

Descriptions of New Native Flowering-plants.

By D. PETRIE, M.A., Ph.D., F.N.Z.Inst.

[Read before the Auckland Institute, 14th December, 1922; received by Editor, 28th December, 1922; issued separately, 26th May, 1924.]

1. *Pittosporum Turneri* sp. nov.

Species *P. patulo* Hk. f. affinis; differt ramis ramulisque gracilibus; foliis maturis brevioribus tenuibus integris cuneato-obovatis, subtus pallidis, 2.5–3.8 cm. longis, 9–13 mm. latis (apices versus); capsulis globosis multo minoribus, haud compressis, 7 mm. in diam.

A small tree 4.5–9 m. (15–30 ft.) high, up to 2.3 dm. (9 in.) in diameter; when mature pyramidal in outline with the lower $\frac{1}{2}$ – $\frac{2}{3}$ bare of branches (except in juvenile state), bark brown or greyish-brown, generally smooth. Branches fastigiate, more or less whorled, rather slender, short for height of tree, branchlets numerous very slender. Mature leaves alternate, 1–1 $\frac{1}{2}$ in. long by $\frac{3}{8}$ – $\frac{1}{2}$ in. broad near tips, cuneately obovate, shortly petioled, entire, glabrous (except when young), rather thin, brownish-green above, much paler below; midrib obscure above, evident below, as are also veins. Flowers in terminal umbels of 6–12 mostly on short lateral shoots, pink or purplish, pedicels short slender silky, lengthening but little in fruit. Sepals thin narrow-lanceolate acute, much shorter than strap-shaped subacute reflexed petals; stamens shorter than petals; pistil conical silky-pubescent, style rather long. Capsule globose, not compressed, 2-celled, 5–6 mm. ($\frac{1}{4}$ in.) in diameter, when mature glabrous more or less muricate blackish-brown crowned by persistent style.

Juvenile plants form a little above the ground a column-like tangled mass, up to 2 ft. in diameter and several feet high, of slender divaricating and tortuous branchlets and twigs, which fall away from the adult tree. At this stage the leaves are highly variable in size but less so in shape, ranging by fine gradations from 3 mm. ($\frac{1}{8}$ in.) to upwards of 2 cm. ($\frac{3}{4}$ in.) long, usually more or less cuneately obovate, entire or with a few oppositely placed indentations above the middle.

Habitat.—Waimarino Plain, at edge of forest, some two miles south of the Waimarino Railway-station: E. Phillips Turner (1909), H. B. Matthews and H. Carse (Jan., 1921)! Arnold Wall (Feb., 1922)!

Mr. Turner, to whom the species is dedicated, discovered it in the district where Matthews and Carse afterwards collected specimens. He definitely refers to it in his "Report on the Vegetation of the Higher Waimarino District" (Government Printer, 1909), but I have seen no specimen from him. Mr. Matthews has kindly supplied many of the particulars embodied in the above description. He thinks the plants may be ten to fifteen years old before they assume the adult form. They flower late November to early December. The juvenile state of *P. patulum* has not, so far, been described in detail. It would be interesting to learn if it goes through changes like those found in the present plant. It was only after prolonged search that Mr. Matthews found a single juvenile plant, which was recognized by its beginning to produce mature branches and leaves. Wall also collected the juvenile state.

2. *Senecio remotifolius* sp. nov.

Frutex ramosus, 12-18 decm. altus. Ramuli petioli et inflorescentia tomento subflavido v. cinereo-flavido vestiti. Folia late elliptica, ad 11 cm. longa (petiolo excluso) c. 7 cm. lata, subacuta, parum coriacea, supra tomento albido hic et illic $\pm$ aspersa, subtus tomento subflavido appresso vestita; petiolis foliis $\pm$ aequilongis, $\pm$ gracilibus, supra sulcatis. Inflorescentia axillaris elongata parce divisa; rhachis anfractoflexuosa, infra ramos paucos alternos breves capitula pauca gerentes edens, a parte summa simplex. Capitula discoidea c. 6 mm. longa; involucri squamis c. 8 linearibus tomentosis; flosculis c. 12; corollae limbo anguste infundibuliformi subalte 5-dentato, segmentis revolutis. Achenia linearia breviter pilosa.

