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## APPENDIX.

By S. POLGÁR.

1. *Solanum allanii* n.sp.

(There occur numerous forms of *Solanum* in New Zealand at present loosely lumped under *S. nigrum*, and there has long been doubt how far they are indigenous and how far introduced. In an attempt to straighten out the situation I have sent a series of specimens and seeds to Dr. Polgár, of Györ, for his critical examination. From his study of the herbarium material and of plants raised from the seed he has found that while *S. nigrum*, in several varieties, certainly occurs in New Zealand, there are several allied but distinct species as well. Prior to a complete revision of the group Dr. Polgár has kindly supplied the following diagnosis of two of the new species. H. H. A.)

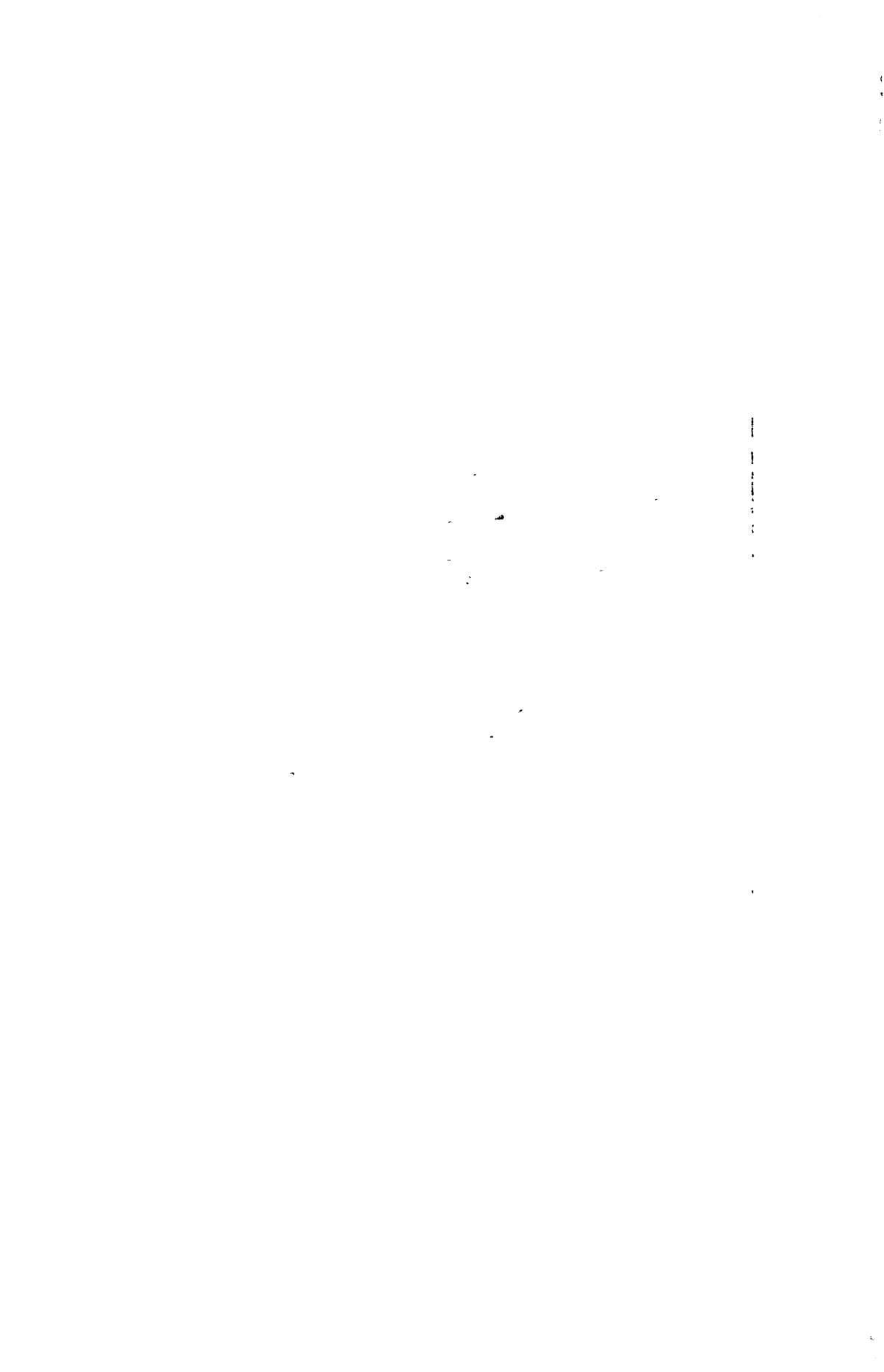
"Suffrutex, sed iam primo anno florens, metralis vel altior (primo anno), ab imo valde ramosus. Caulis basi (primo anno) c. 1 cm. diam., infra lenticellis instructus, interdum subdichotome ramosus rami erecti-patuli vel patentissimi, nonnumquam fere geniculatim flexuosi, subangulati, lineis decurrentibus valde sparse



