



Typification and taxonomical notes on the names published by Roberto de Visiani and Josif Pančić in *Plantae Serbicae Rariores aut Novae—Decas II*

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Abstract

We provide information on the typification of ten species names described by Roberto de Visiani and Josif Pančić in *Plantae Serbicae Rariores aut Novae—Decas II*, published in 1865, and one published by Pančić in Flora of the Principality of Serbia (1874). Ten lectotypes are designated here. The name *Scabiosa achaeta* Visiani & Pančić is synonymised with *Scabiosa fumarioides* Visiani & Pančić. Differential characters distinguishing *Allium serbicum* Visiani & Pančić and the similar *A. pallens* L. are given.

Key words: lectotypification, *Scabiosa achaeta*, *Scabiosa fumarioides*, *Allium pallens*, *Allium serbicum*, *Herbarium Dalmaticum*, *Herbarium Pancinianum*, Istituto Veneto di Scienze Lettere ed Arti

Introduction

This paper is the third of a series (Clementi *et al.* 2014, 2015) concerning the typification of the taxa published in the four works stemmed from the collaboration of Roberto de Visiani (1800–1878) with Josif Pančić (1814–1888): Visiani (1860), Visiani & Pančić (1862, 1865, 1870). The aim of this paper is to provide typification of the ten names validly published in Visiani & Pančić (1865) and some taxonomical notes on *Scabiosa achaeta* Visiani & Pančić (1865) and *Allium serbicum* Visiani & Pančić (1865).

Some confusion exists on the exact date of publication of Visiani & Pančić (1865), with some sources reporting the date 1866 (e.g. Stafleu *et al.* 1986). Indeed, in a letter to Pančić dated 8 June 1866, Visiani stated that he had just received the eighty copies of that work that his co-author had ordered. Nevertheless, a note in Visiani & Pančić (1870) reads “[*Euphorbia glabrifolia*] publici juris facta est anno 1865, quo Decas nostra edita fuit” (i.e. “[*Euphorbia glabriflora*] was made public in year 1865, in which our Decas [= Visiani & Pančić (1865)] was published”). We must conclude that at least the first copies of Visiani & Pančić were made available at the *Istituto* in Venice in 1865.

Information on the two botanists and their work together can be found in the two previous papers.

Materials and methods

Most of the plants collected by Pančić that were described by Visiani or jointly with Visiani are held in the Herbarium of Padova (PAD) and in the Herbarium of the University of Belgrade (BEOU), in the special collection *Herbarium Pancinianum* (Vukojičić *et al.* 2011). The following herbaria were also consulted: BOLO, BP, BUNS, CL, G, GOET, JE, K, HAL, PRC and W (abbreviations follow Thiers 2014). We consulted as well Visiani’s original manuscript for Visiani & Pančić (1865) and some letters to Visiani (especially by Pančić) dating 1857 to 1865. This material is conserved at the Historical Library of the Botanical Garden of Padova (collocation: manuscript in AR-B26, letters in AR-B12). One particularly relevant letter was written by Pančić to Visiani on the 17th of September 1865. In it, he expressed his final opinion on the new species that were about to be published. Unfortunately for him, the work had already been

presented to the Istituto Veneto di Scienze, Lettere ed Arti, in Venice, on the 18th of June and none of his last remarks could be taken into consideration. Since this particular letter is relevant to our discussion in many cases, we shall cite it simply with the abbreviation “*in litt.*”. We also mention here some names that were provisionally employed by the two botanists. Whenever possible, we preferred to choose as lectotypes specimens that are clearly recognizable in the illustrations, in accordance with Recommendation 9A.3 of the ICN (McNeill *et al.* 2012). The correct interpretation of Article 9.3 of the ICN (McNeill *et al.* 2012) with respect to the illustrations published along with the protologue is subject to some debate (see Ross 2002, Flann *et al.* 2014, Clementi & Peruzzi 2015); in particular, it is not absolutely clear whether or not they should be considered original material when they depict a specimen that was available to the author of the name of a species or infraspecific taxon. In this paper, as in the previous two in this series, we have decided to treat them as such, following what has long been common practice. To the best of our knowledge, all the typifications are in accordance with the current concepts of the species whenever we do not state otherwise.

Typification of the names

Heliosperma monachorum Visiani & Pančić (1865: 463)

Lectotype (designated here):—SERBIA. Rača, August[o], *J. Pančić s.n.* (BEOU 1716!) (Fig. 1).

Additional specimens examined:—SERBIA. s.l., s.d., *J. Pančić s.n.* (BEOU 1719a!); SERBIA. s.l., s.d., *J. Pančić s.n.* (BEOU 1719b!); SERBIA. Derventa, 8 [August] [1]880, *J. Pančić s.n.* (BEOU 1719c!); SERBIA. E loc[us] class[icus], s.d., *J. Pančić s.n.* (BP 124030!).

