

CONTRIBUTIONS TO THE FLORA OF EUROPEAN TURKEY

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SUMMARY

Alyssum hirsutum Bieb. (*Brassicaceae*), *Pistacia terebinthus* L. subsp. *palaestina* (Boiss.) Engler (*Anacardiaceae*) *Lamium album* L. (*Lamiaceae*) and *Euphorbia macroclada* Boiss. (*Euphorbiaceae*) have been added to the flora of European Turkey, following the collection of specimens from A1(E) Edirne and Çanakkale. In addition, two taxa, *Pistacia terebinthus* subsp. *palaestina* and *Euphorbia macroclada* represent new records for the flora of Europe.

ÖZET

Trakya'nın A1 (E) Edirne ve Çanakkale illerinden toplanmış ve EDTÜ saklanan örneklerle *Alyssum hirsutum* Bieb. (*Brassicaceae*), *Pistacia terebinthus* L. subsp. *palaestina* (Boiss.) Engler (*Anacardiaceae*) *Lamium album* L. (*Lamiaceae*) ve *Euphorbia macroclada* Boiss. (*Euphorbiaceae*) Trakya florasına ilave edilmiştir. *Euphorbia macroclada* ve *Pistacia terebinthus* subsp. *palaestina* Trakya florası için olduğu gibi Avrupa florası içinde yeni kayıttır.

Key words: Flora of European Turkey, flora of Europe, new records

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RESULTS AND DISCUSSION

The principal references dealing with the flora of European Turkey are Davis (1,2), Webb (3), Hayek (4), Tutin et al. (5) and Turrill (6), although the last named only covers the flora of the Gelibolu Peninsula. Apart from the main references, several recent papers (7-9) and a check-list of "Flowering plant & Fern of European Turkey" [9] have been published on the flora of this region reflecting the many species that have been added to the flora of this part of Turkey in recent years.

During recent field studies, some plant specimens collected during the period 1987-2000 from Edirne and Çanakkale provinces have proved to be new to the flora of European Turkey. It has not been difficult to determine them using the basic floras (1,2,5). These specimens were determined as *Alyssum hirsutum* Bieb. (*Brassicaceae*), *Pistacia terebinthus* L. subsp. *palaestina* (Boiss.) Engler (*Anacardiaceae*) *Lamium album* L. (*Lamiaceae*) and *Euphorbia macroclada* Boiss. (*Euphorbiaceae*). There are no record of their presence in the flora European Turkey, either noted in the flora of Turkey (1,2) or in other floristic publications related to the area (3,10).

The presence of *L.album* and *A. hirsutum* in the European part of Turkey is not unexpected. These plants are distributed through most of Europe, including the two countries neighbouring Turkey, i.e. Greece and Bulgaria (5). According to Davis (1,2) and Tutin (5) *Pistacia terebinthus* subsp. *palaestina* and *Euphorbia macroclada* are not recorded from the European flora, and accordingly they represent new records for the area covered by *Flora Europaea*.

The short descriptions of these species based mainly collected specimens are given below, together their distribution :

***Alyssum hirsutum* Bieb., FL. Taur.-Cauc. 2:106 (1808)**

Annual, up to 40 cm. Leaves oblanceolate to obovate. Racemes strict, elongate, up to 20 cm. Branches divergent or ascending. Sepals deciduous. Petals bilobed, constricted below limb, (2,5-)3-4,5(-5)x1-1,5 mm. Fruit 5-6 mm long sericeous, bearing strongly tuberculate hairs and adpressed, few-rayed, stellate hairs. Seed winged, 0,3-0,5 mm wide. Flowering time: April-June. Disturbed and ruderal habitats, cultivated land, steppe,

Distribution in European Turkey (Map 1) : A1 (E) EDİRNE: Edirne, Karaağaç, roadside, 05. vi. 1988, F. Dane EDTU 2685! det. N. Orcan.

Distribution in Turkey : A2(A) İstanbul, A3 Ankara, A4 Çankırı, A5 Kastamonu, B4 Ankara, B5 Kayseri, B8 Bingöl, C2 Burdur, C3 antalya, C4 Konya, C5 İçel.

General distribution: S. E. Europe, Balkans (Bu, Ju), Crimea, Caucasus, Soviet, Armenia. Euro-Sib. element.

