

ART. LI.—Description of three New Species of Coprosma.

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

[Read before the Auckland Institute, 30th November, 1885.]

1. *Coprosma tenuifolia*, n. sp.

A RATHER slender, sparingly branched shrub or small tree, 8–15 feet high, glabrous, with the exception of a line of hairs on the midrib and petiole; branches slender, terete, bark pale. Leaves membranous, $1\frac{1}{2}$ –5 inches long, $\frac{1}{2}$ – $1\frac{1}{2}$ inch broad, varying from ovate or oblong-ovate to oblong-lanceolate or elliptic-lanceolate, acute or acuminate, narrowed into rather long and slender petioles, $\frac{1}{4}$ – $\frac{3}{4}$ inch long, dull brownish-green above, paler below; veins conspicuous on both surfaces, very finely reticulated. Stipules rather large, triangular, connate at the base, thin, often ciliate at the margins or apex when young. Flowers not seen. Fruit in dense fascicles of 3 to 8 on short lateral branchlets, $\frac{1}{4}$ – $\frac{1}{3}$ inch long, ovoid or oblong.

Hab. Ruahine Mountains; Colenso ("Handbook," p. 114). Pirongia Mountain; Mount Karioi; abundant on the Mount Egmont Ranges; T.F.C. I have also seen specimens collected by Mr. Kirk between Upper Wanganui and the Waikato, so that probably it has a wide distribution in the interior of the North Island.

I have been acquainted with this species for many years, but have delayed describing it, in the hope of obtaining flowering specimens. It was first gathered by Mr. Colenso on the Ruahine Mountains, and is the plant alluded to in the Handbook in a note to the description of *C. acutifolia*. I have never seen *C. acutifolia*, but Mr. N. E. Brown, of the Kew Herbarium, who has done me the favour of comparing the type specimens of that species with my plant, informs me that the two are certainly distinct; and in this opinion Sir Joseph Hooker also concurs.

The dull-green membranous foliage of *C. tenuifolia* approaches that of *C. grandifolia*, and the habit is also not much dissimilar. The fruit, however, proves that the inflorescence is totally different. From *C. lucida*, *C. robusta*, etc., it is at once separated by the membranous leaves.

2. *Coprosma areolata*, n. sp.

An erect, closely branched shrub or small tree, 6–15 feet high, or even more. Branches slender, often fastigiate, bark pale-greyish-green or brown; ultimate pubescent or almost villous, with soft greyish hairs. Leaves in opposite pairs, $\frac{1}{3}$ – $\frac{2}{3}$ inch long, orbicular-spathulate, ovate-spathulate, or elliptic-spathulate, usually acute or apiculate, but sometimes obtuse, rather thin and membranous, flat, glabrous or nearly so above, usually

pubescent on the veins below, suddenly narrowed into short hairy petioles; veins reticulated in large areoles. Stipules triangular, pubescent. Flowers axillary, solitary or more usually in few flowered fascicles. *Males*: usually two to four together, small, $\frac{1}{8}$ – $\frac{1}{6}$ inch long. True calyx wanting, but its place is supplied by one or two involucels composed of a pair of depauperated leaves and their stipules, and which closely invest the base of the corolla. Corolla broadly campanulate, divided about half-way down into four or five lobes. Stamens 4–5; anthers large, pendulous. *Females*: solitary or two together, rarely more, $\frac{1}{10}$ – $\frac{1}{8}$ inch long. Calyx limb minute, truncate or very obscurely 4-lobed, closely invested by an involucel similar to that of the male flower. Corolla narrow and tubular at the base, divided about two-thirds of the way down into three or four divisions, lobes often spreading. Drupe small, oblong or obovoid, $\frac{1}{8}$ inch long.

Hab. North Island: common in Auckland province, and probably in most lowland districts. South Island: Nelson, T.F.C.; Otago, D. Petrie.

A very distinct species, quite different in habit to any of its allies. It forms a compact densely-branched shrub or small tree, usually narrow for its height, and often quite fastigiate. The slender, soft and pubescent branchlets, pale bark and foliage, and the reticulated veins of the leaves, are prominent characters. It is a familiar plant to New Zealand botanists, but has not been previously described. In the "Handbook," as Mr. N. E. Brown informs me, it was confused with *C. rotundifolia*. But that species has wide-spreading branches, larger leaves, more numerous flowers, and a smaller globose or didymous drupe. It is much nearer to *C. tenuicaulis*, but that also differs in its more spreading habit, dark coloured bark, more glabrous leaves and branchlets, smaller, rounder, more coriaceous leaves, and in the globose drupe.

