

# A new taxon of *Linum* (Linaceae) from NW Anatolia, Turkey

Özer Yılmaz<sup>1</sup>, Gönül Kaynak<sup>1</sup> & Mecit Vural<sup>2</sup>

<sup>1)</sup> Biology Department, Faculty of Science and Art, Uludağ University, 16059 Bursa, Turkey

<sup>2)</sup> Biology Department, Faculty of Science and Literature, Gazi University, 06532 Ankara, Turkey

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*Linum pamphylicum* (Boiss.) Podp. subsp. *olympicum* G. Kaynak & Ö. Yılmaz subsp. *nova* is described and illustrated from the South of Uludağ Mountain (Bursa) in Turkey. It is characterised by a flowering stems with scabrid ridges, spatulate, acute basal leaves and linear or linear-spatulate cauline leaves.

Key words: Linaceae, *Linum*, new subspecies, taxonomy

## Introduction

The genus *Linum* (Linaceae) comprises about 200 species in the Mediterranean region, temperate or subtropical regions of Asia, and SW and N America (Rendle 1937, Meikle 1977, Hickey & King 1981, Zohary 1987). It is mainly centered in the Balkans and Anatolia (Davis 1967b). In Turkey there are about 38 species, including *L. maritimum*, which was fairly recently collected from the Muğla province and added to the flora (Güner *et al.* 1996). The endemism percentage of *Linum* species in the flora of Turkey is 39.4%.

In this study we describe a new subspecies of *Linum pamphylicum* (Boiss.) Podp.

and 2001. They were identified with the aid of *Flora of Turkey* (Davis 1967b), *Flora Europea* (Ockendon & Walters 1964), *Flora of U.S.S.R.* (Yuzepchuk 1974), *Flora of Cyprus* (Meikle 1977), *Flora of Iraq* (Agnew 1980), *Flora Palaestina* (Zohary 1987), and some other publications (Boissier 1867, Davis 1957, Davis 1967a, Özhatay 1979, Hartvig 1986, Akıncı & Özhatay 1990). Specimens in MARA and GAZI were used as reference material.

## Results

***Linum pamphylicum* (Boiss.) Podp. subsp. *olympicum* G. Kaynak & Ö. Yılmaz, subsp. *nova* (Figs. 1 and 2)**

*Affinis L. pamphylici* (Boiss.) Podp. sed foliis inferioribus spatulatis acutis, foliis superioribus linearibus vel lineari-spatulatis differt.

## Material and methods

The specimens reported here were collected from Soğukpınar, Pınarcık and Dağdibi to the south of Uludağ Mountain (Bursa) in 2000

HOLOTYPE: Turkey. [A2] Bursa: Uludağ, Soğukpınar, 900



**Fig. 1.** *Linum pamphylicum* subsp. *olympicum* (from the holotype). — **a**: Plant. — **b**: Median cauline leaves. — **c**: Basal leaves. — **d**: Petal. — **e**: Sepal. — **f**: Scabrid ridges of flowering stem.

m, 03.VI.2001, Ö. Yılmaz (BULU 11994; isotypes GAZI, MARA).

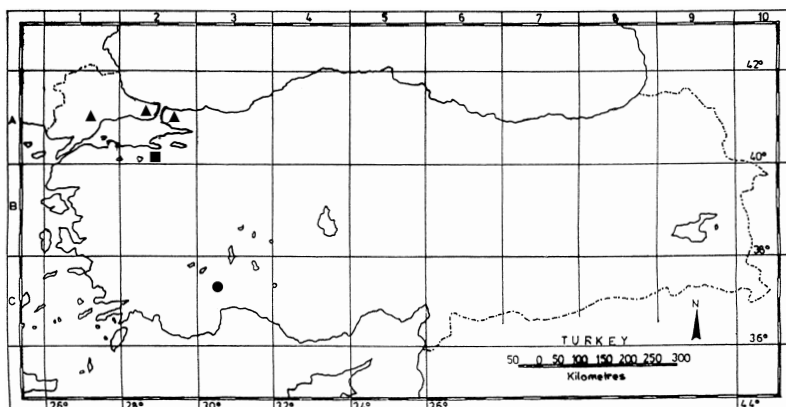
Perennial. Flowering stems erect or ascending, 14–30 cm long, with scabrid ridges and persistent basal rosettes. Rosette leaves spatulate, acute; median cauline leaves linear or linear-spatulate, acute, 1–3 nerved, lateral nerves obscure,  $11\text{--}24 \times 1\text{--}3$  mm, with stipular glands. Cyme 3–17-flowered. Flowers heterostilous; sepals (8–)9–12 mm long, keeled, with narrow membranous glandular-ciliate margins; petals yellow, 22–30 mm long. Capsule 4 mm, beak 1–1.5 mm. Flowering in May–June.

**ETYMOLOGY:** The epithet *olympicum* is derived from Uludağ's mythological names.

**DISTRIBUTION AND SUGGESTED CONSERVATIONAL STATUS:** Endemic to NW Anatolia and known from three localities on the Uludağ Mountain. Although the populations are in good condition, it could be regarded as vulnerable (VU; IUCN 2000).

**ECOLOGY:** *Linum pamphylicum* subsp. *olympicum* grows on serpentine with dioritic and peridotitic soil, with some characteristic plants, such as *Quercus cerris* var. *cerris*, *Juniperus oxycedrus* subsp. *oxycedrus*, *Linum tenuifolium*, *Paronychia amani*, *Paracaryum incanum*, *Silene*

**Fig. 2.** Distribution of (▲) *L. tauricum* subsp. *bospori*, (■) *L. pamphylicum* subsp. *olympicum* and (●) *L. pamphylicum* subsp. *pamphylicum* in Turkey.



*dichotoma* subsp. *euxina*, *Papaver strictum*, *Thymus praecox* subsp. *scorpilii* var. *scorpilii*, and *Fumana thymifolia* var. *viridis*.

*Linum pamphylicum* subsp. *olympicum* is closely related to *L. tauricum* subsp. *bospori* (both belong in sect. *Syllinum*) except for having a flowering stems with scabrid ridges, spatulate, acute basal leaves, and lanceolate sepals. Both *L. pamphylicum* subsp. *olympicum* and *L. pamphylicum* subsp. *pamphylicum* have flowering stems with scabrid ridges and basal rosettes, cyme with peduncles spreading at ca. 45° and ending in 3-flowered cymules. However, *Linum pamphylicum* subsp. *olympicum* has acute-spatulate rosette leaves, less than 10 mm long and linear or linear-spatulate cauline leaves that are different from those of *L. pamphylicum* subsp. *pamphylicum*.

The three subspecies can be identified as follows:

1. Stems with smooth ridges; sepals narrowly ovate, 6–8 mm ..... *L. tauricum* subsp. *bospori*
1. Stems with scabrid ridges; sepals lanceolate, 8–12 mm ..... 2
2. Flowering stems less than 15 cm; basal leaves orbicular-spatulate, obtuse, 10–15 mm; cauline leaves oblong-lanceolate, 2–6 mm wide ..... *L. pamphylicum* subsp. *pamphylicum*
2. Flowering stems 14–30 cm; basal leaves spatulate, acute, less than 10 mm; cauline leaves linear or linear-spatulate, 1–3 mm wide ..... *L. pamphylicum* subsp. *olympicum*

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