New record for European Turkey.

***Pistacia terebinthus* L. subsp. *palaestina* (Boiss.) Engler, in DC., Monogr. Ph. 4 :290 (1883).**

Shrub 2-3 m, or small tree up to 6 m, often galled. Leaves deciduous, imparipinnate or paripinnate; leaflets (1-)2-4(-6)-paired, terminal leaflet of median leaves always smaller than the laterals or reduced to a bristle; lateral leaflets oblong-lanceolate, acuminate, glabrous, dark green above, paler beneath; rachis not winged, glabrous. Fruit paniculate, globose or broadly obovate, 5-6x4-6 mm.. Flowering time: March-May. Rocky slopes, macchie and pseudomacchie, *Pinus brutia* forest.

Distribution in European Turkey (Map 1): A1(E) Çanakkale: Gelibolu- Bayırköy, 11 km 09. vii. 1986, İ. Uysal EDTU 2873! Eceabat- Gelibolu, 12 km 09. vii. 1986, İ. Uysal EDTU 2874! Kilitbahir-Abideler, 6 km, 09. vii.1986, İ. Uysal EDTU 2883! Conk bany, 7.vii. 1987, G. Dalgıç and F. Dane EDTU 1761!

Distribution in Turkey : A1(A) Çanakkale, A3 Zonguldak, A4 Kastamonu, A5 Amasya, A6 Tokat, A7 Trabzon, B2 Manisa, B5 Kayseri, B7 Malatya, C1 İzmir, C2 Muğla, C3 antalya, C4 İçel, C5 Seyhan, C6 Hatay.

General distribution: Cyprus, Latakia, Lebanon, Palestine. E. Medit. element.

New record for Europe.

***Lamium album* L., Sp. Pl. 579 (1753).**

Glabrous to pilose stoloniferous perennial. Stem 17-60 cm or more, petioles erect, lamina broadly ovate, 10-60 x 10-50 mm, obtuse to acute, cordate to truncate, coarsely crenate to dentate or doubly dentate, pubescent-pilose or – glabrous, sparingly glandular. Bracts lanceolate to ovate, lower usually acute, upper acuminate. Verticillasters 2-8, 8-10-flowered, distant. Bracteoles 1-7 mm. Calyx 9-15 mm; teeth 4-8,5 mm, subequal to or slightly longer than tube, ciliate-setose [or setulose], eglandular or with a few glands near apex. Corolla white, 20-27 mm; tube 6,5-16 mm, straight, with annulus; upper lip 9-18 mm, entire; lower lip 4,5-10 mm. Nutlets 2,8-3,3 x (1,4-)1,6 mm, dark or greyish brown. Flowering time : May- July. *Abies* forest, *Quercus* scrub, rocky slopes (usually igneous), streamsides.

Distribution in European Turkey (Map 1): A1(E) Çanakkale: Eceabat, Anafartalar rocky slopes, 20. v. 1987, F. Dane EDTU 2829! Gelibolu, Bolayır, stream and roadside, 20. v. 1987, F. Dane EDTU 2819! Edirne, Center, field and roadside, 20. iv. 1995, F. Dane, EDTU 6021! Det. F. Dane. Kırklareli, Soğucak, 23. iv. 2000, G. Dalgıç and F. Dane EDTU 7834 !

Distribution in Turkey : A7 Giresun, A8 Gümüşhane, A9 Kars, B5 Kayseri, B8 Erzurum, C5 İçel.

General distribution: Balkans (Bu, Gr, Ju). Most of Europe but rare in the south and absent from many islands. Euro-Sib. element.

New record for European Turkey.

Euphorbia macroclada Boiss., Diagn. Ser. 1(5): 54 (1884).

