



Pleurospermum austriacum (L.) Hoffm. (Apiaceae), a new species in the flora of the Republic of Macedonia

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ABSTRACT: *Pleurospermum austriacum* (Apiaceae) is reported from the Bistrica River basin in the Šar Mountains as a new native species in the flora of the Republic of Macedonia. This is also the first report of the genus *Pleurospermum* in the country's flora.

KEYWORDS: *Pleurospermum*, first report, native species, Šar Mountains, Balkan Peninsula

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A number of species or subspecies new for the flora of the Republic of Macedonia have been reported in recent years. A significant part of those reports originate from the massif of the Šar Mountains situated in the northwest part of the country. Some of the most recently reported are: *Lactuca intricata* Boiss., *Rubus wahlbergii* Arrh. and *Senecio othonnae* M. Bieb. (TEOFILOVSKI 2011); *Cephalaria pastricensis* Dörf. & Hayek and *Peucedanum officinale* L. (TEOFILOVSKI 2014); *Juncus filiformis* L. (TEOFILOVSKI *et al.* 2015); *Eleocharis mamillata* subsp. *austriaca* (Hayek) Strandh. and *Salix repens* subsp. *rosmarinifolia* (L.) Andersson (MELOVSKI & HRISTOVSKI 2015); *Carduus ramosissimus* Pančić (NIKETIĆ *et al.* 2017); *Wulfenia carinthiaca* Jacq. (TEOFILOVSKI 2017); etc.

During field study in these mountains in 2018, one more native species new for the flora of the Republic of Macedonia was revealed. Herbarium specimens are stored in the private herbarium of the author labelled with proper data regarding the population, location, habitats, etc. Identification was performed according to TUTIN (1968). The distribution of this species is presented on a relief map.

***Pleurospermum austriacum* (L.) Hoffm.** (Figs. 1 and 2)

Description: Monocarpic perennial or biennial, 50-200 cm. Stock with fibres. Stem very stout, hollow, ridged; branches alternate. Lower leaves alternately 2- to 3-pinnate, triangular-ovate in outline; lobes 4-10 cm, ovate, cuneate, pinnatifid, coarsely crenate-dentate, with a

wide obtuse cartilaginous apex, sparsely hairy on margins and veins beneath. Rays 12-20 (-40), weakly angled. Bracts numerous, eventually deflexed, entire or shallowly lobed; bracteoles numerous, lanceolate, entire, with membranous margins. Sepals small. Petals white, suborbicular, shortly clawed, papillose within. Fruit ovoid-oblong, slightly compressed laterally, 9-10 mm; mesocarp spongy, often breaking down and leaving an air-space between exocarp and endocarp as the fruit ripens. Ridges usually unwinged; vittae solitary [description extended in relation to that of TUTIN (1968)].

Record in the Republic of Macedonia: Šar Mountains - Bistrica River basin, Smik, open moist habitat, 1475 m, 42° 6' 55.81" N, 20° 59' 14.82" E, 18.6.2018, leg. A. Teofilovski.

The range of this species comprises much of Central and Southeast Europe including an isolated locality in Sweden (TUTIN 1968; HAND 2011). On the Balkan Peninsula, it occurs in all countries except Albania, Greece and the European part of Turkey (HAND 2011; DIMOPOULOS *et al.* 2013; BARINA *et al.* 2017). Among the countries neighbouring Macedonia, *P. austriacum* is known only from the western and eastern parts of Serbia (Zlatibor, Beljanica and the Stara Planina Mts.) (NIKOLIĆ 1973) and from Mt. Rila in Bulgaria (ASSYOV *et al.* 2012). In view of the previous known distribution, the new record of this species in the Šar Mountains (northwest Macedonia) is considered a significant extension of its range toward the southwest part of the Balkan Peninsula. This



Fig. 1. *Pleurospermum austriacum* (with a detail of a flower) (photo. A. Teofilovski)

report is also the first record of the genus *Pleurospermum* Hoffm. in the flora of the Republic of Macedonia. *Pleurospermum uralense* Hoffm., the only other representative of this genus occurring in Europe, is distributed in the European part of Russia and in Southeast Asia (HAND 2011).

During intensive field work in the Šar Mountains over the past few years, only one group of six individuals of *P. austriacum* has been spotted, at the Smik locality in the basin of the Bistrice River. They were found growing on a north-exposed slope in a canyon of a mountain stream, in a moist open habitat close to a beech forest. The following robust herbaceous plants were observed together with this species: *Angelica sylvestris* sl., *Aruncus dioicus* (Walter) Fernald, *Dryopteris filix-mas* (L.) Schott, *Epilobium angustifolium* L., *Geranium macrorrhizum* L., *Rubus idaeus* L. *Salvia glutinosa* L. and *Tanacetum macrophyllum* (Waldst. & Kit.) Sch. Bip., accompanied by juvenile individuals of *Acer platanoides* L. and *A. pseudoplatanus* L. Unfortunately, the recorded population grows precisely in an area where construction of a forest road is planned, a project the realisation of which would inevitably lead to the population's complete extinction.

Marked with a question mark, this species was quoted by FORMANEK (1896) for Adzibarica (Mt. Kožuf), but

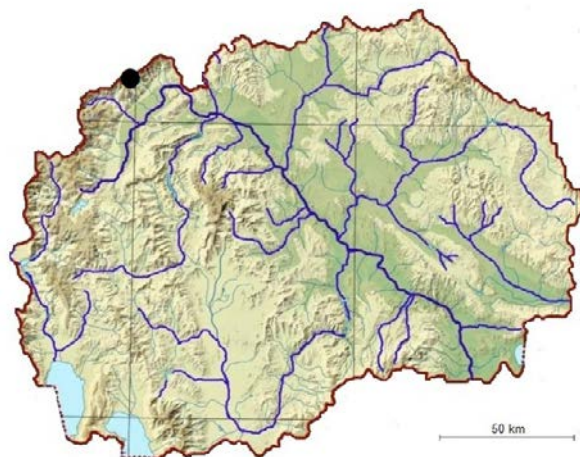


Fig. 2. Distribution of *Pleurospermum austriacum* in Macedonia

according to the revision of VANDAS (1909) that report was actually based on a herbarium specimen belonging to *Peucedanum austriacum* (Jacq.) W. D. J. Koch.

The species *P. austriacum* and the genus *Pleurospermum* are here recorded for the first time in the native flora of the Republic of Macedonia, in the basin of the Bistrice River (Šar Mountains). According to present knowledge, the given species has a very restricted distribution in these mountains. This record is also of phytogeographic importance, representing an extension of the species' range toward the southwest part of the Balkan Peninsula.

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BOTANICA SERBICA



REZIME

Pleurospermum austriacum (L.) Hoffm. (Apiaceae), nova vrsta za floru Republike Makedonije

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Pleurospermum austriacum (Apiaceae) je zabeležen u basenu reke Bistrice na Šar planini kao nova vrsta za floru Makedonije. Ovo je, takođe, i prvi nalaz roda *Pleurospermum* za floru Makedonije.

KLJUČNE REČI: *Pleurospermum*, prvi nalaz, native vrste, Šar planina, Balkansko poluostrvo

