

# A contribution to the vascular and bryophyte flora of the Upper Neretva and Zalomka River valleys (Bosnia and Herzegovina)

Dorđije MILANOVIĆ<sup>1\*</sup>,  
Simona STRGULC  
KRAJŠEK<sup>2\*</sup>,  
Jugoslav BRUJIĆ<sup>1</sup>,  
Ivan JURAJ ČEHULIĆ<sup>3</sup>,  
Valentin HEIMER<sup>4</sup>,  
Dragan KOLJANIN<sup>1</sup>,  
Marija KRAVANJA<sup>5</sup>,  
Ivana REŠETNIK<sup>6</sup>,  
Vladimir STUPAR<sup>1</sup>,  
Peter SCHÖNSWETTER<sup>4</sup>,  
Božo FRAJMAN<sup>4\*</sup>

<sup>1</sup> University of Banja Luka, Faculty of Forestry, Petra Bojovića 1A, Banja Luka, Bosnia and Herzegovina

<sup>2</sup> University of Ljubljana, Biotechnical Faculty, Department of Biology, Večna pot 111, SI-1000 Ljubljana, Slovenia

<sup>3</sup> University of Zagreb, Faculty of Forestry and Wood Technology, Svetošimunska cesta 23, 10000 Zagreb, Croatia

<sup>4</sup> University of Innsbruck, Department of Botany, Sternwartestraße 15, Innsbruck, Austria

<sup>5</sup> Slovenian Forestry Institute, Večna pot 2, SI-1000 Ljubljana, Slovenia

<sup>6</sup> University of Zagreb, Faculty of Science, Department of Biology, Ravnice 48, Zagreb, Croatia

\* Korespondenčni avtorji /  
Corresponding authors; E-mails:  
djordjije.milanovic@sf.unibl.org (vascular  
flora), simona.strgulc@bf.uni-lj.si  
(bryoflora); bozo.frajman@uibk.ac.at

## ABSTRACT

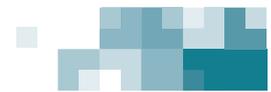
Between 1<sup>st</sup> and 6<sup>th</sup> June 2023, we conducted floristic research on several sites in the upper Neretva River valley and along Zalomka River at Nevesinjsko Polje. We recorded 933 taxa in total; 897 plant taxa including 125 bryophytes were found at 51 localities in the upper Neretva River valley, and 200 plant taxa, including 32 bryophytes, were found at 11 sites in the Zalomka River valley. Among the registered taxa, 39 taxa are endemic to the Balkan Peninsula, 56 are listed in the List of endangered and rare taxa of Bosnia and Herzegovina, 27 are on the Red List of the Federation of Bosnia and Herzegovina, and 95 taxa are protected in the Republic of Srpska. We also registered several species new to the flora of Bosnia and Herzegovina. Among Angiosperms these were *Barbarea intermedia*, *Lamium hybridum*, *Myosotis sicula* and *Poa ursina*, and among bryophytes *Fissidens gracilifolius*, *Grimmia dissimulata*, *Plagiomnium ellipticum*, *Schistidium robustum*, *Sphenobolus minutus*, *Tortella fasciculata* and *T. pseudofragilis*. Our study reveals the high nature conservation value of the upper Neretva and Zalomka River valleys that should be protected for future generations. In addition, further systematic research of the flora of Bosnia and Herzegovina is needed.

## IZVLEČEK

### Prispevek k poznavanju vaskularne flore in mahov zgornje doline Neretve in Zalomke (Bosna in Hercegovina)

Med 1. in 6. junijem 2023 smo opravili floristične raziskave na več lokacijah v zgornjem toku reke Neretve in v manjšem obsegu v dolini Zalomke in na Nevesinjskem polju. Skupaj smo zabeležili 933 taksonov; 897 vrst, od tega 125 mahov, smo našli na 51 nahajališčih v dolini zgornje Neretve, 200 vrst, od tega 32 mahov, pa na 11 lokacijah v dolini reke Zalomke. Med registriranimi taksoni jih je 39 endemičnih na Balkanskem polotoku, 56 taksonov je uvrščenih na seznam ogroženih in redkih taksonov Bosne in Hercegovine, 27 na rdeči seznam Federacije Bosne in Hercegovine, 95 taksonov pa je zavarovanih v Republiki Srbski. Poleg tega smo zabeležili tudi nekaj novih vrst za floro Bosne in Hercegovine. Med kritosemenkami so to *Barbarea intermedia*, *Lamium hybridum*, *Myosotis sicula* in *Poa ursina*, med mahovi pa *Fissidens gracilifolius*, *Grimmia dissimulata*, *Plagiomnium ellipticum*, *Schistidium robustum*, *Sphenobolus minutus*, *Tortella fasciculata* in *T. pseudofragilis*. Naša študija razkriva visoko naravovarstveno vrednost dolin zgornje Neretve in Zalomke, ki jih je treba zavarovati za prihodnje generacije. Poleg tega so potrebne nadaljnje sistematične raziskave flore Bosne in Hercegovine.





## APSTRAKT

### Prilog poznavanju vaskularne flore i brioflore dolina gornje Neretve i Zalomke (Bosna i Hercegovina)

Između 1. i 6. juna 2023. godine proveli smo floristička istraživanja na nekoliko lokaliteta u dolini gornjeg toka rijeke Neretve, te u dolini rijeke Zalomke u Nevesinjskom polju. Zabilježili smo ukupno 993 taksona; 897 biljnih taksona, uključujući 125 briofita, koje su pronađene na 51 lokalitetu u dolini gornjeg toka rijeke Neretve, dok je 200 taksona, uključujući 32 briofite, pronađeno na 11 lokaliteta u dolini rijeke Zalomke. Među zabilježenim taksonima 39 su endemi za Balkansko poluostrvo, 56 se nalazi na Listi ugroženih i rijetkih biljaka Bosne i Hercegovine, 27 je na Crvenoj listi Federacije Bosne i Hercegovine, dok 95 uživa status zaštite u Republici Srpskoj. Takođe, zabilježili smo i nekoliko novih vrsta za floru Bosne i Hercegovine. Među skrivenosjemenicama to su: *Barbarea intermedia*, *Lamium hybridum*, *Myosotis sicula* i *Poa ursina*, a među mahovinama: *Fissidens gracilifolius*, *Grimmia dissimulata*, *Plagiomnium ellipticum*, *Schistidium robustum*, *Sphenobolus minutus*, *Tortella fasciculata* i *T. pseudofragilis*. Ovo istraživanje pokazuje da područja gornjeg toka rijeke Neretve i okoline rijeke Zalomke imaju visoku prirodnu vrijednost i trebaju biti predmet zaštite zbog budućih generacija. Dodali bismo da su dalja sistematska istraživanja flore Bosne i Hercegovine neophodna.

