

A New Species of *Streptocarpus* (Gesneriaceae)

by

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***Streptocarpus trabeculatus* Hilliard**, sp. nov., ex affinitate *S. denticulati* Turrill et *S. cooksonii* B. L. Burtt, ab ambobus folio crassiore subtus insigniter viscoso, ab hac corollae tubo angustiore distinguitur.

Herba acaulis, monocarpica. *Folium* solitarium, oblongum, 400 mm \times 160 mm usque, basi obtusum, apice marcidum, pagina supra laete viridi scabridula venis impressis rugosa, subtus pallidior pilis glandulosis et eglandulosis dense obsita venis valde prominentibus, costa percrassa ex hypocotylo brevi crasso abeunte. *Inflorescentiae* cymosae, plures in serie prorsum ex apice hypocotyli et basi costae orientes; flores multi simul aperti. *Pedunculi* 20-100 mm longi, validi, rubro-brunnei vel virides, pilis glandulosis et eglandulosis pubescentes. *Bractae* ellipticae, 5 \times 3.5 mm usque, virides, pubescentes. *Pedicellus* c. 6 mm longus, sub fructu fere duplo longior, rubro-brunneus vel viridis, pubescens, pilis parvis glandulosis. *Flos* 25 mm usque longus. *Calyx* quinquepartitus, segmentis lanceolatis 3 \times 1 mm viridibus pubescentibus. *Corolla* bilabiata; tubus anguste subcylindricus, c. 8 mm longus, basi 4 mm diametro, medio abrupte deflexus et angustatus, fauce amplius 4.5 mm diametro, ex albo ad pallide violaceum, pilis glandulosis et eglandulosis instructus; limbus obliquus, lobis superioribus divergentibus suborbicularibus 4 \times 3.5 mm, labio inferiore 10-13 mm longo lobis suborbicularibus 6 \times 4.5 mm; lobi omnes pallide violacei, intus glandulosi, extra pallidiores parce pubescentes; labium inferius basi et tubo ventraliter albo striis intense violaceis. *Stamina* fertilia 2, filamentis c. 5 mm supra corollae basin orientia, 3 mm longa, medio curvata et ampliata, alba intense violaceo suffusa, parce glandulosa; antherae applanatae, 1 mm longae, violaceae, connectivo albo parce glanduloso. *Staminodia* 3, posterius minutum, lateralia 1 mm longa, alba. *Discus* annularis. *Ovarium* 5 mm longum, viride, pubescens; stylus teres, 5 mm longus, glanduloso-pubescent; stigma stomatomorphum, papillosum, album. *Capsula* bivalva, spiraliter torta, 16-36 (25 \pm 4) mm longa, 3 mm diam., styli basi persistente prominente.

Type: Natal, Port Shepstone District, Plains, Izotsha Falls, c. 450 m., Hilliard 2750 (NU, holo.; NH, iso.).

Stemless, monocarpic herb. *Leaf* 1, oblong, up to 400 \times 160 mm, base obtuse, apex withered, upper surface rugose, light green, scabridulous, veins impressed, lower paler densely pilose with glandular and eglandular hairs, veins very prominent, midrib very thick and merging into the short thick hypocotyl. *Inflorescences* cymose, several in acropetal succession from base of midrib and apex of hypocotyl, crowded, many flowers expanded simultaneously. *Peduncle* 20-100 mm long, stout, reddish-brown or green, pubescent with glandular and eglandular hairs. *Bracts* elliptic, up to 5 \times 3.5 mm, green, pubescent. *Pedicel* c. 6 mm long, almost doubling in length in fruit, reddish-brown to green, pubescent, with occasional glandular hairs. *Flower* up to 25 mm long. *Calyx* 5-partite, lobes lanceolate, 3 \times 1 mm, green, pubescent. *Corolla* bilabiate, tube narrowly subcylindric, sharply deflexed about the middle and narrowed, expanded in throat, c. 8 mm long, base 4 mm diam., throat 4.5 mm diam., white to pale violet, pilose with glandular and eglandular hairs; limb oblique, upper lobes divergent, suborbicular, 4 \times 3.5 mm, lower lip 10-13 mm long, lobes suborbicular, 6 \times 4.5 mm,

all lobes pale violet, glandular inside, paler, sparsely pubescent outside, base of lower lip and part of floor of tube white with deep violet streaks. *Stamens*: fertile 2, filaments inserted two-thirds up corolla tube, 3 mm long, curved, curve dilated, white suffused deep violet, sparsely glandular; anthers applanate, 1 mm long, medium violet, connective white, sparsely glandular; staminodes 3, posterior minute, laterals 1 mm long, white. *Disc* annular. *Ovary* 5 mm long, green, pubescent; style terete, 5 mm long, glandular-pubescent; stigma stomatomorphic, papillose, white. *Capsule* of 2 spirally twisted valves, 16–36 (25 ± 4) mm long, 3 mm diam., persistent style-base prominent. FIG. 1. PLATE 1.

