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Tulipa gumusanica (Liliaceae), a new species from Turkey

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Tulipa gumusanica Terzioğlu (Liliaceae) is described as a species new to science and illustrated in line drawings. It occurs in the Vilayet Gümüşhane region of Turkey. The chief characters of *T. gumusanica* are pure yellow stamens and anthers and distinctly undulate leaves.

Key words: Liliaceae, new species, taxonomy, *Tulipa*

Introduction

The genus *Tulip*a L. (Liliaceae) contains 40 (Stork 1984) or more than 100 (Hall 1940) species depending on which species concept is applied. It is distributed in the temperate regions of N Africa, Asia and Europe, with the majority of species occurring in Central Asia (Xingi & Mordak 2000), where the centre of diversity is in the Pamir Alai and Tien Shan mountain ranges (Hoog 1973). The genus has historically been subdivided into two subgenera, *Tulipa* and *Eriostemones* Boiss., which are clearly distinguished by morphological characteristics (Raamsdonk & de Vries 1992). Section *Tulipa* (*Leiostemones* Boiss.) is mainly found in the primary gene centre in central Asia and section *Eriostemones* migrated from the primary as well as from the secondary gene centre (Caucasus) westwards into western Europe (Raamsdonk & de Vries 1995).

Fifteen species of *Tulipa* have so far been recorded from Turkey, of which six belong to section *Eriostemones* and nine to section *Tulipa* (Marais 1984, Persson 2000). In this paper, a new species belonging to section *Tulipa* is described. It was collected on Zigana Mountain in Vilayet Gümüşhane and at present is known only from this locality.

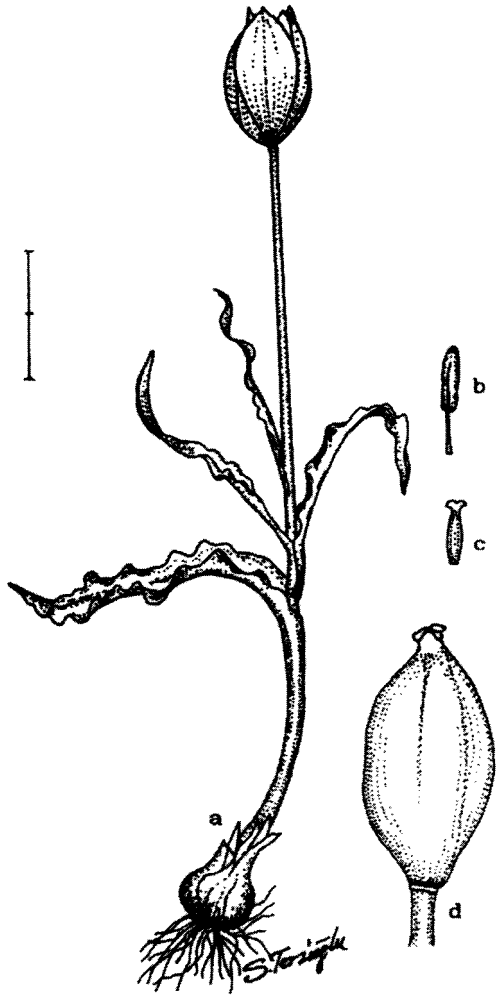

Fig. 1. *Tulipa gumusanica* (from the holotype). — **a**: General view. — **b**: Stamen. — **c**: Gynoecium. — **d**: Capsule. Scale bar: **a** = 4 cm, **b**–**d** = 2 cm.

Tulipa gumusanica Terzioğlu, *sp. nova* (Fig. 1)

Perennis, bulbus ovoideus 1.5–3 cm in diam; tunicae papyraceae, subrufae-fulvae, intus vix pilosae imprimis ad basim, pili recti. Caulis usque ad 45 cm altus, caulis et pedunculus glaber. Folia 4–5(–6), 5–20 × 1–3 cm, ciliata, glauca, recurva et distincte undulata, late lanceolata ad linearis-lanceolata, gradatim decrescentia versus apicem. Flores solitarii, lutei, extus maculati. Tepala exterioria 2.5–5 × 0.9–2.3 cm, ovata ad obovata, elliptica, tepala interioria 2–3.5 × 0.6–2 cm, obovata-spathulata ad oblanceolata. Filamenta lutea, 4.5–9 mm longa; antherae luteae, 5–12 mm longae, pollen luteum. Ovarium glaucum, infra sessilem stigmam vix contractum. Capsula 1.5–4.5 × 1.3–2.5 cm, ovoidea ad ellipsoidea, apiculata, breviter stipitata.

HOLOTYPE: Turkey A7. Gümüşhane: Zigana Mountain, northern rocky slopes and screes, (together with the endemic *Iris histrioides*, *Campanula betulifolia*, *Digitalis lamarckii* and *Muscari aucheri* in *Pinus sylvestris-Quercus macranthera* subsp. *syspirensis* woodland), 1550 m, 11.VI.2000 *Terzioğlu 13362* (KATO; isotype KTUB, *Coşkunçelebi 296*).

Perennial, bulb ovoid, 1.5–3 cm in diameter; tunics papery, reddish-brown, inside thinly hairy especially at base, hairs straight. Stem, including peduncle, up to 45 cm long, glabrous. Leaves 4–5(–6), 5–20 × 1–3 cm, glaucous, recurved and distinctly undulate, broadly lanceolate to linear-lanceolate, gradually decreasing in size upwards, ciliate on margin. Flowers solitary, golden yellow, without blotch. Outer perianth segments 2.5–5 × 0.9–2.3 cm, ovate to obovate-elliptic; inner segments 2–3.5 × 0.6–2 cm, obovate-spathulate to oblanceolate. Filaments yellow, 4.5–9 mm, as long as or shorter than anthers; anthers yellow, 5–12 mm, pollen yellow. Ovary glaucous, hardly narrowed below the sessile stigma. Capsule 1.5–4.5 × 1.3–2.5 cm, ovoid to ellipsoid, apiculate, shortly stipitate.

Tulipa gumusanica differs from all the taxa hitherto described in *Tulipa* sect. *Tulipa* in having fully yellow filaments. Because of its ciliate, undulate and recurved leaves, it shows close similarity to *T. armena* Boiss., but differs from it in having 4–5(–6) leaves, yellow filaments, and consistently pure golden-yellow flowers. *Tulipa armena* shows wide variations in flower colour, with the yellow-flowered forms being similar in appearance to *T. gumusanica*. Specimens of *T. armena* with four leaves, black filaments and yellow flowers are found in the close vicinity of *T. gumusanica*.

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