#### KEY WORDS:

angiosperms, mosses, nature conservation, Neretva River, rare species, vegetation

#### KLJUČNE BESEDE:

kritosemenke, mahovi, naravovarstvo, Neretva, redke vrste, vegetacija

#### KLJUČNE RIJEČI:

mahovine, rijeka Neretva, rijetke vrste, skrivenosjemenice, vegetacija, zaštita prirode

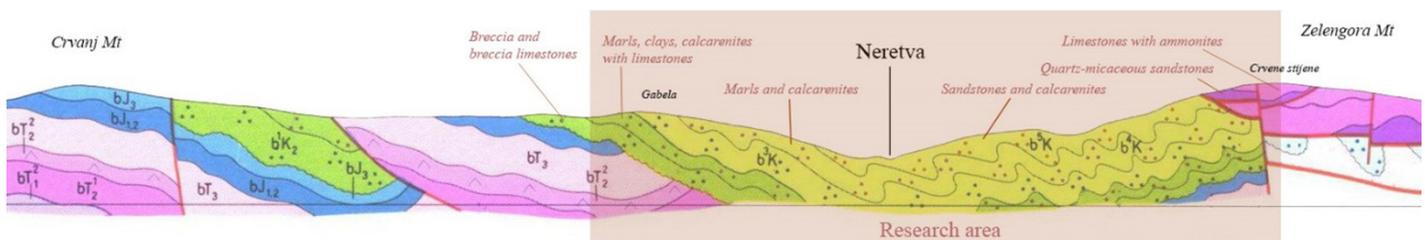
## INTRODUCTION

Between 1. and 6. 6. 2023, several non-government organizations organized a research camp in the village of Ulog (Gornja Neretva, Republic of Srpska, Bosnia and Herzegovina) to study the biodiversity of the upper course of the Neretva River and the course of the Zalomka River at Nevesinjsko Polje. The aim was to collect scientific data before the planned construction of several hydroelectric power plants, which would disrupt the free flow of these rivers and affect the surrounding riparian vegetation, flora and fauna.

The lithology of the study area is mainly sandstone and calcarenite, which are the predominant substrates throughout the Neretva River valley (Fig. 1; Mojićević & Tomić 1981). These slopes are mainly covered with oak forests on the southerly and beech forests on the northerly exposed slopes. The forests are interspersed with numerous hamlets of the sprawling village of Borač, which are currently mostly abandoned. At the edges of the valley, the sandstones are replaced by limestones,

which are the predominant substrate in the surrounding mountain massifs (Zelengora, Crvanj and Površ) marked by elements of glacial reliefs, moraines and depressions with glacial lakes. These areas were traditionally used as pastures, which are skeletal and covered by xerophilous vegetation. By now, they are largely deserted, as seasonal livestock farming has been completely abandoned after the civil war (1992–1995). Wetland communities are developed only in glacial depressions, ranging from aquatic communities in lakes to swamps, mires and wet grasslands, which were traditionally used as hay meadows. In addition, alluvial deposits are characteristic for the Neretva riverbed. Depending on the nature of the terrain, they are wide or narrow, and various alluvial forests including Rohlena alder (*Alnus rohlenae*) and white willow (*Salix alba*), grey willow thickets (*Salix eleagnos*), open communities on gravel bars and tall herbs on mud deposits have developed on them.

The Zalomka River flows through various regions with specific geological and geomorphological features. In its upper basin, it flows through a gorge of Jurassic and Triassic limestones



**Figure 1.** Geological transect across the Neretva River valley in Bosnia and Herzegovina (after Mojićević & Tomić 1981) with indicated research area where we investigated vascular plants and bryophytes in June 2023.

**Slika 1.** Geološki transekt čez dolino reke Neretve v Bosni in Hercegovini (po Mojićević & Tomić 1981) z označenim območjem, kjer smo junija 2023 raziskovali višje rastline in mahove.

**Slika 1.** Geološki transekt preko doline rijeke Neretve u Bosni i Hercegovini (prema Mojićević & Tomić, 1981) sa označenim područjem istraživanja vaskularnih biljaka i mahovina u junu 2023. godine.



overgrown with thermophilic oak forests in various stages of degradation. Closer to the river bed, mostly bushy formations of low willows are developed. Downstream from the village of Kifino selo, Zalomka flows into Nevesinjsko polje, which lies on the alluvial deposits with a slightly undulating topography that has been cleared of forest and converted into mowed meadows in ancient times, with remnants of *Quercus cerris* forests on the hills and slopes. In the lower part the Zalomka flows through an extensive floodplain over conglomerates, while the substrate surrounding the river chasm is limestone overgrown with beech forests (*Fagus sylvatica*) having developed on the northern slopes above the river. The central part of the area consists of lake sediments where various wetland and peatland communities are developed.

