

australis (Hook.) occurs. This is also a submerged plant, rather thicker and wider in the leaves than *Zostera*, and is frequently washed on the shore after storms. The aquatic plants to which I have referred are not so attractive as many flowering plants, and therefore on that account they do not appear to have been so carefully examined, nor their distribution in these colonies so correctly recorded, as more showy species. For this reason I have taken the liberty of calling attention to them.

LICHENS FROM THE VICTORIAN ALPS.

WITH DESCRIPTION OF NEW LICHEN, AND LIST OF LICHENS NEW TO VICTORIA.

BY REV. F. R. M. WILSON.

(Read before Field Naturalists' Club of Victoria, 10th March, 1890.)

As one of the Alpine excursionists of the Australasian Association for the Advancement of Science, I report on the lichens found during the excursion, 15th to 18th January, 1890.

At Bright I collected 4 *Calicia*, 1 *Cladina*, 1 *Usnea*, 3 *Parmelia*, 1 *Theloschistes*, 1 *Lecanora*, 1 *Pertussaria*, 1 *Heterothecium*, 1 *Lecidea*, 1 *Buellia*, and 1 *Verrucaria*, all of them more or less frequent in the colony. In the Ovens valley, where we halted for a few minutes on our way to Harrietville, I found 1 *Usnea*, 1 *Nephromium*, several *Parmelia*, and several *Lecideæ*, all common species.

When we arrived at Mount Bernard we had an hour or two of daylight, which I spent in examining the few lichens around Boustead's. And in the morning, rising early, I walked over to the Diamantina Springs, and half-way back to Boustead's. These were the only opportunities for collecting; and, as the mountains are sandstone and very dry, and have been frequently fired, there are comparatively few lichens to collect. Here and there, however, chiefly on the south and south-west side of the rocks at Mount Blowhard, were found specimens, but neither so numerous nor so vigorous as I had expected to find at 6,000 feet above sea level.

Professor Hutton, of Christchurch, New Zealand, kindly assisted me by collecting such lichens as he found. One of them was a fruited specimen of *Umblicaria polyphylla*, f. *anthracina*, which I was not fortunate enough to find in fruit myself. Mr. C. French, jun., also, by kind instruction of Baron von Mueller, collected for me; and among other plants he gave me a *Lecanora* which I did not find myself, and which is new to me. Possibly it may be new to science.

By subsequent examination I have made out the appended list of lichens collected on Mount Hotham. The alpine or sub-alpine species are marked with an asterisk.

The *Peltigera polydactyla* was found in the crevices of rocks with a southern aspect. Its crispate thallus with recurved

margins is not unusual in the colony; but I have not previously noticed the apothecia so completely veiled by their recurved fringed margin, that there seemed, to a cursory examination, to be no fruit at all. From this peculiarity I have called the form "*pudens*." The *Stereocaulon proximum* is distinguishable from specimens met with in the streams at Fernshaw and at Lorne only by the smaller conglomerate and scarcely fertile apothecia. The two other *Stereocaula* and the *Neuropogon* I have previously collected from Mount Macedon.

Ten lichens are noted for the first time in Victoria. The *Siphula* is the only species that I can say is new to science; and I have taken the liberty of naming it after the President of the Association, who accompanied the excursion, and who by his urbanity did much to make the trip pleasant and profitable to all. The following is a description of the new lichen, which is interesting chiefly from the fact that it is the first of the genus whose spermagones and spermatia have been seen. The apothecia of the whole genus is as yet unknown. Only the small capitula of this new *Siphula* are visible among the moss where it grows; and, crowded together as they usually are, they may be at first sight mistaken, as they were by myself, for a minute *Jungermannia*.

DESCRIPTION OF LICHEN NEW TO SCIENCE.

Siphula Muelleri, Wilson, sp. nov.

