

- Chenopodium urbicum*, L. I have never seen this in the Auckland district.
- „ *ambrosioides*, L. Probably a true native.
- Iatropa curcas*, L. Fl.N.Z. 2, p. 322. Extremely unlikely to become naturalized in any part of New Zealand.
- Dioscorea alata*, L. Fl.N.Z., 2, p. 322. May have been cultivated by the Maoris, but I very much doubt its becoming naturalized.
- Panicum gibbosum*, Br. Erroneously introduced into Raoul's list.
- Aristida calycina*, Br. Supposed to have been gathered at the Bay of Islands by Cunningham, no doubt through some mistake.
- Eleusine indica*, Gærtn. "Handbook," p. 331. Has not been seen of late years.
- Anthistiria australis*, Br. "Handbook," p. 325. The same remarks apply, so far as the district of Auckland is concerned.
- Apluda nutica*, L. "Handbook," p. 325. No botanist has observed this since Dr. Sinclair's time.
- Andropogon refractus*, Br. "Handbook," p. 325. Reported from New Zealand by Allan Cunningham, but it has not since been met with.
- Eragrostis eximia*, Steud. Stated by its author to come from New Zealand; but his description has not been recognized.

ART. XXXVI.—On some recent Additions to the Flora of New Zealand.

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

[Read before the Auckland Institute, 29th May and 31st July, 1882.]

1. *Cardamine latesiliqua*, n. sp.

VARYING in size from four inches to over two feet. Rootstock stout, spongy, as thick as the finger, often branched at the top, and each division furnished with a rosette of densely-crowded radical leaves. Flowering stems few or many, arising from the top of the rootstock, erect or slightly spreading, leafy. Radical leaves 3-6 inches long, $\frac{1}{3}$ - $\frac{2}{3}$ inch broad, variable in shape, narrow linear-spathulate to nearly obovate-spathulate, gradually narrowed to the base, coarsely and sharply serrate in the upper portion, very thick and coriaceous, margin and midrib and sometimes the whole surface more or less villous-pubescent. Cauline leaves smaller, lanceolate, nearly entire. Flowers rather large, white, very numerous. Pedicels $\frac{1}{4}$ - $\frac{1}{2}$ inch long. Petals nearly $\frac{1}{2}$ inch long, spathulate, on long claws. Pods very numerous, suberect, usually curved, somewhat swollen, $1\frac{1}{2}$ - $2\frac{1}{2}$ inches long, $\frac{1}{5}$ - $\frac{1}{4}$ inch broad. Seeds numerous, compressed, reddish-brown.

Hab. Nelson Mountains. Mount Arthur, not uncommon between 4,000-5,500 feet; Mt. Owen, abundant on limestone rocks above 3,500 feet; Raglan Mountains, altitude 5,000 feet.

This handsome species has much of the habit and general appearance of *C. fastigiata*, but is at once distinguished by the broad pods, which are more than twice the diameter of those of *C. fastigiata*, and have in addition a peculiar turgid or swollen appearance very unusual in the genus. The pods of *C. fastigiata* (which I have gathered in a fruiting condition at the Wairau Gorge) are flat and narrow, and never more than $\frac{1}{10}$ inch in diameter.

2. *Cotula linearifolia*, n. sp.

Dark green, rather thick and fleshy, very aromatic, sparingly pilose. Stems branched, prostrate, ascending at the tips. Leaves $\frac{1}{2}$ – $1\frac{1}{2}$ inches long, $\frac{1}{2}$ – $\frac{1}{8}$ inch broad, thick and fleshy, narrow linear or linear-spathulate, quite entire, sprinkled with minute glandular dots, blade gradually narrowed into a broad sheathing petiole. Scapes 2–4 inches long, rather slender, with from 4–8 linear or linear-subulate bracts. Heads unisexual, $\frac{1}{4}$ – $\frac{1}{2}$ inch diameter. Scales of the involucre in about three series, linear-oblong, obtuse, herbaceous, with a broad green centre and thin brownish margins; receptacle convex, papillose; florets usually with numerous rounded transparent glands. Female florets—corolla thick and fleshy, swollen at the base, somewhat tetragonous, narrowed above, with 4 short erect lobes; achene linear-obovate, compressed. Males—smaller and more slender, funnel-shaped, 4-lobed.

Hab. Mountains flanking the Wairau Valley, Nelson, alt. 3,000–4,500 feet.

A curious little species, allied to *C. pyrethriifolia*, Hook. f., in the structure of the flower heads and in the numerous linear bracts, but differing from it, and all the other New Zealand species, in the narrow entire leaves. In outward appearance it somewhat resembles *Abrotanella linearis*, Berggren.

3. *Veronica cheesemani*, Benth.

(Hook. f., *Icones Plantarum*, t. 1366, a.)

Small, greyish green, densely tufted, forming rounded cushions 2–5 inches in diameter, pubescent in all its parts. Branches slender, closely compacted and intertwined. Leaves $\frac{1}{8}$ – $\frac{1}{2}$ inch long, narrow obovate, lobulate, or pinnatifid, lobes obtuse, narrowed into a long or short broad petiole. Flowers white, solitary, axillary, very shortly pedicelled, $\frac{1}{8}$ inch diameter. Calyx deeply divided into four spreading linear-spathulate segments, that are coarsely toothed towards the top. Corolla slightly longer than the calyx, four-lobed, lobes obovate, emarginate. Ovary broadly ovoid, hispid. Capsule much shorter than the sepals, broadly didymous, slightly compressed, hispid, ultimately splitting to the base into four oblong obtuse valves.

