particularly in its stipitate pinnules, which are also largely
laciniate, with lobes bifid and sharply toothed, and in its
involute, which is much more oblong and obtuse with entire
margins; whereas in C. fragilis and all its varieties their
involute are always shown broadly ovate, their bases largely
rounded, very acuminate, with finely serrulate margins.
Hooker refers to his figure of the Tasmanian fern (C. fragilis,
var. β) as being identical with the known and described New
Zealand species or variety; but that is widely different from
this plant.

ART. XXVII.—Phænogams: A Description of a few more
Newly Discovered Indigenous Plants; being a Further
Contribution towards the making known the Botany of
New Zealand.

By W. Colenso, F.R.S., F.L.S. (Lond.), &c.

[Read before the Hawke's Bay Philosophical Institute, 10th October,
1893.]

CLASS I. DICOTYLEDONS.

Order I. RANUNCULACEÆ.

Genus 1. *Clematis*, Linn.

1. C. hillii, sp. nov.

Branches very long and slender, climbing; bark dark-
purple, striate, ribbed. Leaves and flowers together at regular
distances 3 in. apart, opposite on branches. Leaves on slender
petiolo sub 3 in. long, densely hairy; leaflets small, ternate,
petioloate, broadly ovate, sometimes suborbicular, ½ in.
(rarely ¾ in.) long, margins entire, sometimes irregularly cut
and serrate, base dimidiate; green; veined, veins prominent
and dark on under-surface; veinlets anastomosing; hairy on
both surfaces, hairs shining, pale ferruginous; pedicules very
slender, 2–3 lines long. Flowers few, often 3 together in
short panicles; peduncles and pedicels stout, densely pubes-
cent. Sepals 5, tawny, very silky-hairy on outside, subovate-
lanceolate, obtuse, tips truncate and jagged; 5-veined; veins
dark. Stamens numerous, 20 or more; filaments linear-
lanceolate; anthers suborbicular or broadly elliptic, flat, tips
very obtuse.

*Hab.* Forests, slopes Ruahine Mountain-range, east side;
October, 1893: Mr. H. Hill.

* The numbers of the orders and genera given here are those of
them in the „Handbook of the New Zealand Flora.“
Obs. I. A distinct species, allied to C. parviflora, but widely different in sepals and anthers.

II. Named in honour of its discoverer, Mr. Henry Hill, F.G.S., Inspector of Schools, who has often visited that mountain region, bringing therewith many of its botanical novelties, described by me in papers in the Transactions.

Genus 3. Ranunculus, Linn.

1. R. uniflora, sp. nov.

Plant very small, perennial, tufted, erect, spreading, about 1 in. high. Rootstock hard, woody; rootlets few, wiry, descending. Leaves few, 4–6, subdeltoid, 2–3 lines long, trifoliolate; lobes suborbicular, sessile, entire, terminal one largest, 1–1 1/4 lines broad, lateral much smaller, thickish, veins obsolete, light-green; petioles 1/2 in.–3/4 in. long, stout, sheathing half-way up; sheaths large, membranous, white. Flowers solitary, one on each plant; scape stout, shorter than petioles, with a spathe-like bract encircling stem a little below calyx, white, membranous. Sepals 3, suborbicular, very thin, pale-yellow. Petals 4, yellow, shining, obovate-spathulate; claw narrow; nectary below middle, foveolate. Filaments short; anthers elliptic. Achenes few, turgid, roughish; tips filiform, curved; head of fruit small, green.

Hab. Waikaremoana, Hawke’s Bay; October, 1898: Mr. H. Hill.

Obs. A species near R. acaulis, Banks and Solander, but differing in several characters—e.g., not stoloniferous, leaflets always entire, petioles largely sheathing, scape with a bracteolate spathe under calyx, petals fewer and differently shaped, and achenes roughish. In size, too, it is much smaller than R. acaulis. This very small size is general; I have upwards of a dozen plants, which are nearly alike. I may further remark that R. acaulis is largely delineated with dissections in Hooker’s “Flora Antarctica”: Auckland and Campbell Islands, vol. i.

Order III. Cruciferæ.

Genus 4. Cardamine, Linn.

1. C. xanthina, sp. nov.

Plant herb; perennial, small, depressed; leaves spreading horizontally, subrosulate; root long, thick, white, tapering. Leaves radical, numerous, imbricate, with a few on flowering-stem near its base, glabrous and slightly hairy, spatulate-acute, 1 1/4 in.–2 1/2 in. long, membranous, much and deeply cut, sinuate-lobed, subpinnatifid; lobes regularly opposite their margins, variously cut and toothed, decreasing gradually to
petiole; petiole \(\frac{1}{2}\) in.–1 in. long. Flowering-stems (several) horizontal and subereet, 5 in.–7 in. long, terete, slender, greenish and purple, having (with pedicels) curious small scattered white hooked hairs reversed. Flowers few, solitary, 2–3 scattered on stem from middle upwards on long slender pedicels and 4–6 together forming a small loose corymb at top. Calyx sepals 4, oblong, green-purple striped, subechinate, 2 outer slightly concave, their tips obtuse and involute, 2 inner tips acute, with membranous white margins. Corolla 5 lines diameter, bright-yellow, patent, shining, flat, vertical; limb suborbicular-ovate, gradually decreasing from below middle to base; tip slightly truncate. Stamens stout, 4 long, 2 short; style 1½ lines long, stout, erect (with pod), as long as long stamens; stigma large, circular, densely pubescent. Pod \(\frac{1}{2}\) in.–1 in. long, linear-subterete, slightly compressed. Seeds oblong, light-brown, smooth.

