

STUDIES IN THE FLORA OF ARABIA: XXVI
A new species of *Sarcostemma* from Arabia

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Sarcostemma arabicum Bryuns & Forster (Asclepidaceae) is described from the Arabian Peninsula. Comparisons are made to *S. socotranum* Lavranos and *S. viminale* (L.) R. Br.

***Sarcostemma arabicum* Bryuns & Forster, sp nov.** a *S. socotrano* lobis corollae latioribus, brevioribus; lobis coronae interioris concavis, marginibus incrassatis leviter recurvatisque, capitulum styli excurrentibus differt. **Fig. 1.**

Type: Saudi Arabia, Hijila 15km east of Abha, *Nasher* IH 137 (holo. E).

Much-branched practically leafless succulent with white latex, stems up to 3m long, clambering, climbing and trailing in bushes, 4-8mm thick, greyish-green, terete, young stems pubescent with white hairs. *Inflorescences* terminal or extra-axillary, 2-10-flowered. *Pedicel* 2.5-5mm long, 1-1.5mm thick, minutely puberulous. *Sepals* 1-1.2 x 0.8-1mm, ovate-lanceolate, broadly acute, minutely puberulous, adpressed to corolla. *Corolla* without tube, glabrous, sweetly scented, *lobes* 2 x 1.5-3.5 x 2mm (breadth at base), deltoid, obtuse, spreading, with margins slightly recurved, pale yellow to cream and slightly pinkish towards centre. *Staminal corona* white, 2-2.5 x 2.3-3mm; *outer lobes* joined to margins of inner to make shallow cup around gynostegium, erect with slightly notched truncate apex, less than half length of inner lobes; *inner lobes* 1-1.8mm long, 1-1.4mm broad at base, nearly deltoid with obtuse rounded apex, erect or connivent erect, margins somewhat thickened and midrib visible on exterior towards base, exceeding the gynostegium. *Follicles* fusiform, 50-100 x 7mm, glabrous.

Sarcostemma arabicum seems to have been observed first by Lavranos & Newton who made both herbarium and live collections in October 1976 in North Yemen. Only the herbarium collection is referable to *S. arabicum* as the live material in cultivation is *S. viminale* (L.) R. Br. *S. arabicum* is now known to occur in western Saudi Arabia as well but, although Collenette (1985) found it to be widespread in the southern lowlands of Saudi Arabia, there are few preserved specimens.

Material examined:

SAUDI ARABIA. 83km ESE of Al Baha, isolated granite mountain, 5500ft, *Collenette* 3118 (E); 10km S of Abha, 6500ft, *Collenette* 598 (E); Jabal Shada, 25km N of Mikhua, 4400ft, *Collenette* 7383 (K); Wadi Saudah, SE of Abha, 7000ft, *Collenette* 5407 (K); between Jabal Irahim & Al Baha, 3000ft, *Collenette* 233 (K). Without locality, *Collenette* 3746 (E).

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NORTH YEMEN. Shibam, \pm 40km NE of Sana'a, 2600m, *Hepper* 5784 (K); Al Barh, on Ta'izz Mocha Road, 550m, *Lavranos & Newton* 13153 (E).

S. arabicum is most closely related to *S. socotranum* Lavranos, from which it differs in having broader, shorter corolla lobes and a somewhat different corona and gynostegium: in *S. socotranum* the inner corona lobes are \pm triangular when viewed from above (see Fig. 2), in *S. arabicum* they are concave outwards with thickened, slightly recurved margins and a rounded midrib visible towards the base. In addition, the inner corona lobes considerably exceed the style head in *S. arabicum* but are shorter than it in *S. socotranum*. Other differences in the arrangement of the guide rails, style head and in

