

NEW RECORDS FOR THE FLORA OF TURKEY AND TWO NEW SPECIES FROM ANATOLIA

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ABSTRACT. Two new species are described from Turkey: *Gypsophila peshmenii* A. Güner (Caryophyllaceae), and *Campanula peshmenii* A. Güner (Campanulaceae). The following taxa are recorded from Turkey for the first time: *Ranunculus bulbosus* L. subsp. *bulbosus*, *Paeonia wittmanniana* [Hartwiss ex] Lindl. var. *nudicarpa* Schipcz., *Draba bruniifolia* Stev. subsp. *archipelagi* (Gilg ex Schulz) Coode & Cullen, *Polygonum minus* Hudson, *P. thunbergii* Sieb. & Zucc., *Geranium sibiricum* L., *Heracleum sosnowskyi* Manden., *Aster subulatus* Michaux., *Artemisia verlotiorum* Lamotte, and *Juncus tenuis* Willd.

The new records (except *Draba bruniifolia* subsp. *archipelagi*) are based on a floristic study of the northern face of the Kaçkar range of mountains (Fig. 1) in NE Turkey in 1980-82. The specimens of two of the new species and that of *Draba bruniifolia* subsp. *archipelagi* were collected by the late Doç. Dr. H. Peşmen and Doç. Dr. A. Pamukçuoğlu respectively. All specimens cited in the account below have been checked at the Royal Botanic Garden, Edinburgh, during a three-month study visit. The localities of new records are shown in Fig. 1. Specimens are lodged at Hacettepe University (HUB) and in many cases E.

RANUNCULACEAE

Ranunculus bulbosus L. subsp. *bulbosus* (Fig. 1)

A8 Rize: Ardeşen to Findikli, roadsides, 5m, 23 v 1981, A. Güner 3592.

Ranunculus bulbosus L. is divided into six subspecies in *Flora Europaea*. Of these only *R. bulbosus* subsp. *aleae* (Willk.) Rouy. & Fouc. was previously known from Turkey (one gathering from A5 Amasya—fide *Flora of Turkey*). *R. bulbosus* subsp. *bulbosus* is characterised by having a conspicuously swollen and corm-like stock (usually without fibres), a subglobose receptacle, and finely punctate achenes. Subsp. *aleae* is easily distinguished from subsp. *bulbosus* by its not or scarcely swollen and corm-like stock, usually with abundant fibres, elongate-conical receptacle, and smooth achenes.

PAEONIACEAE

Paeonia wittmanniana [Hartwiss ex] Lindl. var. *nudicarpa* Schipcz. (Fig. 1)

A8 Rize: Çamlıhemşin, around Yukari Amlakit Yaylası, *Rhododendron caucasicum* scrub, granite slopes, 2350m, 20 ix 1979, A. Güner 2188 (fruiting material); ibid., 25 vi 1981, A. Güner 3842 (colour slide).

This is the only yellow-flowered species of *Paeonia* in Turkey. There are two yellow-flowered species in Caucasia, *P. mlokozewitschi* Lomak. and *P. wittmanniana*. Our specimens approach *P. wittmanniana* var. *nudicarpa* by possessing red filaments and glabrous fruits: the typical variety of the

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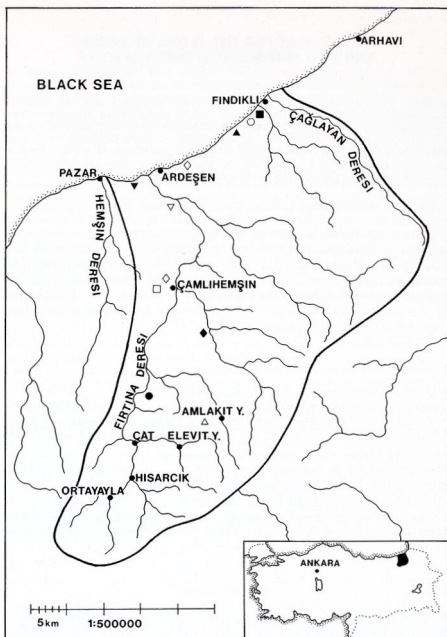


FIG. 1. Map of study area showing location of new records. ○, *Ranunculus bulbosus* subsp. *bulbosus*; △, *Paeonia wittmanniana* var. *nudicarpa*; ▼, *Lepidium virginicum*; ●, *Polygonum minus*; ▲, *Polygonum thunbergii*; ◆, *Geranium sibiricum*; □, *Heracleum sosnowskyi*; ■, *Aster subulatus*; ◇, *Artemisia verlotiorum*; ▽, *Juncus tenuis*.

species has tomentose fruits. *P. mlokosewitschi* differs from *P. wittmanniana* in its yellow filaments, shortly apiculate to rounded leaf apex, and indumentum on the lower leaf surface (Stern, 1946); it always has tomentose fruits. The specimens cited are close to *P. mlokosewitschi* in leaf shape, but are distinguished by their red filaments and glabrous fruits. The group requires further study.

