

NEWLY DESCRIBED SPECIES.

Crassula sessilicymula Mogg, sp. nov. (Crassulaceae); affinis *C. corymbulosae* Link. petalis erectis, cymulis constanter sessilibus, et foliis caulinis differt.

Herba perennis, 30–75 cm. alta, singulis caulibus ex base rhizomate. *Caules* 0.75 cm. diametro, basi ramosi, fulvi aut colores lateris infra, supra virides glanduloso-pubescentes; internodia 0.5–2.5 cm. longa. *Folia* sub-decussata, sessilia, semi-perfoliata, horizontalia, simplicia; inferiora 2.4 cm. longa, 1 cm. lata, 0.3 cm. crassa, utcumque 3 cm. × 0.7 cm. × 0.1 cm. caulis media parte, et ad apice diminuendo, ovata vel lanceolata, acuminata, glabraque non reticulata, glanduloso-ciliata. *Inflorescentia* cymosa. *Cymulae* subcapitatae, numerosae, axillares, ad summum caulis laxae dispositae. *Flores* 2–6, fasciculati, subsessiles. *Calyx* 2 mm. longus; lobi infra breve connati aliquando liberi, 1.5 mm. longi, angusto-acuminati, pilosi, glanduloso-ciliati. *Corolla* alba; petala infra connata, 3 mm. longa, ovato-oblonga, infra ventra concava, apice patentia et infra apicem dorso mucronulata. *Stamina* petalis subaequalia, ad tubum corollae affixa; filamenta subulata, basi lata; antherae ovatae. *Carpella* staminibus aequalia; ovarium oblique-ovatum; stylus distinctus. *Squamae* parvae, aurantiacae, pyriformes, emarginatae.

TRANSVAAL.—Pretoria distr.: Farm “Klipdrift,” near Hammanskraal, 28 miles north of Pretoria, in a donga inhabited by thorn-scrub and succulents, Mogg, 12503 (type); between the Saltpan and Hammanskraal, 32 miles N.W. of Pretoria, banks of a dry river-course beneath a bush of *Acacia litakunensis* Burch., Mogg, 12505; farm “Zeekoegat,” beneath bush-groups, Mogg, 14091; *Vogts in National Herbarium*, 13049; farm “Rooikop,” Smuts and Gillett, 2511. Waterberg distr.: Naboomspruit, farm “Mosdene,” under tree clumps in shade, Galpin, M 120 A; Seringa, Galpin, 8479; farm “Gannabosch,” Bailey in *Colonial Govt. Herb.*, 80. Potgietersrust distr.: Potgietersrust, farm “Riebeek West,” Steyn, 85.

The species is also allied to *C. compacta* Schönl., but the leaves are not all rosulate, and to *C. Lettyae* Phill. from which it differs in the well-developed leaves which subtend the cymules and the glandular-ciliate hairs of the leaf-margins.

Brachystelma nigrum R. A. Dyer, sp. nov. (Asclepiadeae-Ceropegieae); affinis *B. Gerardo* Harv. floribus majoribus calycis lobis superne lineari-lanceolatis corollae indumento coronae interioris lobis brevioribus differt.

Herba perennis. *Caules* erecti, simplex vel non nunquam ramosi, 30–40 cm. alti, 2.5–4 mm. crassi, foliosi, subhispidi, internodiis 3–5 cm. longis apicem versus brevioribus. *Folia* breviter petiolata, late ovata, cordata, obtusa vel subacuta, 2.5–4.5 cm. longa, 2–4 cm. lata, juniora minus, infra prominente nervosa, utrinque pilis paucis induta, nerviis et margine hispidis; petioli 2–5 mm. longi, subhispidi, basi stipulis 2 minimis conicis ornati. *Flores* axillares nodiis solitarii; pedicelli graciles, circiter 2 cm. longi, basi 1-bracteati; bractea oblanceolata-linearis vel ovato-elliptica, circiter 1.5 cm. longa, breviter petiolulata. *Calycis* segmenta plus minusve 7 mm. longa, basin versus breviter ovata, submembranacea, superne lineari-lanceolata, concava, extra pubescentia, intra basi disco coroniforme minutissime lobato ornata. *Corolla* nigra; tubus breviter et latissime campanulatus, glaber; lobi 7 mm. longi, 3 mm. lati, infra medium constricti, subpanduriformes, elegantissime inflexo-ciliati, supra medium elliptici, subcrassi, dorso concavi, hispiduli, intra nigro-velutini, apice leviter incurvi, pilis paucis longis inflexis induti. *Coronae* exterioris lobi circiter 0.5 mm. longi, bifidi, breviter lanati; coronae interioris lobi lineares incumbenti-conniventes.