Hab. Napier, in house-paddock; flowering October, 1898.

W. C.

Obs. I. This little plant has caused me much research and diligent examination, not only from its being wholly new to me, but from its bright-yellow and striking flower, its long style, its large bushy stigma, and its subterete pod; so that it scarcely belongs to the true Cardamine genus, as laid down by Bentham and others—i.e., flowers “white,” pods “flat,” and seeds “pitted”—notwithstanding its resemblance—primâ facie—to some of Sir J. D. Hooker’s Auckland and Campbell Islands Cardamine—as given in his drawings of them in his Flora of those islands—is very great. Moreover, while Bentham says of the genus the flowers of Cardamine are “white” (and certainly all our known southern species are so) and their seeds “pitted,” yet we have a British Cardamine with coloured flowers—e.g., \(C.\) pratensis; and \(C.\) purpurea, a North American species, has dark-purple flowers; and I notice in the “Index Kewensis” a \(C.\) flavescens, which, not knowing it, I suppose to have yellowish flowers; and Bentham himself, in his “Flora Australiensis,” describes four species of Australian Cardamine with their seeds “not pitted.” (l.c., vol. i., pp. 69, 70); and Hook. f., in his ample descriptions of the Cardamine of Auckland and Campbell Islands, describes two species as having pods “linearibus compresso-tetragonis.”

II. Further, I am not certain of my plant being truly indigenous, for, were it so, I must surely have noticed its striking open bright-coloured flower attracting notice. Last year I found three small plants, distant from each other, growing in the side of the pathway to my house, which, from their appearance, were from the year before. This pathway had been then—in the former year—cleared out and laid down thickly with limestone gravel from the quarry. At first sight I
supposed them to be shepherd’s purse (Capsella bursa-pastoris), which grows here plentifully; and I am pretty certain this plant is not of any described Australian cruciferous genera. I have, however, now plenty of specimens, and shall send some shortly to Kew for examination.

Order XXVI. Droseraceae.

Genus 1. Drosera, Linn.

1. D. ligulata, sp. nov.

Plant perennial, small, suberect, 1 in.–1½ in. high; rootstock thickish, hard, black, much branched; branches finely and thickly woolly-hairy. Leaves radical, few, erect and spreading, thickish, linear, 9–10 lines long, ½ in. wide, red and reddish-green, tip obtuse, subapiculate, knobbed on upper surface, and shining, the apical half or more glandular above; glands long, erect, spreading, flat, white, their tips dark-red, ciliate at margins, the central ones sessile; petioles long, bases widening, enwrapping, membranaceous, nerved. Scape erect, slender, bare, as long as leaves or longer, rarely shorter, black (also calyx), 1-flowered (one specimen bore 2 scapes, one being much smaller). Calyx longer than corolla, sepals cut nearly to base, oblong, subacute. Corolla, petals oblong, membranous, nerved, tips obtuse, pale-brownish (dried). Stamens as long as petals, slender, spreading, curved; anthers elliptic, whitish or pale-yellow. Styles 3, stout; stigmas large, suborbicular, thickish. Ovary large, broadly oblong, longer than calyx, shining.

Hab. Ruahine Mountain-range, in low-lying wet spots; 1898: Mr. A. Olsen.


2. D. atra, sp. nov.

Plant small, perennial, erect, 1 in. high, bearing 7–8 leaves; rootstock thick, bushy, roots many, wholly blackish save corolla. Leaves radical, sub 1 in. long, spatulate, limb 4–5 lines long, densely glandular the whole upper surface, glands long and dark; petioles slender, ¾ in. long, nerved. Scape erect, slender, bare, 1-flowered. Calyx-lobes cut one-third length, large, broad, truncate, margins of tips serrulate-crenulate. Corolla white, twice as long as sepals. Stigma large, tuberculate.

Hab. Ruahine Mountain-range, east side, wet spots near summits; 1898: Mr. A. Olsen.

Obs. Only one specimen received—among other plants in situ—but a good one; and, while near the preceding species, bears differential characters.
Order XXXVIII. RUBIACEÆ.


