

GENTIANACEAE

A NEW SPECIES OF *SEBAEA* FROM THE SWARTBERG RANGE, WESTERN CAPE, SOUTH AFRICA

Sebaea amicorum *I.M.Oliv. & Beyers*, sp. nov., in genere distincta foliis lanceolatis, floribus 4-meris, calyce minute carinata, antheris glande apicali minutissima, stylo sine tumore stigmatico dignoscenda. Figura 13.

TYPE.—Western Cape, 3322 (Oudtshoorn): Oudtshoorn, Groot Swartberg, neck just SE of Witberg on Angeliers Berg 187, 1 710 m, (–AC), 18 October 2000, *E.G.H. & I.M.Oliver 11716* (NBG, holo.; K).

Delicate herbaceous biennial, or perennial (?), varying from small, ± 50 mm tall and 2–4-branched to 100–200 mm tall and many branched, main stem 10–150 $\times \pm 2$ mm. *Branches*: few to many, thin, delicate, erect, long main and secondary branches all glabrous with 2–4 longitudinal ridges, internodes 4–10 mm long. *Leaves* well developed, scattered along stem, opposite, spread-

ing, basal ones often reflexed, sessile, narrowly lanceolate, 5–12 \times 1–2 mm, acute, flat, glabrous, midrib slightly prominent on abaxial surface only, margins microscopically dentate or entire. *Inflorescence* 1-flowered or a lax dichasium of 1st and 2nd order, sometimes 3rd order, at ends of all branches; 1st order peduncle 10–30 mm long, 2nd order peduncles 5–25 mm long, 3rd order peduncles 5–10 mm long; flowers 4-merous, ± 13 mm long, yellow; bracts subtending flower subspreading ± 3.5 –5.0 \times 1.0 mm, leaf-like; pedicel very short, ± 0.5 mm long. *Calyx* 4-partite, free, adpressed to corolla, segments elliptic to ovate, $\pm 7.0 \times 2.6$ –3.5 mm, acute, veins not visible, slightly keeled abaxially, keel 0.2–0.3 mm broad, green centrally, becoming hyaline towards margins, glabrous, margins entire. *Corolla* 4-lobed; tube ± 4 mm long, shorter than lobes; lobes elliptic to ovate, 8.0–9.0 \times 4.5 mm, subacute. *Stamens* 4, inserted in corol-