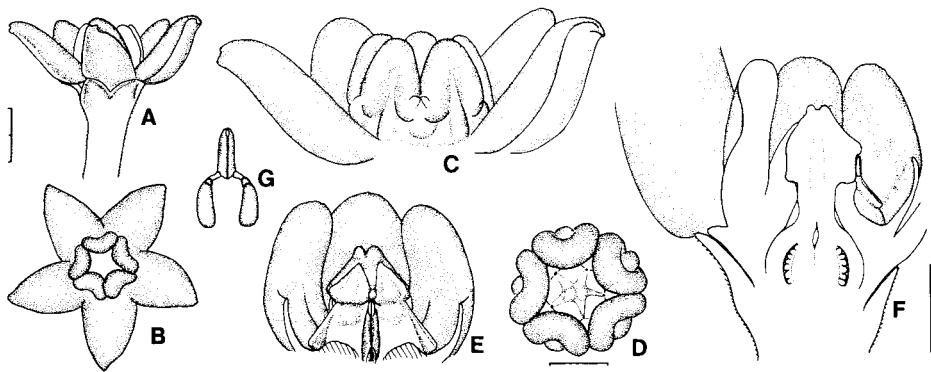


FIG. 1. *Sarcostemma arabicum*, Saudi Arabia, *Nasher* IH 137 comm. A, Butler. A, side view of flower (scale 2mm, as for B); B, face view of flower; C, side view of flower with one corolla lobe removed; D, face view of gynostegium (scale 1mm, as for C); E, side view of gynostegium with two inner corona lobes removed; F, half flower (scale 1mm, as for E); G, pollinarium (scale of D = 0.25mm).

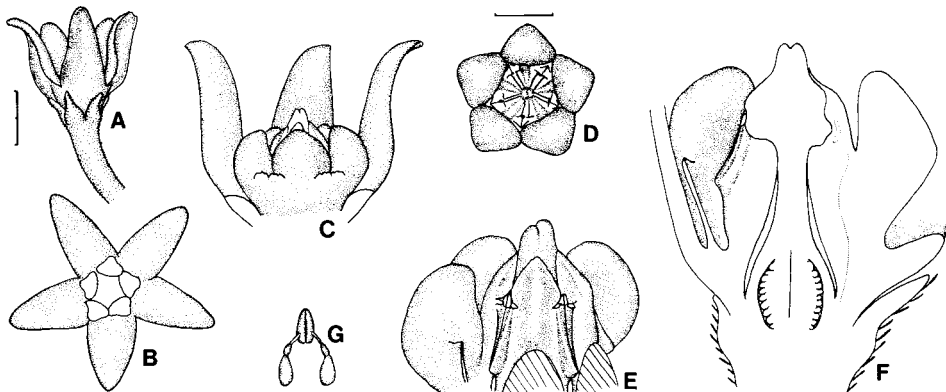


FIG. 2. *Sarcostemma socotranum*, Socotra, *Radcliffe-Smith* 309 (Clonotype). A, side view of flower (scale 2mm, as for B); B, face view of flower; C, side view of flower with one corona lobe removed (scale of D = 0.5mm, as for F); E, side view of gynostegium with two inner corona lobes removed (scale of D = 0.5mm, as for F); F, half flower; G, pollinarium (scale of D = 0.25mm)

the pollinarium (most notably in the unusually long corpusculum and short caudicle) are clear from Figures 1 and 2.

S. arabicum is easily separated from *S. viminale*, which seems to be widespread and common in Arabia, where it was originally named *Asclepias stipitacea* Forssk. (*Sarcostemma stipitaceum* (Forssk.) Schultes). *S. viminale* has very variable flowers but they are always nearly twice as broad as those of *S. arabicum*. The clearest differences are to be seen in the corona: in *S. viminale* the outer corona and the appendages of the inner corona form a continuous ring around the exterior of the gynostegium; the inner corona lobes are narrower than in *S. arabicum* and well separated from one another to their bases and are nearly as long as the gynostegium, touching it near its apex.

The corona of *S. arabicum* appears to be quite variable and sometimes has rather narrower inner lobes than shown in Fig. 1. These are then more connivent and leave a much smaller gap above the summit of the gynostegium. These variants are clearly illustrated in Collenette (1985, page 73 # 3118 and 1977), although spirit material of Collenette 1977 (K) is *Sarcostemma viminale*.

ACKNOWLEDGEMENTS

We are grateful to the Directors of E and K for the loan of herbarium material. Mr K. Harold, Wakefield, UK made an initial assessment of this and other material some years previously and provided us with some detailed notes at the time.

REFERENCE

COLLENETTE, S. (1985). *An illustrated guide to the Flowers of Saudi Arabia*. London.