1. C. lanceolata, sp. nov.

A large shrub or small tree (specimens); branchlets stout, woody, 6 in.–8 in. long, wholly glabrous; bark pale-brown, smooth, regularly scarred sub 1 in. apart, the main branch having an angled subtetragonal form. Leaves 8–12 at top, rather distant, loose, spreading, shining, subrecurred, lanceolate, 5½ in. long (including petiole), 1¼ in.–1½ in. wide; tip very acute produced; base tapering, subcoriaceous, margins plain, very slightly uneven, dark-green above, pale below; veins 7-jugate; veinlets largely anastomosing; midrib prominent on both surfaces; petiole 1 in. long, stout, firm, smooth above, not furrowed, connate at base with stipules; stipules large, deltoid, broad and sharply pointed, cuspitate. Flowers not seen. Fam.: Fruit (immature) subterminal, axillary on long peduncles ½ in.–2 in. long, usually 3 drupae together (sometimes 2 or only 1), sessile, with two long linear bracteoles at base. Drupae broadly elliptic, 4 lines long, smooth, shining, with hollow crown. On same specimens higher up young undeveloped flower-buds—alabastron—on stout peduncles ¼ in. long, each bearing three small clusters or fascicles, 2 on lateral subpeduncles opposite and containing 3 each, and the central one 5, all alike compact, sessile, erect, ovoid, every one enclosed in a simple cup-like calyx or perianth, showing at top 4–5 closely packed flowers, each cluster having a pair of long linear green leafy bracteoles at base.

Hab. Thickets, slopes Ruahine Mountain-range, east side; 1898: Mr. H. Hill.

Obs. This plant, though specimens received were incomplete, is so greatly diverse in its foliage and striking general appearance from all other Coprosmae known to me that I have no hesitation in describing it as a species nova.

2. C. sagittata, sp. nov.

Shrub 8 ft.–10 ft. high, erect and diffuse (specimens 1 ft.–2 ft. long, straight); branches slender, glabrous; bark pale, smooth. Leaves submembranous, various in size, distant, scattered, glabrous, green above, rather dull, not shining, pale below, the largest 1 in. long ¾ in. wide, the smaller and more numerous less than half that size, broadly lanceolate, oblong, acute and obtuse, base cuneate, tapering nearly to base of petiole; veins few—usually 5-jugate—foveolate; midrib prominent, lower half above; veinlets curiously and closely anastomosing; petioles narrow, 2–3 lines long,
when young green and subsucculent, closely dotted with red; stipules rather large, broad, glabrous, with narrow erect teeth, 2 being longer. Flowers single, axillary on short opposite branchlets, which are often forked at top, each having 2 small leaves with a flower between them; calycine bracts 2, erect, leaf-like. Masc.: Corolla bell-shaped, greenish dashed with purplish streaks, shining, 4 lines long, 6-lobed; lobes cut half-way down, subovate, acute, 1-nerved, spreading, revolute, stamens 6, largely pendulous; filaments ½ in. long, dark, flaccid, pubescent; anthers 3½ lines long, linear, pale with a dark nerve running throughout, tip acuminate-acute; base largely sagittate, sharply acute. Fru. (immature): Fruit only seen, solitary, sessile, suborbicular, green, shining, 1½ lines diameter.

Hab. Forest near Dannevirke (barren); 1892: W. C. Slopes Ruahine Mountain-range; 1898: Mr. H. Hill.

Obs. A species near C. fætidissima, but differing in several characters, particularly in its peculiar long linear anthers apiculate and sharply sagittate produced. Forster, who discovered and described C. fætidissima, establishing the genus on it, gives a dissection of its flowers showing a very differently formed anther, &c. ("Genera Plantarum," tab. 69).

Order XXXIX. Composite.


1. B. alpina, sp. nov.

Plant small, slender, slightly hairy, simple (sometimes 2-branched); rhizome, 3 in. (and more) long, filiform. Leaves radical, scattered, suborbicular, 4 lines diameter, tapering, faintly crenate-lobed, lobes few, their tips pointletted-hardened from vein produced, dark-green above, paler below, membranaceous, much veined; hairs sprinkled, appressed, substrigillose, white, flat, subulate, strangulated, thicker on upper surface; petioles very slender, 1 in. long, canaliculate and dilated at base with membranous margins and patent hairs, dark purple-brown. Scape erect, 3 in.–3½ in. long, filiform, with 2–3 small linear distant bracts, glabrous but pubescent towards tip. Head small, drooping, 2 lines diameter. Involutaceous numerous, sub 20, linear, dark-green with a thick purple central nerve, margins membranaceous, white; tips acute, jagged. Florets few; ligulæ white, revolute. Receptacle broad, naked, shining, alveolate. Papus 0. Achene subellipsoid, ¼ in. long, slightly glandular, viscid.

Hab. Ruahine Mountain-range, east side; Feb., 1898: Mr. H. Hill.
Genus 17. Senecio, Linn.