Note:—One of the additional specimens (BEOU 1719a) bears many morphological observations by Pančić and the generic name *Heliosperma*, certainly written before the name *H. monachorum* was published, and the specific epithet “*monachorum*”, added later, but no place or date of collection. Amongst these observations, “*habitus pudibund. semina pudibund. × Tommasinii*” can be read. In a letter to Visiani (6 July 1860) Pančić referred to this then-unknown taxon with the words “*my Heliosperma related to pudibundum*” (“*il mio Heliosperma affine al pudibundum*”). In a later letter (7 December 1861), after alluding to the fact that it was Visiani who pointed out to him the affinities between that species and *H. tommasinii* Visiani (1852), he added that, after reading Juratzka (1858), he had reached the conclusion that it was “*H. chromodontum* Boiss.”. The specimen that we select here as type bears the note “*prob[abiliter] Heliosperma chromodontum* Boiss.” and no other final designations. Nevertheless, since BEOU 1719a was later identified by Pančić as *H. monachorum*, and we could prove, albeit very indirectly, that Pančić considered BEOU 1716 to be a member of the same species, and that it was available to him between 1861 and 1865, we can safely conclude that it too must be part of the original material. Since it was also certainly collected from the *locus classicus*, we prefer it over other specimens as the lectotype. The previously unpublished name “*Silene monachorum* Vis.” is cited in the protologue as a synonym. It appears that Visiani and Pančić intended it as an alternative name, in anticipation of a possible reclassification of *H. monachorum* in the genus *Silene*. The name was therefore not validly published in Visiani & Pančić (1865) (Art. 36.1(c) of the ICN, McNeill *et al.* 2012). Pančić suggested (*in litt.*) not to use the epithet “*monachorum*” since the plant “*grows far from the small monastery of Rača (in which just one monk is living) and it also grows elsewhere*” (“*creisce distante dal piccolo monastero Rača in cui vive per adesso solo un monaco [...] e cresce anche [...] altrove*”). He suggested the name “*Heliosperma microdon*” instead “*ob paleolas in margine seminis quem in affinibus breviores*”. This taxon is now generally treated in *Silene pusilla* Waldstein & Kitaibel (1812) ≡ *Heliosperma pusillum* (Waldst. & Kit.) Reichenbach (1844: 78), either as a synonym (e.g. Euro+Med 2015) or as a subspecies: *H. pusillum* subsp. *monachorum* (Vis. & Pančić) Niketić & Stevanović (2007).

Scabiosa achaeta Visiani & Pančić (1865: 465) (Fig. 2A)

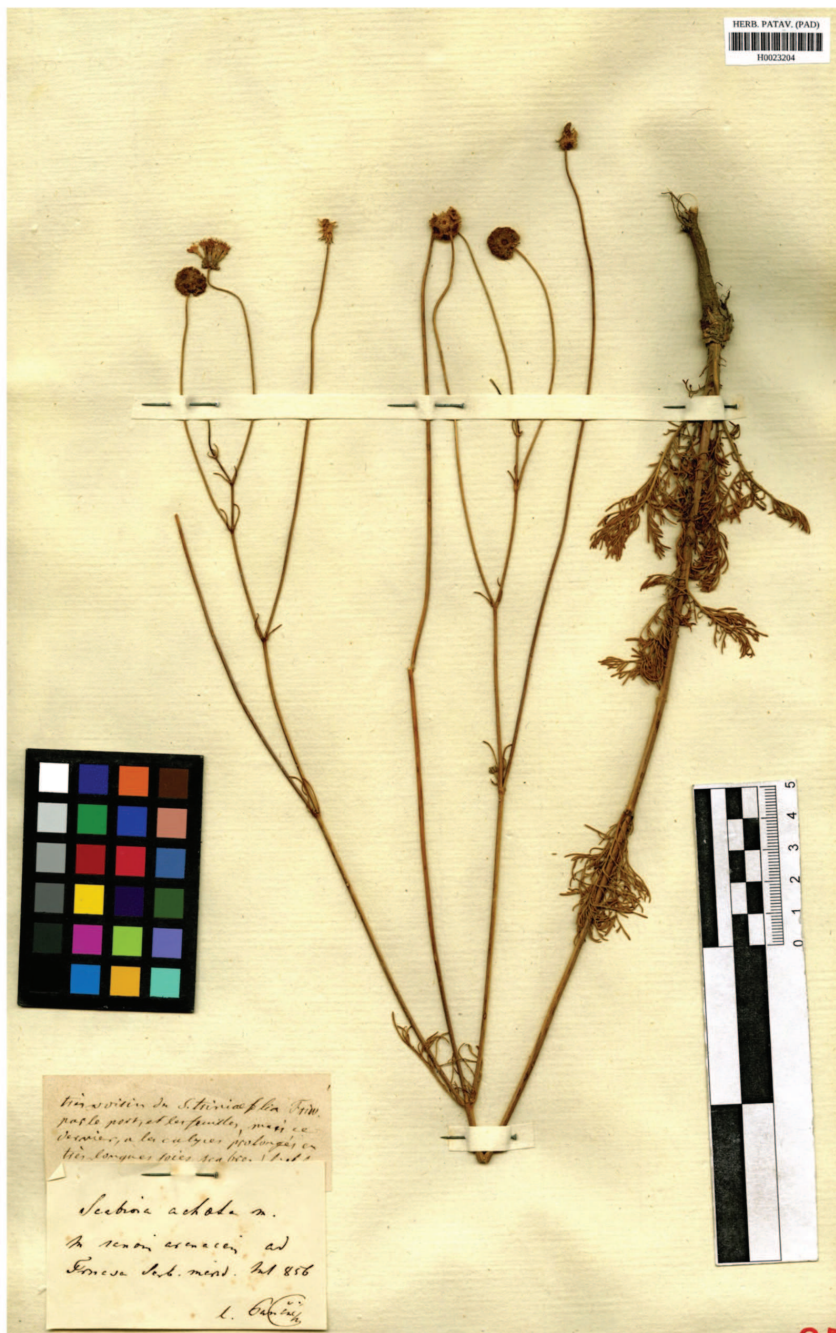
Lectotype (designated here):—SERBIA. In saxosis arenaceis ad Trnava Serb[ia] merid[ionalis], July [1]856, *J. Pančić s.n.* (PAD barcode H0023204!).

