

ORNITHOGALUM SUMBULIANUM (HYACINTHACEAE), A NEW ENDEMIC SPECIES FROM SOUTH WEST ANATOLIA

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Abstract

A new endemic species of *Ornithogalum sumbulianum* O. D. Düşen & I.G. Deniz sp. nov. (Hyacinthaceae) is described from south-west Anatolia. Diagnostic morphological characters for discrimination from the most similar taxon are given.

Introduction

During an expedition in April 2002, some interesting specimens of the genus *Ornithogalum* L., distributed in Mediterranean region. On further visit to the same locality in May-June 2002 and May 2003 more material was gathered providing a range of specimens bearing good flowers and fully mature fruits. These specimens were checked with material of the herbaria of ANK, GAZI, HUB and ISTE, and referring to the *Flora of Turkey* (Cullen, 1984; Davis *et al.*, 1988; Özhatay, 2001), *Flora Europaea* (Zahariad, 1980) and related papers (Düşen & Sümbül, 2002; Düşen & Sümbül, 2003). After thorough studies and comparison with material of similar taxa, it has found that these specimens belong to a new species close to *Ornithogalum montanum* Cyr.

Since *Ornithogalum* was revised by Cullen (1984) for the *Flora of Turkey*, 19 new species have been described from Turkey (Davis *et al.*, 1988; Özhatay, 2001; Düşen & Sümbül, 2002; Düşen & Sümbül, 2003). The genus *Ornithogalum* has hitherto comprised 42 species in Turkey and with the addition of *O. sumbulianum* the number increases to 43.

The new species was collected from two localities in the Sakarpmar and Çamkuyular districts west of Antalya province in South Anatolia. In total 28 herbarium specimens (c. 45 individuals) were deposited in the herbarium of AKDU (Herbarium of the Biology Department of Akdeniz University).

***Ornithogalum sumbulianum* O. D. Düşen & I. G. Deniz sp.nov.**

Figs. 1 & 2

Subgen. *Ornithogalum*, Syn: Subgen. *Heliocharmas* Baker

Affinis *O. montano*, sed ab *O. montano* differt scapo 4-10 cm (non (7-)10-20 cm). Folio 4-15 (non 3-6 (-8)), longiore quam scapo (non brevior quam scapo). Racemo stricto (non laxo), 15-45 floribus (non 7-14 floribus). Perianthii segmentis 7-11 mm longis (non 11-16 (-20) mm longis). Fructifero pedicello adescente usque ad 13 cm (non usque ad 7 cm). Ovarium 2-3 mm longo (non 3-7 mm longo). Stylo 1-2 (-2.5) mm longo (non 2-3 (-4) mm longo). Altitudine jugo 1400-1900 m (non 0-1350 m) differt.

Plant 10-45 cm. Bulb ovoid-globose, 15-60 x 13-58 mm, without bulblets. Scape evident, 4-10 cm (above ground part 3-9 cm), glaucous. Leaves 4-15, lanceolate, glabrous, 10-32 (-35) cm x 6-20 (-22) mm, much longer than scape, flat, gradually tapering to acute apex, without white median line, margin entire. Raceme corymbose, 15-

45 flowered. Pedicels 1-5 cm in flower, ascending at anthesis, 3-13 cm in fruit, becoming erect and adpressed to scape, longer than perianth segments. Bracts 1-2 cm in flower, 3-10 cm in fruit, subulate, equal or shorter than pedicel. Flowers scentless. Perianth segments 7-11 x 2-3.5 mm in flower, 12-20 x 2.5-4.5 mm in fruit, lanceolate, milky-white inside, white with a green fascia outside. Anthers 2-3 (-3.5) mm, filament 4-5 (-6) mm, lanceolate, neither winged nor toothed. Ovary 2-3 x 1-2 (-2.5) mm, ovoid-elliptic, green. Style 1-2 (-2.5) mm, white, equal or shorter than ovary. Capsule 8-14 (-15) x 4-10 (-12) mm, ovoid, erect, unwinged. Seed numerous, black 2-3 x 1.5-2.5 (-3) mm, subglobose to globose, reticulate with undulate walls. Fl. and Fr. 4-6, *Quercus-Juniperus* clearings, sparse *Cedrus libani* forests and open slopes, 1400-1900 m.

