

- Carex pyrenaica*, Wahl. Buller Valley; T. F. Cheeseman.
 „ *echinata*, Murr. Buller Valley; T. F. Cheeseman.
 „ *breviculmis*, R. Br. Buller Valley; T. F. Cheeseman.
Agrostis muscosa, T. Kirk. Buller Valley; T. F. Cheeseman.
Hymenophyllum villosum, Col. Buller Valley; T. F. Cheeseman.
 „ *cheesemaniai*, Bak. ex Hook. and Bank. Waimangaroa; Dr. Gaze.
Alsophila colensoi, Hook. f. Serjeant's Hill; Mr. Green.
Lomaria dura, Moore. Waimangaroa Gorge; Mr. Wright.
Hypolepis millefolium, Hook. Buller Valley; T. F. Cheeseman.
Lycopodium selago, L. Buller Valley; T. F. Cheeseman.

ART. XXXVI.—Notice of the Occurrence of Hydatella, a Genus new to the New Zealand Flora.

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

[Read before the Auckland Institute, 3rd October, 1906.]

IN the "Manual of the New Zealand Flora" (p. 756) I have provisionally described, under the name of "*Trithuria inconspicua*," a curious little plant collected by Messrs. H. Carse and R. H. Matthews at Lake Ngatu, near Ahipara. As mentioned in the Manual, the plant differs in several respects from *Trithuria*, but my specimens were not sufficiently complete to justify me in treating the species as the type of a new genus.

A few months ago, through the kindness of Dr. Diels, I received a copy of the "Fragmenta Phytographiæ Australiæ Occidentalis," an important publication devoted to an account of the plants collected or observed by Drs. Diels and Pritzel in West Australia in the years 1900 and 1901. On turning to the *Centrolepidaceæ* I was much interested in finding the description of a genus, for which the name *Hydatella* was proposed, which evidently included the Lake Ngatu plant. Dr. Diels remarks that the genus is allied to *Juncella*, F. Muell. (*Trithuria*, Hook. f.), but differs in the inflorescence being monœcious, in the stipitate flowers, in the longer and more numerous styles, and in the bracts being usually two only; to which may be added that the ovaries are neither angled nor compressed. Two species are described, *H. australis* and *H. leptogyne*, the first of which is excellently figured.

Shortly after the sheets containing the *Centrolepidaceæ* of the Manual had passed through the Press further specimens of the

Lake Ngatu plant were kindly forwarded by Mr. R. H. Matthews, and an additional parcel has just been received from the same gentleman. Unfortunately, Mr. Matthews has so far failed to find the male flowers; but his specimens show all stages of the female flowers, from the young bud to the fully ripened fruit, and they leave no doubt in my mind that the plant must be transferred to the genus *Hydatella*. I therefore subjoin a description of the genus and an amended specific character.

HYDATELLA, Diels.

Minute tufted and stemless annual herbs. Leaves numerous, all radical, filiform. Scapes usually numerous, radical, shorter than the leaves, each bearing a terminal head of minute flowers enclosed within 2-5 bracts; heads unisexual. Bracts usually 2 in the Australian species, 3-5 in the New Zealand. Male flowers: Stamens with a filiform filament and a 2-celled oblong anther. Female flowers: Ovaries densely crowded within the bracts, numerous, oblong or ovoid, not angled nor compressed, 1-celled and 1-ovuled; styles numerous, filiform, elongated, unequal in length. Fruit oblong or elliptic-ovoid, apparently indehiscent.

A genus of three species, two found in West Australia, the third endemic in New Zealand.

1. *H. inconspicua*, Cheesem.

A very minute slender perfectly glabrous annual herb, forming dense moss-like tufts $\frac{1}{2}$ -1 in. high. Leaves numerous, all radical, filiform, strict, erect, terete, gradually tapering to an acute point. Scapes very short in the flowering stage, lengthening to one-half or three-quarters the length of the leaves when in fruit. Bracts 3-5, erect or erecto-patent, linear-lanceolate to ovate-lanceolate, acute, thin and membranous, $\frac{1}{2}$ - $\frac{1}{3}$ in. long. Heads unisexual; males not seen. Ovaries densely crowded within the bracts, usually from 10 to 20, shortly stipitate, ovoid or oblong-ovoid, smooth, pale yellow-brown or reddish. Styles numerous, very delicate, forming a spreading brush at the tip of the ovary, and often much longer than it. Ripe fruit elliptic-ovoid, pale yellow-brown with a dark spot at each end.

So far this has only been found on the sandy shores of Lake Ngatu, a small lake situated behind the coastal sand-dunes about six or eight miles north of Ahipara, but doubtless it will be found on the shores of some of the numerous similar lakes existing in the North Cape peninsula. It principally differs from the Australian species in the more numerous bracts, and (judging from Dr. Diel's plate) in the stricter and more densely tufted habit.