Additional specimens examined:—SERBIA. Trnava blizu Raške [Trnava close to Raška], [1]856, *J. Pančić s.n.* (BEOU-9297!).

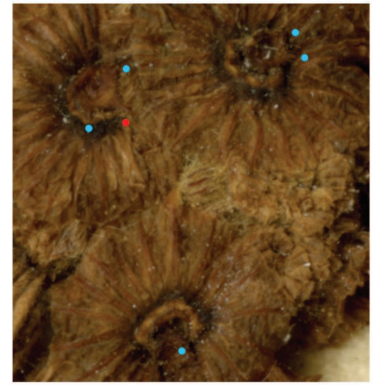


FIGURE 1. Lectotype of *Heliosperma monachorum* Vis. & Pančić.

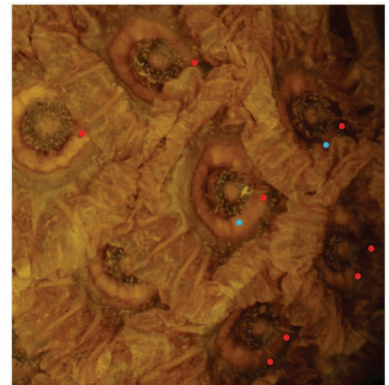
Note—Both the specimen selected as type and the additional specimen are certainly part of the original material. We preferred the one in Padova (PAD-H0023204) since it is more complete and clearly recognisable in the illustration accompanying the protologue. This species has long been considered to be extinct (Vukojičić 1999). At the best of our knowledge, no possible causes for its disappearance were ever proposed, and doubts about its true identity were raised, for instance, by Niketić (2014). When Pančić recapitulated the differences between *S. achaeta* and *S. fumarioides* (*in litt.*), he wrote that “they are no different but for the thicker hairiness (*achaeta*) and the internal calycine setae, that are shorter or rather absent in *achaeta*” (“io direi che non sono diverse se non per il indumento più copioso (*achaeta*) e le sete del calice interno più brevi o piuttosto nulle nella *achaeta*”). He then suggested to exclude it from the manuscript,



A



B



C

FIGURE 2. A. Lectotype of *Scabiosa achaeta* Vis. & Pančić. B. Three fruits on the lectotypes of *S. achaeta* showing one developed seta (marked in red) and five reduced setae (marked in blue) in total. C. Seven fruits on the lectotype of *Scabiosa fumarioides* Vis. & Pančić showing only eight developed setae (marked in red) and two reduced setae (marked in blue) in total.

which would have given him more time to solve his doubts, and to exchange it with “*Lactucopsis aurea* del Schultz”. Given that he did not mention *S. achaeta* in *Flora of the Principality of Serbia* (Pančić 1874), it seems that he was at least never entirely convinced that *S. achaeta* and *S. fumarioides* are different, or possibly eventually convinced of the opposite. As we examined the original material to check the differential characters, we found that the type specimen of *S. achaeta* bears at least one quite developed seta, along with numerous others that are reduced to stubs, but not outright absent (Fig. 2B). We also discovered that numerous fruits on one original specimen of *S. fumarioides* (BEOU 9367!) bear no setae at all (Fig. 2C). It is therefore not possible to distinguish the two taxa only on the grounds of this feature. No clear difference in hairiness could be detected in the original material. Pančić also pointed out (*in litt.*) that the two species share the same kind of serpentinaceous soil, which is not evident from the protologue. It is noteworthy that

he altogether failed to ever mention the clearest character that is usually believed to separate the two (see for instance Tutin 1976), which is not recognisable in the dried specimens: the colour of the corolla, that is given in the protologues as lilac (“*lilacini*”) in *S. achaeta*, and yellow in *S. fumarioides*. Although it is true that phytochemical features, like colouration and smell, were usually deemed to be of little or no importance by many 19th century botanists (see for instance Visiani 1847), this omission is still striking and casts doubts over the validity of this differential character. In the protologue, Visiani also mentions larger leaf lacinae in *S. fumarioides* compared to in *S. achaeta*, but in the specimen of *S. fumarioides* that he had available in Padova (PAD-0044651) they are unusually large for the taxon, while they are in fact not at all different from those of the type of *S. achaeta* in many cases. We conclude that, although a more in depth analysis of these specimens is granted (molecular trials are under way), there are no clearly discernible morphological differences between the original material of *S. achaeta* and that of *S. fumarioides*, and so no grounds, at present, to consider them two distinct species. In order to maintain nomenclatural stability, we here establish that, when the two taxa are treated as the synonyms, the name *S. fumarioides* should take priority over *S. achaeta* (see Art. 11.5 of the ICN, McNeill *et al.* 2012).

Scabiosa fumarioides Visiani & Pančić (1865: 466) (Fig. 3)

Lectotype (designated here):—SERBIA. In glareosis serpent[inaceis] ad Raška C[irculo] Čačkens[is]. Jul[io] [1]864. *J. Pančić s.n.* (PAD barcode H0044651!).

