A new species of *Silene* (Caryophyllaceae) from Anatolia (Turkey).

ZEKI AYTAÇ

Gazi University, Faculty of Science and Art, Department of Biology, 06500 Teknikokullar-Ankara, Turkey; tel: +312 212 4532 2870, fax: +312 212 2279

AYTAÇ Z. (1998): A new species of *Silene* (Caryophyllaceae) from Anatolia (Turkey). – Thaiszia – J. Bot. 8: 7-11. – ISSN 1210-0420.

ABSTRACT: Silene denizliense AYTAÇ is described and illustrated as a new species (Caryophyllaceae) from Turkey.

KEYWORDS: taxonomy, Silene, Caryophyllaceae, Turkey

Introduction

Silene L. is one of the richest genera of the World's flora. It has c. 700 species, about half of which grow in the Mediterranean area. The South Balkan Peninsula and south-west Asia are two of the main centres of diversity of the genus (GREUTER 1995). Silene is one of the richest taxa in Turkey, having 131 species (147 taxa) (DAVIS 1967). After the publication of the Flora of Turkey Vol. 2, eleven new Silene species were described world-wide and two new species were recorded from Turkey (DAVIS 1988, ÖZHATAY 1995, DUMAN 1995). These publications demonstrate the richness of Silene in Turkey. The genus has some systematic problems and a revision of the Turkish taxa is required. I believe that after revision, some new taxa will be added and some taxa will become synonymous with each other.

When I went to Denizli to collect *Amphoricarpos praedictus* AYASLIGIL & GRIERSON seeds in August 1994, I collected some interesting specimens as well. One of the specimens belonged to the genus *Silene*. This specimen had only mature capsules and anthophores which were very interesting. It is impossible to describe this specimen just from its capsule. Therefore, I decided to collect it as

flowering specimens one year later (in 1995). I went to Denizli and climbed around Tasocagi near Çamlik again. I collected a specimen with flowers from the same area as before. Its flowers, coronal scales, calyx and form of habitus were really different from other *Silene* species. I examined the relevant references (DAVIS 1967), (EKIM 1984), (TUTIN 1964), (Strid 1997) and observed that some *Silene* species which are deposited in ANK are similiar to the *Silene* specimens I collected.

Silene denizliense AYTAÇ, spec. nova. (Sect. Auriculatae BOISS.)

Fig. 1-2.

Type: Turkey C2 Denizli: Çamlik, around Tasocagi, 830 m, 6. vi. 1995, on a calcareous rocky site, (Aytaç 6927), (holo GAZI, iso ANK, HUB), para. ibid. Aytaç 6764 & Karaveliogullari, 27. ix. 1994.

Affinis S. *lucidae* CHOWDH. et S. *linoidi* OTTH. Ab S. *lucidae* caulibus glabris (non puberulis), calycibus puberulis pilosis (non glandulosis) et antophora glabris (non puberulis) differt. Ab S. *linoidi* caulibus glabris (non puberulis-viscosis), antophora glabris (non villosis) differt.

Pulvinate, perennial, 15-30 cm, herb with woody tissue at the base. Stems terete, erect, slender, 0.5-0.9 mm diameter, glabrous, densely leafly at the base. Basal leaves linear, acuminate, recurved, ciliate at the margin, 10-15x1 mm. Cauline leaves similar but smaller than basal leaves. Nodes slightly swollen; internode c.3 cm. Flowers solitary (rarely 2-flowered). Bracts lanceolate, 3.5-4.5 mm, ciliate. Pedicel much shorter than calyx, puberulent. Calyx 12-15 mm, densely puberulent, constricted around anthophore, conspicously 10 nerved; teeth ovate-lanceolate, 2 mm, ciliate, acute. Petals longer than calyx, 18-20 mm, yellowish-green and brown at the apex; limb with 2 lobes, lobes recurved, 2.5-3 mm; coronal scale white, to 1.5 mm; styles 3. Capsule ovoid-oblong, included in the calyx, 7-8 mm; anthophore glabrous, 6-7 mm. Seeds triangulare-reniform, rugulose, grooved at the back, 1x1 mm.

FI: 6. On the calcareous rocky site with a screen of Pinus brutia forest.

Endemic. Medit. element, known only from the type collection.

Recommended IUCN Threat Category listing: Conservation Dependent (LRcd).

