

*Trypethelium connivens*, Nyl.

The spores of the specimens sent, instead of remaining colourless as Nylander states, turn ultimately to a brownish black, and the ostiolum shows a beautiful orange instead of being nigrescent—differences which, although worthy of remark, scarcely constitute a specific distinction.

On bark of trees, Karori Hills, Wellington.

*Thelonella wellingtonii*, Stirton.

Thallus a dirty brownish cream colour, thick, continuous, smooth; apothecia large, immersed; perithecium entire, globose; epithecium depressed, dark brown, poriform; spores eight, colourless, very large, oblong, fusiform, acutely pointed, murali-reticulate, enveloped in a double hyaline membrane, which is most perceptible in a young state, when also the contents are coarsely granular; paraphyses distinct, filiform, numerous. A very remarkable lichen.

On bark of trees, Tinakori Hills, Wellington.

*Verrucaria cyrtospora*, Stirton.

Thallus white, smooth, glabrous; apothecia black, prominent, subglobose; perithecium entire; spores eight, narrowly fusiform, curved, brown, with four to eight rectangular nuclei ( $.03 \times .004mm$ ); paraphyses long, filiform, occasionally branched.

On bark of trees, Tinakori Hills, Wellington.

ART. XL.—*On some New Species of New Zealand Plants.*

By JOHN BUCHANAN, of the Geological Survey of New Zealand.

Plates XXII, XXIII.

[Read before the Wellington Philosophical Society, 22nd September, 1873, and 26th January, 1874.]

*Olearia excorticata*, n. s.

A small, much branched, subalpine shrub-tree 12–15 feet high, trunk 1 foot diameter. Branches covered with loose papery bark. Branchlets, petioles, leaves below, and panicle, covered with whitish buff tomentum. Leaves shortly petioled, 1–4 inches long, narrow, oblong, acuminate at both ends, 1 inch broad, flat, margins bluntly sinuate, glabrous, dark green and finely reticulate above, thinly coriaceous, lateral nerves nearly at right angles to mid-rib, but not prominent. Panicles axillary, few-flowered, corymbose, peduncles elongate, branches and branchlets capillary. Flower-heads small, campanulate, involucral scales few, inner row linear, obtuse, outer row much shorter, oblong, acuminate, pubescent. Florets 12–14, very small. Pappus

in one row, hairs thickened at the tips. Achene ribbed, compressed, pubescent.

Collected by Mr. Mitchell, surveyor, October, 1872, on the Tararua Mountains, Wellington.

This plant is allied in flower and fruit to *Olearia lacunosa*, differing entirely, however, in the flat, thin, broad leaves, without lacuna, smaller sparse-flowered, axillary panicles, and absence of reddish tomentum.

Another shrub was also collected in the same locality, but without flowers, having leaves 6–8 inches long and only  $\frac{1}{4}$  inch broad; deeply pitted at the prominent right-angled veinlets, which, if not a young plant of *Olearia lacunosa*, may prove to be another new species of *Olearia*.

*Veronica arborea*, n. s.

A small tree 10–25 feet high, trunk 3 feet diameter. Leaves erect or reflected, 1–1 $\frac{1}{2}$  inches long, linear lanceolate, acute,  $\frac{1}{8}$  inch broad, arranged in fascicles at the ends of the ultimate twigs. Racemes seldom longer than the leaves, close, small flowered, pubescent, pedicels short, sepals ovate, obtuse, ciliate, corolla  $\frac{1}{8}$  inch diameter. Capsule  $\frac{1}{8}$  inch long, twice as long as the calyx, swollen. This relic of the ancient bush may still be found in the neighbourhood of Wellington, in the rough bush country near Makara and Terawiti. Its form, when young, is peculiarly striking, being then perfectly dome-shaped, and elevated on a long, narrow stem, 10–12 feet high.

This is probably the plant alluded to in the Handbook as a small-leaved form of *Veronica parviflora*;\* the smallest-leaved forms of the latter, however, can always be distinguished, and are never found except as straggling shrubs, a few feet high in open country. The racemes, also, are generally twice as long as the leaves.

*Arundo fulvida*, n. s.

Plant forming tussocks of close-growing leaves and culms. Leaves coriaceous, 5–6 feet long, narrow, with long, attenuate curving points, entire, and smooth, without cutting edges, upper surface covered more or less with long, silky hairs. Culms few, 4–6 feet long, with erect, broad, compacted, pale fulvous panicles, 12–18 inches long. Spikelets 1–2, flowered, closely arranged on capillary pedicels, empty glumes  $\frac{1}{3}$  inch long, nearly equal; flowering glumes two-thirds as long, not bifid at the points, but terminated by a slightly twisted not included awn.

The *Arundo conspicua*, of the New Zealand Flora and Handbook, has been at various times differently named by different botanists, and Baron von

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\* See Trans. N.Z. Inst., Vol. I., Art. X., p. 148, "On the Botany of the Great Barrier Island," by Mr. Kirk, where a similar plant is described, but not named. It has been named at this time for the convenience of many persons who cultivate the species in their gardens, and who repudiate its being *V. parviflora*.