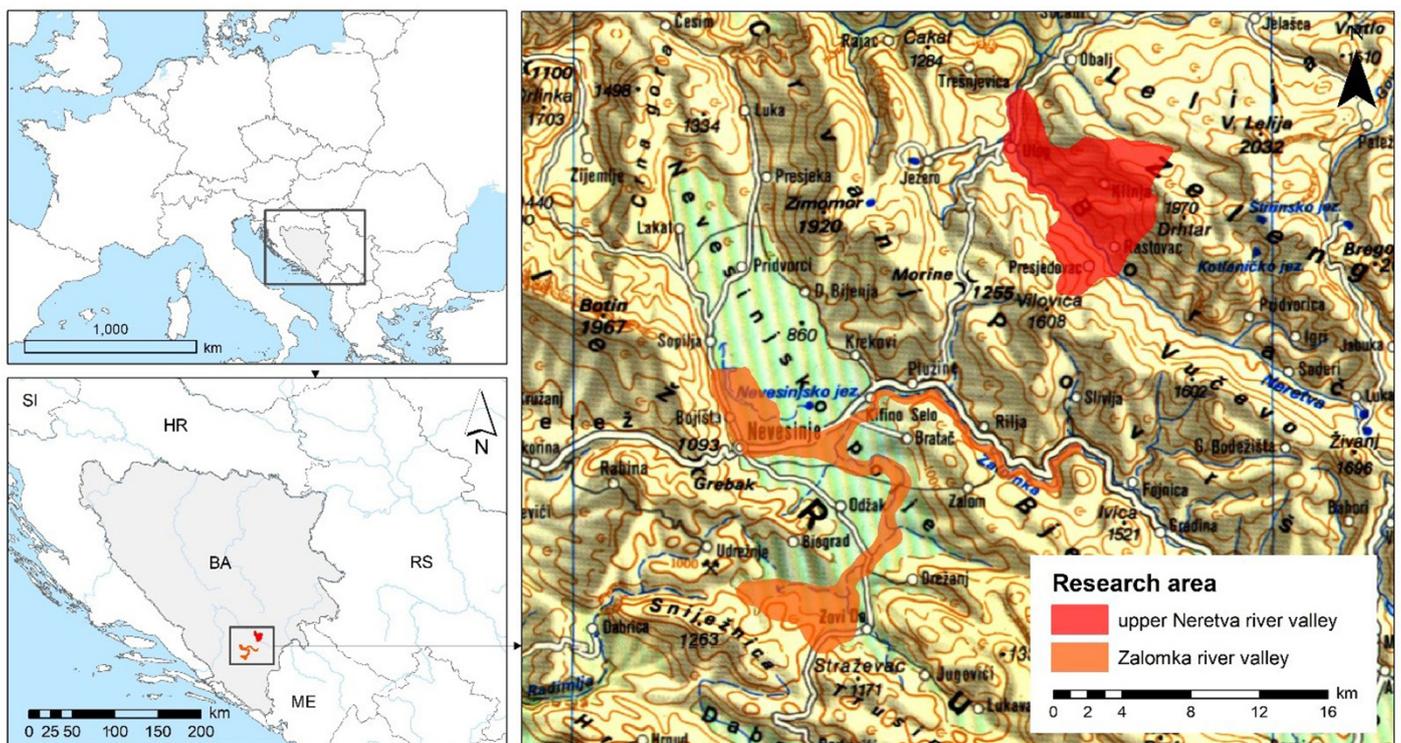
Previous research of the flora of the Neretva basin from the source to Ulog did not have a systematic character and was limited to individual records of plant species (Blau 1877; Adamović 1889; Formanek 1890; Vandas 1909; Malý 1928, 1933; Milanović 2014). Only the surroundings of the Crvanjsko jezero and the slopes facing towards the Neretva and the summit of Crvanj were the subject of phytocenological investigations (Redžić et al. 1996; Redžić & Barudanović 2010; Redžić et al. 2013). On the other hand, the flora of Nevesinjsko polje has been studied in much more detail and floristic records were published in several contributions (Sagorski 1901; Sagorski 1912a, 1912b, 1914a, 1914b; Ritter-Studnička 1952, 1953, 1954, 1955, 1956; Lakušić et al. 1982; Perić et al. 2018). Previous research was focused on the flora of intermittently flooded meadows and peatlands, whereas forest ecosystems and the flora of ripar-

ian willow thickets along the Zalomka River were largely neglected. Finally, the bryoflora of these areas has not yet been studied with the exception of a few species of moss recorded in Nevesinjsko polje, on the mires around Srednja voda, Dušila and Čitluk (Ritter-Studnička 1954, 1956).

The goal of our study is to supplement the knowledge of the flora in both study areas, paying special attention to those ecosystems that are characterized by the greatest species richness, as well as to those that have not yet been investigated. In addition to the list of floristic records, we assess the nature conservation relevance of selected records.

## MATERIAL AND METHODS

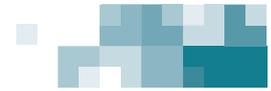
The field research was conducted in the period from 1. to 6. 6. 2023. The research area comprised two separate sites: part of the upper Neretva valley and the wider valley of the Zalomka River (Fig. 1). The first area covers the wider valley of the Neretva River, from the river body between the site where the hydropower dam is being built (lowest point at 620 m) and the village of Tomišlja (710 m), including the surrounding slopes of Zelengora on the right bank (highest point is Crvene stijene – 1783 m) to Kladopoljsko jezero (1385 m) and the slopes of the Morine plateau on the left bank to Mlakva above the village of Presjedovac (1239 m). The research area in the Zalomka River is mainly associated with the river body and riparian forest ecosystems between the village of Kunjak (931 m) in the east and the gorge near the village of Ponor (805 m), with sporadic studies of the surrounding forests and wetland ecosystems (Fig. 2).



**Figure 2.** Locations of the research areas in the upper Neretva River valley and the Zalomka River valley in Bosnia and Herzegovina, where we studied vascular plants and bryophytes in June 2023.

**Slika 2.** Lokaciji območij v dolinah zgornje Neretve in Zalomke v Bosni in Hercegovini, kjer smo junija 2023 raziskovali višje rastline in mahove.

**Slika 2.** Položaji područja istraživanja u dolini gornjeg toka rijeke Neretve i Zalomke u Bosni i Hercegovini, gdje smo u junu 2023. godine istraživali vaskularne biljke i mahovine.



Due to the short study period covering only a fragment of the vegetation season, our floristic records are incomplete. We only provide the data recorded in the field during the camp and refrain from analysing the literature data. We studied the flora in 62 different localities: 51 in upper Neretva and 11 along Zalomka River and its surroundings (Tab. S1). We present the records separately for these two areas and provide the localities for each taxon (Tab. S2). When possible, we identified the taxa to subspecies level, but mostly we list species or, in cases of critical groups, »aggregates«. In cases of uncertain identifications, we add a question mark (»?)« after the taxon name.

