Gypsophila yusufeliensis (Caryophyllaceae), a new species from Turkey

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Gypsophila yusufeliensis Budak sp. nova (Caryophyllaceae) is described from Yusufeli (Artvin province, Turkey). It resembles especially G. patrinii. The diagnostic characters, as well as a full description and figures of new species are provided.

Gypsophila (Caryophyllaceae) is a predominantly Eurasian genus. It is not just among the largest genera in the subfamily Silenoideae, but also one of the most polymorphic ones. It occurs in the north-temperate part of the Old World, mainly between the latitudes 30° and 60°. Most of the Gypsophila species are concentrated in quite a small part of the geographic area of distribution. This part of the area includes Turkey, Caucasus, northern Iraq and northern Iran (Barkoudah 1962, Ataslar & Oacak 2005). One-hundred and fifty different species are encountered mostly in steppes on dry slopes or sandy soil of the temperate Eurasia, East Mediterranean and Irano-Turanian region, Egypt, Arabia, Somalia. Only one species, G. australis, is present in Australia and New Zealand (Bittrich 1993).

In Turkey, Gypsophila has 55 species in ten sections (Hüber-Morath 1967, Davis et al. 1988, Ataslar 2000, Ataslar & Oacak 2005). Gypsophila sect. Corymbosae has two species in the country. The section includes perennial species with ± corymbose inflorescences, rigid pedicels shorter than or 2–3 times longer than calyx, a campanulate calyx, and mostly with distinct calcium oxalate crystals (Hüber-Morath 1967, Davis et al. 1988). The species described here belongs in the section Corymbosae and raises the number of Gypsophila species in Turkey to 56.

The author collected some interesting Gypsophila specimens in the Yusufeli district (Artvin province, northeastern Anatolia) in 2010. The specimens were compared with the photos of the type material of G. patrinii from the Geneva herbarium (G00214276 type specimens; G00214409, G002144411). Also the specimens were compared with species descriptions in the literature (Barkoudah et al. 1964, Rechinger 1964, Zohary 1966, Hüber-Morath 1967, Shishkin 1970, Rechinger 1988, Bojňanský & Fargašová 2007: 79–81). After that work we concluded that we had a new species at hand.

Gypsophila yusufeliensis Budak, sp. nova (Fig. 1)

Caespitose perennial, with a woody rhizome, all glabrous. Stems slender, numerous, erect-ascending, (15–)25–40(–50) cm, 0.5–1 mm diameter below. Leaves linear, (1.5–)3–5(–6.5) × 0.6–1 mm, ± acute, green. Inflorescence a very lax corymb, many-flowered. Bracts linear-lanceolate, 1.5–3(–6) mm, scarious at margins. Pedicels (3–)5–10(–20) mm. Calyx campanulate, 2.5–3 mm, divided to 1/3–1/2; teeth triangular-lanceolate, 1.2–1.5 mm, acute to acuminate, broadly scarious at margins. Petals whitish, ± pandurate, 3.5–4 × 1.8–2 mm, ± emarginate-retuse. Capsule subglobose-ovoid, 1.5–2 × 1.8–2 mm, included in the calyx. Seeds black-brown to blackish, reniform to subglobular, 4–8 in each capsule, 0.9–1.2 × 0.8–1 mm, with serrulate papillae.

Habitat and Phenology. Gypsophila yusufeliensis grows on siliceous rock crevices at 1250–1260 m a.s.l. The habitat is dry rocky slopes in a damaged oak forest. It flowers in July–August and fruits in August.

Gypsophila yusufeliensis is closely related to G. patrinii. It differs from G. patrinii mainly by its narrower leaves (0.6–1 mm broad) and shorter petals, 3–3.5 mm long, with an emarginate-retuse apex. More differentiating characters are given in Table 1.

Acknowledgements
I thank the curator of the herbarium G (Laurent Gautier) for the photo of Gypsophila patrinii.
Table 1. Morphological comparison of *Gypsophila yusufeliensis* and *G. patrinii*.

<table>
<thead>
<tr>
<th>Characters</th>
<th><em>G. yusufeliensis</em></th>
<th><em>G. patrinii</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>caespitose</td>
<td>not caespitose</td>
</tr>
<tr>
<td>Stem</td>
<td>0.5–1 mm diameter below</td>
<td>1.5–2.5 mm diameter below</td>
</tr>
<tr>
<td>Leaves</td>
<td>0.6–1 mm broad</td>
<td>5 mm broad</td>
</tr>
<tr>
<td>Inflorescence</td>
<td>very lax corymb</td>
<td>lax corymb</td>
</tr>
<tr>
<td>Bracts</td>
<td>1.5–3(–6) mm long</td>
<td>1.5–2.5 mm long</td>
</tr>
<tr>
<td>Calyx</td>
<td>2–2.5 mm long</td>
<td>2.5–4 mm long</td>
</tr>
<tr>
<td>Petals</td>
<td>3–3.5 mm long, apex ± emarginate-retuse</td>
<td>5–10 mm long, apex obtuse</td>
</tr>
<tr>
<td>Petals</td>
<td>not more than 3/2 as long as calyx</td>
<td>two to four times as long as calyx</td>
</tr>
<tr>
<td>Capsule</td>
<td>1.5–2 mm long, immersed in calyx</td>
<td>ca. 4 mm long, usually exserted</td>
</tr>
<tr>
<td>Ovary</td>
<td>4–8-ovuled</td>
<td>12–16-ovuled</td>
</tr>
</tbody>
</table>

References


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