Mueller, in his criticism of the genus (Chatham Island Flora), thinks it probable that some of them may have been describing varieties of the species. Dr. Hooker, again, in not recognizing more than one species, seems to consider the others not founded on sufficient *data*. It is, therefore, with some hesitation that the present is advanced as more than a variety. The differences, however, between this plant and *Arundo conspicua* are so great, particularly in its low habit of growth and dense-flowered, erect, fulvous panicle, that it has for many years attracted attention, and indeed some species of *Agrostis* and *Poa* rest on less distinction.

Collected by Dr. Menzies on the Mataura River, Otago, in 1867; and by J. Buchanan at Wellington Heads, in 1873.

*Senecio robusta*, n. s.

A small, woody, robust shrub, branches covered with scales formed by the sheathing bases of the old petioles, leaves below and petioles covered with thin, appressed, buffy white tomentum. Leaves petioled, 1–1 $\frac{3}{4}$  inch long, oblong ovate, or obovate and acuminate at bottom, rounded at top, margin entire, glabrous, and wrinkled above, coriaceous, the two lower nerves springing from near the bottom and running parallel with the margin for three-fourths of the leaf's length. Petioles  $\frac{1}{4}$ – $\frac{1}{2}$  inch long, flattening into sheaths at bottom, corymbs erect, spherical, of 5–7 yellow heads on robust, erect, terminal, bracteate peduncles; bracts linear, obovate, petioled; bracteoles nearly as long as the pedicels, very narrow, linear, acuminate, peduncle, pedicels and bracts below covered with appressed tomentum. Heads campanulate,  $\frac{3}{4}$  inch across; involucral scales in one row  $\frac{1}{4}$  inch long, linear acuminate, borders membranous, sparsely woolly, and terminated by a small tuft of hairs; rays  $\frac{1}{2}$  inch long, revolute; anthers tailed; pappus hairs in one row, white, scabrid. Achene glabrous, slightly grooved.

Collected by Mr. J. Morton on Mount Eglinton, Southland, 1873.

Plate XXII., fig. 1—Plant nat. size.

Allied to *Senecio monroi* and *Senecio laxifolia*, but differing very much from both in habit of growth, very coriaceous leaves with peculiar venation, and small robust corymbs of few large heads of flowers.

*Carex appressa*, Brown.

New to New Zealand.

Collected by Dr. Hector in Milford Sound, January, 1873. Hitherto found only in the Auckland and Campbell Islands.

*Rubus parva*, n. s.

A small, prostrate shrub, branches rooting, smooth, unarmed. Leaves simple, alternate, petiole 1 inch long, leaves 1–2 inches long,  $\frac{1}{4}$  inch broad, linear, deeply serrated; back of mid-rib with 2–6 large, nearly straight spines; petioles, mid-rib, and bottom of serratures with a few scattered stiff hairs.

Flowers few, in short terminal panicles, or solitary with an opposite leaf; peduncles and pedicels pubescent; bracts narrow, entire; sepals tapering to a long narrow point, soon reflected, 3 lines long, pubescent on both sides, and ciliate. Petals white, shorter than the calyx. Fruit oblong, tapering, the length equal to one and a half times the breadth, succulent. Carpels numerous, angled, with a long persistent style.

Collected by Dr. Hector on the "Paddock," Lake Brunner, West Coast of the South Island, December, 1873, where it is found growing close to the ground, and covering large patches. The fruit has been made into preserves, and is also eaten by birds.

This diminutive *Rubus* differs from all the varieties of *Rubus australis* found in New Zealand in its habit of growth and alternate simple leaves, and might, from its delicious fruit, be worthy of culture.

Plate XXII., fig. 2—Female plant with imperfect fruit; fig. 3—Male plant in flower.

*Senecio hectori*, Buchanan. Trans. N.Z. Inst., V., 348.

Plants brought by Dr. Hector from the native locality of this striking species have succeeded well in the Colonial Botanic Garden at Wellington, and have attained a height of 3 feet, but, as yet, show no sign of flowering.

The accompanying illustration of this plant (Pl. XXIII.) is from fresh specimens received, through the kindness of Mr. McGregor, from the Upper Buller Valley.

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ART. XLI.—Notice of an Undescribed Species of *Cordyline*.

By T. KIRK, F.L.S.

[Read before the Auckland Institute, 8th December, 1873.]

WITH the *Dracæna indivisa* discovered in Dusky Bay, by Forster, another form has hitherto been confused—the Toi of the North Island—a plant which, even from the scanty information we at present possess, appears to differ widely from the *Cordyline indivisa* of the Handbook, the description of which was chiefly drawn from the South Island specimens collected by Forster, and to which the North Island specimens, sent to Kew by Colenso, were referred by Dr. Hooker. In order to attract the attention of botanists to the North Island plant, I purpose offering a brief diagnosis drawn from the scanty material already collected, under the provisional name of *Cordyline hookeri*, in the hope of being thereby enabled to procure data for a complete description at some future time.