Type: Turkey. C2 Antalya: Elmalı, Çamkuyusu, 1600-1650 m, sparse *Cedrus libani* forests, 15.iv.2002, İ.G. Deniz (2127) (holotype: AKDU, isotypes: ANK, HUB, GAZI).

Endemic: This new species is known from only two localities, its estimated 'area of occupancy' is less than 500 km² (criterion B1a and B2a) and population of the species is estimated to number fewer than 2500 mature individuals (criterion C) so that it could be evaluated as *endangered* (EN) in this respect (Anon., 2001).

Ecology: *Ornithogalum sumbulianum* grows on *Quercus-Juniperus* clearings, sparse *Cedrus libani* forests and open slopes in west of Antalya. Its altitudinal range is 1400-1900 m. The new species is associated with *Minuartia pestalozzae* (Boiss.) Bornm., *Aethionema cordatum* (Desf.) Boiss., *Allium scorodoprasum* L. subsp. *rotundum* (L.) Stearn, *Salvia caespitosa* Montbret & Aucher, *Scorzonera cinerea* Boiss., *Saponaria pumilio* Boiss., *Centaurea bourgaei* Boiss., *Picris strigosa* Bieb., *Alyssum cypricum* Nyár., *Scrophularia cryptophila* Boiss.

Discussion

The new species is relatively close to *Ornithogalum montanum* Cyr. but differs from it by the characters given in Table 1.

Table 1. A comparison of *Ornithogalum sumbulianum* with *O. montanum*.

Characters	<i>Ornithogalum sumbulianum</i>	<i>Ornithogalum montanum</i>
Scape	4-10 cm	(7-) 10-20 cm
Leaves	4-15 much longer than scape	3-6 (-8) shorter than scape
Raceme	Strict 15-45 flowered	Loose 7-14 flowered
Perianth segments	7-11 mm long	11-16 (-20) mm long
Fruiting pedicel	up to 13 cm	up to 7 cm
Ovary	2-3 mm long	3-7 mm long
Style	1-2 (-2.5) mm	2-3 (-4) mm
Altitudinal range	1400-1900 m	0-1350 m

Etymology: The new species is named in honour of Prof. Dr. Hüseyin SÜMBÜL, Plant Taxonomist at Akdeniz University, Science and Arts Faculty, Antalya, Turkey.