Silene denizliense is close to *S. lucida* CHOWDH subsp. *lucida*, but the stems are glabrous, not puberulous. The calyx is only puberulent, not puberulent-glandular, the anthophore is glabrous, not puberulent. This species is distributed well away from *S. lucida* CHOWDH subsp. *lucida*, which grows only in the C9 and C10 grid squares in Turkey.

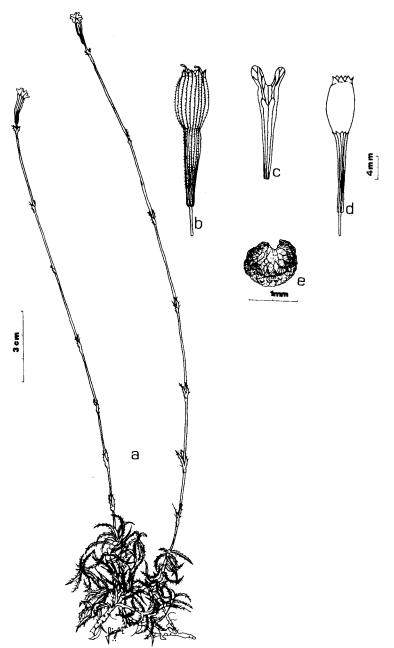


Fig. 1. Silene denizliense AYTAÇ. a: habitus, b: calyx, c: petal lobe, d: capsule and anthophore, e: seed.

Although the other subspecies of *S. lucida* (subsp. *glandulosa*) occurs close to *S. denizliense*, it differs in being glandular throughout the plant, while *S. denizliense* has a completely eglandular indumentum. On the other hand, the cauline leaves of the new species are similar in size to the basal leaves, whereas the cauline leaves of *S. lucida* are smaller than the basal leaves.

S. denizliense is close to S. linioides OTTH (=S. linifolia SIBTH. & SM.) Sect. Saxifragoideae WILK. which grows in north and central Greece, but the stem of the latter species is glabrous not pubescence at the below, not glabrous and viscid above, the petals are yellowish-green and brown at the apex, not pinkish above and purplish beneath, and the anthophore is glabrous, not densely villous.

The petals of the new *Silene* species are auriculate, suggesting an affinity with section *Auriculatae* Boiss., but some other characteristics suggest a closer affinity with section *Saxifragoideae* Wilk. I think this species represents a good link between these two sections.

Acknowledgements

I would like to thank Prof. Dr. Tuna Ekim for his interest and Dr. Hayri Duman for the Latin diagnosis.

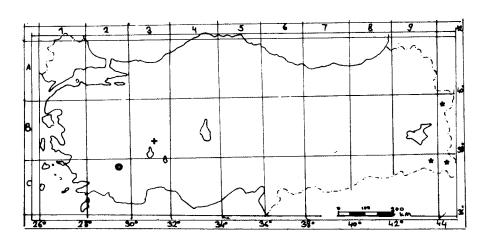


Fig. 2. Distribution of ● Silene denizliense; ★ Silene lucida subsp. lucida; + Silene lucida subsp. glandulosa in Turkey.

References

- Davis P. H. (1967): Flora of Turkey and The East Aegean Islands, Vol. 2, p. 179-242. Edinburgh.
- DAVIS P. H., MILL R. R. & Kit Tan (1988): Flora of Turkey and The East Aegean Islands, Vol. 10 (Supplement), p. 66-81. Edinburgh.
- Duman H. et al. (1995): Two New Taxa from South Anatolia. Turkish J. Bot. 19, 477-479.
- Екім Т. (1984): Some New Taxa and Records From Turkey. Notes Roy. Bot. Gard. Edinburgh 42: 83-86.
- GREUTER W. (1995): Silene (Caryophyllaceae) in Greece: a subgeneric and Sectional Classification. Taxon 44: 543-581.
- ÖZHATAY N. et al. (1994): Check-List of Additional Taxa to the Supplement Flora of Turkey. Turkish J. Bot. 18: 500.
- STRID A. [ed.] (1997): Flora Hellenica, Vol. 1. Königstein.
- TUTIN. T. G. & HEYWOOD V. H. (1964): Flora Europaea, Vol. 1. Cambridge.

Received: 7 October 1996 Revised: 3 December 1997 Accepted: 6 March 1998