Additional specimens examined:—SERBIA. Raška, Jul[io] [1]864, *J. Pančić s.n.* (BEOU 2367!).

Note:—The specimen selected here as the lectotype perfectly corresponds with the protologue and was clearly used to prepare the illustration in it. It consists of a full specimen and an envelope with detached fruits. The type bears two labels: one, by Visiani, with the provisional name “*Scabiosa myriotoma* Vis.”, and the other, by Pančić, with “*Scabiosa subachaeta* nov. spec?.”, both later corrected by Visiani to *S. fumarioides*. The first provisional name (“*S. myriotoma*”) is found in Visiani’s manuscript for Visiani & Pančić (1865). The name is currently accepted (Niketić 2014).

Scabiosa fumariifolia Pančić (1874: 390), “*fumariaefolia*” (Fig. 3)

Lectotype (designated here):—SERBIA. In glareosis serpent[inaceis] ad Raška C. Čačkens[is]. Jul[io] [1]864. *J. Pančić s.n.* (PAD barcode H0044651!).

Note:—In all of their correspondence, Visiani and Pančić referred to *S. fumarioides* as “*Scabiosa fumariaefolia*”, a name that Pančić considered to be inappropriate (*in litt.*). Instead, he asked Visiani to consider “*Scabiosa prolixa*” and “*Scabiosa leptostoma*”. Pančić himself later published the name *S. fumariifolia*, evidently by mistake. We typify it here on the same specimen as the former.

Hieracium marmoreum Visiani & Pančić (1865: 468) (Fig. 4)

Lectotype (designated here):—SERBIA. In rupestr[us] calcareis M[ali?][ons?]. Vukan S[erbia] A[ustralis], Jul[io] 1863, *J. Pančić s.n.* (PAD barcode H0023200!).

Additional specimens examined:—SERBIA. In rupestr[us] calcareis ad Gornjak Serbi[ia] austr[alis], Jul[io] [1]861 *J. Pančić s.n.* (PAD-23199!); SERBIA. In rupestr[us] calcareis M[ons] Rtanj C[irculi] Aleksinac[ensis], Jun[io] [1]854 (PAD barcode H0023198!); SERBIA. E semini[us] in [illegible] cult[um], s.d., *Pančić s.n.* (PAD barcode H0023195!); [SERBIA] s.l., s.d., s.c. *s.n.* (PAD barcode H0023196!)

Note:—The specimen selected as lectotype bears two labels. The original one, by Pančić, bears the name “*H. marmoreum* Panc. in litt. ad Schultz”. Indeed, Pančić wrote, in a letter to Visiani (4 January 1863), that he had asked an opinion to Schultz Bipontinus on this species before publication. This label also bears the signature of the famous monographer of *Hieracium*, Casimir Arvet-Touvet (1841–1911), who confirmed the identification. The second label is by another expert on this genus, Saverio Belli (1852–1919), and it reads “Questo è il vero *Hieracium marmoreum* Panc. Vis. etc. ben differente da quello così determinato e pubblicato da Janka e che sta pure in questo foglio teca” (i.e. “This is the true *H. marmoreum* Panc. Vis. etc. quite different from the one thus determined and published by Janka that is also present in this sheet file”). This specimen is compatible with the protologue, well conserved, and was

considered by two experts as representative of the concept of *H. marmoreum*; therefore we do not hesitate to designate it as a type. The name is generally accepted (e.g. Euro+Med 2015, Niketić 2014).