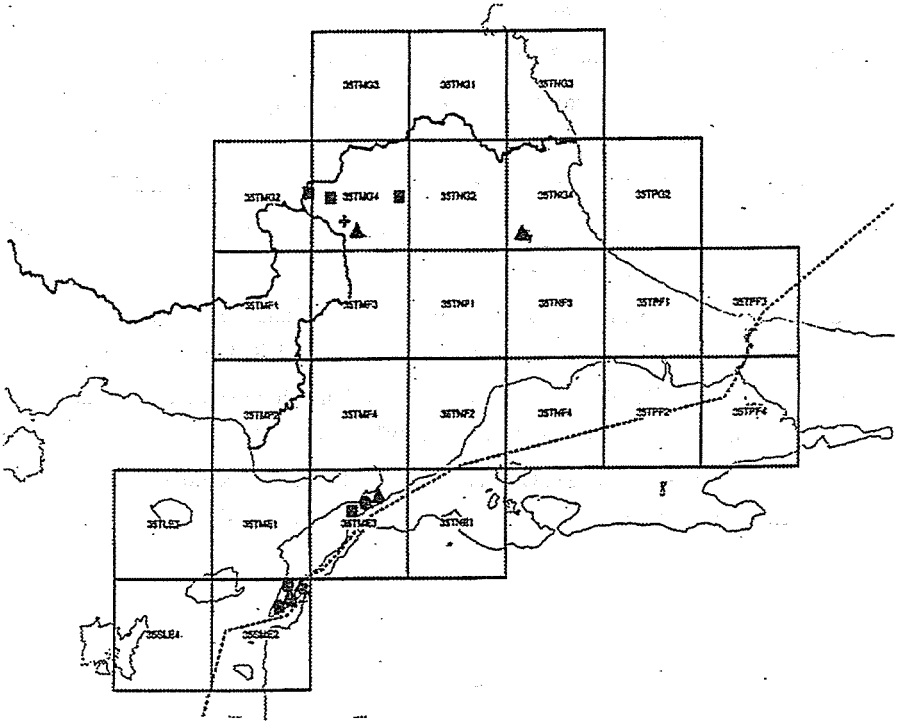
Minutely pruinose-papillbse glaucous perennial with several simple stems to 70 cm arising from a creeping rootstock. Cauline leaves elliptic-lanceolate to oblanceolate, (2-)3-8,5 x 0,5-1,8 cm, acute or subacute, entire, often prominently palmately nerved. Ray-leaves elliptic-ovate to broadly ovate. Raylet-leaves rhombic-ovate, broadly ovate or reniform, 0,7-2 x 1-2,5 cm, obtuse, mucronate, rounded, truncate or shallowly cordate, yellowish. Rays 5-9, to 3 or 4 times dichotomous; axillary rays 1-11. Glands usually 2-horned, horns often lobate or multifid. Cyathial lobes bifid, densely pubescent. Fruit ovoid to ovoid-conical, rounded-trilobate, 4-5 mm diam., pruinose-papillose and weakly sparingly pilose. Seed ovoid, 3 mm, smooth, pale grey, caruncle conical. Flowering time : May-September. Open *Pinus* and *Quercus* forest, *Astragalus* and *Artemisia* steppe, rocky slopes, dried-up lake shores, vineyards, waste land, roadsides.

Distribution in European Turkey (Map 1): A1(E) ÇANAKKALE : Eceabat, Kilitbahır- Behramlı 10 km, roadside 9. vii. 1986, İ. Uysal EDTU 585! det. İ. Uysal. Gelibolu-Bolayır 16 km, roadside 9. vii.1986, İ. Uysal EDTU 4591! det. İ. Uysal. EDİRNE : Edirne, Süluoğlu [I assume], roadside, 1. vi. 1987 F. Dane *et al.*, EDTU 722! Sarayakpınar (Sırpsındığı), roadside, 2. vi. 1987, G. Dalgıç *et al.*, EDTU 815! Budakdoğanca, roadside, 8. vii. 1988, F.Dane *et al.*, EDTU 2405!

Distribution in Turkey : A1(A) Çanakkale, A3 Zonguldak, A4 Kastamonu, A5 Amasya, A6 Tokat, A7 Trabzon, B2 Manisa, B5 Kayseri, B7 Malatya, C1 İzmir, C2 Muğla, C3 antalya, C4 İçel, C5 Seyhan, C6 Hatay.

General distribution: W. Syria, Syrian Desert, N. Iraq, N.W., W & C. Iran, Soviet Armenia. Ir.-Tur. element.

New record for Europe



Map 1 : Distribution of *Alyssum hirsutum* (+), *Pistacia terebinthus* subsp. *palaestina* (⊙), *Lamium album* (▲) and *Euphorbia macroclada* (■) in European Turkey.

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