A sparingly-branched shrub 4-6 ft. high, rarely more. Leaves broadly elliptic, $4\frac{1}{4}$ in. long (exclusive of the petiole), $2\frac{3}{4}$ in. broad, subacute, little coriaceous, margins obscurely sinuate in upper half, midrib and veins conspicuous on both surfaces, dull green above with scattered streaks of whitish tomentum chiefly along midrib and veins, below clothed with pale-yellow or greyish-yellow appressed tomentum; petioles about as long as blades, rather slender grooved above, clothed as is also inflorescence with greyish appressed tomentum. Inflorescence axillary near ends of the branches up to $5\frac{3}{4}$ in. long; rhachis more or less zigzag, giving off below several alternate short more or less divaricating few-flowered branches subtended by small narrow foliaceous bracts becoming linear higher up, terminal part simple. Heads on short pedicels discoid, involucreal scales about 8 linear tomentose; florets about 12; limb of corolla narrow funnel-shaped rather deeply 5-toothed, segments revolute. Achenes linear shortly pilose.

Habitat.—North and south of Mokau River in open rocky spots toward the coast, not plentiful: W. A. Thomson! The specimens examined were grown in Mr. Thomson's garden at Half-way Bush, Dunedin, from young plants taken from the wild habitat.

3. *Veronica Carsei* sp. nov.

Species *V. laevi* Benth. arcte affinis; differt foliis longioribus elliptico-lanceolatis ad 3.2 cm. longis et 1 cm. latis, acutis, tenuioribus, plerumque patentibus, sessilibus, distantioribus, racemis 4-6 simplicibus, multo longioribus (ad 7.3 cm. longis), a parte inferiore nudis; corollae tubo longiore, limbi lobis ovatis subacutis; capsulis maturis adhuc ignotis.

A shrub 6.5-20 decm. (2-6 ft.) high, usually about 1.5 m. ($4\frac{1}{2}$ ft.), branching virgately from base, bark dark brown; branches slender ascending glabrous, twigs leafy towards tips, lower parts ringed with scars of fallen leaves. Leaves decussate, spreading (rarely somewhat overlapping), variable in size, $\frac{3}{4}$ - $1\frac{1}{4}$ in. long, $\frac{1}{5}$ - $\frac{3}{8}$ in. broad, elliptic or elliptic-oblong, acute, entire, glabrous, little coriaceous, usually flattened, lower half narrowing gradually to rather broad sessile base, more or less polished above paler below, drying reddish-brown, midrib depressed above and forming a prominent keel below. Racemes 4-6 near ends of twigs, simple, $1\frac{1}{2}$ -3 in. long, naked below, many-flowered; rhachis rather slender, sparsely pubescent-pilose; bracts narrow acute, about as long as the pubescent pedicels; flowers white often tinged with pale purple, $\pm$ 8 mm. ($\frac{1}{2}$ in.) long, shortly pedicellate; calyx $\frac{1}{2}$ as long as the corolla, 4-partite, segments broadly ovate subacute ciliate at edges; corolla-

tube twice as long as calyx or rather more, $\pm$ 15 mm. ($\frac{1}{8}$ in.) wide, lobes of limb $\frac{1}{2}$ as long as tube subacute. Ripe capsules not seen.

Habitat.—Margins of forest and woods, Waimarino Plain: W. Townson! H. Carse! H. B. Matthews! Kaimamawa Range: B. C. Aston!

Named in honour of Mr. H. Carse, whose botanical investigations have been of great value. He remarks that the plant, though not uncommon on the Waimarino Plain, is rarely found in any great quantity. I understand that Mr. Cheeseman's character of *Veronica laevis* Benth., given in his *Manual of the New Zealand Flora*, includes the present species as well as the true *V. laevis*, to which the former is certainly close.

4. *Euphrasia Wilsoni* sp. nov.

Annua? Caules ad 4-6 cm. alti, pro plantae magnitudine crassiores, a basi ramosi, ramulis gracilibus $\pm$ elongatis cum ramis bifario pubescentibus. Folia magnitudine variabilia, paribus oppositis disposita, a parte ramulorum superiore conferta, in statu vivo succulenta, basi lato sessilia, c. 13 mm. longa et 10 mm. lata, cuneato-obovata, dentibus 3-4 subcrassis utrinque a parte superiore praedita, conspicue 3-nervata, a marginibus revoluta. Flores axillares peduncululos longiusculos pubescentes terminantes, $\pm$ 13 mm. longi; calyx corolla dimidio brevior, ad medium 4-lobatus, lobis latioribus subacutis a marginibus revolutis; corollae tubo infundibuliforme $\pm$ pubescente, labio superiore 2-lobato, inferiore alte 3-lobato, lobis omnibus integris obtusis v. subacutis. Capsulae maturae haud visae.

