

Sison amomum L. (Apiaceae), a new species in the flora of Bosnia and Herzegovina

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Abstract

Sison amomum L. (Apiaceae) was recorded for the first time in Bosnia and Herzegovina during a fieldwork in the vicinity of the city of Tuzla (northeast Bosnia) in September 2019. This study reports the newly discovered localities and presents a short morphological description of the species.

Keywords: Bosnia and Herzegovina, distribution, new records, *Sison*, vascular flora

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Sažetak

U rujnu 2019. u Bosni i Hercegovini je po prvi put zabilježena vrsta *Sison amomum* L. (Apiaceae) u okolici grada Tuzle (sjeveroistočna Bosna). U radu se iznosi kratak opis morfoloških karakteristika vrste kao i karta rasprostranjenosti vrste u Bosni i Hercegovini.

Ključne riječi: Bosna i Hercegovina, rasprostranjenost, *Sison*, vaskularna flora

Introduction

The genus *Sison* L. (Apiaceae) includes only three species in West and South Europe, south-west Asia and North Africa (Pimenov & Leonov 1993, Sell & Murell 2009, Hand 2011). According to Hand (2011), two species of the genus *Sison* occur in Europe, *S. amomum* L. and *S. segetum* L. So far, no species of this genus have been recorded in the territory of Bosnia and Herzegovina (Beck-Mannagetta 1927).

The species *S. amomum* grows natively in West and South Europe, Asia Minor and North Africa (Hegi 1926, Sell & Murell 2009). In the European region the species was reported in Albania (Barina et al. 2011), Belgium (Zwaenepoel & Vanhecke 1995), Bulgaria (Asenov 1982), Croatia (Hayek 1927, Nikolić 1997), France (Bonnier & Douin 1990), Germany (Buttler et al. 2018), Great Britain (Sell &

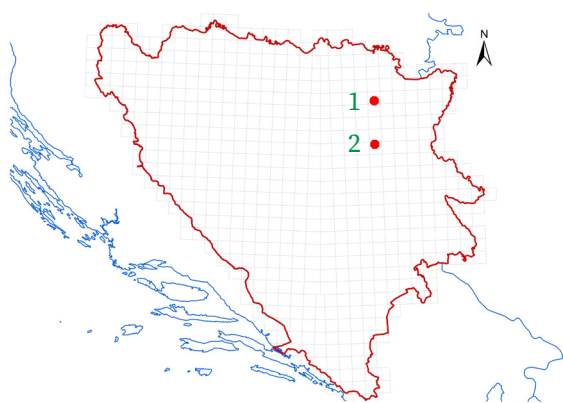


Figure 1. The distribution of *Sison amomum* in Bosnia and Herzegovina. Locality 1 is Gornji Srebrenik and locality 2 is Hrvati (Banovići).

Murell 2009), Greece (Halácsy 1901, Hayek 1927), Italy (Pignatti 1982), Romania (Săvulescu 1958), Russia-in-Europe (Pimenov & Ostroumova 2012), Spain (Aedo 2003), Switzerland (Hess et al. 1977), European Turkey (Pesmen 1972) and Ukraine (Greuter & Raus 1995).

Digital photographs and GPS coordinates were taken near Gornji Srebrenik (Fig. 2). Identification of the specimens was done according to Tutin (1980) and Aedo (2003). The taxonomy and nomenclature of species have been adjusted according to Hand (2011). The specimen from Gornji Srebrenik was collected and stored in the Herbarium of the National Museum of Bosnia and Herzegovina (SARA 51988).

Results and discussion

Sison amomum L., also known as Stone Parsley is glabrous biennial plant, with a strong, petrol-like smell when squeezed and a strong tap-root. Stems are 50-150 (200) cm tall, erect, striated, solid, branched in the upper half, without fibrous remains at the base. Leaves are glabrous, lower long-petiolate, simple to 2-pinnate, 5-25 × 3-15 cm, oblong or elliptical-oblong in outline with 2-5 pairs of segments which are 3-6 cm, lanceolate to ovate-lanceolate, cunate at the base, sessile or subsessile, serrate. Upper cauline leaves are mostly with

1-2 pairs of linear to narrowly spatulate, toothed segments and a short, sheathing petiole. Umbels are pedunculate, numerous terminal and axillary, composed of 3-6 glabrous rays. Bracts 2-4, linear-lanceolate to subulate; bracteoles 2-4, usually ovate-lanceolate. Flowers white or greenish-white; sepals absent; outer petals not radiating; styles with enlarged base, forming the stylopodium. Fruits 2-3 mm long, subglobose, somewhat compressed laterally, smooth; mericarps with fairly prominent ridges; carpophores present; pedicles 1-5 mm long, somewhat unequal; styles divergent to recurved. Chromosome number is $2n = 14$ (Tutin 1980, Aedo 2003, Sell & Murell 2009).

Sison amomum is Submediterranean-Subatlantic element, locally frequent on the roadsides and round fields in some parts of Europe. On the European mainland the north-western limit of its distribution is reached in Belgium (Van Assche et al. 2011). In September 2019, 35 individuals of *S. amomum* (Fig. 2) were found at two different localities along roadsides, around the city of Tuzla (northeast Bosnia), and individuals in the populations were numerous, with some plants up to 150 cm height (Fig. 2).

Locality 1 Gornji Srebrenik, 44° 42' 14.07" N; 18° 31' 47.19" E, elevation 360 m, 20 specimens were recorded on September 20th 2019, at the edge of the local road in the centre of the village, at a linear distance of about 300 m. (SARA 51988).

Locality 2 Hrvati, near Banovići, 44° 23' 13.87" N; 18° 32' 26.92" E; elevation 420 m, 15 specimens were recorded on September 11th 2019, at the edge of the local road near the Regional road R469 Zavidovići - Ribnica - Banovići - Živinice, at a linear distance of about 100 m.

The species *S. amomum* has not been reported previously from Bosnia and Herzegovina, but it is probably not rare and it is only overlooked. The origin and distribution of this species in Bosnia and Herzegovina is not clear. It is difficult to conclude whether *S. amomum* is native to Bosnia and Herzegovina or it is introduced. This estimate is



Figure 2. *Sison amomum* in the vicinity of Gornji Srebrenik: a) and b) inflorescence, c) flowers, d) semi-ripen fruits (Photos: Š. Šarić, 2019).

particularly difficult, because the flora of Bosnia and Herzegovina has not been systematically explored for a long time. Future detailed floristic research in the area should give the answer.

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