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A NEW SILENE FROM TURKEY

VOLKER MELZHEIMER* & ASUMAN BAYTOP†

ABSTRACT. A new biennial species of *Silene* (Caryophyllaceae), *S. anatolica* Melzheimer & A. Baytop, belonging to the complex species surrounding *S. fabaria* (L.) Smith, is described from mountains in western Turkey.

Silene anatolica Melzheimer & A. Baytop, **sp. nov.** Fig. 1.

Affinis *Silene csereii* Baumg. sed biennis. Inflorescentia partialis raro plus quam treibus floribus. Calyx vix inflatus, ad basem cicatriculiformis, viridis, saepe violaceo subtile tincto, 10–12 nervatus; dentes calycis obtuse triangulares. Anthophorum 2–2·5 × 1·2–2 mm. Petalum lamina 4–6 mm longa, alba saepe fere cremea. Capsula 7–10 × 5–6 mm, oblongo-ovata, e basi clare constricta, calyci anthophoro crebre interordinata.

Biennial with many-leaved rosette and sparse roots. *Stems* 1–3(–6), 40–60(–80) cm long, densely leafy, upright to geniculate-ascending. *Leaves* green or grey-green, sometimes with a red-violet tint, fleshy; rosette leaves spathulate, narrowed below, with fine-toothed margin; stem leaves 8–12 pairs, spathulate, elliptic or oval, distinctly acuminate, the upper sessile; bracts lanceolate with scarious margin. *Inflorescence* a cymoid thyrse; partial inflorescences ± dense, few-flowered; pedicel on the first flower 2–3 times as long as the calyx, those of the upper flowers progressively decreasing in length, that of the uppermost equalling the calyx. *Calyx* 9·5–11 mm, with 5 bluntly triangular lobes, scarcely inflated, omphaloid, membranous, green (soon turning yellow), sometimes with a red-violet tint and in that case distinct veins; veins 10 with sometimes 1 or 2 shorter accessory veins, anastomosing. *Anthophore* 2–2·5 × 1·2–2 mm. *Petal claw* 6–9 mm, membranous, ± carinate; limb of two spathulate lobes, 4–6 mm, white to white-yellow; coronal scales 0·2 mm long at the maximum. *Capsule* 7–10 × 5–6 mm, oblong-ovate, 4–5 × length of anthophore, 0·1–1 mm longer than the close-fitting calyx. *Seeds* 0·8–1 mm, triangular-reniform, flat-sided, dull dark-grey; testa cells of characteristic form (Fig. 1g).

Type: Turkey C2 Denizli: Honaz Dağ, beyond the bifurcation of Gündoğumş Yaylasi, 1250 m, 14 vii 1974, *E. Tuzlaci* ISTE 30378 (holo. ISTE).

W ANATOLIA. B1 Balikesir: Kaz Dağ, open Pinus stand, loamy banks, c. 1300 m, vii 1978, *Melzheimer* (Hb. Me.; E, ISTE); B1 Çanakkale: Zeybek Dağ, SW of Serhat, between dry riverbanks, c. 1200 m, vii 1978, *Melzheimer* (Hb. Me.; ISTE). B2 Manisa: m. Sipylos (Manisa Dağ) in reg. subalp., 800–900 m, *Bornmüller* 1906:9132 (JE).

S. anatolica is so far known only from Kaz Dağ, Honaz Dağ and Manisa

* Philipps University Marburg, Botanical Garden, Auf den Lahnbergen, 3550 Marburg, W Germany.

† Eczacilik Fakültesi, Farmasötik Botanik Kürsüsü, Universite, Istanbul, Turkey.

