



Lectotypification of *Campanula secundiflora* Vis. & Pančić (Campanulaceae), a species of European concern

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ABSTRACT: In this paper we provide the lectotypification of *Campanula secundiflora*, the Tertiary relict and paleostenoen endemic species described by Josif Pančić and Roberto de Visiani in the first work they published jointly: *Plantae serbicae rariores aut novae – Decas I* (1862). All studied material is deposited in BEOU and PAD herbarium collections.

KEY WORDS: Campanulaceae, *Campanula secundiflora*, nomenclature, typification.

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The species *Campanula secundiflora* Vis. & Pančić was discovered by Josif Pančić (1814-1888), a Serbian botanist who collected and described many plant species new for science, alone or with the help of other European botanists, and especially with Dalmatian botanist Roberto de Visiani (1800-1878). More details about the collaboration of Pančić and Visiani can be found in CLEMENTI *et al.* (2014). Pančić collected material of *C. secundiflora* for the first time in July 1856 while the plant was still not in full flower. He determined it as *Campanula diffusa* Vahl., with a note that it is probably a new species. Five years later, in August 1861, Pančić collected specimens in full flower. He sent one of these newly-collected plants to Padova to his friend and colleague Roberto de Visiani (written by Pančić in a letter from 20 January 1863 sent to Visiani). On the basis of Pančić's plant collecting, in 1862 in the first volume of *Plantae serbicae rariores aut novae – Decas I* (VISIANI & PANČIĆ 1862), the two botanists described the new species with a detailed description and diagnosis, containing a drawing based on the specimen that Visiani had received (stated in the same letter sent by Pančić to Visiani) (Figure 2).

C. secundiflora is a Tertiary relict and paleostenoen endemic species with a restricted distribution and an isolated

position within the taxonomic system of other Serbian *Campanula* species (STEVANOVIĆ 1981). Populations of *C. secundiflora* are distributed in southwestern Serbia: Mt Jadovnik, Mt Ozren and Mt Kamena Gora, in the gorge of Panjica river (near the village of Dobrače), in the canyon of Mileševka river, the Lim river canyon between Brodarevo and Bijelo Polje (LAZAREVIĆ *et al.* 2013), canyon of the Mrkovačka river near Brodarevo (unpublished herbarium data - Leg. Niketić, M. 23.08.2011 BEO), and northeastern Montenegro: gorge of Bistrica river (Đalovića gorge) (unpublished herbarium data - Leg. Lakušić, D., 16.11.2013, BEOU 37694).

As a globally endangered species (IUCN status E – "endangered" according to WALTER & GILLET 1998: 111), *C. secundiflora* is a threatened and strictly protected species in Serbia (LAZAREVIĆ *et al.* 2013). Furthermore, as a European endemic restricted to a single European country, *C. secundiflora* is treated as a "target species", or "species of European concern" (OZINGA & SCHAMINÉE 2005).

During a search for the original material, the herbarium collection in Padova (PAD) and the collection *Herbarium Pancicianum* in BEOU were consulted (acronyms follow THIERS 2014).

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Fig. 1. Lectotype of *Campanula secundiflora* Vis. & Pančić (PAD-H0023203!)

TYPIIFICATION

Campanula secundiflora Visiani & Pančić (1862: 442)

Lectotype (designated here): in fissuris rupium calc. [in clefts/fissures of calcareous rocks] ad rivum *Panjiska* [by river Panjica] Serb. [Serbia] merid. [meridionalis] Aug. [August] 1861, *J. Pančić s.n.* (PAD-H0023203!)



Fig. 2. Drawing of *Campanula secundiflora* Vis. & Pančić from *Plantae serbicae rariores aut novae – Decas I*, tab. XXVI (Visiani & Pančić 1862). a - flower bud; b - stamen; c - stylus and stigma before flowering; d - apex of stigma after flowering; e - capsule.

Protologue citation: — in fissuris rupium calcarearum ad rivum *Panjiska* circ. Užicensis.

Other original material examined: *Campanula diffusa* Vahl: *secundiflora* Vis. Pančić. Felsen des mali Rzav bei Klisura in UzicaJul 856. potuis affinis pyramidali et prob. nova! (BEOU 9536!)

We found two herbarium specimens belonging to original material. The first one, designated here as lectotype (PAD-H0023203), was collected by Pančić in August 1861 on rocks in the Panjica River gorge. According to the note left by Pančić on the label, he considered the plant closely related to *C. fragilis* Cirillo and *C. lactiflora* M. Bieb. Although the specific epithet “*secundiflora*” is not written on the label and the material is determined just as *Campanula*, the details regarding the locality on which the material was collected perfectly match the details published in the protologue and no other compatible specimens are to be found in PAD. Taking this into account, as well as the fact that the plant is in flower and clearly recognisable, we decided to designate it as lectotype. The second specimen was collected earlier by Pančić, still not in full flower (July 1856), on rocks in the Rzav gorge in Užički district. It was

determined as *Campanula diffusa* Vahl., but this original determination was later corrected by Pančić, probably after the publication of the description of *C. secundiflora*. As can be seen on the label, at the time Pančić had already noticed that it was probably a new species closely related to *C. pyramidalis*, an observation recently confirmed by the results of molecular (PARK *et al.* 2006, LAKUŠIĆ *et al.* 2013) and chemotaxonomic studies (JANKOVIĆ *et al.* 2014). Although this specimen is not selected here as type, the information regarding the place of its collection needs clarification. Pančić made a mistake regarding the locality Klisura, where he collected the first specimens in 1856. Klisura is the name of a monastery in the gorge of the river Panjica, not in the gorge of river Mali Rzav (STEVANOVIĆ 1981). However, the presence of *C. secundiflora* in the gorge of Mali Rzav River is not excluded, as these two rivers are geographically close to each other.

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REZIME

Lektotipifikacija *Campanula secundiflora* (Campanulaceae), vrste od Evropskog interesa

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Urdu je određen lektotip *Campanula secundiflora*, tercijarnog relikta i paleostenoendemične vrste koju su 1862. godine opisali Josif Pančić i Roberto de Visiani u svom prvom zajedničkom delu: *Plantae serbicae rariores aut novae – Decas I*. Sav istraživani materijal je deponovan u herbarijumskim kolekcijama Univerziteta u Beogradu (BEOU) i Univerziteta u Padovi (PAD).

Ključne reči: Campanulaceae, *Campanula secundiflora*, nomenklatura, tipifikacija