NATAL.—Vryheid, among rocks on summit of Lancaster Hill, locally frequent, flower black, Jan., *Galpin*, 10211.

This is yet another new species to the credit of Dr. Ernest Galpin who collected the specimens near Vryheid, Natal, in January, 1930. He recorded the colour of the fresh flowers as black and this is the derivation of the specific epithet. *Brachystelma nigrum* is closely allied to *B. Gerrardi* Harv. (Harv. Thes. Cap. 2: 61, t. 196) and is distinguished from this mainly by the smaller size of the flowers, the shape of the upper portion of the calyx segments and the pubescence of the corolla. The lobes are shortly, although not densely, pubescent on the outer surface and shortly woolly pubescent on the inner surface. The colour of the flower of *B. Gerrardi* is given as "bright metallic green" on the inner face.

An interesting character noted by Bullock when describing *Ceropegia filicalyx* in Hook. Icon. Plant. under t. 3219 (1933), namely "intersepaline glands" has an equivalent structure in both *B. Gerrardi* and *B. nigrum*. These have a minute lobed disc or corona-like structure attached to the base of the calyx round the base of the corolla-tube. Through the courtesy of the Mycologist in Charge of the Natal Herbarium, Durban, I have examined one calyx of *B. Gerrardi* (Wood, No. 1607) but herbarium material of this species and of *B. nigrum* is insufficient for a comprehensive study of the intercalycine corona-like organ.

A duplicate of Galpin 10211 is in the herbarium of the Royal Botanic Gardens, Kew.

Riocreuxia aberrans *R. A. Dyer*, sp. nov. (Asclepiadeae-Ceropegieae); corollae tubo breviter campanulato valde distincta.

Herba perennis caulibus numerosis. *Caules* erecti vel volubiles circiter 60 cm. alti vel altiores, plus minusve ramosi, pilis uniseriatis induti, internodiis 4-5 cm. longis, nodiis ciliatis. *Folia* patentia, petiolata, reniformi-ovata, circiter 5 cm. longa et lata vel interdum usque 7 cm. longa, basi profunde cordata, apice acuminata, utrinque glabrescentia, margine ciliata; petioli 2-4 cm. longi supra pilosi. *Flores* plures in cymis extra-axillaribus alternantibus, breviter racemosae pedicellis filiformibus. *Calycis* segmenta lineari-lanceolata, glabra, 4 mm. longa. *Corolla* glabra; tubus campanulatus, 5 mm. longus, circiter 6 mm. diametro; lobi lanceolato-lineares, 1.3-1.5 cm. longi, apice coherentes facile liberati. *Corona* exteriora et interiora confluentes; coronae exteriorae lobi brevissimi, bipartiti, coronae interiorae lobi erecti, oblongo-lineares, obtusi vel emarginati, 2 mm. longi, gynostegium multo superanti.

TRANSVAAL.—Ermelo distr.: On farm "The Gem," Dec., *Walker in Nat. Herb.*, 14397 (type). Belfast distr.: Dullstroom, on farm "Paardeplaats," 7,000 ft., local on low, dry ridge of barren white quartzite, bush 2 ft. high, Jan., *Galpin*, 13302 (fruit).