Thallus parvus stipitatus stipite albido vel sordido (alt. 7 mm., crass. 2 mm.), ad basin radicularis defixo longis (ad. 9 mm.) ramosis, capitulo olivaceo nitido turgido (2 x 3 mm.) difformi-lobato. Quoad anatomem thalli stratum corticale est tenax, cellulosum, medulla e filamentis cavis (crass. .003 mm.) formata, gonidia virentia (diam. circa .015 mm.) Spermagonia endocarpoidea patentia sæpius valde depressa. Spermatia recta, circa .004 x .001 mm. Habitat inter muscos ad rupes subalpinas (alt. 6,000 ped.), Mount Hotham, Victoria.

LICHENS COLLECTED ON ALPINE HEIGHTS, MT. HOTHAM, &c.,
17TH JANUARY, 1890.

Cladonia gracilis, Hffm.	* Stereocaulon, species undetermined
Cladonia pyxidata, Fr.	* Siphula Muelleri, Wilson, sp. nov.
Cladonia degenerans, Flk.	
Cladonia crispata, Ach.	Usnea barbata, L.
Cladonia xanthoclada, J. M.	*Neuropogon melaxanthus, Ach.
Cladonia cornucopioides, Fr.	Pettigera polydactyla, Hffm.;
Cladina aggregata, Sw.	f. pudens, Wilson
Stereocaulon proximum, Nyl.	Sticta damæcornis, Sw.
* Stereocaulon, species undetermined	Parmelia Mougeotii, Schær.

* Alpine or sub-alpine species.

Parmelia conspersa, Ehrh. ; f. laxa, J. M.	Psoroma hypnorum, Vahl, typical
Parmelia physodes, L. ; f. encausta, Sw.	Psoroma hypnorum ; f. paleaceum, Fr.
* Parmelia alpicola, Th. Fr.	Lecanora, species undetermined
Theloschistes velifer, Wilson. ; f. alpinus	Placodium elegans
* Umblicaria cylindrica, L.	Urceolaria, species undetermined
* Umblicaria polyphylla, L.	Buellia myriocarpa, D. C.
* Umblicaria polyphylla, L. ; f. anthracina, Ach.	Buellia geographica, L.
	Buellia, species undetermined

LICHENS NEW TO VICTORIA.

Cladina xanthoclada, J. M.	Umblicaria polyphylla, L.
Siphula Muelleri, Wilson	Umblicaria polyphylla, f. anthracina, Ach.
Parmelia alpicola, Th. Fr.	Psoroma hypnorum, Vahl.
Parmelia Mougeottii, Schær.	Psoroma hypnorum, f. paleaceum, Fr.
Theloschistes velifer, Wilson ; f. alpinus	
† Umblicaria cylindrica, L.	

LICHENS FROM WESTERN AUSTRALIA.

BY REV. F. R. M. WILSON.

(Read before Field Naturalists' Club of Victoria, 10th March, 1890.)

I HAVE received from Mr. A. J. Campbell, F.L.S., a number of lichens, representing 35 species, collected by him in Western Australia. All of them, with four exceptions, occur with some frequency in Victoria. The total number previously recorded for Western Australia is 41, to which are now added the following 20 :—

LIST OF LICHENS NEW FOR WESTERN AUSTRALIA (20).

Collema atrum, Wilson	Physcia picta, Swartz
Calicium quercinum, Pers. ; var. fulvescens, Wilson	Physcia speciosa, Wulf
Cladonia pyxidata, Fries.	Callopisma balaustina, Wilson
Ramalina fraxinea, Lin.	Callopisma lenticula, Wilson
Parmelia caperata, Lin.	Callopisma verruculosa, Wilson
Parmelia olivacea, Lin.	Lecanora parella, Lin.
Parmelia pertusa, Schrank.	Pertussaria leioplacella, Nyl.
Parmelia pubescens, Wilson	Biatora varians, Wilson
Parmelia tiliacea, Ach.	Buellia myriocarpa, De Candolle
Parmelia ulophylla, Ach.	Buellia cretacea, Wilson.

* Alpine or sub-alpine species.

† Since writing the above Baron von Mueller has told me that he collected this lichen in 1854 on the Cobboras Mts., and had it named by Dr. Hampe, but omitted to mention it the "Fragmenta Phytographiæ."