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New and Interesting Records of African Plants

by

Various Authors

ASCLEPIADACEAE

Brachystelma cathcartense *R. A. Dyer*, sp. nov., *B. tuberoso* R. Br. et *B. campanulato* N.E. Br. affine, ab ambobus coronae lobis exterioribus et interioribus, corollae colore et pilis differt.

Herba tuberosa humilis basi sparse ramosa; tuber leviter compressum, supra concavum, 4—5 cm diam., 2 cm crassum; rami adscendentes, 5—15 cm longi, minute scabridi. *Folia* lanceolata breviter petiolata vel supera lineari-lanceolata usque 2.5 cm longa, sparse et minute scabrida. *Flores* 1—2, extra axillares, pedicellis plus minusve 8 mm longis, sepalis lineari-lanceolatis circiter 5 mm longis. *Corolla* 2—2.2 cm longa, extra glabra vel sparse pilosa; tubus campanulatus 9—9.5 mm longus, 1.8—2 cm latus, extra rubro-punctatus, intra infra medium glaber, rubro-lineatus et maculatus, supra medium rubiginosus, plus minusve hirsutus; lobi basi rubiginosi, plus minusve hirsuti, apicem versus virides, pilosi, marginibus sparse ciliatis, leviter recurvatis, apice leviter incurvato. *Corona* basi breviter tubulata; lobi exteriores 5, subquadrati, erecti 1—1.5 mm longi, bifidi; lobi interiores spathulato-oblongi leviter crassi incumbenti-erecti. *Pollinia* subglobosa compressa, circiter 0.25 mm longa.

Type: Cape, Cathcart District, on Viviandale farm, Nov. 1967, *P. F. du Toit* in PRE 31309 (PRE, holo.).

Herb with tuberous root; tuber 4—5 cm diam., about 2 cm thick vertically, rounded on under surface and slightly concave on upper surface. *Stem* 5 cm tall when first flowering, elongating to 15 cm under cultivation, sparsely branched, minutely scabrid. *Leaves* towards base of stem subsessile, lanceolate, less than 1 cm long; upper leaves longer and narrower, linear-lanceolate, up to 2.5 cm long, thinly and minutely scabrid-pubescent on both surfaces; the margin slightly folded upwards. *Flowers* 1 or 2 at a node, extra axillary, sometimes on opposite sides of the node, each subtended by a short bract, with carion odour; pedicel about 8 mm long, minutely pubescent; sepals linear-lanceolate, about 5 mm long. *Corolla* 2—2.2 cm long, 10-ribbed, 5 ribs extending to the sinuses, the others to the tips of the lobes, with minute recurved teeth at the sinuses (Huernia-wise), glabrous or with few scattered hairs on outer surface; tube subcampanulate 9—9.5 mm long, spreading somewhat abruptly above and 1.8—2.0 cm across rim; lobes 1.1—1.3 cm long, 9—10 mm broad across base, triangular, ciliate with slightly swollen hairs towards sinuses; finely maroon-spotted on outside of tube and base of lobes; basal $\frac{1}{2}$ of tube within yellow, marked with small radial maroon stripes and spots, becoming solid maroon and with long hairs above and on base of lobes, with the tips green and shortly hairy, but somewhat variable; margins somewhat recurved, apex incurved. *Corona* arising from above base of staminal column, with saucer-shaped tube 0.5 mm high; outer lobes subquadrate 1—1.5 mm long, bifid to about $\frac{1}{2}$ way with slightly spreading lobules; inner lobes arising from within basal tube, incumbent-erect, slightly thickened, spathulate-oblong, 2.5—3 mm long. *Pollinia* about 0.25 mm long, subglobose,

compressed, with narrow translucent inner margin; caudicles slender; carrier narrowly winged.

CAPE.—3227 (Stutterheim): Viviandale farm near Cathcart, Nov. 1967. (—AC) *P. F. du Toit in PRE 31309;* GRA without No., 1970 (—AC), *P. F. du Toit in PRE 31310.*

Brachystelma cathcartense was discovered by Mr. P. F. du Toit, Pasture Research Officer, in November 1967 in the eastern Cape, Cathcart district, on the farm Viviandale. The species was noted to occur in several of the farm camps, although nowhere plentiful. Mr. Du Toit took tubers to the office of the Botanical Research Institute in Grahamstown in 1967, where Miss Grace Britten induced one tuber to flower quite freely each year. Further collections were made by Mr. Du Toit in February and November 1970. The main flowering period is during November and December. Fine colour photographs were taken by Col. Roy Bayliss and Messrs. Hepburn & Jeanes in 1969. There was a certain amount of variation in size, pubescence and colouration of the flowers of different tubers but nothing to warrant taxonomic recognition. One has to bear in mind the variation which results from the preservation of flowers under different conditions and at different stages of maturity; for instance the more the corolla shrinks in drying, and it may be to less than a quarter of its original size, the denser will appear the pubescence. Miss Britten records separate plants with the corolla marked with dark purple transverse lines in the tube, maroon above and with scattered purple hairs tipped with yellowish-green; others were yellowish-green with dark purple transverse lines in the tube and mulberry-coloured above with numerous purple hairs giving it a velvety appearance; and yet others were green with darker green and purple spots in the tube and purplish-black above with purple hairs.