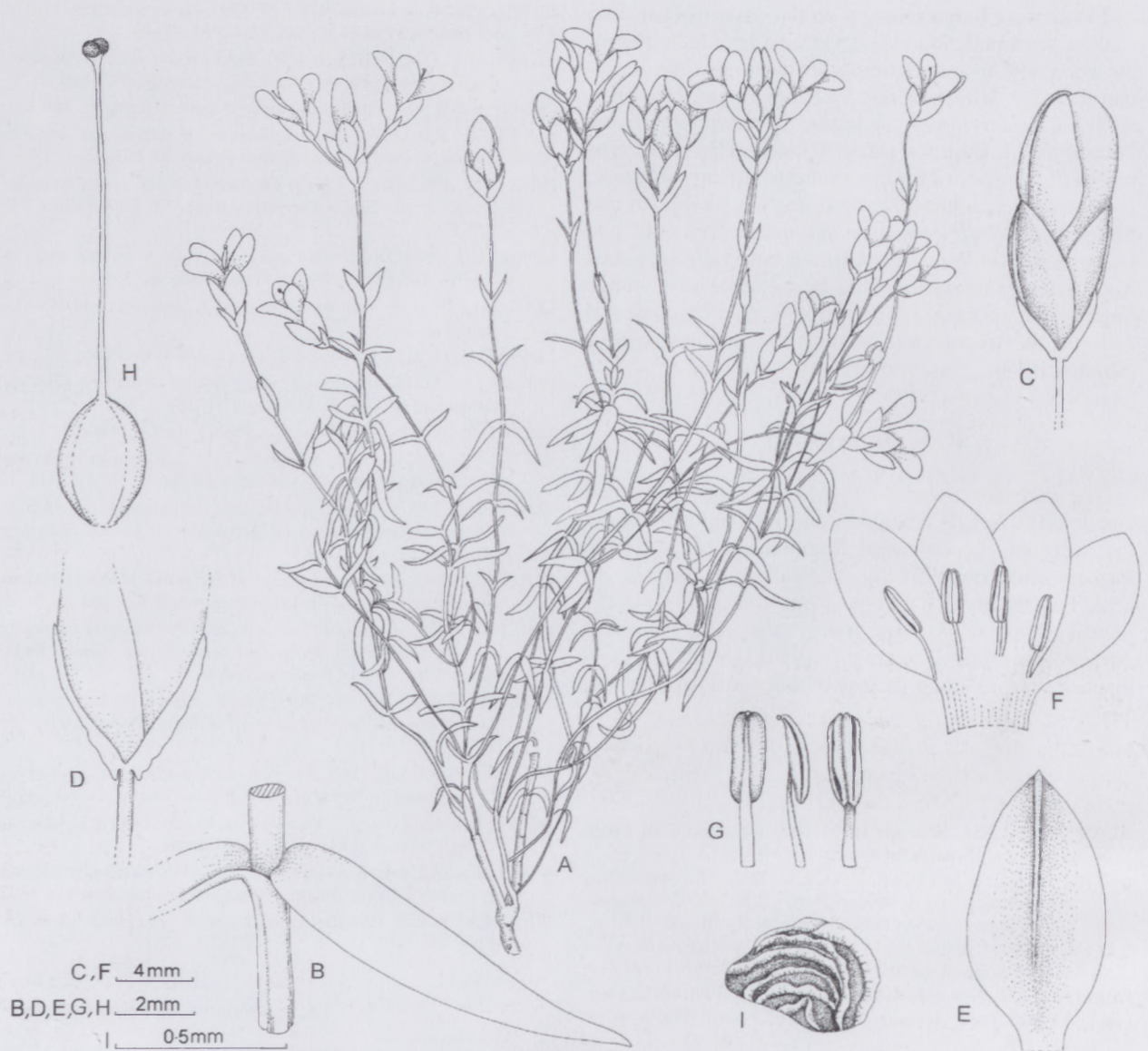


FIGURE 13.—*Sebaea amicorum*. A, flowering branch; B, stem with leaves; C, closed flower; D, bracts; E, sepal; F, corolla, opened and viewed adaxially; G, stamen, back, side and front views; H, gynoecium; I, seed. All drawn from the type collection. Scale bars: B, D, E, G, H, 2 mm; C, F, 4 mm; I, 0.5 mm. Artist: I.M. Oliver.

la sinuses; filaments ± 1.5 mm long; anthers ± 2.4 mm long, apex slightly recurved with very small sessile round apical gland, basal glands absent, thecae fully adnate. Ovary 2-locular, ellipsoid, $2.5\text{--}4.0 \times 1.2\text{--}2.5$ mm, glabrous, with numerous ovules; style $6.2\text{--}8.5$ mm long, filiform, with no stigmatic swelling; stigma capitate, $\pm 0.4 \times 0.5$ mm, 2-lobed. Seeds \pm ovoid, $\pm 0.4 \times 0.2$ mm, with many frilly small wings. Flowering time: October to December. Figure 13.

This new species is at first glance very distinct from all others in the genus mainly due to its leaves which are narrowly lanceolate and evenly distributed on the branches and to the large flowers. It is related to *S. capitata* Cham. & Schltl. and *S. laxa* N.E.Br. which also have 4-merous flowers.

Sebaea capitata is a more robust plant with thicker stems and with a different leaf shape—elliptic-ovate or ovate, cordate, 3–14 mm broad, with a distinct petiole, whereas *S. amicorum* has narrowly lanceolate leaves 1–2

mm broad, which are sessile. The sepals of *S. capitata* have a keel which is ± 1.2 mm broad compared to the very narrow keel, $\pm 0.2\text{--}0.3$ mm broad, in the new species. *S. capitata* has inflorescences which are dense and compact with short peduncles, whereas *E. amicorum* has a loose open inflorescence. The anthers are similar in both species in that they have a minute apical gland, but the new species has much longer thecae—2.4 mm compared to 1.5 mm long. *S. capitata* has a style without or rarely with a stigmatic swelling and in *S. amicorum* there is no swelling.