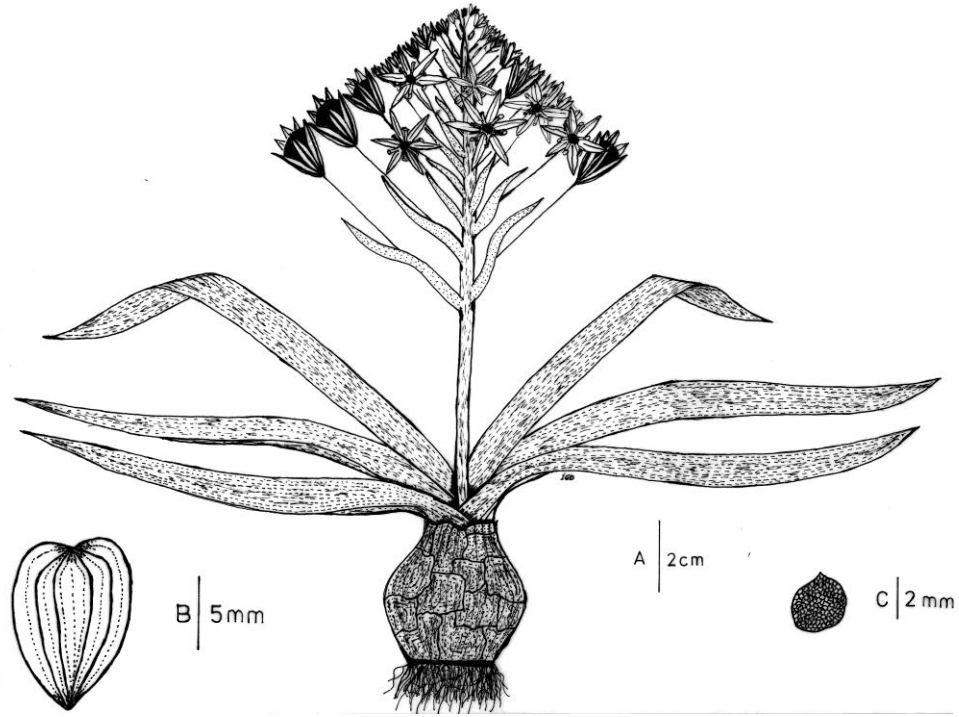


Fig. 1. *Ornithogalum sumbulianum* O. D. Düşen & I. G. Deniz: A- Habit, B- Fruit, C- Seed.

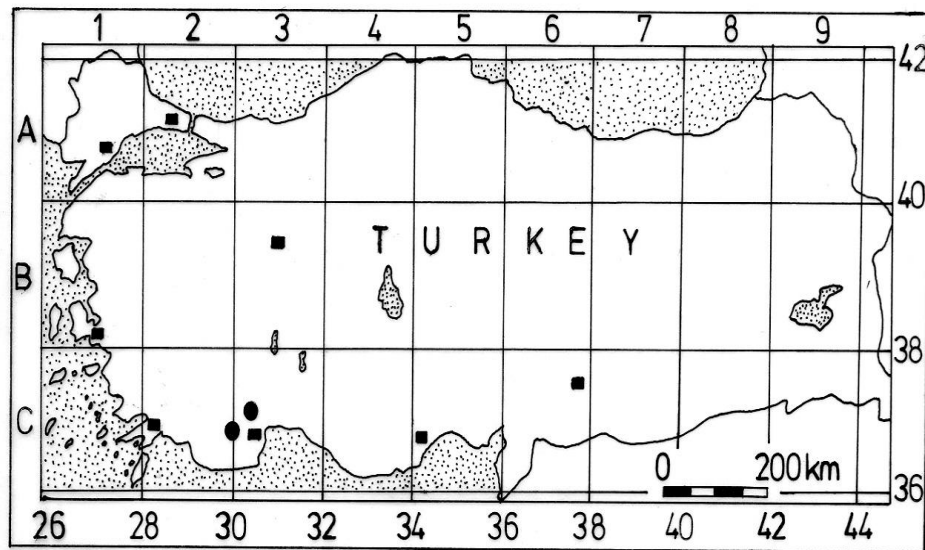


Fig. 2. Distribution map of *Ornithogalum sumbulianum* (●) and *Ornithogalum montanum* (■).

Specimens examined: C2 Antalya: Elmalı, Çamkuyusu, Sarnıç alanı, 1400-1450 m, *Quercus-Juniperus* clearings, 20 May 2002, *İ.G. Deniz* (2197) (AKDU); C2 Antalya: Elmalı, Çamkuyusu, Sarnıç alanı, 1450-1500 m, open slopes, 16 May 2003, *İ.G. Deniz* (2301) (AKDU); C3 Antalya: above Fesleğen yaylası, Sakarpınar, open slopes, 1850-1900 m, 12 April 2002, *O.D. Düşen* (2502) & *S. Düşen* (AKDU); C3 Antalya: above Fesleğen yaylası, Sakarpınar, open slopes, 1850-1900 m, 09 May 2002, *O.D. Düşen* (2516) & *S. Düşen* (AKDU); C3 Antalya: above Fesleğen yaylası, Sakarpınar, open slopes 1850-1900 m, 13 June 2002, *O.D. Düşen* (2541) & *S. Düşen* (AKDU).

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