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TWO NEW ROSULARIAS FROM TURKEY

KIT TAN

ABSTRACT. Two new endemic species, *Rosularia tauricola* Kit Tan and *R. muratdaghensis* Kit Tan (Crassulaceae), are described from south and central Anatolia respectively and illustrated. *R. tauricola* is of special interest because of its unusually short corolla tube and, within Turkey, undoubtedly has no close allies.

Rosularia tauricola Kit Tan, **sp. nov.** Fig. 1A–G.

Species propria, affinitatibus proximis in Turcia nullis, ab omnibus aliis speciebus generis *Rosulariae* tubo corollae egregie brevi insignis.

Perennial herb forming rosettes c.3cm diam.; lateral rosettes elongating into 5–7cm long sterile rosettes; roots thin, fibrous. Caudex short, slender; scape terminal, to 14cm. Leaves of basal rosette soft, fleshy, green, sessile, oblong-spathulate to lingulate, 10–22 × c.4mm, obtuse, glandular-pubescent; those on sterile shoots and scape alternate, oblong-spathulate to ovate, 10–15 × 4–6mm. Inflorescence lax, decumbent, cymose, branches 3–5-flowered, glandular-pubescent. Flowers 5-merous, pedicels 7–10mm at anthesis. Calyx c.6mm, lobes ovate, 5 × 1·5–2mm, acute to subacute, glandular-pubescent. Petals white, c.10 × 4mm, united below into short 2·5–2·8mm tube; lobes patent-spreading, more than 2 × length of tube, glandular-pubescent on outer surface, especially on green veins. Stamens 10, inserted on corolla tube; anthers yellow. Scales erect, quadrate-emarginate, glistening yellow. Follicles 5, free, erect, 8–10mm, glandular-pubescent only on inner surface; styles c.2mm; stigmas capitate. Seeds several, oblong-elliptic, c.1mm, blunt, striate. *Fl. in cult.* mid-October–November.

Type: Turkey C5 Içel: Bolkar Dağlari, mountain top c.2km NW of Arslanköy, open scree slope, 2600m, 5 viii 1976, *G. Peat et al.* 112–5–76 (holo. E, cult. E; iso. RSA).

Endemic to the Taurus range in South Anatolia; rare. East Mediterranean (mountain) element. A most unusual *Rosularia* without any close allies, it is the only species in Turkey with a corolla tube less than half as long as the lobes. The description is based on material grown at Edinburgh from the type gathering. Collected as a sterile rosette by G. Peat in 1976, it has lain undescribed in the glasshouses there for more than 10 years; so far, only one plant has once flowered and that in mid-October to November 1986. I would expect the plant in its native habitat to flower in July or August as in November the Bolkar Dăglari is completely under snow.

The unusual growth habit, with the main rosette producing long-stemmed offsets which continue growing and the lateral rosettes gradually elongating into decumbent 5–7cm long sterile shoots, was at first cautiously ascribed to conditions under glass. It is shared to some extent by *R. muratdaghensis* Kit Tan (*quod vide*) and *R. chrysantha* (Boiss.)Tahkt. Several plants of *R. libanotica* (Lab.)Muirhead, acting as controls, were subjected to similar glasshouse treatment over a period of two years. These have, however, not suffered a change in their growth