We recorded the flora of the riparian ecosystems in both study areas by taking phytocenological relevés (Braun-Blanquet 1964), from which we only present the species lists here. We also recorded the flora and bryoflora of the upper Neretva valley along two vertical transects from the river body to the edges of the valley on mountain ridges and glacial lakes. We produced floristic lists for different ecosystems along the transects. We only collected and herbarized the plant material if we could not identify the taxon in the field; the identification was performed later using available identification keys (e.g. Tutin et al. 2001; Fischer et al. 2018; Nikolić 2019). Bryophytes were collected and identified in the laboratory using the microscope and stereomicroscope. For identification, we used Frey et al. (2006), Casas et al. (2006, 2009), Paton (1999), Schumacker & Váňa (2005), Lüth (2019), Atherton et al. (2010). Bryophytes were also collected by members of other research teams, M. Zgmajster, E. Premate and G. Singer. Herbarium specimens are stored in the herbaria IB, BALU, LJU, and in private collections. The nomenclature of bryophytes follows Hodgetts et al. (2020), while that of vascular plants is in accordance with Plants of the World Online (POWO 2024). The name *Sesleria interrupta*, not accepted by POWO, is in accordance with Kuzmanović et al. (2017).

## RESULTS AND DISCUSSION

We recorded 896 plant taxa, including 125 bryophytes, at 52 surveyed localities in the upper Neretva River valley. In addition, we recorded 200 plant taxa, including 32 bryophytes, at 11 sites in the Zalomka River valley (Tab. S2). In total, 933 taxa were recorded in both areas. The total number of taxa in both areas is certainly higher, but not all taxa could be registered in the short study period.

Among the registered taxa, 39 or 4.16 % are endemic to the Balkan Peninsula. They mainly inhabit open grasslands, limestone screes and cliffs, but a certain number are also associated with riparian and forest ecosystems (*Alnus rohlenae*, *Cephalaria pastricensis*, *Cicerbita pancicii*, *Eryngium palmatum*, *Rhizomatophora aegopodioides*).

Fifty-six of the registered taxa are listed in the List of endangered and rare taxa of Bosnia and Herzegovina (Šilić 1996): one is critically endangered (*Paeonia officinalis*), 36 are rare, 19 are vulnerable and one is insufficiently known (*Dactylis glomerata* subsp. *lobata*). According to the Red list of the Federation of Bosnia and Herzegovina (Đug et al. 2013), 27 taxa

are considered endangered: 3 are critically endangered (CR) (*Malcolmia orsiniana* subsp. *angulifolia*, *Ranunculus auricomus* and *Paeonia officinalis*), 11 are endangered (EN), 13 are vulnerable (VU) and 8 taxa have the data deficient (DD) status. In the Republic of Srpska, 95 taxa found are under protection, 21 of which enjoy strict protection (Uredba o strogo zaštićenim i zaštićenim divljim vrstama 2020).

Although most of the registered taxa have been identified at the species or subspecies level, this does not apply to the entire list. Some problematic apomictic taxa of the genus *Taraxacum* were retained at the section level (sect. *Erythrosperma* and sect. *Taraxacum*), while some species were represented at the aggregate level: *Arenaria serpyllifolia*, *Hieracium murorum* and *Ranunculus auricomus*. For example, all specimens of *Arenaria serpyllifolia* agg. showed transitional characteristics between *A. leptoclados* and *A. serpyllifolia*, suggesting that these taxa should rather be treated as subspecies. In the western Balkan Peninsula, plants better corresponding to *A. leptoclados* occur at lower elevations, whereas *A. serpyllifolia* thrives in the mountains at higher elevation. The specimens assigned to other aggregates and sections were generally not sufficiently developed or their taxonomic status is unresolved. Finally, the plants belonging to the genus *Eleocharis* could not be assigned to any species with certainty due to the lack of mature fruits and were therefore labelled with »?» in Tab. S2.

The comprehensive study of available literature data revealed that some recorded taxa are new for the flora of Bosnia and Herzegovina. Among the Angiosperms these were *Barbarea intermedia*, *Lamium hybridum*, *Myosotis sicula* and *Poa ursina*, and among bryophytes *Fissidens gracilifolius*, *Grimmia dissimulata*, *Plagiomnium ellipticum*, *Schistidium robustum*, *Sphenobolus minutus*, *Tortella fasciculata* and *Tortella pseudofragilis*.

*Barbarea intermedia* was mentioned in the first overview of the flora of Bosnia and Herzegovina (Ascherson & Kanitz 1877) for Hercegovina, but without any locality provided. Beck-Mannagetta (1916) states without hesitation that this record refers to Pantocsek's material from Mt. Jastrebnica, which (according to Grisebach) belongs to a form of the species *Barbarea bracteosa*. This record seems unfounded, as there is a complete lack of suitable habitats for this species on Jastrebnica. *Barbarea intermedia* is clearly distinguished from other similar species by thick glabrous siliquae (cca. 2 mm in diameter), short style in fruit (less than 1.5 mm), and stout pedicels not more than ¼ of the length of the silique. We recorded it on the edge of a wet meadow with *Sesleria uliginosa* near a temporary pond named Čengića bara, traditionally used as a cattle watering place. Therefore, this is the first confirmed record of this species in the territory of Bosnia and Herzegovina.

*Lamium hybridum* (Fig. 3) is morphologically similar to *Lamium purpureum* and is sometimes considered to be only a variety of this species (e.g. Chytrý et al. 2024), which is most likely why it has been overlooked in previous research on the flora of Bosnia and Herzegovina. Irregular and deeply incised leaves and bracts as well as upper bracts, which are decurrent along the petiole, separate it from this species. In the study area, it occurs





in intensively grazed and fertilised grasslands on Lisičjak above Kovačić and disturbed nitrified parts of thermophilic forests above Jasen. It is expected that the species occurs also in other semi-ruderal and ruderal places in Bosnia and Herzegovina.



**Figure 3.** *Lamium hybridum* that we recorded in two localities at M. Zelengora is a new species of the flora of Bosnia and Herzegovina (Photo: Đ. Milanović).

**Slika 3.** Deljenolistna mrtva kopriva (*Lamium hybridum*), ki smo jo za beležili na dveh nahajališčih na Zelengori, je nova vrsta za floro Bosne in Hercegovine (foto: Đ. Milanović).

**Slika 3.** *Lamium hybridum* koju smo registrovali na dvije lokacije na Zelengori i predstavlja novu vrstu za floru Bosne i Hercegovine (foto: Đ. Milanović).

*Myosotis sicula* is an annual to biennial species of wet habitats without stolons, with a calyx with equal and even, straight, compressed, upward-pointing hairs, without hooked hairs. The calyx is persistent in the fruit; nutlets are brown and ovoid to ellipsoid (Grau & Merxmüller 1972). We found it in damp places around Kladopoljsko jezero. The species' distribution area is South and West Europe, with records also from the area of former Yugoslavia (Grau & Merxmüller 1972; WFO 2024). This is the first confirmed record of this species in Bosnia and Herzegovina.