Annual? Stems 3.75-6.25 cm. ($1\frac{1}{2}$ - $2\frac{1}{2}$ in.) long or less, often crowded, stout for size of plant, branched from base, dark brown; branchlets slender, often elongated, and, like stems and branches, bifariouly pubescent. Leaves variable in size, in opposite pairs, lower rather distant, crowded towards tips of branchlets, succulent when fresh, sessile by a broad base, $\pm$ $\frac{1}{2}$ in. long by $\frac{3}{8}$ in. broad about middle, cuneately obovoid with 3-4 rather coarse teeth on either side along upper third, glabrous, obtuse or subacute, moderately thick and coriaceous, prominently 3-nerved, recurved at edges and marked with shallow depressed areoles on back behind teeth and running down irregularly from these, bracts similar to leaves but smaller. Flowers axillary on rather long usually slender pubescent naked pedicels, $\pm$ $\frac{1}{2}$ in. long, (apparently) white; calyx about half as long as corolla, slightly pubescent, 4-lobed to middle, lobes broad subacute recurved at edges; corolla-tube funnel-shaped, more or less pubescent; upper lip shortly 2-lobed, lower deeply 3-lobed, all the lobes entire obtuse or subacute. Fully formed capsules not seen.

Habitat.—Ruahine Range (western slopes), 3,500-5,500 ft.: R. A. Wilson! Arnold Wall! B. C. Aston. Collected early in January, 1922.

This very distinct species is named in honour of Major Robert A. Wilson, D.S.O., who first collected it in company with Messrs. Wall and Aston. In the specimens examined there was nothing to suggest a perennial habit of growth. The plant, Major Wilson informs me, was found growing only on patches of a *Raoulia* and a *Poa*, on the roots of which it was more or less parasitic. Where the *Raoulia* had died off the *Euphrasia* had died with it, and where the *Raoulia* was sickly and decaying the *Euphrasia* was in the same condition. The parasitic habit

would thus appear to be more pronounced than in the other native species of the genus.

5. *Veronica Dartoni* sp. nov.

Frutex conferte ramosus, 9-14 cm. altus; ramuli graciles glabri brunnei. Folia decussata valde approximata patentia anguste obovata, apicibus subacuminatis, in basim latum sessilem $\pm$ ciliatum angustata, vix membranacea, integra glabra, haud carinata, costa media supra infraque evidente, $1\frac{1}{2}$ -2 cm. longa $\frac{3}{4}$ -1 cm. supra medium lata. Racemi 2-4 in axillis foliorum superiorum dispositi, breviter pedunculati piloso-pubescentes suberecti, 4-6 cm. longi, subangusti. Flores $\pm$ 5 mm. lati approximati, pedicellis brevibus piloso-pubescentibus bracteas lanceolatas acutas ciliatas vix aequantibus; calyx 4-partitus, lobis ovatis acutis secundum margines ciliatis; corolla caesio-albida, tubo sublato sepalis subduplo longiore, lobis obtusis tubum aequantibus, staminibus corollam aequantibus, antheris purpureis, stylo exserto. Capsula $\pm$ 4 mm. longa $\pm$ $2\frac{1}{2}$ mm. lata, acuta, calycem subduplo excedens.

A compactly branched shrub 3-5 ft. high; branchlets slender, ascending, glabrous, reddish-brown, closely ringed by scars of fallen leaves; old bark dark brown. Leaves decussate, more or less spreading, very closely placed along ultimate twigs, narrow obovate, subacuminate at tips, below gradually narrowed into a rather broad sessile more or less ciliated base (the opposite pairs clasping or almost clasping the twigs), glabrous hardly membranous, entire, not keeled, midrib evident above and below with two obscure sublateral veins, $\frac{3}{8}$ - $\frac{4}{8}$ in. long $\frac{3}{10}$ - $\frac{2}{8}$ in. wide (just above middle). Racemes 2-4, oppositely placed in axils of uppermost leaves, shortly peduncled, rather slender, pilosely pubescent, suberect, 4-6 cm. long. Flowers about 5 mm. across, closely placed on very short pubescent pedicels that nearly equal the lanceolate acute strongly ciliate bracts. Calyx 4-partite, lobes ovate acute, strongly ciliate along edges; corolla lavender or whitish-lavender, tube rather wide, $1\frac{1}{2}$ times as long as sepals, lobes obtuse and as long as tube, stamens equalling corolla, anthers purplish, style exserted. Capsules about 4 mm. long and $2\frac{1}{2}$ mm. broad, acute, glabrous, $1\frac{1}{2}$ times length of calyx.

Habitat.—Firewood Creek, Cromwell: D. P. Roxburgh, on steep banks of Clutha River, a little below the bridge: H. L. Darton!

A very curious plant, whose position in the serial order of the species is somewhat obscure. It is named in honour of Mr. H. L. Darton, of the Lawrence High School, well known, with his colleague Mr. Hart, for enthusiasm in collecting and growing every obtainable form of *Veronica*. I collected it in 1911. Mr. Darton's specimens were found in December of the present year. I am not sure of the colour of the flowers, of which only dried specimens have been available for examination.