CRUCIFERAE/BRASSICACEAE

***Draba bruniifolia* Stev. subsp. *archipelagi* (Gilg ex Schulz) Coode & Cullen**
B1 Izmir: Kemalpaşa, Nif Dağı, 18 vi 1968, A. Pamukçuoğlu.

A new record for the Anatolian part of the *Flora of Turkey* area.

CARYOPHYLLACEAE

***Gypsophila peshmenii* A. Güner, sp. nov. (subgen. *Gypsophila*)**

A *G. briquetiana* Schischk. caulibus longioribus, calyce dentibus acuminatis differt.

Planta perennis, pulvinata, rhizomate lignoso. *Caulis* 12–17cm altus, supra glanduloso-pubescent. *Folia basalia* 4–15 × 0.5mm, linearia, glabra, aliquantum triquetra. *Folia caulina* 5–8 × 0.5mm, linearia, glabra, triquetra. *Inflorescentia* dichasialis, raro cymis axillaribus, 3–11-flora, glanduloso-pubescent. *Bractae* foliaceae, glanduloso-pubescentes, acuminatae. *Pedicelli* 5–7mm longi, glanduloso-pubescentes, calycibus aequilongiores vel longiores. *Calyces* c. 5mm longi, campanulati, albi, viridicostati; *dentes* ovati, acuminati. *Petala* 8 × 3mm, anguste obtriangularia, rosea, apicem subintegra vel retusa. *Filamenta* 4.5mm longa; *antherae* 0.7–0.9mm longae. *Ovarium* 2 × 1mm, ellipsoideum. *Capsula* ignota. *Fl.* Junio.

Type: [Turkey] B9 Bitlis: Tatvan, Karz Deresi üstü (above Karz stream), kalkerli dere yamacı (limestone slopes), 1800–2600m, 25 vi 1972, H. Peşmen 2924, (holo. HUB, iso. E).

Close to *G. briquetiana* Schischk. and *G. adenophylla* Bark., but differing from both species in its taller stem, as well as from the former in its acuminate calyx teeth, and from the latter in its glabrous leaves. *G. adenophylla* has glandular-pubescent leaves, and stems at most 4cm tall. *G. briquetiana* has obtuse calyx-teeth, and 3–8cm stems. All these species are from eastern Anatolia.

The specimen is named after its collector, the late Doç. Dr. H. Peşmen—my supervisor and an outstanding Turkish taxonomist who was killed in a road accident in 1980.

POLYGONACEAE

***Polygonum minus* Huds. (Fig. 1)**

A8 Rize: Çamlıhemşin, around Zilkale (Koluna) Köyü, 950m, 10 viii 1981, A. Güner 4119.

This species has been cited as 'species doubtfully recorded' in the *Flora of Turkey*. Measurements of the nut have been given wrongly: it is 1.5–3mm (not 3–4mm). Measurements of the nut of *P. mite* Schrank should be changed to 3–4.5mm on the same page of *Flora of Turkey*.

Polygonum thunbergii Sieb. & Zucc. (sect. *Echinocaulon* Meisn). (Fig. 1). A8 Rize: Ardeşen to Findikli, sea shores, 1m, 29 x 1980, A. Güner 3099.

Both the species and the section are new records for Turkey. This species differs from other Turkish species of *Polygonum* in its angled stems which are loosely covered by short retrorse prickles—a character which is also an important feature of the section. It is worthwhile giving a short description of the species.

Annual. Stem 4-angled, covered with short, retrorse prickles on the angles. Petioles 1–7cm. Leaves 3–12 × 2–10cm, hastate, subtruncate at base, constricted above the basal lobes. Ochreae membranous, cylindrical, the green apical flange reflexed. Flowers in compact glomeruli at the end of branches. Peduncles glandular-hairy. Perianth segments to 7mm long. Achenes trigonous, smooth, cream-coloured.

GERANIACEAE

Geranium sibiricum L. (Fig. 1)

A8 Rize: Çamlıhemşin to Ayder, around Gürgendibi, with *Pteridium aquilinum*, c. 900m, 12 viii 1981, A. Güner 4148 (white-flowered).

A new record for Turkey. Close to *G. asphodeloides* Burm. fil., but easily distinguished from it by its eglandular, strongly deflexed-pilose pedicels, shorter petals (c. 6mm in length), and smooth seeds.

UMBELLIFERAE/APIACEAE

Heracleum sosnowskyi Manden. (Fig. 1).

A8 Rize: Çamlıhemşin, Boğaziçi Köyü, around Tumaslı, 450–650m, 3 ix 1978, A. Güner 1800 (det.: I. P. Mandenova, 1979); Çamlıhemşin, Aşağı Vice Mahallesi, 300–550m, 16 viii 1980, A. Güner 3057.