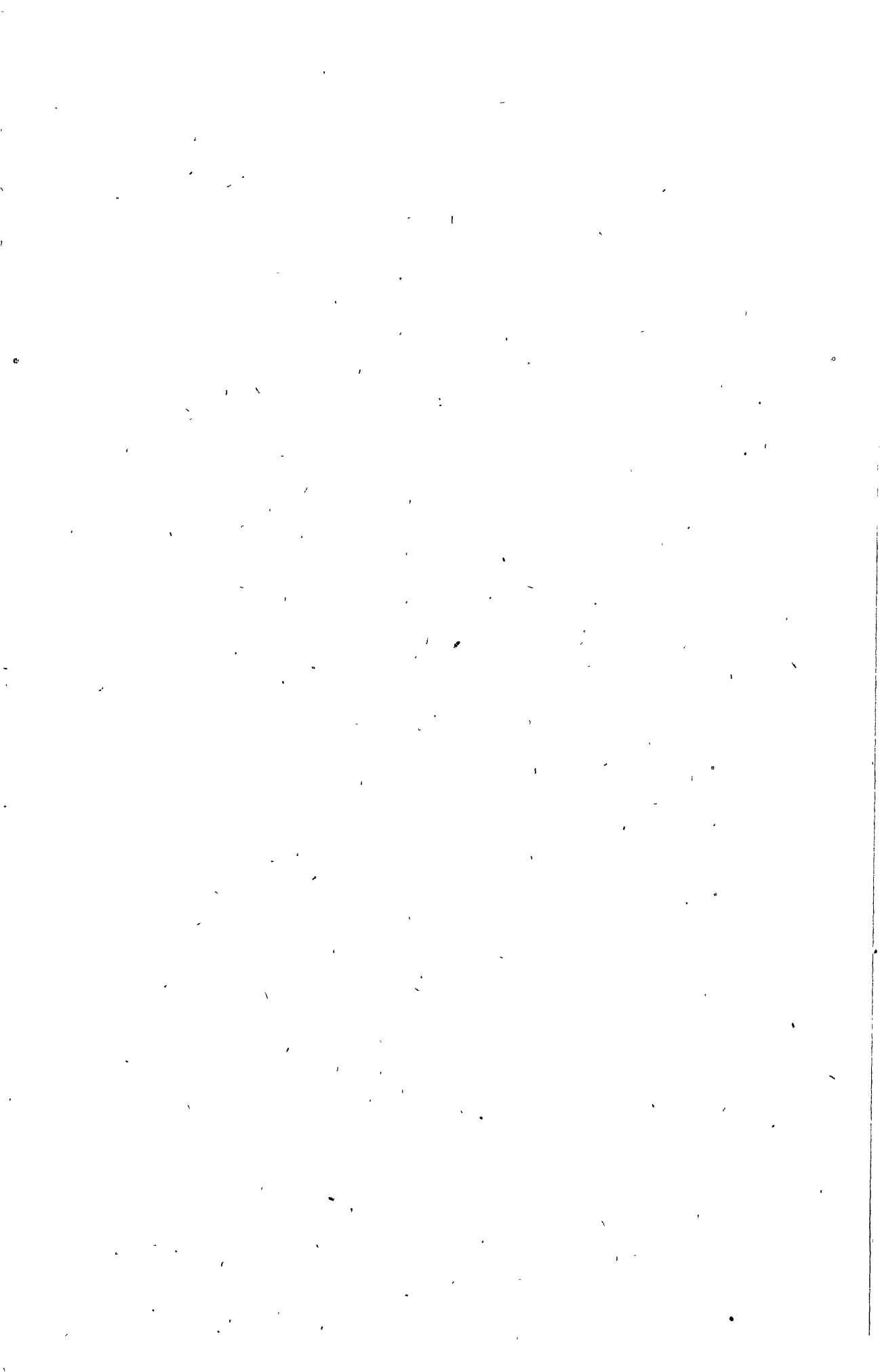
3. *Coprosma petriei*, n. sp.

A small alpine species, with prostrate and creeping stems. Branches long or short, 6–18 inches, usually densely matted, creeping and rooting, glabrous or puberulous. Leaves close set or distant, erecto-patent, coriaceous, $\frac{1}{10}$ – $\frac{1}{4}$ inch long, linear-oblong or linear-obovate, acute or obtuse, gradually narrowed into very short broad petioles or sessile, veinless, glabrous or margins, or both surfaces with short white hairs. Stipules rather long, puberulous and ciliate. Flowers solitary, terminating short erect branchlets. *Males*: $\frac{1}{5}$ – $\frac{3}{10}$ inch long. True calyx wanting, but in its place a series of from 1–3 involucels composed of depauperated leaves and their stipules. Corolla tubular at the base, above broad and campanulate, 4-lobed. Filaments very long. *Females*: Minute, hardly



CYTTARIA PURDIEI. n. s.

J.B. del.



$\frac{1}{10}$ inch long, invested at the base with involucels similar to those of the males. Calyx limb irregularly 4-5 toothed. Corolla short, broadly tubular, 4-lobed to below the middle. Styles, 2. Drupe globose, $\frac{1}{8}$ inch diameter, blueish.

Hab. South Island, mountains near Lake Tekapo, Canterbury, altitude 4,000 feet; *T.F.C.* Uplands in the interior of Otago, common; *D. Petrie!*

Mr. Petrie and myself had placed this, with some doubt, under *C. repens*. But Sir Joseph Hooker and Mr. N. E. Brown agree in considering it quite distinct from both *C. repens* and *C. pumila*. The infundibuliform corolla of the male flowers is certainly very distinct from the curved tubular one of *C. repens*.

ART. LIII.—On *Cyttaria Purdiei*, *Buch.*

By JOHN BUCHANAN, F.L.S.

[Read before the Wellington Philosophical Society, 24th February, 1886.]

PLATE XI.

THE present interesting epiphytic fungus, although probably abundant in New Zealand, has not hitherto been noticed as occurring there in any scientific work. The genus *Cyttaria*, to which it belongs, is supposed to be limited in distribution to South America and Tasmania, where two species are known and used as food. They are always found epiphytic on species of *Fagus* or beech, and will probably be found wherever this family is abundant.

The internal cavity of this fungus has always been found empty; yet it is probable that in the earlier stages of the plant it may be filled with a gelatinous fluid, which is afterwards absorbed or dried up. This can only be proved by an examination of numerous specimens in different stages of growth.

REFERENCE TO PLATE.

- Fig. 1. Branch of *Fagus fusca* with plants of *Cyttaria purdiei* adhering.
 2. Young plants of *Cyttaria purdiei*, with the spore cups or cells still covered by a thin membrane.
 3. Plant with the spore cups or cells divested of their membranous covering and empty.
 4. Section of plant, showing the empty cells with rounded bottoms, and the interior of the fungus empty.
 5. Asci with sporidia.
 6. Spores.
-