Hab. Mountains of Nelson. Summit of Gordon's Nob, alt. 4,000 feet. Raglan Mountains, Wairau Valley, alt. 4,000–5,000 feet.

This belongs to the section of the genus with solitary axillary flowers, of which *V. canescens*, Kirk, is the only other species described from New Zealand. Our plant differs in habit, larger size, smaller white flowers, and in the pinnatifid leaves.

4. *Pterostylis mutica*, R. Br.

(R. Br., Prodr. 328; Bentham, Flora Australiensis, vol. vi., p. 362.)

Leaves in a radical rosette at the base of the stem, $\frac{1}{4}$ – $\frac{1}{2}$ inch long, ovate, shortly petiolate, reticulate, apparently withering at the time of flowering. Stem 2–5 inches high, with 2–4 empty sheathing bracts below the flowers. Flowers 2–5, arranged in a slightly spiral spike, greenish-brown. Galea broad, much incurved, obtuse or subacute at the tip, hardly three lines long. Lower lip broad, almost orbicular in outline, concave, reflexed, with two short broad lobes. Labellum placed on a short flat claw, short, broad, and obtuse; appendage nearly as broad, entire, rounded. Column erect; wings broad, lower lobe broad and obtuse.

Hab. Lee Stream, near Dunedin; Mr. Sydney Fulton.

I am indebted to Mr. G. M. Thomson, of Dunedin, for specimens in spirit of this curious little species. It was first found in New Zealand by Mr. Fulton some two years back, and was identified in the "New Zealand Journal of Science" with *P. aphylla*, Lindl., a local Tasmanian species. It clearly belongs, however, to the section of the genus having the lower lip reflexed, and agrees so closely with the well-known Australian *P. mutica*, Br., that I cannot doubt its being the same species. New Zealand specimens are much smaller than Australian, but that may be due to the nature of the locality in which they were found. The structure of the flower agrees very well with the details given in Mr. Fitzgerald's plate in his "Australian Orchids," and with dried specimens that I have examined; with the exception of a slight difference in the shape of the appendage to the labellum—always a variable organ in this genus.

5. *Scirpus (Isolepis) crassiusculus*, Hook. f.

(Benth., Flora Australiensis, vol. vii., p. 326.)

Rhizome apparently elongated, branched, rooting at the nodes. Leaves very narrow linear, almost filiform, $1\frac{1}{2}$ –2 inches long. Stems about 3 inches long. Spikelet solitary, terminal, pale brownish-green, ovate, rather more than $\frac{1}{2}$ inch long, many-flowered. Glumes ovate, obtuse, striate, herbaceous, with a green centre and purplish-brown margins. Stamens 3. Style-branches 2. Nut greyish-white, very nearly orbicular, but slightly broader above and produced into a short point, much flattened, centre biconvex, then becoming thinner, margin thickened all round.

Hab. Swamps in the Rangipo desert, eastern base of Ruapehu; Mr. H. Tryon.

Of this plant I have only received three small specimens. So far as these go, they correspond exactly with the description and plate in the Flora of Tasmania, and with Bentham's description in the Flora Australiensis; and at present I have no reason whatever to doubt the identification. A full series of specimens will be required, however, before the matter can be absolutely settled. The species is more nearly allied to *S. fluitans* than to any other of our New Zealand forms, but differs in being stouter, apparently not so much branched, and in the very much larger spikelet. Mr. Tryon informs me that it is not uncommon in ferruginous swamps in the Rangipo desert, associated with *Scirpus cartilagineus*, *Pratia angulata*, *Drosera arcturi* and *D. spathulata*, *Gunnera prorepens?*, and *Utricularia monanthos*.

6. *Carex devia*, n. sp.

Culms 9–18 inches high, smooth or nearly so, hardly tufted, leafy at the base only. Leaves shorter than the culms, very coriaceous, rigid, keeled, strongly grooved, $\frac{1}{10}$ – $\frac{1}{8}$ inch diameter; margins scabrid. Lower bract long and leafy, rest small. Spikelets 2–4; terminal one the largest, male, or very rarely with a few female flowers at the base, stout, clavate, $\frac{3}{4}$ – $1\frac{1}{2}$ inch long; remainder all female, variable in size, $\frac{1}{2}$ – $1\frac{1}{4}$ inch long, erect, oblong or cylindrical, upper sessile, lower very shortly pedunculate, in small specimens often closely approximate, in larger ones more distant, dark chestnut-brown or rarely blackish-brown. Glumes dark rich brown with a green centre, ovate, acute, emarginate or shortly bifid, the midrib produced into a hispid awn of varying length. Perigynia rather longer than the glumes, dark purplish-black, ovate or elliptic, compressed, unequally biconvex or nearly plano-convex, strongly nerved and wrinkled, margins entire; beak short, broad, terminated by two widely divergent teeth. Stigmas two.

Hab. Mountain districts in Nelson, not uncommon above 2,500 feet altitude.

This appears to be a very distinct species, and when once noticed cannot be confounded with any other. It may be readily identified by its seldom forming tufts, by its rigid and coriaceous grooved leaves, very stout clavate male spikelets, and by the broad conspicuously grooved and wrinkled perigynia.