A new record for Turkey. Close to *H. paphlagonicum* Czeczott from A4 Kastamonu, but differing from it in its ternate basal leaves.

COMPOSITAE/ASTERACEAE

Aster subulatus Michaux (Fig. 1).

A8 Rize: around Findikli, 3m, 11 viii 1981, A. Güner 4125 (det. A. J. C. Grierson, 1982).

Introduced. Native in America. A new record for Turkey. Close to *A. tripolium* L., but distinguished from that species by the following characters: Phyllaries 5–6 × 0.5–0.8mm, acute to acuminate; disc flowers 3mm; achenes hairy all over the surface; and pappus up to 4mm. I think

that this species will spread rapidly in Turkey as it has in Israel (Danin, *Notes RBG Edinb.* 34: 403-410, 1976).

***Artemisia verlotiorum* Lamotte (Fig. 1).**

A8 Rize: Ardeşen-Findikli, roadsides, 5m, 29 x 1980, *A. Güner* 3091; Çamlıhemşin to Ardeşen, corn fields, 100-250m, 22 v 1981, *A. Güner* 3573 (overwintering rosettes).

Introduced and naturalized. Native in SW China. Close to *A. vulgaris* L., but differing from it by the following features: plant with long rhizomes and overwintering rosettes; capitula c. 2mm wide; inner phyllaries glabrescent.

CAMPANULACEAE

***Campanula peshmenii* A. Güner, sp. nov. (sect. *Rupestres* (Boiss.) Charadze).**

A *C. massalskyi* Fomin. foliis basalibus majoribus, late ellipticis vel ovatis, leviter crenatis vel integris, foliis caulibus saepissime integris differt.

Herba caespitosa, saxatilis, perennis, basi collo crasso suberoso-squamoso. *Caules floriferi* numerosi, prostrati, 9-12cm longi, plerumque simplicibus, hirsuto-tomentosi, omnino foliosi. *Folia basalia* rosulata, late elliptica vel ovata, integra vel leviter crenata, crispe tomentella, 15-20 x 10-14mm, petiolo 15-25mm longo, crispe tomentosa. *Folia caulina* late ovato-cordata usque anguste ovata, crispe tomentella, saepissime integra, usque ad 9 x 10mm, sessilia vel usque ad 2mm petiolata, apices obtusae vel acutae. *Inflorescentia* racemosa, 3-6-flora, flore terminali primo aperianti. *Flores* patentes, usque ad 3mm pedicellati. *Lobi calycis* triangulari-lanceolati, erecti, acuti, tomentosi, 4-5 x 2-2.5mm; *appendices* inconspicuae. *Corolla* cylindrico-infundibularis, 10-13mm longa, lactea, extus tomentosa, ad 1/4 in lobos triangulari-ovatos, acutos fissa. *Filamenta* ovata, ciliata, c. 2mm longa; *antherae* 4.5mm longae. *Receptaculum* glabrum. *Stylus* in tubo inclusus, breviter trilobatus. *Capsula* ignota. *Fl.* Julio.

Type: [Turkey] B6 Malatya: Doğanşehir, Eskiköy, Meletbaşı Mezresi karşısı, kalker kayalığı (limestone rocks), 1800-2000m, 26 vii 1971, *H. Peşmen* 2717 (holo. HUB; photo. ANK, E).

This new species belongs to section *Rupestres* (Boiss.) Charadze, being close to *C. massalskyi* Fomin and *C. incanescens* Boiss. It differs from the former in the following characters: stems 3-6-flowered (v. 1-3-flowered); basal leaves 15-20 x 10-14mm (v. 5-7 x 5-7mm), slightly crenate to entire (v. irregularly dentate-undulate); all leaves green on both surfaces (v. bright green above, grey-tomentose beneath). *C. peshmenii* is distinguished from *C. incanescens* by having long-petiolate (15-25mm) and slightly crenate to entire basal leaves (those in *C. incanescens* are crenate-dentate, sessile or shortly petiolate).

The species is named in honour of its collector, the late Doç. Dr. H. Peşmen (see p. 285).

JUNCACEAE

Juncus tenuis Willd. (subgen. *Pseudotenageia* V. Krecz. & Gontsch.)

A8 Rize: Ardeşen, Firtina Köprüsü to Bakoz, sandy places, 10–200m, 28 vi 1980, A. Güner 2659.

A new record for Turkey.

ACKNOWLEDGEMENTS

I am grateful to Prof. P. H. Davis and I. C. Hedge and his colleagues on the herbarium staff at Edinburgh for confirming the identity of the specimens listed above and to Dr I. P. Mandenova from Tbilisi for her identification of *Heracleum sosnowskyi* Manden. I would like to thank the Turkish Scientific and Technical Research Council (TBTAK) for their financial support during my study on the flora of the Kaçkar Dağları, and also for providing me with necessary finance during my visit to Edinburgh.