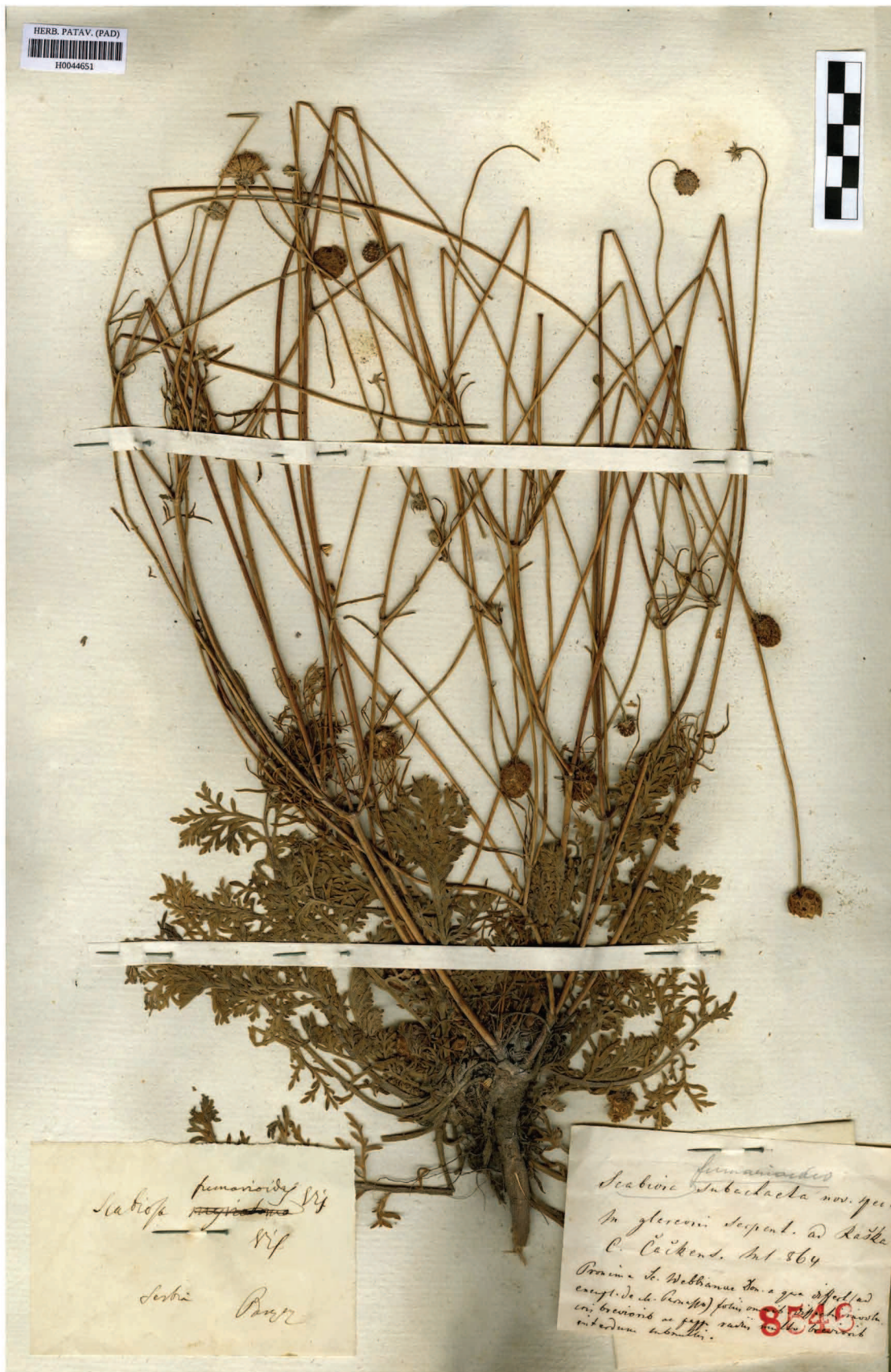


FIGURE 3. Lectotype of *Scabiosa fumarioides* Vis. & Pančić and *S. fumariifolia* Pančić.



FIGURE 4. Lectotype of *Hieracium marmoreum* Vis. & Pančić (specimen on the right).

Centaurea myriotoma Visiani & Pančić (1865: 470) (Fig. 5)

Lectotype (designated here):—SERBIA. Am Vukan in Kr. Požarevac. Jul[jio] 1861. *J. Pančić s. n.* (BEOU-10790!).

Note:—The specimen selected here as lectotype is, as far as we know, the only one with information on locality and date of collecting that are compatible with the data provided in the protologue. The name is now generally regarded as a synonym of *Centaurea triniifolia* Heuffler (1858) (Euro+Med 2015, Niketić 2014), and is sometimes incorrectly reported as “*Centaurea myriostoma*” (e.g. in IPNI 2015).