Although the specimen *Galpin*, 13302 is in fruit and has no flowers, it resembles the type so closely in vegetative characters, that I have little doubt that it is the same species. The type material was collected in flower in December and the fruiting specimen in January, which is consistent with seasonal development. Further the leaves of the fruiting specimen are coarser and slightly larger, up to 7 cm. long and broad, the maximum figure given in the above description. The follicles of the *Galpin* specimen are up to 10 cm. long and are slightly constricted at intervals of 6-7 mm.

Riocreuxia aberrans differs markedly from all others in the genus (hence the name) by the short *campanulate* tube, whereas the usual form is cylindrical. At first sight there appears to be only one corona, owing to the very small bilobed outer corona lobes fusing at the base with the inner ones, the lobes of the outer ones having the appearance of basal expansions of the inner ones.

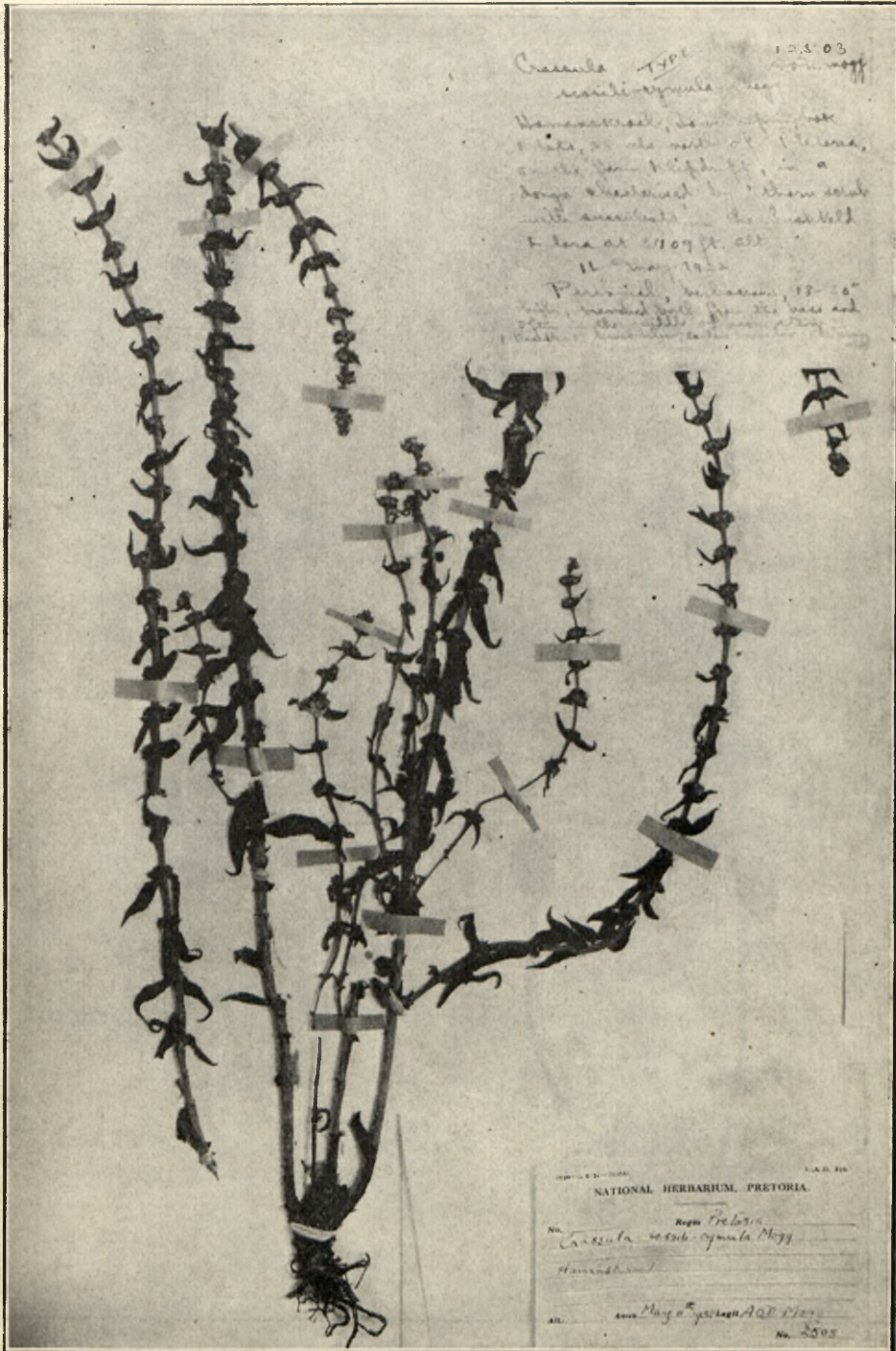
Another question which requires further investigation is whether the corolla lobes remain attached at the tips when the flowers open normally. Most of the open flowers on the type have the corolla lobes free, but this may have been caused during the preparation of the specimen. If, on the other hand, it is the normal habit of the species, it constitutes a second important difference in this species from the generic characters of *Riocreuzia*, the other being the comparatively short campanulate tube. Together, these differences would be sufficient reason for placing it in a separate genus.

