

PLATE XVII.

Myosotidium nobile, growing in same locality as *Cotula*, in Plate XVI.

PLATE XVIII.

Isolated plant of *Olearia semidentata*, with formation of *Dracophyllum paludosum* in background. Tableland south of Chatham Island.

PLATE XIX.

Portion of formation shown in Plate XVIII., with juvenile plant of *Dracophyllum arborescens* in foreground still in the broad-leaved stage. In background is *Dracophyllum paludosum*.

ART. XXIX.—*On a New Zealand Isotachis new to Science.*

By ERNEST S. SALMON.

Communicated by Robert Brown.

[Read before the Philosophical Institute of Canterbury, 6th November, 1901.]

Plate XX.

THE following description of a New Zealand *Isotachis* by Mr. E. S. Salmon, of Charlton House, Kew, was taken from specimens which I sent to him for determination. His description (which I am able to confirm) was published in the *Revue Bryologique* for June, 1901, at page 75. He has sent me copies of his paper, with drawings, one of which, with specimens of the plant, has been placed in the Museum at Christchurch.

***Isotachis stephanii*, sp. nov.**

Robusta, dense cæspitosa, flaccida, sordide badia; caule usque ad 8 cent. longo flexuoso supra in ramulos subjulaceos partito interdum simplici inferne sordide badio apice læte badio, foliis distichis dense imbricatis flaccidis tenuibus erectis vel erecto-patentibus amplexicaulibus subcomplicatis late oblongis 3-3.5 mm. longis 2.5-3 mm. latis basi ventricosæ margine integro vel obtuse dentato ad 1/7 bifidis sinu infra plus minus angustato segmentis late triangularibus plerumque minute apiculatis cellulis superioribus firmis quadratis et breviter rectangulis 30-50 μ longis 12-20 μ latis parietibus plus minus incrassatis trigonis nullis, cellulis inferioribus elongato-rectangulis, amphigastriis foliis paulo minoribus 2.5-3 mm. longis 2 mm. latis parum concavis cæteris conformibus.

Reliqua ignota.

I. grandis Carr. et Pears. affinis, sed habitu robustiore, foliis et amphigastriis majoribus minus profunde bifidis distincta.

Hab. Growing in water in large round tutts on the top of a hill at Orepuki, Foveaux Strait; on the summit of Mount Thompson, one of the spurs of Mount Anglem, Stewart Island, New Zealand (Robert Brown, *in litt.*, January, 1901).

The hepatic above described was sent to me by Mr. Robert Brown, of New Zealand. The specimens sent, although sterile, clearly belonged to *Isotachis*, a genus which, as Gottsche has remarked (see Carrington and Pearson, in Proc. Linn. Soc. N.S.W., sec. ser., ii., p. 1042, 1888), "is readily recognised by its evenly arranged leaves and stipules, which last so nearly resemble the leaves in size and form that the foliage might almost be called trifarious." Not being able to identify the plant with any species of *Isotachis* in the Kew Herbarium, I sent a specimen to Herr Stephani, who kindly informed me that it was a new species. I am indebted to Herr Stephani for the following note on the affinity of the present plant: "It is very near *I. grandis*, Carr. et Pears., but that plant has asymmetric leaves, the postical part being more rounded than the antical. It is a particular feature of the New Zealand plant that the leaves and stipules are perfectly symmetric. *I. grandis* also has the leaves (not always, but often) 3-lobate."

There is a small specimen of *I. grandis* ("on wet rocks, Lawson, Blue Mountains, N.S.W.") in the Kew Herb., and in this the largest leaves measure 2 mm. by 1.75 mm. (Carrington and Pearson give 1.75 mm. by 1.5 mm.); the stipules measure 1.5 mm. by 1 mm. *I. stephanii*, besides having much larger leaves and stipules, differs in the manner in which the apex of these is bipartite. This is seen most clearly in the case of the stipules—in *I. grandis* the stipule is concave at the base of the sinus, and the sinus is not narrowed towards the base; in *I. stephanii* the apex of the stipule is plane, and the shallow sinus is distinctly narrowed downwards.

EXPLANATION OF PLATE XX.

Isotachis stephanii, sp. nov.

- Fig. 1. Part of plant, about natural size (left-hand branch turned round to show the stipules).
 Fig. 2. Leaf (flattened); $\times 17$.
 Fig. 3. Stipule; $\times 17$.
 Fig. 4. Areolation of leaf towards apex; $\times 270$.
 Fig. 5. Areolation of leaf towards base; $\times 270$.
 Fig. 6. Transverse section of stem; $\times 170$.

Isotachis grandis, Carr. et Pears.

Fig. 7. Leaf (flattened); $\times 17$.

Fig. 8 Stipule; $\times 17$.

Additional notes on the habitats of this plant: It grows on the nearly flat portions of the summits of the hills already named, in the drainage, which flows very slowly, varies in width from 1 ft. to several feet, and is about 1 in. in depth, with a muddy bottom. It is a very beautiful plant, being lustrous and nearly black. Like a large number of New Zealand plants, it appears to be very local. It is not plentiful in the localities named, which up to the present are the only places where it has been found. Fruit not known.—R. B.

ART. XXX.—*Revised List of New Zealand Seaweeds:*
*Part II.**

By ROBERT M. LAING, B.Sc.

[*Read before the Philosophical Institute of Canterbury, 6th November, 1901*]

HERE, as in the previous part of this paper, no attempt is made to give a complete synonymy of the species. Only such references are given as will introduce the student to the chief literature of the subject, where he will find full descriptions, and also fuller lists of synonyms, which will enable him to pursue his investigations. I have to express my thanks to Major Reinbold for his kindness in identifying a number of specimens.

Sub-class FLORIDEÆ.

Order **Ceramiceæ.**

96. *Rhodocorton parkeri*, Harvey Gibson, Journ. of Bot., 1893, p. 161.

Brighton, Otago: *Professor Parker.*

This plant was apparently found epiphytic on *Lychæte darwinii* (*vide* Laing, Trans. N.Z. Inst., vol. xxvii., p. 300).

97. *Rhodocorton (Callithamnion) rothii*. Fl. Nov.-Zel., p. 260.

Hawke's Bay and Cape Kidnappers: *Colenso.*

This plant has not been collected lately, but might be overlooked on account of its smallness.

* For Part I., see Trans. N.Z. Inst., vol. xxxii., art. xiv.