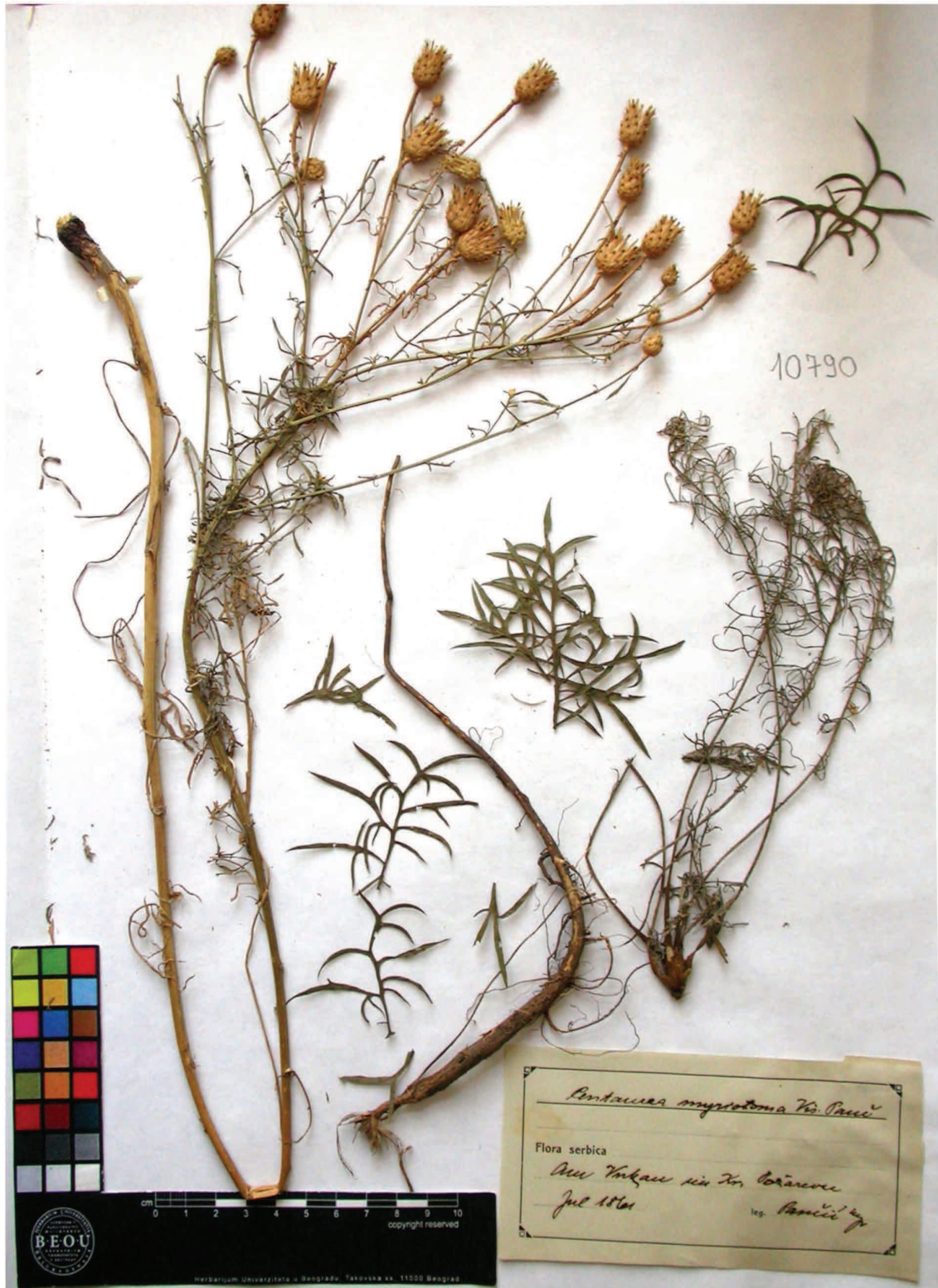


FIGURE 5. Lectotype of *Centaurea myriotoma* Vis. & Pančić.

Centaurea derventana Visiani & Pančić (1865: 472) (Fig. 6)

Lectotype (designated here):—SERBIA. E seminib[us] de rupib[us] calcar[eis] ad Derventa Serb[ia] Merid[ionali] culta. Flor[et] Maj[o] Jun[io], *J. Pančić s.n.* (PAD barcode H0022800!).



FIGURE 6. Lectotype of *Centaurea derventana* Vis. & Pančić (specimen on the right).

Additional specimens examined:—SERBIA. s.l., s.d., s.c. s.n. (PAD-H0022796!); SERBIA. In rupestris. calcareis ad rivum Derventa Serb. Occid. Aug[usto] [1]861, *J. Pančić s.n.* (PAD barcode H0022799!); SERBIA. In rupestris[us] ad Derventa S[erbia] occid[entali] Jul[io], *J. Pančić s.n.* (GOET barcode GOET001235); SERBIA. Derventa, s.d., *J. Pančić s.n.* (JE barcode JE00015656).

Note:—The specimen selected here as lectotype consists of a seed envelope and a dried specimen, and is mounted on the same sheet as PAD barcode H0022796. Data from the label perfectly corresponds to the protologue and the specimen is clearly recognisable in the illustration. This species was already cultivated by Pančić in 1863, which we discovered from a letter to Visiani dating 14 July 1863. The name is still generally accepted (Euro+Med 2015, Niketić 2014).

Linaria rubioides Visiani & Pančić (1865: 473).

Lectotype (designated by Niketić & Tomović 2008):—SERBIA. M. Šagran Serb[ia] merid[ionalis], Jul[io] [1]861, *J. Pančić s.n.* (PAD barcode H0045503!).

Note:—The name is still in use, a detailed account of the taxonomy and nomenclature of this taxon was published in Niketić & Tomović (2008). The number of the specimen, “PAD barcode H0045503”, could not be given there, since the new cataloguing system was only developed later (Clementi 2011).

Verbascum pannosum Visiani in Visiani & Pančić (1865: 475) (Fig. 7)

Lectotype (designated here):—Illustration in Visiani & Pančić (1865: t.14).

Additional specimens examined:—SERBIA. Иванова Ливада [Ivanova Livada], Jul[io] [1]863, *J. Pančić s.n.*, (BEOU-7516!).

Note:—The additional specimen in BEOU bears the name “*Verbascum niveum* Ten.”, later corrected to “*pannosum* Vis. & P”. The unpublished name “*Verbascum montanum* Pančić” is cited as a synonym in the protologue, but the type of *Verbascum montanum* Schrader (1809) is explicitly excluded, so Visiani’s name is legitimate. Since we were unable to find any specimen that was certainly available to Visiani (and the name was published by he alone), we are forced to select the illustration as a lectotype, although we know that no species published jointly by Visiani and Pančić were studied by Visiani alone (see Clementi *et al.* 2015) and the additional specimen was certainly available to Pančić before the publication of the protologue. This taxon is now generally treated as a subspecies of *Verbascum longifolium* Tenore (1811: 16), as *Verbascum longifolium* subsp. *pannosum* (Visiani & Pančić) Murbeck (1933: 144) (Euro+Med 2015).

Euphorbia glabriflora Visiani in Visiani & Pančić (1865: 477) (Fig. 8)

Lectotype (designated here):—Illustration in Visiani & Pančić (1865: t. 13).

Additional specimens examined:—SERBIA. In saxosis serpent[inaceis] ad Mokragora S[erbia] merid[ionalis]. Jun[io] [1]868, *J. Pančić s.n.* (PAD barcode H0044647!); SERBIA. In saxosis serpent[inaceis] ad Mokra gora S[erbia] merid[ionalis], Jul[io], *J. Pančić s.n.* (PAD barcode H0044648!); SERBIA. M. Zlatibor. Jul[io] [1]856, *J. Pančić s.n.* (BEOU 675!); SERBIA. M. Stol. Jul[io] [1]864 (BEOU 755!). SERBIA. In rupestris[us] serpentinae[eis] M[ons] Stol Serb[ia] merid[ionalis], Jul[io], *J. Pančić s.n.* (G barcode G00405590!); SERBIA. s.l., s.d., *J. Pančić s.n.* (G barcode G00405592!).

