Prometheum chrysanthum subsp. uludaghense (Crassulaceae), a new taxon from Turkey

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Prometheum chrysanthum (Boiss.) ’t Hart subsp. uludaghense Kaynak, Yılmaz & Daşkın subsp. nova from northwest Anatolia, Turkey is described and illustrated. It is closest to P. chrysanthum subsp. chrysanthum, but differs by its narrower, oblong-lanceolate, longer cauline leaves, a thyrsoid inflorescence, and larger flowers.

Key words: Crassulaceae, Prometheum, new subspecies, taxonomy

Prometheum is a small genus in the Crassulaceae, distributed in western Asia and in the eastern Mediterranean. Previously, the species of this genus were placed in Sedum and Rosularia. Recent cytological, molecular, chemotaxonomical and hybridization experiments indicated that Prometheum is morphologically distinct at the generic level, and it is a monophyletic group of about eight species (’t Hart et al. 1999, ’t Hart 2003).

Seven species of Prometheum are currently known from Turkey. Three of them are endemic to Anatolia, i.e. P. chrysanthum, P. muratdaghense, P. serpentinicum var. serpentinicum and P. serpentinicum var. giganteum. The remaining four are distributed also elsewhere (Caucasus, W Iran, N Iraq); they are P. aizoon, P. pilosum, P. rechingeri and P. sempervivoides (’t Hart & Alpinar 2000, ’t Hart 2003).

In 2005, we collected some peculiar specimens of Prometheum, during a study of the flora of the Uludağ Mountains to the south of the Bursa province. After a careful examination of this material in the herbaria ANK, BULU and GAZI, we noticed that the material differed from the typical specimens of P. chrysanthum in having narrower, oblong-lanceolate, and longer cauline leaves, a thyrsoid inflorescence, and larger flowers. In addition, we checked descriptions of Prometheum (relevant species of Sedum and Rosularia) in Flora of Turkey (Chamberlain 1972, Chamberlain & Muirhead 1972, Davis et al. 1988, ’t Hart & Alpinar 2000). Thorough studies and comparison with the material of similar taxa showed that our specimens should best be described as a new subspecies in P. chrysanthum.

Prometheum chrysanthum (Boiss.) ’t Hart subsp. uludaghense Kaynak, Yılmaz & Daşkın, subsp. nova (Fig. 1)

Affinis P. chrysanthae subsp. chrysanthae sed folis caulinis angustae oblongo-lanceolatis, 20–25 mm longis (non 10–20), inflorescentia thyrsoidae, flores magni, petalis 16–20 mm longis (non 11–14) differt.
Type: Turkey. [A2] Bursa: Uludağ, Soğukpınar-Karaıslah road, 1 km to Soğukpınar, 40°01´N, 29°07´E, 890 m, 24.VII.2005 Kaynak 28745 & Yılmaz (holotype BULU).

Etymology: The name of the new subspecies refers to the collecting locality.

Plants perennial, rosettes globular, ca. 3 cm in diam. Offsets subsessile. Scapes 15–25 cm, terminal. Leaves narrower oblong-lanceolate, concave in cross section, 20–25 mm, ciliate, glandular-pubescent on both sides. Inflorescence thyrsoid, 5–60 flowered, densely glandular-pubescent, flowers yellowish. Pedicels 3–6 mm. Sepals 7–9 mm. Petals 16–20 mm, dorsally glandular pubescent, corolla tube 1/2 as long as lobes, scales horizontal, ovate. Follicles oblong, 7–8 mm, glandular-pubescent on the inner surface, glabrous on exposed surface, style 1.5–2 mm, seeds unknown. Flowering in July.

Prometheum chrysanthum subsp. uludaghense is fairly similar to P. chrysanthum subsp. chrysanthum, but differs in several characters. Table 1 provides a morphological comparison of the two subspecies.

Geographically, the two subspecies are certainly isolated (Fig. 2). Prometheum chrysanthum subsp. chrysanthum is found in the mountains of the eastern Mediterranean and is endemic to southwest and south Anatolia, distributed around Denizli, Antalya and Isparta areas. It grows in limestone rock fissures and cracks at the altitude of 1400–2500 m (Eggli 1988). Prometheum chrysanthum subsp. uludaghense is a local endemic, confined to the south side of Uludağ Mountain (Bursa), northwest Anatolia. It grows in rocky and open places within mixed forest of Pinus brutia, Quercus coccifera and Juniperus oxycedrus subsp. oxycedrus between 800–1000 m.

Table 1. A morphological comparison of Prometheum chrysanthum subsp. uludaghense and P. chrysanthum subsp. chrysanthum.

<table>
<thead>
<tr>
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<th>subsp. uludaghense</th>
<th>subsp. chrysanthum</th>
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<tbody>
<tr>
<td>Scape length</td>
<td>15–25 cm</td>
<td>5–15 cm</td>
</tr>
<tr>
<td>Cauline leaves</td>
<td>narrowly oblong-lanceolate 20–25 mm long</td>
<td>oblong-spathulate 10–20 mm long</td>
</tr>
<tr>
<td>Inflorescence</td>
<td>thyrsoid</td>
<td>cymose-paniculate</td>
</tr>
<tr>
<td>Sepal length</td>
<td>7–9 mm</td>
<td>6–8 mm</td>
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<tr>
<td>Petal length</td>
<td>16–20 mm</td>
<td>11–14 mm</td>
</tr>
<tr>
<td>Follicle length</td>
<td>7–8 mm</td>
<td>5–6 mm</td>
</tr>
<tr>
<td>Style length</td>
<td>1.5–2 mm</td>
<td>1–1.5 mm</td>
</tr>
</tbody>
</table>
Specimens examined of *P. chrysanthum* subsp. *chrysanthum*: — Turkey, B3 Isparta: Şakikaraağaç, Kızıldağ Milli Parkı, 1200–1300 m, Kaynak 28786 (BULU). C3 Isparta: Eğridir, Anamas Dağı, Yaka köyü, 1250–1450 m, Peşmen & Güner 1901 (ANK). C4 Antalya: Çiğdem Dağı, 2200 m, Quézel 38 (ANK).

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References


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