*Poa ursina* (= *P. media* Schur) was only found in a single site, on limestone outcrops in Lisičjak above Kovačić in a community with some other rare species, such as *Gagea villosa*, *Ornithogalum dalmaticum* and *Juniperus sabina*. It differs from similar species of *Poa* sect. *Bolbophorum* Asch. & Kan. by a lemma glabrous between the veins, taller stems and elongated ellipsoidal panicles. The specimens we collected are 20–30 cm high, with a panicle 50–70 mm long, clearly glabrous among the ciliate ridges of the lemma. It is likely that this species is more widespread in Bosnia and Herzegovina and that the section needs a comprehensive taxonomic revision in Bosnia and Herzegovina.

In addition to these new records, some other recorded species are known only from a small number of localities in Bosnia and Herzegovina, e.g. *Myosotis stricta*, *Astragalus hypoglottis*, *Gagea villosa*, *Medicago truncatula*, *Ornithogalum dalmaticum* and *Taraxacum janchenii*.

The annual species *Myosotis stricta* was first recorded in fields in the vicinity of Mostar (Struschka 1880), but could not be confirmed in more recent studies on the urban flora of this city

(Maslo 2014) and its surroundings (Maslo & Abadžić 2015; Maslo & Boškailo 2018). Subsequently, the species was found in Varda Mt near Rudo (Fukarek in Beck-Mannagetta et al. 1967) as a rare species in the area, but was also not confirmed in systematic studies of serpentine areas by Ritter-Studnička (1970). Our record is thus the third observation of this species for Bosnia and Herzegovina. We recorded it together with the closely related *Myosotis ramosissima* in short semi-open montane grasslands on the slopes of Kuništa above Kovačić. *M. stricta* can be recognised by calyces that are almost without pedicels and by the presence of hooked hairs on the adaxial side of main leaf nerve and on stem (Grau & Merxmüller 1972).

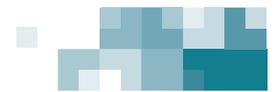
*Astragalus hypoglottis* has so far only been recorded as *Astragalus purpureus* subsp. *gremlii* at two different localities in the Čvrsnica and Dinara mountain ranges. The first record was confirmed in Dugo polje between Vran and Čvrsnica (Abadžić 1989), while the second was refuted by Beck-Mannagetta (1927). Since our specimens were not fully developed during field research, it remains questionable to which species they belong. Especially their relationships with typical *A. hypoglottis* subsp. *hypoglottis* and closely related *A. danicus* should be the subject of further studies of this genus that needs to be systematically revised in Bosnia and Herzegovina.

The species of the genus *Gagea* are not sufficiently known in the flora of Bosnia and Herzegovina, mainly because of their early flowering time. Only a few species with a small number of localities have been recorded so far, and even some widespread species of this genus in northern Bosnia and Herzegovina have only recently been recorded for the first time (Milanović et al. 2013; Koljanin et al. 2021). Therefore, plant material with preserved bulbs and entire plants with well-developed flowers needs to be systematically collected throughout the country and a taxonomic revision undertaken. It is noteworthy that *Gagea villosa* (Fig. 4A) was recently recorded in Herzegovina (Maslo 2014; Maslo & Abadžić 2015; Maslo & Boškailo 2018) in the localities in which we found only *Gagea pusilla*, which is not mentioned in any of the listed papers. This species was also recorded as *G. arvensis* (syn. *G. villosa* in Beck-Mannagetta 1904) according to Pichler (1890) in ruderal sites of Mostar, Hensch in Vandas (1889) in Bileća and Pantocsek (1874) around Trebinje and Drača, but these data should be considered dubious for the same reason as the previous ones. In spring 2024, we only found a single adult individual of this species along the path from Kovačići to Lisičjak, on the edge of rocky outcrops.

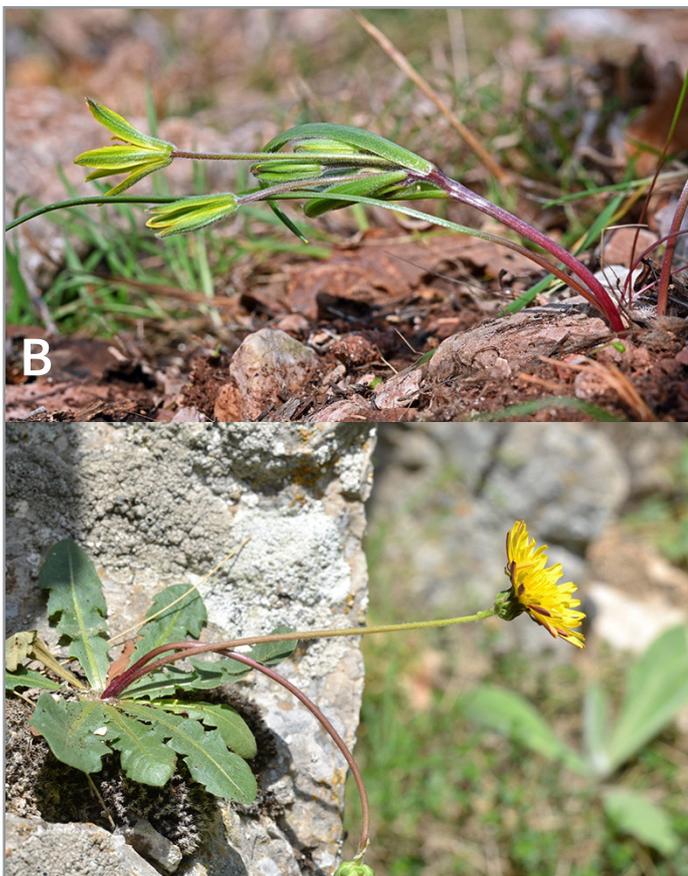
*Medicago truncatula* has so far only been unequivocally recognised in the city of Mostar (Struschka, 1880) as *M. tribuloides*?. Beck-Mannagetta (1927) did not doubt this evidence and stated that Maly also found it in Mostar. However, this species has not been confirmed in more recent articles on the urban flora of the city (Maslo 2014). We found it in ruderalised meadows above the village of Tomišlja, where it appears to be rare.

