous plants and ferns, now kindly placed at my disposal for examination, as supplementary to those enumerated in my "Sketch of the Vegetation of the Chatham Islands," comprise the following genera new to the group:—*Ranunculus*, *Cardamine*, *Nasturtium*, *Lepidium*, *Viola*, *Drosera*, *Stellaria*, *Dodonæa*, *Discaria*, *Acæna*, *Callitriche*, *Tillæa*, *Haloragis*, *Myriophyllum*, *Daucus*, *Crantzia*, *Hydrocotyle*, *Oreomyrrhis*, *Apium*, *Brachycome*, *Craspedia*, *Erechtites*, *Helichrysum*, *Gnaphalium*, *Hypochæris*, *Wahlenbergia*, *Myosotis*, *Dichondra*, *Parietaria*, *Rumex*, *Atriplex*, *Rhagodia*, *Chenopodium*, *Salicornia*, *Triglochin*, *Ruppia*, *Potamogeton*, *Acianthus*, *Corybas*, *Thelymitra*, *Microtis*, *Schœnodum*, *Scirpus*, *Cladium*, *Chæto-spora*, *Isolepis*, *Uncinia*, *Danthonia*, *Hierochloa*, *Trisetum*, *Dichelachne*, *Poa*, *Tmesipteris*, *Schizæa*, *Ophioglossum*, *Lindsæa*.

All these genera are represented also in the vegetation of the New Zealand islands. The species and their relations, geographically and phyto-logically, will become the subject of a special treatise.

The following list of Mosses has been named by Dr. E. Hampe, of Blankenburg:—

<i>Sphagnum molliculum</i> , <i>Wilson</i> .	<i>Rhizogonium bifarium</i> , <i>Schimper</i> .
<i>Funaria connivens</i> , <i>Hampe</i> .	<i>Hypnum aviculare</i> , <i>Bridel</i> .
<i>Dissodon purpurascens</i> ( <i>Splachnum purpurascens</i> , <i>J. Hook. &amp; Wils.</i> )	<i>Hypnum spininervium</i> , <i>Hook</i> .
<i>Dissodon cuspidatus</i> ( <i>Splachnum cuspidatum</i> , <i>J. Hook. &amp; Wils.</i> )	<i>Hypnum ramulosum</i> , <i>Mitten</i> .
<i>Dicranum trichopyllum</i> , n.s., <i>Hampe</i> .	<i>Cyathophorum bulbosum</i> , <i>Bridel</i> .
<i>Campylopus introflexus</i> , <i>Bridel</i> .	<i>Catharomnion ciliatum</i> , <i>J. Hk. &amp; Wils.</i>
	<i>Racopilum australe</i> , <i>C. Mueller</i> .

ART. XXXIX.—*On the Origin in New Zealand of Polygonum aviculare*, L.  
By W. T. L. TRAVERS, F.L.S.

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IN the fourth volume of the *Transactions* of the New Zealand Institute, at p. 238, will be found a paper on this subject by Mr. Kirk, written, as it appears, in consequence of some observations of mine at p. 336 of the previous