Note:—We located numerous specimens that were certainly available to Pančić, including two with no date that were certainly sent to Boissier in Geneva in 1865, as we learnt from a letter by Pančić to Visiani dated 17 November 1865. Unfortunately, we were not able to locate any specimen that was certainly available to Visiani, the single author of this name, therefore we had no choice but to select the illustration published along with the protologue, that is very clearly recognisable as *E. glabriflora*. The name is still generally accepted (Euro+Med 2015, Niketić 2014).



FIGURE 7. Lectotype of *Verbascum pannosum* Vis.

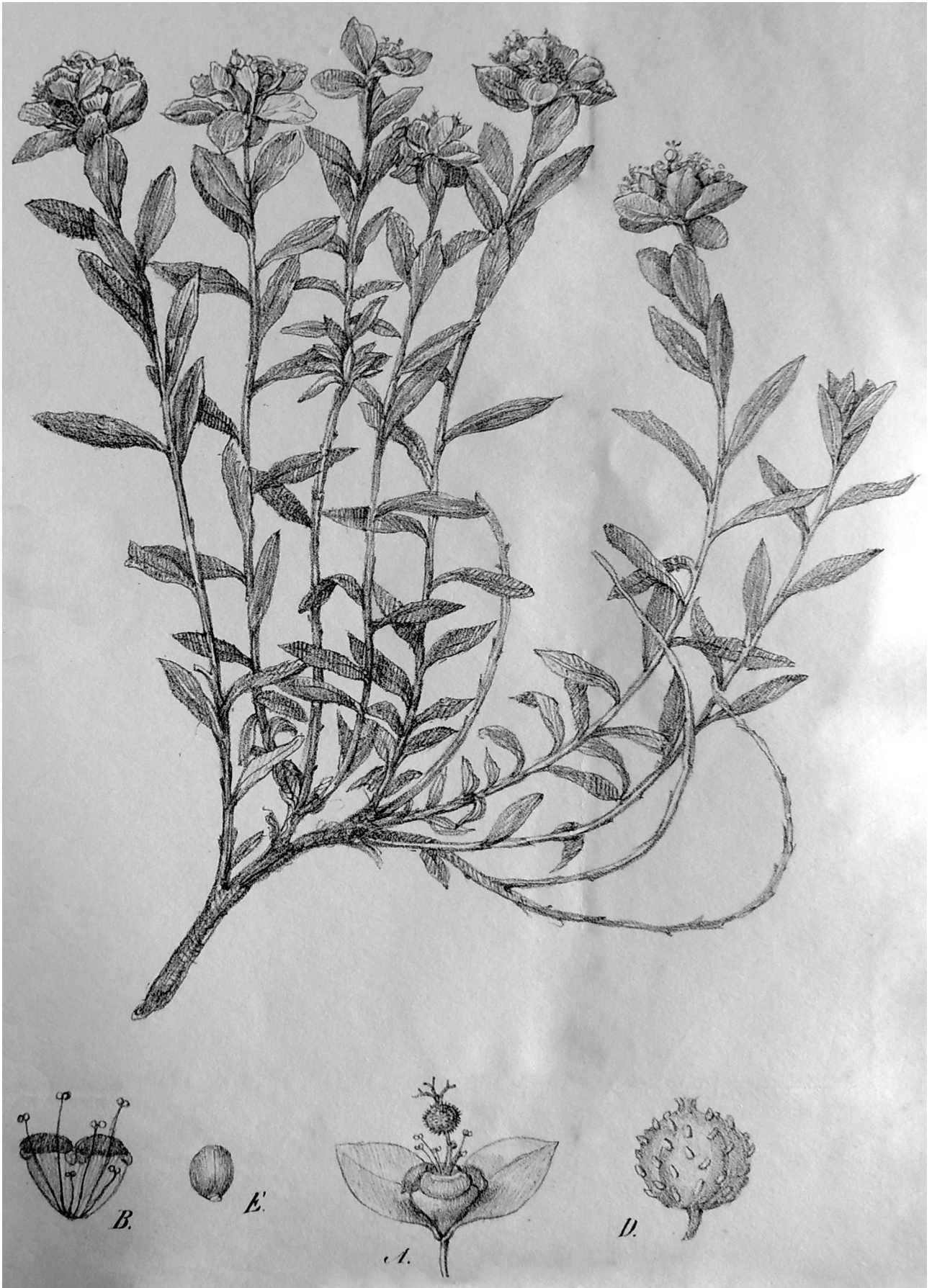


FIGURE 8. Lectotype of *Euphorbia glabriflora* Vis.

Allium serbicum Visiani & Pančić (1865: 479) (Fig. 9)

Lectotype (designated here):—SERBIA. Illustration in Visiani & Pančić (1865: t. 8).