1. S. tripetaloides, sp. nov.

A small, neat, upright shrub, 2½ ft.–3 ft. high, bushy above, main stem 1½ in. diameter; bark grey. Branchlets—peduncles and involucres—greenish, very slightly scurvy and glutinous. Leaves alternate, rather distant and confined to ends of branchlets, petiolate, broadly lanceolate or narrow-oblong, obtuse, slightly tapering, 1½ in.–2 in. long, 9–11 lines broad (some smaller), coarsely and irregularly serrate, membranaceous, glabrous, light-green, paler below with scanty fine white scurf; veins white, largely anastomosing on upper surface; petioles ½ in. long, subterete, canaliculate, stoutish, pale-green. Flowers rather numerous, terminal, subcorymbose, loose, on long axillary slender peduncles 1 in.–2 in. long, each usually containing 5 (rarely 4–6) heads of florets on long slender pedicels ½ in.–1 in. long, each having a leaf-like bract at base and a small linear appressed bracteole (sometimes 2–3) at base of involucre. Heads small, ¼ in. diameter, bright-yellow. Involucre erect, cylindrical, 3 lines long; scales 5, linear-oblong, 3-nerved, margins membranous, broad; tips obtuse, ciliolate. Ray-florets 5, spreading, equidistant; ligulae broadly elliptic, ¼ in. long, tip obtuse, slightly 3-notched, smooth, subconcave, obsoletely many-nerved; style short, one-third length of ray, slender, curved, obtuse. Disk-florets 5, 5-lobed; lobes 3-ribbed, largely revolute; style long, much produced, stout, obtuse, curved. Pappus numerous, erect, length of tube of disk-florets and longer than involucre, sebrid, obtuse, white.

Hab. "Tatapouri" Hills, on east coast, ten miles north from Poverty Bay; also (earlier) north of East Cape: Mr. H. Hill.

Obs. I. The affinities of this plant are with S. glastifolius, Hook., though very distinct. The heads present a peculiar appearance from each having only three spreading divergent ray ligulae.

II. The description is taken from living specimens in Mr. Hill's garden, Napier, flowering November, 1897.

Order XL. Stylidiaceæ.

Genus 1. Forsteria, Linn.

1. F. major, sp. nov.

Plant wholly glabrous, main stems 8 in. long, stout, naked, succulent, dark-reddish, forked; 2 branches, one 3 in. and one 2 in. long, stout, each having 2 branchlets of 2 in.–3 in. in length; branches and branchlets very leafy. Leaves close and spreading, broadly oblong, ½ in. long, sub sessile, tips
thickened with a circular pore above, light-green, margins recurved. Flowers terminal, on a long slender erect scape 2 in. long, bearing 2 flowers on short pedicels with 5 bracts at their bases half as long as perianths; bracts linear-lanceolate-obtuse, reddish-green (as also calyx), their tips slightly ciliolate. calyx-lobes oblong, 1-nerved, tips knobbed. Corolla longer than calyx, lobes broadly oblong-obtuse, membranaceous. Column summit subreniform, longitudinally trisulcate, ovary dark-reddish.

_Hab._ Ruahine Mountain-range, east side; 1898: Mr. H. Hill.

_Obs._ A much larger and stouter plant in all its parts than _F. sedifolia_, from the same locality, and nearly allied to _F. truncatella_, mihi (Trans. N.Z. Inst., vol. xx., p. 196).

**Order XLI. CAMPAULACEAE.**

**Genus 1. Wahlenbergia,** Schrader.

1. _W. pygmaea_, sp. nov.

Plant very small, ¼ in. high, simple, tufted, glabrous; root-2 in. long, slender, hard, white; sometimes 2–4 branches (tufts) rising distantly from one long branched root. Leaves radical, numerous, sub 20, close, spreading, somewhat verticillate, linear-spathulate, 4 lines long (including petiole), 1 line broad, tip rounded very obtuse, with 2 small crenulate serratures on each side, tapering gradually to base, pale-green, shining. Flower large (for plant), solitary, terminal, drooping; scape ¼ in.–¾ in. high, very slender, bare. Calyx campanulate, 2 lines long, dark-green, 5-lobed; lobes cut halfway down, linear-acuminate-obtuse, 1-nerved. Corolla 5 lines long, sub ½ in. diameter, white, lobes pale-blue, 2-nerved, triangular, subacute, half length of corolla. Style flat, 2-nerved, densely minutely tuberculate on each side and upwards to top of stigma; stigmas 2, oblong-lanceolate.

_Hab._ Ruahine Mountain-range, west side, near summits; 1848: W. C. East side; 1898: Mr. A. Olsen.

_Obs._ This is a peculiarly striking little plant, from its uniform size and pleasing appearance, a rather large drooping bell-flower springing from its little squarrose moss-like tuft of leaves. As I first made its acquaintance in its alpine habitat fifty years ago, and sent specimens to England—probably not quite perfect—I think it may have been considered as identical with _W. saxicola_, A. DC., but that plant is different in several characters; a good drawing of it, with dissections, is given by Sir W. J. Hooker in “Icones Plantarum” (tab. 818), under the name of _W. albomarginata_.

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Order XLII. Ericæ.

Genus 1. Gaultheria, Linn.

1. *G. calycina*, sp. nov.