At first it was thought that *B. cathcartense* might be a form of *B. meyerianum* Schltr. from the same geographic region, but Miss Britten noted that the latter is of sprawling habit and favours rock crevices for its growth. It was noted also that the corolla-tube is considerably narrower. Further examination showed that the outer corona is dissimilar, although Brown's description in Flora Capensis 4, 1: 842 (1908), based on dried material, is somewhat misleading. He describes 5 transversely rectangular lobes (outer corona) with a central linear obtuse point (inner corona-lobes). The outer corona in *B. meyerianum* is actually in the form of V-shaped pockets between the inner corona-lobes and it is their united adjacent shoulders which form the rectangular shaped lobes behind the inner corona-lobes to which Brown refers.

In the shape of the corolla it seems that *B. tuberosum* R. Br. and *B. campanulatum* N.E. Br. are the nearest affinities to our species. But besides marked differences in colouration and pubescence, the difference in coronal structure is very marked between *B. campanulatum* and *B. cathcartense*. It probably is with *B. tuberosum* also, but in this case the original description is inadequate, merely stating that the corona is 5-cleft with the segments triangular and conniving at the points. This could indicate that the outer corona consists of V-shaped pockets similar to those of *B. campanulatum* and *B. meyerianum*. *B. cathcartense* is no exception to the rule that the flowers give off a carrion-like odour.

In applying the epithet *cathcartense* to this species the name commemorates the type locality, in fact the only locality so far established, and at the same time Sir George Cathcart, Governor at the Cape of Good Hope, 1852-1854, and who was killed in the Crimean War at the battle of Inkerman in 1854.

Xysmalobium trauseldii *R. A. Dyer*, sp. nov., *X. orbiculari* (E. Mey.) D. Dietr. affine, sed habitu minore, capite gynostegii peltato concavo exserto differt.

Asclepias sp., Trauseld, Wild Flows. Natal Drakensberg 154 (1969).

Herba perennis, radice tuberosa elongata. *Rami* 1—2 erecti, caudicis apice editi, simplices, 20—35 cm alti, 5—10 mm crassi, puberuli. *Folia* 6—12, paribus oppositis, breviter petiolata; lamina late elliptico-oblonga, oblonga, vel oblongo-lanceolata usque 15 cm longa 8 cm lata, basi rotundata vel cordata, glabra, margine minute scabra. *Umbellae* 1—4, pedunculatae multiflorae; pedunculi 5—6 cm longi, puberuli, plus minusve extra-axillares; pedicelli 1—1.3 cm longi. *Sepala* lineari-lanceolata, 5—7 mm longa, pilis curvatis pubescentia. *Corolla* prope basin divisa; petala 9—10 mm longa, circiter 6 mm lata, expansa, apice leviter reflexa, extra glabra, intra minute papillosa, cremea demum erubescens. *Coronae lobi* carnosi contigui, 3 mm alti, 2.5 mm lati, 1.5 mm crassi, columnae adpressi, intra margines interiores concavi, medio lobis 2 minutis praediti. *Pollinia* cylindrica, 0.6 mm longa. *Gynostegii caput* exsertum, peltatum, concavum, 4.5—5 mm diam., margine plus minusve undulato vel leviter 5-angulato. *Folliculus* 1, puberulus, 10—11 cm longus, 1.5—2 cm diam., pedunculo 13 cm longo; semina 7—8 mm longa, 4—4.5 mm lata, rugosa.

Type: Natal, Estcourt District, Giants Castle Game Reserve, Nov. 1969, *Trauseld* 1107, in PRE 30955 (PRE, holo.).

Perennial herb; rootstock tuberous up to 15 cm long and 25 cm diam., hard, corky, fissured and pitted. *Stems* 1—2 per annum, erect, unbranched, 20—25 cm tall, 5—10 mm thick, puberulous, with 3 to 6 pairs of leaves. *Leaves* variable; petoile 0—7 mm long; blade broadly elliptic-oblong, oblong or oblong-lanceolate, lowest pair 2.5—5 cm long, 2—4 cm broad, upper pairs 7—15 cm long, 3—8 cm broad, rounded or cordate at base, sometimes stem-clasping, glabrous except for minutely scabrid margin; median vein prominent below and slightly sunken on upper surface. *Umbels* 1—4 per stem from upper nodes, pedunculate, many-flowered. *Peduncles* more or less extra-axillary at the nodes, 5—6 cm long, stout, erect, thinly puberulous; pedicels 10—13 mm long. *Calyx* deep rose-coloured, divided to base; sepals linear-lanceolate, 5—7 mm long, pubescent on back with minute curved haris. *Corolla* divided nearly to base, cream turning deep rose; petals 9—10 mm. long, about 6 mm broad, spreading, with slightly recurved apex, glabrous on outer surface, minutely papillate within. *Staminal-column* arising from base of corolla. *Corona-lobes* cream-coloured, arising about 0.5 mm from base of staminal column, fleshy, subquadrate, contiguous 3 mm tall, 2.5 mm broad and 1.5 mm thick, obtuse with depressions on inner surface on either side of the median thickening and 2 minute lobules slightly above the point of attachment; anther-thecae hard, filaments adpressed to style base; stigma exserted above stammal column, 4.5—5 mm diam., peltate, concave, more or less crenate on margin and 5-angled, pale yellow turning red. *Pollinia* cylindric about 0.6 mm long with slender caudicles laterally attached. *Follicle* single by abortion, on stout peduncle 13 cm long, puberulous 10—11 cm long, 1.5—2 cm diam., seeds 7—8 mm long, 4—4.5 mm broad, rugose, concave on one surface, with apical tuft of hairs.