Leucadendron elimense Phillips (Proteaceae-Proteae); affinis *L. concolori*; sed foliis glabris differt.

Suffrutex; ramuli dense pubescentes. *Folia* 2.5-3 cm. longa, 0.8-1.1 cm. lata, lanceolata, apice obtusa, glabra. *Inflorescentia* ♂ 2.7 cm. lata. *Receptaculum* 2 cm. longum, 5 mm. latum, oblongum. *Bracteae* 1 cm. longae, 1 mm. latae, lineares, apice subacutae, carinatae, supra pubescentes. *Perianthii tubus* 1.1 cm. longus, cylindricus, glaber; segmenta 2 mm. longa, linearia, sparsim pilosa; lobi 4 mm. longi, lineares, apice obtusi, glabri. *Antherae* 3.5 mm. longae, lineares. *Stylus* 1.7 cm. longus. *Inflorescentia* ♀ 2 cm. lata, subglobosa. *Receptaculum* 1.3 cm. longum, 5 mm. latum, oblongum. *Bracteae* 8 mm. longae, 4.5 mm. latae, apice plus minusve obtusae, infra pilosae. *Perianthii tubus* 8 mm. longus, planus, pilosus; segmenta 2 mm. longa, linearia; lobi 1.5 mm. longi, oblongi, apice obtusi. *Ovarium* 1.5 mm. longum, ellipticum, pilosum; stylus 1.5 cm. longus, glaber; stigma paullo expansum, semi-obliquum.

CAPE PROVINCE.—Caledon distr.: Koegelberg, alt. 3,500 ft., *Stokoe in National Herbarium*, 21906.

The species resembles *L. concolor* R. Br. but the leaves are not densely villous along the margins. The female heads are surrounded by ovate ciliate glabrous bracts, and both the male and female heads are surrounded by leaves, similar to the stem leaves, but larger and yellow and with red tips, longer than the heads.



Crassula ^{TYPE} sessilicymula Mogg 12.3.03
 Hemispherical, 2-3 cm high, not
 white, 20 cm north of Pretoria,
 on the farm Kipling, in a
 large thicket of thorn scrub
 with succulents in the bushveld
 1100 ft. alt.
 11 Mar 1903
 Perennial, succulent, 15-20
 cm high, branched from the base and
 stems to the soil from the top
 of the stems.

NO. 100-1000
 NATIONAL HERBARIUM, PRETORIA. S.A.P. 214
 No. *Crassula sessilicymula Mogg*
 Hemispherical
 alt. *1100 Mogg & Gysburg ADP 1103*
 No. 2503

Crassula sessilicymula Mogg



Brachystelma nigrum R. A. Dyer



Riocreuxia aberrans R. A. Dyer