Shrub (from specimen, apparently erect growth), branch 5 in. long, subflexuous, slender, 1 line diameter; outer bark silvery-grey, longitudinally furrowed, bearing 7 branchlets at top 1½ in.–2 in. long, dark-red, glabrous, very leafy. Leaves numerous, suberect and spreading, oblong-lanceolate, 8 lines long, 3 lines broad, flat, margins serrulate, teeth blunt; tip subacute, thickened, a little knobbed; base slightly tapering; pale-green, much veined on both surfaces, veins anastomosing, translucent; petioles sub 1 line long, stout, red. Flowers terminal in small corymbs 1 in.–1½ in. diameter; peduncles much bracteolate, bracts pale-green, deltoid-ovate-acute, patent, pedicels stout, 1 line long, curved, with 2–3 spreading bracts at base. Calyx rather large, inflated, pale-green, 5-lobed; lobes ovate, acute, thin, margins entire. Corolla tubular, red, 2 lines long, 5-lobed; lobes small, recurved, obtuse.

*Hab.* Ruahine Mountain-range, east side; 1898: *Mr. A. Olsen.*


Genus 2. Pernettya, Gaud.

1. *P. polyphylla*, sp. nov.

Plant a small twiggy glabrous under-shrub, semi-prostrate and suberect; branches spreading, 4 in.–5 in. long, slender, bearing many short branchlets, which are sometimes branched, ¼ in.–2 in. long, subsecund, and erect. Leaves numerous and closely set on tips of branchlets, quadrifariously disposed, subdeccussate, erect, imbricate, linear-lanceolate, sub 2 lines long, margins entire, 3-nerved, tips obtuse, thickish, pale-green; petiole ½ line long, stout, reddish, terete, swollen at base. Flowers few, terminal, solitary on tips of branchlets; peduncle short, bracteate; bracts broadly ovate, pale-brown, appressed. Calyx small, lobes ovate-acuminate, tips minutely ciliate, margins membranous, finely serrulate. Corolla linear-tubular, 2 lines long, reddish-brown, slightly hairy within; lobes one-third length, linear-acuminate-acute, recurved, densely woolly-pilose with white hairs, smooth, shining without. Anthers included, linear-oblong, dark-red. Style shorter than anthers; stigma capitate. Fruit globular, size of a small pea, dark-red, shining, style persistent.

*Hab.* Ruahine Mountain-range, east side, secondary summits; 1898: *Mr A. Olsen.*

*Obs.* A strikingly neat little plant, with showy fruit.

1. D. brachycladum, sp. nov.

Apparrently from specimens a medium-sized shrub; specimens 5 in.–8 in. long; one specimen—branchlets 18–20, sub-verticillate, 2 in.–3 in. long, crowded on top of branch; and in another specimen extending on main branch 1 in. apart—erect, very slender, ¾ line or less wide; bark reddish-brown, glossy, irregularly and deeply ringed. Leaves 10–12, terminal, opposite, loose, open, spreading, filiform, sub 1 in. long (decreasing in length upwards), ¾ in. wide, 1-nerved, much recurved throughout their whole length, their bases greatly enlarged, 1¾ lines wide, and many-nerved. Flowers terminal, erect, 5–6 together in a short broad spike 6–9 lines long; calyce bracts nearly as long as flowers, their bases large wrapping, tips suddenly acuminate, subacute. Calyx narrow, sublinear-acuminate, tip acute, longer than style. Corolla red, narrow tubular, 3 lines long, expanded at base, and many-nerved (10); lobes 5, half as long as tube, deltoid, recurved, 1-veined, tips acute, margins incurved. Anthers narrow-oblong, margins straight parallel, base and apex abrupt truncate. Style 1 line long, stout; stigma rounded, black, smooth, shining. Scales small, half as high as capsule, broadly cuneate, apex rounded.

Hab. Ruahine Mountain-range, east side; 1898: Mr. H. Hill.


Order L. Boragineae.

Genus 1. Myosotis, Linn.

1. M. polyantha, sp. nov.

Plant perennial; rootstock thick and bushy, with many long fine roots and rootlets, blackish. Leaves many, radical, petiolate, broadly oblong, 8 lines long, 5 lines broad (some smaller), apex subacute, base tapering, much veined; petioles 9 lines long, very slender; upper surface closely covered with white sparkling dots, from each a single hair springs. Flowering-stems several, 8 in.–10 in. long, forked, spreading, leafy two-thirds of length; leaves similar to radical but smaller, and becoming gradually less in size upwards; each raceme bearing 8–15 rather distant flowers; pedicels slender, 1 line long. Calyx green, coarsely veined, rough with short hairs arising from white circular dots, as in leaves; lobes cut half-way down, linear-ovate; tips sharply acuminate, ciliate hairy. Corolla small, 2 lines long, 1¾ lines diameter, veined; scales small, narrow. Anthers ovoid, obtuse, cordate-
acuminate. Style very long, longer than calyx; stigma small, clavate.