The latest taxonomic revision of *Ornithogalum* sect. *Heliochamos* in the Balkan Peninsula (Rat 2019) partly clarified the situation of this genus for Bosnia and Herzegovina. However, further research on the chorology and ecology of the





included species as well as the taxonomy of other sections of the genus is still needed. Among the species requiring more attention is also *Ornithogalum dalmaticum*, which was considered stenoendemic to Croatia (Speta 1990; Rat 2019) where it occurs in the narrow Mediterranean coastal zone and in the Adriatic islands. So far, the species has only been indirectly recorded in Neum (Rat 2019) in a dissertation as part of the list of collected plant material, with the distribution map of the studied species missing only for this taxon. We found this species on the limestone slopes above Kovačići to Lisičjak. The specimens with their long bracts, large flowers and large, almost spherical bulbs fully fit the original diagnosis and show that this species likely occurs deeper inland and is possibly distributed throughout the mediterranean and submediterranean part of Hercegovina.



**Figure 4.** *Gagea villosa* (upper photo) and *Taraxacum janchenii* (lower photo) are rare and insufficiently known species in the flora of Bosnia and Herzegovina. We recorded them below Lisičjak at Mt. Zelengora (Photos: Đ. Milanović).

**Slika 4.** Dlakava pasja čebulica (*Gagea villosa*) (zgoraj) in Janchenov regrat (*Taraxacum janchenii*) (spodaj) sta redki in nezadovoljivo poznani vrsti v flori Bosne in Hercegovine. Zabeležili smo ju pod Lisičjakom na planini Zelengora (Foto: Đ. Milanović).

**Slika 4.** Lukovica dlakavog psa (*Gagea villosa*) (gore) i Janchenov maslačak (*Taraxacum janchenii*) (dole) rijetke su i slabo istražene vrste u flori Bosne i Hercegovine. Registrovali smo ih ispod lokaliteta Lisičjak na planini Zelengori (Foto: Đ. Milanović).

The genus *Taraxacum* is one of the most taxonomically complex genera in the world. Very narrowly defined apomictic species are only known to a few specialized botanists, while these taxa are only represented at section level in numerous floras,

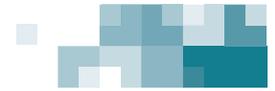
including Flora Europaea (e.g. Tutin et al. 2001). It is therefore not surprising that the species of this genus occurring in Bosnia and Herzegovina are still completely unknown and that further research is necessary. For example, *Taraxacum janchenii* (Fig. 4B) was not mentioned for Bosnia and Herzegovina since the species was described by Kirschner and Štěpánek (1985), who provided also a large number of localities for the territory of this country. Our record fits into the already known distribution area of the species, which inhabits limestone cliffs in the central Dinaric Mountains.

In addition to several interesting vascular plant species mentioned above, we also recorded some new species and distribution data for bryophytes. For example, on the shady vertical rocks at the entrance to the Vranjača Cave, we collected several interesting taxa. Among them was *Fissidens gracilifolius*, which is new for the bryoflora of Bosnia and Herzegovina (Hodgetts & Lockhart 2020). This is a small representative of the genus with bordered leaves. Its typical habitat are humid calcareous rocks (Frey et al. 2006), which were also the habitat of the collected specimens. At the same site, in a rock crevice filled with organic material, we found the tiny liverwort *Sphenobolus minutus* (synonym *Anastrophyllum minutum* (Schreb.) R. M. Schust.), also new for Bosnia and Herzegovina. It has transversely inserted leaves and almost equally thickened cell walls. Gemmae are angular and two-celled. The species has a circumboreal and tropical-alpine distribution (Frey et al. 2006). We also recorded *Seligera trifaria*, which is listed as data deficient in the European Red List (Hodgetts et al. 2019).

On the thermophilic sites above the Neretva River, we found several species that grow on exposed carbonate rocks. Among them was the acrocarpous moss *Grimmia dissimulata*, which is the first record for Bosnia and Herzegovina. While the genus *Grimmia* is easy to recognise by dense growth in roundish pillows and hyaline hairs at the end of leaves, the species are often difficult to identify. *Grimmia dissimulata* grows in carbonate rocks and occurs in most of the countries of the Balkan Peninsula (Hodgetts & Lockhart 2020). *Schistidium robustum* is also an acrocarpous moss growing on carbonate rocks. This species is similar to the more common *S. crasipilum*, however it has longer capsules and hair points that have several sharp teeth. Our identification relies on Nyholm (1998) and Lüth (2019), as well as on comparison with the herbarium material from Herbarium LJU.

Several papers have been published about the genus *Tortella* in the last years. One of them was dealing with *Tortella bambergeri* s. lat. (Köckinger & Hedenäs 2017), with a new identification key, which we used to identify the material we collected. We found two new species from this group, *T. fasciculata* and *T. pseudofragilis*. *Tortella fasciculata* is a thermophilous species growing on exposed rocks. We collected it at two thermophilous sites on the slopes above Neretva River (Grčko groblje). *Tortella pseudofragilis* was collected on the rocks along the Međeđak stream. Köckinger & Hedenäs (2017) stated that the ecology of this species does not differ much from that of *T. fasciculata*. Still, at lower altitudes in Central Europe, it also grows on shaded boulders in woods, gorges, or even in the flood zone of rivers. For the morphological differ-





ences among the species, see Köckinger & Hedenäs (2017) and Ottley & Blockeel (2019). The second revision within the same genus was made for *T. tortuosa* s. lat., which has been split into eight species (Köckinger & Hedenäs 2023). The material we collected from this group still needs to be revised, so we consider it as *T. tortuosa* s. lat. for now.

In the *Salix fragilis* riparian forest, we collected *Plagiomnium ellipticum*, a species that has not yet been recorded in Bosnia and Herzegovina. Representatives of the genus *Plagiomnium* are easily recognisable by thin leaf lamina bordered with elongated cells and denticulate to dentate. They grow in moist, shaded habitats, often in forests or along streams. *Plagiomnium ellipticum* is known from all countries of the Balkan Peninsula (Hodgetts & Lockhart 2020; Alegro & Šegota 2024). The main identification characters are: leaf base is not decurrent, laminal cells are porose and longer than wide and teeth are often small and missing at the basal part of the leaf (Frey et al. 2006).