"Sporting" *Coprosma*: Mayor Island. Two branches from same plant.

—Photo. H. Drake.

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gibberes piliferos gerentibus instructi, ceterum glabri (solum partes novellae nondum satis evolutae, sicut pedunculi et pedicelli pilis parvis 1-2-cellularibus sursum curvatis  $\pm$  dense obtectae). Internodia adulta ramorum 6-12 cm. longa; nodi subincrassati.

Laminae membranaceae, tenues, utrinque saturate virides, interdum maculis caeruleis suffusae, margine scabriusculae, utrinque glabrae, solum vena media et primariae laterales pilis minutis curvatis, 1-3 cellularibus vestitae; venae laterales primariae in utroque latere 4-6 curvatim ascendentes, haud prominulae. Laminae deltoidei-ovati-lanceolatae vel rarius ovatae, 5-8  $\times$  2.5-4.5 cm., supra basim latissimae, e basi rotundata vel subtruncata plerumque sensim et aequaliter angustatae, marginibus vix curvatis, acuminatae apice ipso obtusiusculo, satis abrupte  $\pm$  cuneatim in petiolum superne brevi spatio alatum 2-3.5 cm. longum abeuntes, margine solum in parte inferiore usque ad medium (rarius etiam paulum superius) sinuati-dentato vel fere integro, ad apicem versus semper integro, dentibus in utroque latere 1-4 inaequalibus obtusis, 3-5 mm. longis, 5-6 mm. latis. (Solum folia plantae juvenilis fere usque ad apicem sinuati-dentata, dentibus majoribus ad apicem versus diminutis; eorum petioli 3-5 cm. longi.)

Inflorescentia extra axillaris, in statu fructifero in superiore parte usque ad medium internodii sita (3)-4-5-(6)-flora. Pedunculus erecti-patulus, 10-15-(20) mm. longus, fructifer plerumque horizontaliter patens, vix auctus. Inflorescentia umbellam imitans, rhachis etiam in statu fructifero fere nullus, raro flos infimus paulum (1 mm.) remotus. Pedicelli ad apicem versus nonnihil incrassati, filiformes, ante anthesin nutantes, florentes arrecti deflorati decurvi, c. 5 mm. longi; fructiferi 6-8 mm. longi, curvatim subnutantes sed nunquam reflexi.