_Hab._ Ruahine Mountain-range; east side; February, 1898: Mr. H. Hill.

2. _M. tenuifolia_, sp. nov.

Plant small, erect, hispid; roots numerous, long, woody, wiry, blackish. Leaves radical, spreading; flower-stalk 3 in.–5 in. high, solitary, slender, sometimes two from one root; hairs white, strigose, scattered on leaves but close on stalk. Leaves radical, 6–8, petiolate, limb broadly oblong, ½ in. long, 4 lines wide, smaller ones suborbicular, thin, margins entire; petioles slender, sub ¼ in. long, dilated at bases; on stem, 4–6, the lowermost pair opposite, petiolate; others sessile, smaller, scattered, alternate. Flowers terminal on raceme, 6–10, distant, pedicelled; pedicels slender, 1½ lines long. Calyx green, campanulate, 2 lines long; lobes cut halfway down, spreading, ovate-acuminate, tips acute, 3-veined, margins ciliate; hispid on veins, which are ridged and coloured. Corolla small, pale-pinkish; tube cylindrical, narrow; lobes large, rounded, veined. Scales of throat reniform, margins entire. Stamens short; anthers narrow ovate-cordate, tips produced above scales, obtuse. Style long, exerted; stigma small, globose. Nuts orbicular, light-brown, shining, slightly margined.

_Hab._ Ruahine Mountain-range, east side; 1898: Mr. A. Olsen.

Order LIII. Scrophularinæ.

Genus 7. _Veronica_, Linn.

1. _V. truncatula_, sp. nov.

Shrub small, glabrous; branchlets erect, opposite, woody, slender, 2¼ in.–5 in. long, ½ in. diameter, regularly ringed, scars ¼ in. distant; bark grey, longitudinally furrowed. Leaves terminal, rather numerous, 12–15, patent, spreading, sub narrow-ovate, 1 in. long, 2–3 lines wide, sessile; tip truncate, thickened; midrib rather prominent below; submembranaceous, light-green. Flowers small and closely set in a narrow subterminal raceme, 1 in. long, pedicelled; pedicels ½ line long; bracts small, oblong. Calyx small, 1 line long, 4-lobed; lobes oblong, obtuse, pale-green, 1-nerved, with white membranous margins. Corolla small, 2 lines diameter, white; lobes nearly equal; tips rounded. Stamens excluded; anthers subcordate, tips acute; style erect, straight, longer than stamens; stigma capitate.

_Hab._ Ruahine Mountain-range, east side; February, 1898: Mr. H. Hill.

_Obs._ I do not know of any New Zealand species of this
genus that this one is closely allied to, or may be compared with. At first sight its pale-green narrow foliage reminded me of some species of *Pimelea*. Its small close-set flowers, with their light-green calyces bordered white, and clear light-green narrow leaves with their peculiar truncated tips, are good characters.

2. *V. asunea*, sp. nov. (*non* Link.).

Shrub erect, branched, glabrous; branches generally having 3 short terminal branchlets, deeply and regularly ringed \( \frac{1}{8} \) in. apart; branchlets slender, sub 2 in. long, 1 line diameter; leaves at tips subdistichous, 12–14, crowded, erect, ovate, 4 lines long, 2 lines broad, subsessile, subcoriaceous, strongly keeled; tip subacute semi-knobbed by the stout prolonged midrib; expanding at base, and closely appressed to branchlet; slightly concave and transversely wrinkled on upper surface at base. Flowers terminal in short compact corymbs of 4–5; pedicels 1–1\( \frac{1}{2} \) lines long; bracts broadly ovate. Calyx as long as tube; lobes large, oblong, obtuse, slightly ciliate. Corolla clear bright-blue, 3 lines diameter, limb-lobes rather large, nearly equal; tips of the 2 lateral ones and lower lobe rounded, of the upper subacute; tube 1 line long. Stamens stout, excluded; anthers largely cordate. Style longer than stamens, flexuous; stigma small, coloured, simple.

*Hab.* Ruahine Mountain-range, east side; February, 1898: Mr. H. Hill.

*Obs.* A striking and neat species from its small symmetrical foliage and its pretty bright-blue flowers—a colour rather rare in our New Zealand *Veronicae*. Its nearest alliance is, I think, with *V. bacifolia*, Benth.

3. *V. polyphylla*, sp. nov.

A small low diffuse undershrub; branches hairy, long; branchlets woody, ascending, slender, \( 1\frac{1}{2} \) in.–2 in. high. Leaves on top of branchlets, small, numerous, close, spreading, suborbicular, 2 lines diameter (some much smaller), thickish, margins deeply crenate and subrevolute, their lobules thickened, glabrous, apical lobe large and very obtuse, base tapering, slightly hairy underneath and wrinkled; petioles 1 line long, slender; hairs short, scattered. Flowers rather large for plant, terminal, generally 2 together on separate peduncles, 1 line long, with very small subspathulate leaves at bases and between them. Calyx, sepals 4, cut nearly to base, linear, thick, obtuse, irregular in width. Corolla pale, whitish, 2 lines diameter, upper and 2 lateral lobes large, the lower smaller, all much veined, with tips rounded. Stamens short, curved; anthers large, suborbicular, cordate, flattish, pale, included.
Transactions.—Botany.