*Pulviger a lyelii* is an epiphytic moss species, which is common in forests along the Neretva River. It is bigger than the *Orthotrichum* species and easily recognised by lanceolate leaves with numerous brown filamentous gemmae (Frey et al. 2006; Fig. 5). In Bosnia and Herzegovina, the species was already found in 2018 by Đ. Milanović in *Picea omorika* (Pančić) Prukyne stands on Radomišlja planina by Foča (Milanović 2022). We believe that it was neglected and will be found elsewhere in Bosnia and Herzegovina as it is not a rare species, especially in mountain forests.

Based on our results we conclude that the areas of the upper Neretva and Zalomka River valleys with Nevesinjsko polje are characterized by exceptionally well-preserved natural features harbouring a high number of rare and protected species of great importance for biodiversity and nature conservation. Despite our efforts, the study area remains insufficiently explored and further systematic research in the area as well as in whole Bosnia and Herzegovina is needed.

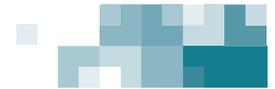


**Figure 5.** *Pulviger a lyelii* is an epiphytic moss species, which is common in forests along the Neretva River, where we registered it at several localities (Photo: Đ. Milanović).

**Slika 5.** *Pulviger a lyelii* je epifitska vrsta mahu, ki je pogosta v gozdovih ob reki Neretvi, kjer smo jo zabeležili na več lokacijah (Foto: Đ. Milanović).

**Slika 5.** *Pulviger a lyelii* je epifitska vrsta mahovine česta u šumama uz rijeku Neretvu, gdje smo je zabilježili na više lokacija (Foto: Đ. Milanović).





## POVZETEK

Med 1. in 6. 6. 2023 smo opravili floristične raziskave na več lokacijah v zgornjem toku reke Neretve in v manjšem obsegu v dolini Zalomke in na Nevesinjskem polju. Raziskovano območje sestavljajo predvsem peščenjaki in kalkareniti, ki so prevladujoča podlaga v celotni dolini reke Neretve. Le na robovih doline peščenjake zamenjajo apnenci, ki so prevladujoča podlaga okoliških gorskih masivov. Pobočja doline reke Neretve so večinoma porasla s hrastovimi gozdovi na južnih in bukovimi gozdovi na severno usmerjenih pobočjih. Gozdovi so deloma preoblikovani v večinoma opuščene zaselke in pašnike. Mokrotne združbe so razvite le v ledeniških depresijah. Poleg tega so za strugo Neretve značilni aluvialni nanosi, kjer so razviti različni aluvialni gozdovi, grmišča sive vrbe, odprte združbe na prodnatih brežinah in visoka zelišča na muljastih nanosih. Po drugi strani pa reka Zalomka teče skozi različna območja s posebnimi geološkimi značilnostmi, od apnencev v zgornjem porečju do naplavin na Nevesinjskem polju. Na južno usmerjenih pobočjih so razviti predvsem toploljubni hrastovi gozdovi in različne stopnje njihove degradacije, na severno usmerjenih pobočjih pa bukovni gozdovi. Za osrednje območje Nevesinjskega polja z jezerskimi sedimenti so značilne različne mokriščne in šotne združbe. Dosedanje raziskave flore porečja Neretve od Uloga do izvira reke niso bile sistematične in so bile omejene na zapise posameznih rastlinskih vrst. Po drugi strani pa je bila flora Nevesinjskega polja veliko bolje raziskana, s poudar-

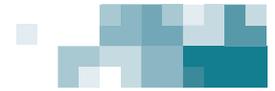
## SAŽETAK

Između 1. i 6. juna 2023. godine proveli smo floristička istraživanja na više lokaliteta u dolini gornjeg toka rijeke Neretve, te, u manjem obimu, u dolini rijeke Zalomke u Nevesinjskom polju. Područje istraživanja građeno je uglavnom od pješčara i kalkarenita, što predstavlja dominantni supstrat na području doline gornjeg toka rijeke Neretve. Samo na rubnim dijelovima doline pješčare zamjenjuju krečnjaci, od kojih su uglavnom izgrađene okolne planine. Padine doline Neretve su pokrivene šumom hrastova na južnim i bukovim šumama na sjevernim ekspozicijama, djelimično isprekidanim uglavnom napuštenim zaseocima i pašnjacima. Vlažni ekosistemi razvijeni su jedino u glacijalnim depresijama. Aluvijalni nanosi zastupljeni su neposredno uz rijeku Neretvu, i na njima se razvijaju različite riparijske šume, šikare sive vrbe, otvorene zajednice na šljunčanim sprudovima i visoke zeleni na muljevitim polojima. Sa druge strane, rijeka Zalomka teče kroz raznovrsna područja sa specifičnim geološkim karakteristikama: od krečnjaka u gornjem toku do aluvijalnih nanosa u Nevesinjskom polju. Na južnim padinama oko rijeke razvijene su uglavnom termofilne hrastove šume u različitim degradacionim stadijumima, dok su na sjevernim padinama prisutne uglavnom bukove šume. Centralni dio Nevesinjskog polja razvijen je na jezerskim sedimentima i karakterišu ga različite močvarne i tresetne zajednice. Dosadašnja istraživanja flore gornjeg toka rijeke Neretve, od Uloga do izvorišta rijeke, nisu imala sistematski karakter i svodila su se na pojedinačna

kom na flori začasno poplavljenih travnikov in šotišč. Cilj naše študije je bil torej dopolniti poznavanje flore na obeh preučevanih območjih, pri čemer smo posebno pozornost namenili tistim ekosistemom, za katere je značilno največje vrstno bogastvo, pa tudi tistim, ki doslej še niso bili raziskani. Raziskovali smo floro na 62 različnih lokacijah: na 51 lokacijah v zgornji Neretvi ter na 11 lokacijah ob reki Zalomki in njeni okolici (Tab. S1). Skupaj smo zabeležili 933 taksonov; 897, od tega 125 mahov, smo našli na 51 nahajališčih v dolini zgornje Neretve, in 200, od tega 32 mahov, pa na 11 lokacijah v dolini reke Zalomke. Med registriranimi taksoni jih je 39 endemičnih na Balkanskem polotoku, 56 taksonov je uvrščenih na seznam ogroženih in redkih taksonov Bosne in Hercegovine, na rdeči seznam Federacije Bosne in Hercegovine, 95 taksonov pa je zavarovanih v Republiki Srbski. Poleg tega smo zabeležili tudi nekaj novih vrst za floro Bosne in Hercegovine. Med kritosemenkami so to *Barbarea intermedia*, *Lamium hybridum*, *Myosotis sicula* in *Poa ursina*, med mahovi pa *Fissidens gracilifolius*, *Grimmia dissimulata*, *Plagiomnium ellipticum*, *Schistidium robustum*, *Sphenobolus minutus*, *Tortella fasciculata* in *T. pseudofragilis*. Naša študija razkriva visoko naravovarstveno vrednost dolin zgornje Neretve in Zalomke, ki jih je treba zavarovati za prihodnje generacije. Poleg tega so potrebne nadaljnje sistematične raziskave flore Bosne in Hercegovine.