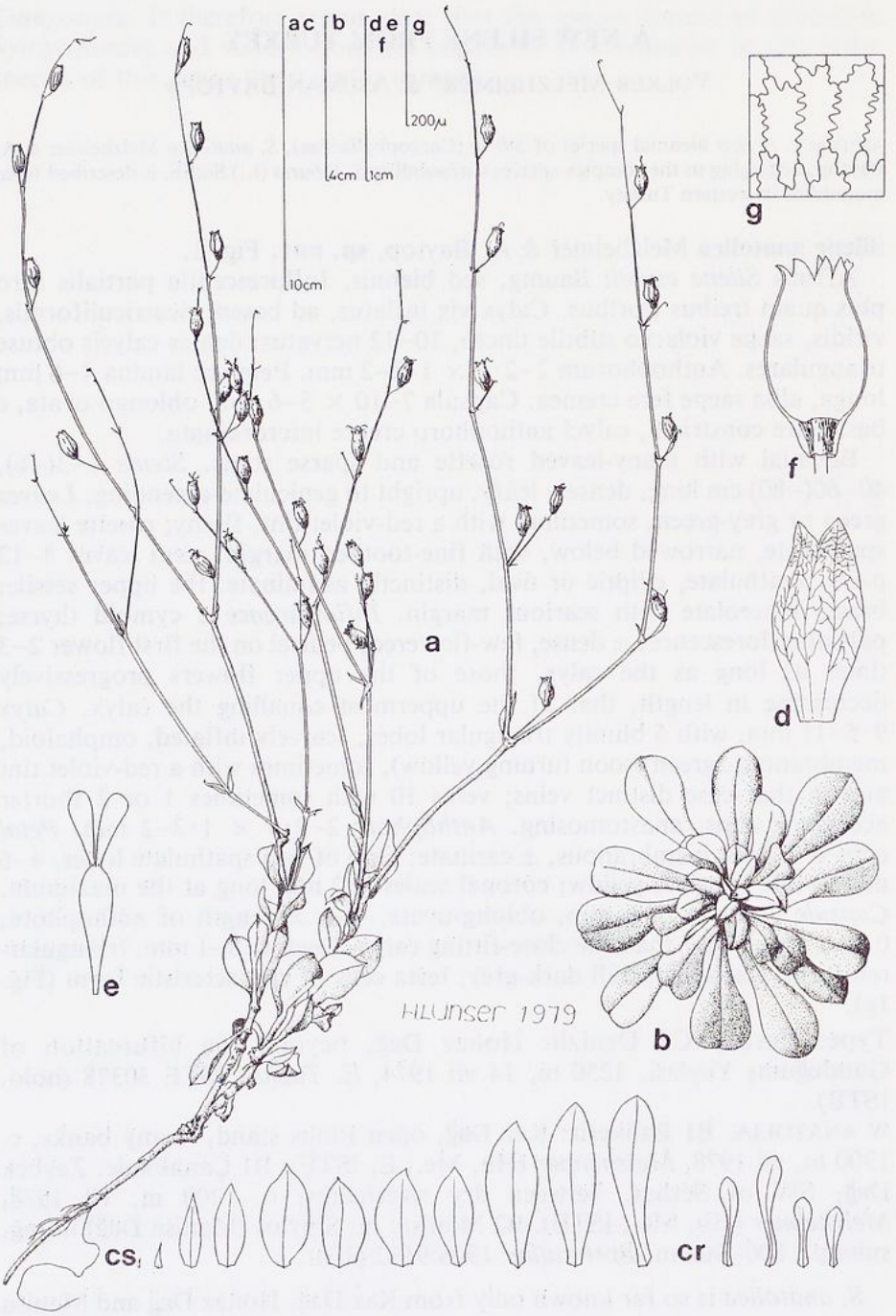

FIG. 1. *Silene anatolica*: a, habit; b, rosette; cs, stem leaves; cr, rosette leaves; d, calyx segments; e, petal; f, capsule; g, testa cells.

Dağ in W Anatolia in the Mediterranean region of Turkey. Here temperature and precipitation are those of a typical Mediterranean climate and the number of months without precipitation decreases with higher altitudes. Since the development of rosettes in the first year depends on a certain minimum humidity of the substrate, *S. anatolica* cannot be found in the increasingly drier locations below approximately 1100 m.

The following Turkish species are closely related to *S. anatolica*: *S. vulgaris* (Moench) Garcke s.l., *S. fabaria* (L.) Smith, *S. ionica* Hal. (generally treated as a synonym of *S. fabaria* (L.) Smith), *S. csereii* Baumg., and *S. aeoniopsis* Bornm. Its closest relatives appear to be *S. csereii* and *S. aeoniopsis* from which it differs in its elongated oval capsules, smaller calyces with 10–12 nerves and the shape of the testa cells. *S. csereii* is an annual of low altitudes but *S. aeoniopsis*, like *S. anatolica*, is a biennial of high altitudes. The treatment of *S. aeoniopsis* as a subspecies of *S. csereii* by Chowdhuri (Studies in the genus Silene. *Notes R.B.G. Edinb.* 22:269, 1957) followed by Coode & Cullen in *Flora of Turkey* vol. 2 (1966) must be regarded as very tentative because of the difference in longevity and also calyx morphology (cicatriculiform at the base in *S. aeoniopsis*). The senior author's investigations show that this group of species can be regarded as centred on *S. fabaria*.

The authors wish to thank Mr Lünser for drawing Fig. 1.