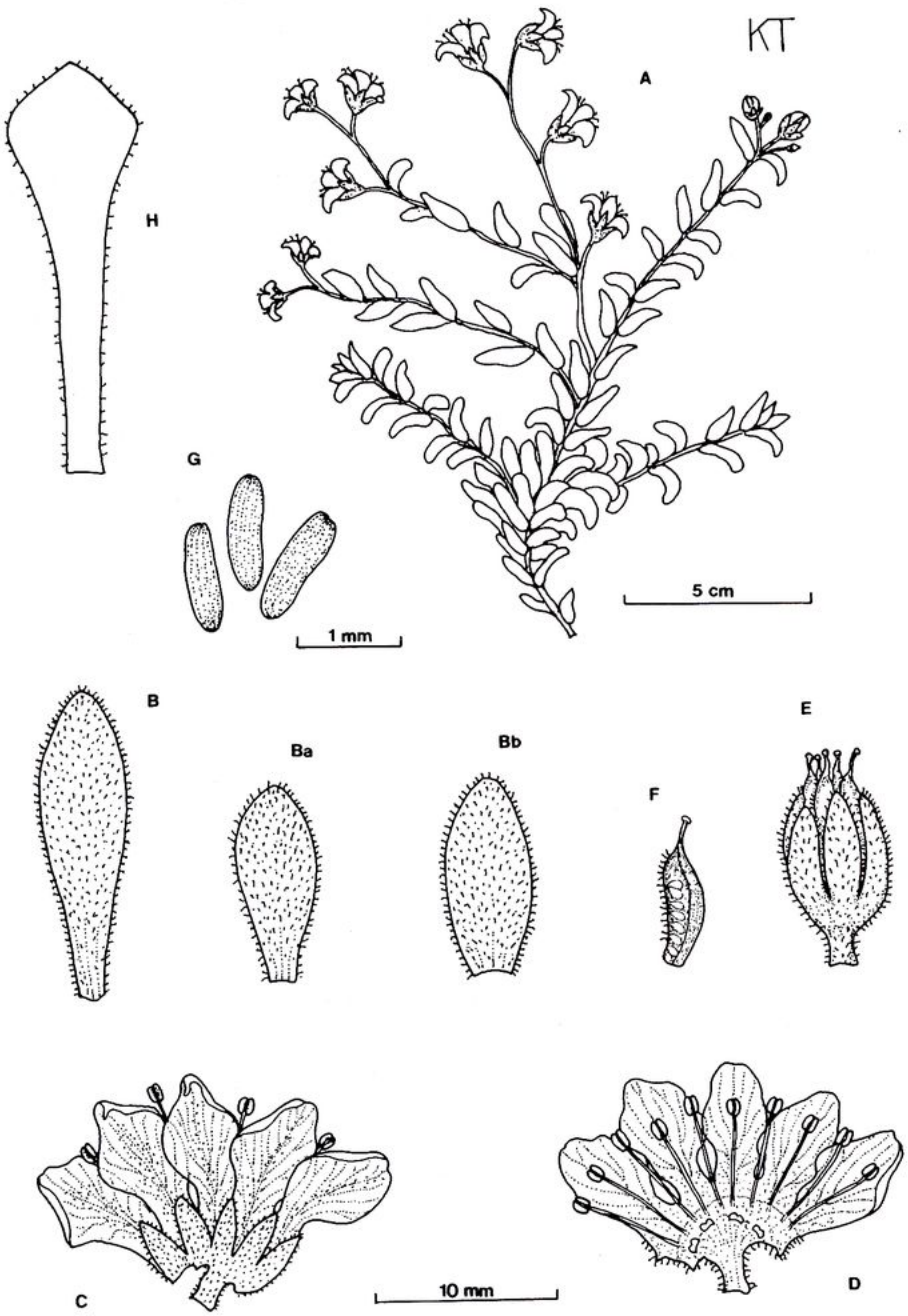

FIG. 1. *Rosularia tauricola*: A, habit (with 5cm scale); B, Ba & Bb, leaves from basal rosette, sterile shoot and scape respectively; C & D, dissected flowers, carpels removed; E&F, group of follicles and single follicle; G, seeds (with 1mm scale). *R. muratdaghensis*: H, leaf from basal rosette. All to 10mm scale except A & G.

patterns but continued forming persistent, dense, neat little rosettes. This suggests that the habit of *R. tauricola*, even if induced, is indeed a specific character.

Rosularia muratdaghensis Kit Tan, **sp. nov.** Fig. 1H.

A *R. chrysantha* (Boiss.)Takht. forma foliorum (in ambito et in sectione transversali) et pilis glandulosis multo brevioribus (c.½ x) ad margines solum praedita (non in superficiebus ambobus) distinguitur.

Herba perennis rosulas 2–4cm diametro formans, rosulae laterales in surculos steriles 4–10cm longos internodiis elongatibus evolventes. Caudex brevis, 1–1·5cm longus, c.4mm diametro. Folia rosulae basalis mollia, carnosa, viridia, sessilia, spathulata versus basin ex apice obtuso-cuneato abrupte angustata, 15–25 × 4–6mm, in sectione transversali superne ± plana, inferne convexa, ad margines glandulosa, superficie ± glabra; folia surculorum lateralium alterna, breviora, oblongo-spathulata.

Perennial herb forming rosettes 2–4cm diam.; lateral rosettes elongating into 4–10cm long sterile shoots. Caudex short, 1–1·5cm, c.4mm diam. Leaves of basal rosette soft, fleshy, a clear light green, sessile, spathulate, narrowing abruptly from a broadly obtuse-cuneate apex, 15–25 × 4–6mm, in cross-section ± planar above, shallowly convex beneath, glandular at margins, ± glabrous on both surfaces; leaves on lateral shoots alternate, smaller, oblong-spathulate.

Type: Turkey B2 Kütahya: Murat Dăg, above Kesik Söğüt, rocky igneous slope, 2100m, 5 vii 1962, *Davis* 36820A (holo. E, cult. E; iso. RSA).

Endemic to Central Anatolia (Murat Dağ). The sterile rosettes collected by Peter Davis more than 25 years ago in July 1962 have remained in cultivation at Edinburgh under Accession number 62/2740 since September of the same year. Patient waiting and watching in the hope that the plants would flower have not been rewarded although the plants propagated readily enough by forming lateral rosettes. D. Chamberlain & C. Muirhead, in their revision of Turkish Rosularias, assigned the material in cultivation at Edinburgh to *R. chrysantha* (Boiss.) Tahkt. (*Flora of Turkey* 4:221, 1972). This is a species restricted to the mountains of South Anatolia (*Flora of Turkey* grid squares C2, C3 and C4) and is geographically isolated from the taxon now described which is from the vilayet of Kütahya in grid square B2 (Inner Anatolia). In *R. chrysantha*, the leaves of the basal rosette are lingulate, gradually attenuated towards the base, never abruptly narrowed. They are also densely glandular-pubescent on both surfaces as well as at margins, with the glandular hairs approximately twice as long. Moreover, the leaf shape in cross-section is the exact opposite, being convex above and ± planar beneath. Although *R. muratdaghensis* is only known at the moment in a vegetative state, it is unmistakably distinct and I am confident it represents a new, previously undescribed taxon.

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