Flores exigui, 3.5-5 mm. longi, diam. 4.5-6 mm. Calyx campanulatus, 1-1.5 mm. longus, ad  $\frac{1}{2}$  usque ad medium in lobos c. 1-2 mm. longos semiovati-ellipticos obtusiusculos, membrane pellucida conjunctos partitus, in margine pilis minutis 1-2 cellularibus acutis, superficie praeterea clavaeformibus apice 4-cellularibus vestitus; fructifer parum auctus, arcuate recurvatus, apicibus incrassatis; pedicellum amplectans. Corolla pallide vel saturate lilacina, rarius alba, clausa 3.5-4.5 mm. longa, tubo c. 1 mm., limbo plerumque c. 3.5 mm. longo; lobi ovati-lanceolati 2-3 mm. longi, c. 1.5 mm. lati, extus et in margine pilis 1-3 cellularibus acutis curvatis obsiti, apice paulum recurvati. Stamina c. 1 mm. supra basim corollae inserta. Filamenta 0.7-1.2 mm. longa, antheris (saltem tempore florescentiae plenae) fere aequilonga, basi dilatata intus pilis plerumque brevibus, 1-2 cellularibus apice rotundatis (rarius nonnullis tricellularibus) parce (inferne densius) obsita, vel nonnumquam fere glabra. (Pili majores c. 200  $\mu$  complures minores c. 80  $\mu$  longi.) Antherae breviusculae, ellipsoideae, apice erosae, tota longitudine fere aequalatae, 1.2-1.4  $\times$  0.6-0.8 mm., basi bilobae, lobis obtusissimis parallelis paulum incurvatis, poris introrsis apicalibus obliquis dehiscentes. Granula pollinica diam. 16-18  $\mu$ .

Ovarium ovoideum, c. 1 mm. longum. Stylus staminibus aequilongus vel rarius (praecipue initio florescentiae) illa paulum superans, apice plerumque geniculatim incurvatus, c. 2 mm. longus superne sensim attenuatus, supra basim glabram  $\frac{2}{3}$ – $\frac{1}{2}$  longitudinis pilis brevibus acutis 1–2 (paucis 3)-cellularibus (longiores 150  $\mu$ ) obtectus. Stigma depressi-globosum, styli apice crassius, c. 200  $\mu$  longum, 300–400  $\mu$  latum. Baccae globosae, parvae, diam. 4–5 mm.; iam immaturae valde nitidae, tunc propter cellulas sub epidermide sitas et granulas calcii oxalici crystallisati continentes (“Kristallsand”) punctis exiguis albis adpersae (in plantis exsiccatis haec puncta sunt vix conspicienda), post maturitatem nigrae, nitidae succo obscure violaceo. Semina parva, 1.2–1.5  $\times$  0.8–1 mm., ovati-pyriformia, basi subapiculata, minute papillosa, numerosa (40–75). Granula sclerotica subapicalia semper 2, diam. 0.5–0.7 mm. et insuper saepe 1–4 plerumque minora in partibus diversis baccae pericarpio intus adhaerentia.

Semina no. 2, 3, 6, 8, 9 collecta a Miss L. B. Moore, “on the lava fields, Mount Wellington, Auckland,” 1.1938 et accepta a cl. H. H. Allan, deinde e his plantae a me educatae in duobus hortis oppidi Győr (Hungaria occident.) in exemplaribus compluribus.

Flores similes parvos possident:

1. *Solanum adventitium* Polgár, sed folia ovata, corollae alba, calyx baccae accumbens, stylus rectus, granula sclerotica constanter 6, majora etc.

2. *Solanum nodiflorum* Jacq., sed folia integra, corolla alba, baccae majores, granula deficientia, etc.

3. *Solanum minutibaccatum* Bitter (Sol. nova 1, no. 190) habet filamenta et stylos longius pilosos et caret granulatis.

4. *Solanum prionoapterum* Bitter (l.c., II, no. 41) differt denticulis ramorum, longitudine et indumento filamentorum et styli, calyce accumbente, etc.

5. *Solanum tenellum* Bitter (l.c., III, no. 79) differt forma foliorum, indumento filamentorum et styli, seminibus perpaucis.

6. *Solanum calvum* Bitter (l.c., X, no. 201) differt forma foliorum glabritie completa filamentorum. *S. apopsilomenum* Bitter (l.c., X, no. 208) e Nova Zelandia habet flores multo majores, filamenta omnino glabra, etc.

## 2. *Solanum pachystylum* n. sp.

Verisimiliter suffrutex, sed iam primo anno florens, valde ramosus. Rami c. 3 mm. diam., angulati; lineae decurrentes manifeste prominentes gibberibus piliferis parce obsitae, ceterum rami (praeter partes novellas pilis minutis sparse vestitas) glabri. Internodia adulta 6–7 cm. longa.