Hab. Ruahine Mountain-range, east side; 1898: Mr. A. Olsen.

4. *V. subrosulata*, sp. nov.

Plant very small, main stems slender, prostrate, subwoody, with little branches erect, 1 in.—2 in. apart, rising sub 1 in. and each bearing 2–3 minute branchlets, and each branchlet crowned with 10–12 minute leaves. Leaves close, subrosulate, and subimbricate, subobovate-orbicular, 1/8 in. long, tapering, thickish, undulate-crisp, deeply crenate, margins much recurved, green above, brown and longitudinally rugulose below, very hairy (with young stems and calyces); hairs scattered, curved, white; petioles stout, nearly as long as leaves. Flowers large for plant, terminal, 2 together, each on a very short peduncle. Calyx 4-lobed, lobes oblong, very obtuse, margins straight-parallel, ciliolate. Corolla pure white, 4-lobed, the 2 lateral and upper lobes broadly obovate or suborbicular, the lower lobe small and narrow, entire; tube short. Stamens short; anthers large, orbicular, dark-purple, scarcely excluded. Style erect; stigma subcapitate.

Hab. Ruahine Mountain-range, east side; February, 1898: Mr. H. Hill.

Obs. An interesting little species—a gem!—pretty near *V. vulcanica*, mihi (Trans. N.Z. Inst., vol. xx., p. 208), which is also an alpine plant, but differing in several characters.

5. *V. subsimilis*, sp. nov.

Shrub low and thick-growing; upper branches suberect and stout, cylindrical, scarred, 1/4 in. diameter, thickly branched at top; branchlets square, erect, subsecund, 1 in.—2 in. long, 1/8 in. diameter, leafy throughout; secondaries decreasing gradually in length upwards, so that their tips are nearly even, mostly simple, sometimes forked. Leaves quadrifarious, symmetrical, subvertical, deltoid, 1/8 in. long, obtuse, sessile, connate, closely imbricate and adpressed, concave above, glabrous, thick, backs rounded not keeled; green, thickly dotted, dashed with red in age, the lower margins of young leaves densely mealy-white, subciliolate. Flowers small, crowded 3–4–6 together at tips of branchlets, sessile. Calyx-lobes oblong, very obtuse, tips rounded, obsoletely 3-nerved, submembranous, light-green, margins slightly incurved, densely ciliolate-woolly, wool-white. Corolla white, 1/4 in. diameter, 4-lobed, lobes spreading, the two lateral and upper elliptic tips broad suborbicular, the upper lobe largest tip entire, lower lobe small; tube shorter than limb. Anthers suborbicular, large, much exserted. Style longer than stamens; stigma simple.
Hab. Ruahine Mountain-range, east side; February, 1898: Mr. H. Hill.

Obs. A species *prima facie* very like *V. tetragona*, Hook., and without dissection or careful comparison would be taken for it; but it differs in several particulars—as in leaves not keeled and tips rounded; calyx-lobes, tips rounded; corolla tube short; and upper lobe of limb entire, not bifid.

Order LXVII. **Thymeleeæ**.

Genus I. *Pimelea*, Banks and Solander.

1. *P. montana*, sp. nov.

Shrub, branches (specimens) 6 in. long, erect, stout, 2 lines diameter, bark chocolate-colour; branchlets woody, erect, slender, 2½ in. long, 1 line diameter, closely and regularly scarred, thickly black muricated between scars, with many short secondary branchlets at their tips 1 in.—1½ in. long, very leafy; the young branchlets densely clothed with coarse grey woolly hairs between the leaves. Leaves numerous, close, subdecussate, suberect, spreading, ovate, 4 lines long, obtuse, wrinkled, much keeled, pale-green, margined; margins translucent yellow-green; petioles short, stout, thick. Flowers few, solitary, sometimes in pairs on tips of branchlets; perianth very hairy, shaggy, 5 lines long; hairs white; lobes 4, oblong, subapiculate. Anthers oblong, excluded. Style longer than stamens; stigma simple.

Hab. Ruahine Mountain-range, slopes, east side; 1898: Mr. A. Olsen.


Genus 10. **Euphrasia**, Linn.

1. *E. pygmaea*, sp. nov. (non C. Koch).

Plant simple, minute, about ½ in. high, erect, glabrous; root 1½ in. long, slender, straight. Leaves few, generally 6, thickish, lowermost pair radical, opposite (seed leaves?), ovate, entire, obtuse; the next pair trifid or 3-lobed; the next cuneate-spatulate, limb 2 lines long, 7-lobed, the apical lobe large, rounded, the two lateral ones very small and distant, each 3-lobed; lobes, tips thickened, dark-green; limb pale, nearly white, tapering; petiole slender. Flower single, terminal, large for plant, sessile. Calyx 5-lobed; lobes deltoid, subacute, irregular in size, half as long as calyx. Corolla 3–3¼ lines long; tube slender, long; lobes of limb large, rounded, 3-veined. Anthers glabrous, mucronate.

