

## SILENE MURADICA (CARYOPHYLLACEAE), A NEW RECORD FROM IRAN

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*Silene muradica* Schischk. from sect. *Spergulfoliae* that was recognized as an endemic from the east of Turkey, is recorded from Iran for the first time. It is related to *Silene spergulfolia* (Desf.) Bieb. but is distinguished from it by the following characters: Calyx whitish-green, sparsely papillose or scabrid at the base to glabrous, petal limb divided at the tip to ca. one third. The distribution map and some photos of the new record are presented.

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**Key words:** Caryophyllaceae; *Silene muradica*; sect. *Spergulfoliae*; new record; W. Azarbajejan; Iran

گزارش گونه *Silene muradica* برای اولین بار از ایران

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طی جمع‌آوری نمونه‌های جنس *Silene* گونه اندمیک *Silene muradica* Schischk. از فلور ترکیه از بخش *Spergulfoliae* شناسایی شده و به عنوان رکورد جدید برای فلور ایران گزارش می‌گردد. این گونه از نظر داشتن کاسه بدون کرک و گلبرگهای سفید-سبز، با بریدگی پهنک تا حدود یک‌سوم از انتها، از گونه *Silene spergulfolia* (Desf.) Bieb. قابل تشخیص است. نقشه پراکنش و تصاویر این گونه ارائه می‌شود.

### INTERODUCTION

*Silene* L. (Caryophyllaceae) is a large genus in the flora of Iran. It comprises ca. 700 species in the world (Nejati Edalatian & al. 2010). The species of the genus well occur in south-west Asia (Melzheimer 1988). Mountainous areas of Iran from northwest to southeast are the main diversity centers of the genus in Iran. It is represented by about 96 species in Flora Iranica area (Melzheimer 1988).

During the last three decades, after publication of Flora Iranica as the main reference of this genus in Iran, nearly 12 species have been added to the flora of Iran as new species or new reports (Gholipour & Sheidai 2009; Gholipour & Maroofi 2011; Gholipour &

Parsakhanghah 2015; Hoseini & Assadi 2016; Nejati Edalatian 2011; Gholipour & al. 2016; Nejati Edalatian 2017; Gholipour 2017; Gholipour 2018; Gholipour & Gholshahi 2017).

Iranian *Silene* species are placed in 23 sections (Chowdhuri 1957; Melzheimer 1988). The Section *Spergulfoliae* comprises ca. 20 species in the world (Greuter 1995) from which 6 species are present in the flora of Iran. The species of this section occur mainly in north-west of Iran. *Silene brahuica* Boiss. from this section is an exception that is distributed in west to south-east of Iran (Melzheimer 1988). The purpose of this article is to introduce a new record for the flora of Iran.

## MATERIALS AND METHODS

The first author who has been working on the genus *Silene* L. to prepare her doctoral dissertation, collected interesting specimens from Razi village, Qotur region in border of Turkey during a field trip in the summer of 2018. Specimens were examined and identified as *S. muradica* according to the relevant literatures (Shishkin 1936, Coode & Cullen 1967, Melzheimer 1988). The specimens were compared with the images of Turkish materials in herbarium and they match very well. The materials are preserved in TARI and the herbarium Research Centre of Agricultural and Natural Resources of W. Azarbajejan.

## RESULTS

### New record

*Silene muradica* Schischk., in Mon. Jard. Bot. Tiflis 50: 27 (1920). Fig. 1.

Perennial, erect, woody at base, greenish-glaucous, retrorsely puberulate, sterile shoots up to 20cm long. Flowering stems 30-45 cm long, erect, branched above. Basal leaves linear to oblanceolate, 10-15×0.5-1 mm, acute at the apex, hairy on the lower surface, glabrous on the upper surface; cauline leaves similar to the basal leaves, but slightly larger than them, 20-25×2-2.5 mm. Inflorescence a panicle; the lateral cymules congested. Peduncles 10-40 mm long, puberulate. Bracts subulate, 2.5-3.5 mm long, 3-nerved, hyaline at the margin and

base, papillose, ciliate, longer than the pedicels. Alar flower pedicel up to 3.5 mm long, puberulate. Calyx 10-nerved, cylindric slightly inflated above, 5-7×3-4 mm, whitish-green, sparsely papillose or scabrid at the base to glabrous; teeth broadly ovate, obtuse, 1-1.2 mm long, membranous and slightly ciliate at the margin. Petals greenish-glaucous; claw 4-4.5mm long, glabrous, exerted from calyx, not conspicuously auriculate; limb 3.5-4.5 mm long, divided to ca. one third, lobes oblong, narrowed toward the apex. Stamens 10, glabrous; alternate stamens 6-10 mm long; epipetals 4-6mm long. Anthophore 2-2.5 mm long, pubescent. Capsules ovoid-oblong, included in calyx.

*Examined specimen:* West Azarbajejan: Khoy, Qotur, Razi village, 2020 m, 18.07.2018, 38° 29' 38.2" N, 44° 201' E, Heidari Rikan and Yeilaghi 9920 (T, TARI).

## DISCUSSION

*Silene muradica* Schischk. was formerly considered as an endemic species of Turkey, the species is distributed in center to east of Turkey and its type locality is from Mus province in the north west of van lake which is the closest locality to the Iranian gateing. *Silene muradica* Schischk. is related to *S. spergulifolia* (Desf.) Bieb. but is distinguished from it by the following characters: Calyx whitish-green, sparsely papillose or scabrid at the base to glabrous, limb divided to ca. one third from the tip lobes.



Map 1. Distribution map of *Silene muradica* & *Silene spergulifolia*.



Fig. 1. *Silene muradica*, in its natural habitat in Razi border, Qotur, Khoy (Photo by Heidari Rikan).



Fig. 2. Image of herbarium specimen of *Silene muradica*.

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