Folia parva; laminae—ut videtur—undatae, crassiusculae, fragiles, supra dilute virides, subtus paulum glaucescentes, margine et supra pilis minutis hyalinis curvatis, e basi crassa acutatis sparse obsitae (qua re laminae supra et margine scabridae), subtus glabrescentes, e basi rotundata vel subtruncata oblongi-lanceolatae supra

basim latissimae, 4.7–2 × 2.5–1 cm., tantum in superiore c.  $\frac{1}{3}$  parte angustatae apice acutiusculo, super basim in utroque latere dentibus subacutis 1–2 praeditae, ceterum margine undulata. Vena media utrinque, venae laterales primariae in utroque latere 5–6, subtus parum prominulae. Petiolus superne brevi spatio anguste alatus, 0.5–1 cm. longus.

Inflorescentia extra axillaris, a foliis remota, sed in superiore parte internodii sita, 4–5-flora, subumbellata, florens rhachiole minimo, sed in statu fructifero rhachis c. 2 mm. Pedunculus 1.1–2 cm. longus, fructifer parum auctus, parce pilosus; pedicelli 6–7 mm. longi, glabriusculi, interdum subtortuosi, apicem versus vix incrassati; fructiferi crassi, c. 1 cm. longi, curvatim nutantes, sed non deflexi.

Flores parvi, c. 5 mm. longi; calyx cupuliformis, 1.5–1.8 mm. longis, apice c. 2 mm. diam., glaber (solum in margine papillis unicellularibus) ad  $\frac{1}{3}$  longitudinis in lobos breves triangulari-semiovatos, c. 0.7–0.8 mm. et fere aequilatos, apice incrassatos trinervios apiculatos partitus; fructifer parum auctus, reflexus. Corolla intense violaceo-purpurea, rotata, diam. 5–6 mm., tubo c. 0.8 mm., limbo 4 mm. longo; lobi ovaes, acutiusculi, 1.7–2.4 mm. lati, in margine crebre, extus sparse pilis 1–3 cellularibus vestiti. Stamina 0.8 mm. supra basim corollae inserta. Filamenta antheris subaequilonga, 0.8–1 mm., vulgo omnino glabra, rarissime 1–3 pilis multicellularibus praedita, basi dilatata (hic 0.5 mm. lata). Antherae breviusculae, crassae, ellipsoideae, 1–1.4 × 0.7–0.8 mm., versus stylum falcatis conniventes, basi nonnumquam paulum dilatatae, basi bilobulatae, lobulis obtusis, rimis basim versus angustatis neque poris apicalibus dehiscentes. Granula pollinica diam. 18–21  $\mu$ . Stylus antheras saepe iam ante anthesin  $\pm$  superans vel illis fere aequalongus, rectus, brevis, 0.8–2 (rarissimae 2.4) mm., a basi usque ad apicem aequaliter et pro ratione valde crassus, diam. 0.3–0.6 mm., paulo supra basim glabram, c.  $\frac{2}{3}$  longitudinis papillis unicellularibus usque 80  $\mu$  longis (neque pilis) obtectus. Stigma subcurvatum,  $\pm$  distincte trilobum, lobulis nonnumquam in utroque margine tuberculo praeditis.

Ovarium crassiusculum, 1–1.3 mm. longum et fere aequilatum. Ovula 60–70. Baccae . . . Semina parva 1.3 × 1 mm.

Collegit H. H. Allan, North Island, New Zealand, Mount Wellington, near Auckland, "on lava blocks, flowers violet-purple," Jan., 1935. (Herbarium of the Plant Research Station, Wellington, New Zealand, no. 8954.)

Species ob crassitudinem styli, dehiscentiam antherarum, structuram stigmatum notabilis. Habitus locum natalem aridum videtur indicare. Affines videntur: *S. apopsilomenum* Bitter e Nova Zelandia (Sol. Nova  $\times$ , no. 208), quod tamen floribus multo majoribus, forma et dehiscentia antherarum etc. differt. *S. depilatum* Bitter e Madagascar austr. (*loc. cit.*, no. 207) differt forma foliorum et styli.