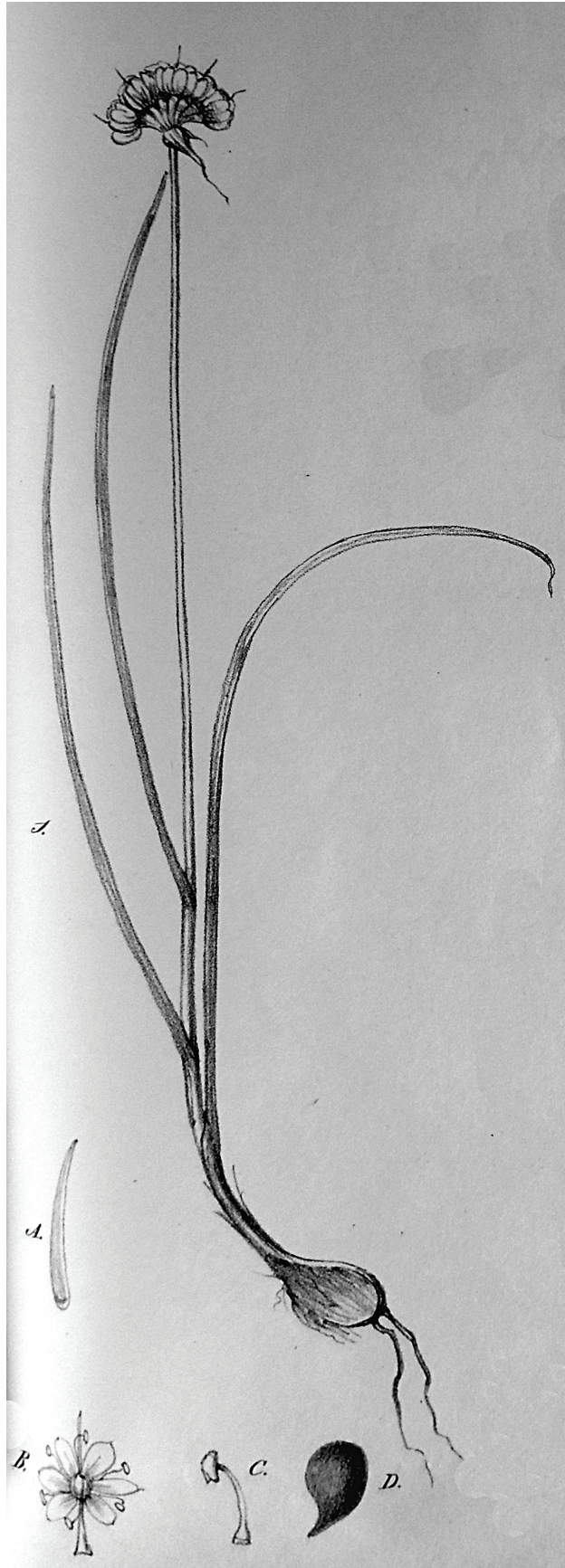


FIGURE 9. Lectotype of *Allium serbicum* Vis. & Pančić.

Additional specimens examined:—SERBIA. Mokra gora Serb[ia] merid[ionalis] in rupestr[us] calcareis, Jul[io], *J. Pančić s.n.* (BEOU 11931!).

Note:—The original label of the only specimen that we found, kept in the *Herbarium Pancicianum*—BEOU, includes the name of the genus, locality, and habitat, followed by the month of collection and the collector's signature. The year of collection is not indicated. The epithet “*serbicum*” was clearly added on the label after the rest, and it is therefore likely that this specimen is part of the original material. Nevertheless, we preferred to select the illustration that was published along with the protologue, which illustrates the taxon very clearly, as the specimen is small and not very well preserved. Hayek (1933) treated this species as a synonym of *Allium tenuiflorum* Tenore (1811: 165), which was known from Italy. This nomenclatural approach caused much confusion. Tatić (1975) followed this approach in the Flora of Serbia, and included *A. tenuiflorum* in the list of the Serbian *Allium* species. In two studies of the genus *Allium* in the Balkan Peninsula, Stearn (1978, 1981) treated *A. serbicum* as a synonym of the typical subspecies of *Allium pallens* Linnaeus (1862), and he followed this nomenclature in Flora Europaea (Stearn 1980) as well, which includes also *A. tenuiflorum* as a subspecies of *A. pallens* (Stearn 1980). More recently, in several studies of the genus *Allium*, including Gregory (1996) and Govaerts (2006), *A. tenuiflorum* was reinstated to the rank of species; for this reason its presence is confirmed in the countries of former Yugoslavia. However, in these works, *A. serbicum* is still inconsistently included in *A. pallens*. This disorder is caused by lack of knowledge of *A. serbicum*. Insufficient data on the distribution and the differential morphological characters of *A. serbicum* are the result of the inaccessibility of the area where it is known to grow. In a morphological study of the species of *Allium* in Serbia, Anačkov (2009) showed that specimens harvested in Beli Ržav, on the Mokra Gora, correspond to the description given in Visiani & Pančić (1865), but are clearly different from the description of *A. pallens* given by Stearn (1978, 1980). *A. serbicum* is a smaller plant that grows on steep and often rocky calcareous movable surfaces. Compared to *A. pallens*, the valves are smaller, with one being evidently shorter. The flowers are milky white, without the pronounced lines that characterise *A. pallens*. Moreover, the inflorescence does not ever bear more than 23 flowers (Anačkov, *pers. com.*), while in *A. pallens* the number of flowers can reach up to 70. These recent observations led to the conclusion that *A. serbicum* should be considered as a separate species from *A. pallens*.

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