S. trabeculatus has a known distribution range from Dumisa in the Umzinto district of Natal to near Lusikisiki in the Transkei. Plants grow wedged in rock crevices along the usually precipitous faces of some of the numerous escarpments and river gorges in this region, often in broken shade at the upper limits of forest, sometimes sheltered by aspect alone. The flowering period is November to February.

NATAL.—Alfred: Escarpment above Otterburn, c. 600 m, *Hilliard* 1153 (E, K, NH, NU); *Burt* 2998 (E). Port Shepstone: Plains, Izotsha Falls, c. 450 m, *Hilliard* 2750 (NU, holo.; NH, iso.); *Prosser* 1417 (J, K); *Burt* 2996 (E); Oribi Gorge, "Fairacres", c. 400 m, *Hilliard* 917 (E, NU). Umzinto: Dumisa, farm "Ellesmere", 650 m, *Rudatis* 1251 (E, K); Dumisa, *Rudatis* 1237 (BM).

CAPE.—Lusikisiki: Mkambati Leper Institute, on way to Umtentu Falls, *Marais* 977 (PRE).

The solitary leaf is long in relation to its breadth, and very thick owing to the extreme prominence of the veins on the lower surface. The architecture of this surface resembles a closely and intricately beamed ceiling, and suggested the specific epithet. A shaggy indumentum of both glandular and eglandular hairs clothes the prominent veins, making the leaf extremely viscid to the touch. The indumentum combined with the shape and texture of the leaf are so distinctive that the species can be recognized by these characters alone, which is useful, because it is a peculiarity of *S. trabeculatus* that it seems to flower only sporadically even in nature, and seldom does so in cultivation. This handsome plant has been largely overlooked since it was first collected by Rudatis near Dumisa some fifty-five years ago. Its reluctance to flower, and the general inaccessibility of most of its haunts, no doubt account for the scanty records.

There appears to be considerable variation between populations both in the size of the flowers and in corolla colour, markings and the shape of the lobes. For example, corollas in populations at Izotsha Falls and Oribi Gorge are pale violet with a white blotch at the base of the lower lip and darker violet lines in the throat extending out onto the anterior lobe. The flowers are up to 25 mm long, the lower lip about 13 mm long with suborbicular lobes. Flowers in a population at Otterburn, about five miles as the crow flies from each of the other two localities, are up to 17 mm long, the lower lip 9 mm long, the lobes oblong-elliptic, medium violet in colour with white wedges on the lower lip and an inverted V of deep violet in the throat. The description on the sheet from the Umtentu Falls records "flowers deep purplish-blue".

Notwithstanding such variation, the narrow corolla tube and conspicuous limb, the densely massed, short, stout peduncles (which can, however, elongate if water is plentiful, as in cultivation) and stout, apiculate capsules, together with the remarkable leaf, combine to make this a most distinctive species. Its closest affinity is probably with *S. denticulatus* from the south-eastern Transvaal. Both species favour the same type of habitat and have similar capsules and corolla form, but they differ in the colour and patterning of the limb. In *S. denticulatus* this may be "rose-purple with lines of deeper carmine on the lower lip, and dark-purple blotches on the lower part of the upper lip" (Curtis' Bot. Mag. t. 8632, describing a plant from Barberton) or "light magenta, green on floor of throat and small purple-red-spotted there, larger spots on side and roof of throat" (B. L. Burt, personal communication describing a plant from the Belfast-Stoffberg road). In contrast, the limb of *S. trabeculatus* is in varying

tones of violet, white at the base of the lower lip with streaks of dark violet. The leaf of *S. denticulatus*, too, is rather thin, cordate, almost glabrous, and sprinkled with reddish-orange pigment granules, altogether quite unlike that of *S. trabeculatus*.

Of Natal species, only *S. cooksonii* is in the affinity of *S. trabeculatus*, from which it is distinguished by its cordate, non-viscid leaf and broadly cylindric corolla tube.



FIG. 1.—1, *Streptocarpus trabeculatus*, from Izotsha Falls, Natal, habit, $\times \frac{1}{3}$; a, inflorescence about natural size; b, half-flower, $\times 1\frac{1}{2}$; c, stamens, $\times 5$; d, gynaecium, $\times 2$.



PLATE 1.—*Streptocarpus trabeculatus* Hilliard, lower surface of leaf, about life size. The strongly raised veins, which suggested the specific epithet, as well as the long glandular hairs, are clearly seen.