Natal. — 2828 (Bethlehem): Mont-aux-Sources National Park, grassveld, 1,500 m alt., very rare, Nov. 1963 (—DB), *Trauseld 117* (PRE). 2929 (Underberg): Giants Castle Game Reserve, on bank of Bushmans River in black turf, about 1,800 m alt., Oct. 1966 (—AD), *Trauseld 1107, in PRE 30955.*

Mr. W. R. Trauseld, field officer on the staff of the Natal Parks, Game and Fish Preservation Board, after whom this species is named, found the first specimen in November 1963 in *Themeda triandra* grassveld at Mont-aux-Sources.

The second record was in October 1966 on the bank of the Bushmans River at Giants Castle. In spite of diligent searching in these areas, only a very few other plants of the species were located, the most recent being a robust specimen from Giants Castle in November, 1969, *Trauseld* 1107.

Among southern African species, *Xysmalobium orbiculare* (E. Mey.) D. Dietr. shows the closest affinity to *X. trauseldii* which, however, is readily distinguished by the unusual feature of a protruding stigma from the apex of the staminal column. In this character *X. trauseldii* has an affinity with *X. angolense* Scott-Elliot from distant Angola.

Mr. Trauseld took pains to preserve flowers in solution in different stages of maturity. Dissections from the dried specimens failed to reproduce the original shape of the fleshy corona-lobes, which once more highlights the value of a good spirit collection as an adjunct to herbarium specimens. Illustrations of the habit of the species and of an inflorescence, with a central open flower, are shown in the recently published book by Mr. Trauseld, entitled Wild Flowers of the Natal Drakensberg, p. 154 (1969).

R. A. Dyer.

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FLACOURTIACEAE

A New Species of Dovyalis

Dovyalis revoluta *Thom*, sp. nov., foliorum forma et nervatura *D. zeyheri* similis sed praecipue lobis calycibus revolutis, baccis subrotundis papillosis, seminibus lanatis differt.

Arbor vel frutex 5.4 m altus, saepe armatus, dioecius interdum floribus polygamis. *Folia* alterna, petiolata; lamina coriacea obovata, 1.5—5 cm longa, 1—3 cm lata, glabra, e basi triplinervia. *Flores* feminei solitarii, lobis calycibus revolutis, persistentibus. *Fructus* suborbiculatus, papillosus. *Semina* lanata.

Type: Natal. — 2832 (Mtubatuba): False Bay Park, *Moll 5112* (PRE, holo.).

Tree or shrub up to 5.4 m tall, deciduous; dioecious or rarely polygamous, often armed with glabrous spines up to 6 cm long, bark light grey to black, lenticellate. *Leaves* exstipulate, alternate, petiolate; blade coriaceous, obovate, 1.5—5 cm long, 1.3 cm broad, glabrous, 3-veined from the base; apex obtuse, base cuneate, margin light green, entire or faintly serrate; petiole 3—5 cm long, glabrous. *Male flowers* light green, pedicellate, in fascicles of 2—6; pedicels surrounded at the base by small hairy scales, 3—4 cm long. *Calyx* 4—5 lobed; lobes 3—5 mm long, ovate-elliptic, pubescent. *Corolla* 0. *Stamens* 15—25, 3 mm long; filaments surrounded at the base by glabrous nectaries which form a honeycomb structure; anthers bilocular, dehiscing by means of longitudinal slits. *Female flowers* yellow-green, pedicellate, solitary; pedicels surrounded at the base by small pubescent scale-like bracts, 4—7 mm long. *Calyx* 5—7 lobed; lobes 4 mm long, linear-elliptic, pubescent, revolute. *Ovary* unilocular, surrounded at the base by a glutinous, sparsely hairy, lobed annulus, with 2 parietal placentas, each placenta with one ovule; styles 2, channeled. *Fruit* a subglobose berry, 2 cm in diam., minutely papillose, orange when ripe. *Seeds* 2, embedded in fleshy pulp, 13 mm long, densely woolly.

Recorded from Zululand in sand forests.

Natal. — 2732 (Mtubatuba): False Bay, *Edwards 3199; Gerstner 4735; Moll 2823; 5112; Ward 4781.*

The *Dovyalis* species in South Africa can be divided into two distinct sections. *D. caffra* is the only representative of the one section and all the other species, including *D. revoluta*, form the other section. *D. caffra* is charac-