Well-developed plants of *S. laxa* appear very similar to those of *E. amicorum* in that they are delicate and somewhat bushy, with similar lax secondary branching and with the inflorescences having similar secondary branching. However, the leaves of *S. laxa* are ovate, 2–6 mm broad, 1–3-nerved abaxially, even though they are similarly scattered over the whole plant. The flowers of *S. laxa* are much shorter and more delicate. Both species have an equally narrow keel down the sepals. Major dif-

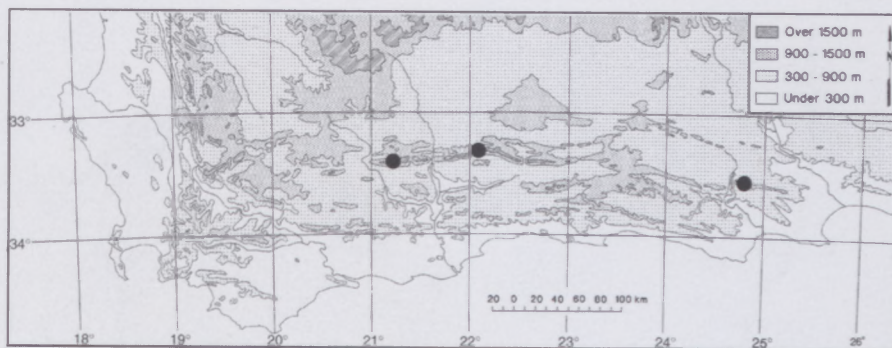


FIGURE 14.—Known distribution of *Sebaea amicorum*.

ferences between the two species occur in the anthers with *S. laxa* having short thecae 1.0–1.2 mm long, the apex much recurved with a large apical gland hanging on a short thread-like stalk. There is also a stigmatic swelling on the style in *S. laxa* which is absent in the new species.

Apart from one unnamed collection, *Esterhuysen 36120a*, from Towerkop [Toverkop] in the Klein Swartberg, which has 5-merous flowers and a large apical and basal gland on the thecae and ovate leaves, no other *Sebaea* species has been recorded from the very long Swartberg Mountain Range from near Ladismith to almost Willowmore. *S. amicorum* is represented by several collections from this Range but in two distinct areas—the Klein Swartberg above Ladismith and the region just east of the Swartberg Pass (Figure 14). Two of the peaks cited by Esterhuysen and Stokoe, Koudeveldberg (Koudeberg) and Krevasberg, cannot be located on any map.

In the *Flora of southern Africa*, Marais & Verdoorn (1963) cite under *S. capitata* var. *sclerosepala* (Schinz) Marais a collection, *Esterhuysen 28035*, from the Cockscomb in the Great Winterhoek Mtns. This was found to be clearly the same as the new species, but is far removed from the other two areas. This feature is not surprising in the genus *Sebaea* in which many species have very wide and disjunct distributions.

The species has been recorded by Esterhuysen from ledges, the base of cliffs and shady gullies mostly on the southern slopes of the Klein Swartberg at altitudes between 5500 and 6500 ft [1 670 and 1 980 m]. Linder

recorded 'shady, mossy S-facing ledges'. The type population was found on a moist stony S-facing slope just below the summit ridge in short grassy/restioid vegetation that had been burnt the previous year. The Cockscomb collection came from 'steep rocky SE slopes, marshy spot in gully'.

This new species is named *amicorum* = of the friends, because we have been closely involved as colleagues in the herbarium for the last 15 years.

Paratype material

WESTERN CAPE.—3321 (Ladismith): Klein Swartberg, Towerkop, 5500–6000 ft [1 670–1 830 m], (–AC), 16-12-1956, *Esterhuysen 26748* (BOL); ridge E of Towerkop, 2 000 m, (–AC), 7-02-1992, *Linder 5518* (PRE, photocopy); E. of Towerkop facing Elandsberg, 6000–6500 ft [1 830–1 980 m], (–AC/AD), 29-03-1964, *Esterhuysen 30665* (BOL); ridge from Koudeveldberg to Towerkop, ± 6500 ft [1 980 m], (–AC/AD), 31-04-1964, *Esterhuysen 30669* (BOL); between Towerkop and Elandsberg/Koudeveldberg, 6000 ft [1 830 m], (–AC/AD), 28-03-1959, *Esterhuysen 28244* (BOL). 3322 (Oudtshoorn): Swartberg Pass area, Krevasberg, summit, (–?AC), 12-1942, *Stokoe 8996* (BOL).

EASTERN CAPE.—3324 (Steytlerville); Great Winterhoek Mtns, Cockscomb, 5500 ft [1 670 m], (–DB), 30-11-1958, *Esterhuysen 28035* (BOL).

REFERENCE

MARAIS, W. & VERDOORN, I.C. 1963. *Sebaea*. *Flora of southern Africa* 26: 171–211.

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