Hab. Ruahine Mountain-range, east side, secondary summits; 1898: Mr. A. Olsen.
Obs. I. I have lately received several 1-flowered specimens of this minute plant, all as described; and also—on a former occasion—some others, much larger, each bearing 2–3 flowers, terminal on short branchlets; which I take, without dissection, to be of the same species, and, if so, then the very minute 1-flowered specimens are young seedling plants.

II. Sir J. D. Hooker, in his “Handbook of the Flora of New Zealand,” under “E. antarctica, Benth., a native of Tasmania, Fuegia, and South Chili” (which plant I also originally discovered on Ruahine Mountain-range in 1845), mentions having received from Sir James Hector several forms of E. antarctica collected on Mount Alta, one of them being “a most minute form, ½ in. high, with a single flower; altitude, 6,000 ft.” I at first supposed that this little plant might prove to be of the same; but Bentham describes E. antarctica as being “glandular pubescent,” with other marks of difference.

Order LXX. Cupulifere.

Genus I. Fagus, Linn.

1. F. truncata, sp. nov.

A tree; branches (specimens 3 in.–4 in. long) slender; branchlets short; bark glabrous, dark purple-brown, irregularly ribbed and wrinkled. Leaves glabrous, rugulose, chartaceous, dull-green above, paler below, subrhomboid-oblong, ½ in.–1 in. long, 6–7 lines wide, very obtuse, base slightly tapering, margined; margins thickened, white, dentate; teeth few, on upper half only, large, knobbed, caused by nerve being produced, generally 3–4 at truncate apex; midrib prominent beneath; nerves few (3–4-jugate), alternate, obsolete; veinlets closely anastomosing on lower surface, which is also finely dotted; petioles 2 lines long, narrow, slightly pubescent; leaf-buds narrow-ovoid, with 4 rows of scales, reddish-brown, shining. Flowers (male) on small branchlets, subcorymbose, solitary and 2–3 together on short peduncles, subsessile, pedicels small. Perianth very thin, glabrous and shining, slightly glutinous, broadly campanulate; margin shortly cut into 5 broad teeth or lobes, obtuse, rounded, 1-nerved; filaments short, not exserted; anthers long, linear, reddish-brown, deeply sulcate.

Hab. Ruahine Mountain-range, east side; October, 1898: Mr. H. Hall.

Obs. I. This plant is evidently allied to F. fusca, Hook. f., but differs from it in several characters—in its smaller leaves, which are also margined, their apices tri- or quadri-dentate, the teeth knobbed, and fewer nerves; its perianths very thin, glabrous and shining; and filaments not exserted. Sir J. D. Hooker, in his clear description of Fagus fusca,
says, "Branches clothed with minute pubescence, . . . nerves of leaves conspicuous (pinninervis)" [in his faithful drawing represented 6-jugate and opposite]. "Flowers ter-
nate, pedunculate, drooping; perianth turbinate, 5-6-toothed, downy as well as peduncle. Filaments slightly protruded; anthers oblong" ("Icones Plantarum," vol. vii., tab. 630).

II. I have received only two small specimens of this plant, both male, each possessing 12-14 leaves and 12-20 flowering perianths, apparently obtained as if casually gathered in pass-
ing; yet their difference is so great from F. fusca, vera, as described and ably drawn by Hooker, that I have considered it right to bring this plant to notice, even should it hereafter prove to be a variety only of F. fusca. A peculiarity in the leaves of these two specimens is that they are nearly all repeatedly bored through by some insects, twenty holes and upwards in some leaves.

CLASS II. MONOCOTYLEDONS.

Order I. ORCHIDÆ.

Genus 12. PTEROSTYLIS, Brown.

1. P. trifolia, sp. nov.

Plant small, glabrous, 2½ in. high; 3-leaved at base; leaves close, equidistant, spreading, flat, sessile, broadly oblong, 1½ in. long, 1 in. broad, tips very obtuse-rounded, many-nerved longitudinally, with veins largely anastomosing between nerves. Scape 1 in. long, stout, erect; flower solitary. Per-
ianth 1½ in. diameter, sepals and petals nearly equal in length, narrow, sub 8 lines long, membranous and veined, not long-
tailed; tongue narrow, thickish, dark-red, tip subacute, ex-
serted; appendage large, membranous, veined, erect, curved, tip acute; column wings upper and lower corners largely produced, tips narrow-acute. Capsule very stout, obovoid, sub 1 in. long, 4 lines diameter; sutures ribbed, thick.

Hab. Ruahine Mountain-range, east side, near secondary summits; 1896: Mr. A. Olsen.

Obs. Only a single specimen received, and that with withered (though perfect) perianth, so could not afford to break it up for closer examination. A species very distinct from all other New Zealand ones known to me.