zapažanja biljnih vrsta. Sa druge strane, flora Nevesinjskog polja značajno je bolje istražena, sa akcentom na floru periodično plavljenih livada i tresetišta. Cilj ove studije je da se doprinese boljem poznavanju flore oba ispitivana područja, sa naročitom pažnjom na ekosisteme koji su po vrstama najraznovrsniji, kao i na one ekosisteme koji nisu ranije istraživani. Floru smo istraživali na 62 različita lokaliteta: 51 na području gornjeg toka rijeke Neretve, te 11 uz rijeku Zalomku i njenu bližu okolinu (Tab. S1). Zabilježili smo ukupno 933 taksona; 897 biljnih taksona, uključujući 125 briofita, su pronađeni u dolini gornjeg toka rijeke Neretve, dok je 200 taksona, uključujući 32 briofite, pronađeno u dolini rijeke Zalomke. Među zabilježenim taksonima 39 su endemi za Balkansko poluostrvo, 56 se nalazi na Listi ugroženih i rijetkih biljaka u Bosni i Hercegovini, 27 je na Crvenoj listi Federacije Bosne i Hercegovine, dok 95 uživa status zaštite u Republici Srpskoj. Takođe, zabilježeno je nekoliko vrsta koje se po prvi put registrovane za floru Bosne i Hercegovine. Među skrivenosjemenicama to su: *Barbarea intermedia*, *Lamium hybridum*, *Myosotis sicula* i *Poa ursina*, a među briofitama: *Fissidens gracilifolius*, *Grimmia dissimulata*, *Plagiomnium ellipticum*, *Schistidium robustum*, *Sphenobolus minutus*, *Tortella fasciculata* i *T. pseudofragilis*. Ovo istraživanje pokazuje da područje gornjeg toka rijeke Neretve i okoline rijeke Zalomke imaju visoku prirodnu vrijednost i trebaju biti predmet zaštite zbog budućih generacija. Dalja sistematska istraživanja flore Bosne i Hercegovine su neophodna.





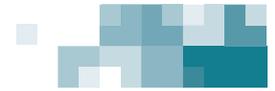
## ACKNOWLEDGEMENTS

The authors would like to thank the staff of the Centre for Environment and Save the Rivers for logistical support, Jan Kirschner for confirmation of the identification of *Taraxacum janchenii*, and Žan Lobnik Cimerman for identification of the selected liverwort specimens.

## REFERENCES

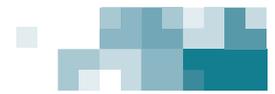
- Abadžić S. 1989. *Astragalo-Edraianthetum dalmatici* ass. nova na Vran-planini u Hercegovini. Glasnik Zemaljskog Muzeja Bosne Hercegovine u Sarajevu Prirodne Nauke Nova Serija. 28: 121-127.
- Adamović L. 1889. Naknadno k flori južne Bosne i Hercegovine od dr viteza G. Becka. Na osnovu rezultata dvadesetdnevnog putovanja u ljetu 1888. Glasnik Zemaljskog Muzeja u Bosni i Hercegovini. 1(1): 44-50.
- Alegro A, Šegota V. 2018. Rasprostranjenost *Plagiomnium ellipticum* (Brid.) T. J. Kop. u Hrvatskoj. In: Nikolić T. editor. Flora Croatica Database, Prirodoslovno - matematički fakultet, Sveučilište u Zagrebu [accessed on 23. 9. 2024]; <http://hirc.botanic.hr/fcd/>
- Ascherson P, Kanitz A. 1877. Catalogus Cormophytorum et Anthophytorum Serbiae, Bosniae, Hercegovinae, Montis Scodri, Albaniae. Berolini et Claudiopoli.
- Atherton I, Bosanquet S, Lawley M, editors. 2010. Mosses and Liverworts of Britain and Ireland. A field guide. British Bryological Society, UK. p. 342.
- Beck-Mannagetta G. 194. Flora von Bosnien, der Herzegowina und des Sandžaks Noovipazar I. Teil. Wissenschaftliche Mitteilungen aus Bosnien und Hercegovina. 9: 407-518.
- Beck-Mannagetta G. 1916. Flora Bosne, Hercegovine i novopazarskog Sandžaka II. (7.) dio Nastavak. Glasnik Zemaljskog Muzeja u Bosni i Hercegovini. 28(1): 41-168.
- Beck-Mannagetta G. 1927. Flora Bosnae, Hercegovinae et regionis Novipazar III. Choripetalae (finis). Srpska Kraljevska Akademija Posebno Izdanje 63 Priroda Matice Spiske. 15: 1-487.
- Beck-Mannagetta G, Malý K, Bjelčić Ž. 1967. Flora Bosnae et Hercegovinae IV Sympetalae Pars 2. Zemaljski Muzej Bosne i Hercegovine u Sarajevu Prirodne Nauke Posebna Izdanja. 2: 5-111.
- Bjelčić Ž. 1965. Flora planine Jahorine. Glasnik Zemaljskog Muzeja Bosne Hercegovine u Sarajevu Prirodne Nauke Nova Serija. 3-4: 109-158.
- Blau O. 1877. Reisen in Bosnien und der Hertzegowina. Topographische Und Pflanzengeographische Aufzeichnungen. Berlin: Verlag von Dietrich Veimer.
- Braun-Blanquet J. 1964. Pflanzensoziologie, Grundzüge der Vegetationskunde. 3rd ed. Wien: Springer Verlag.
- Casas C, Brugués M, Cros RM, Sérgio C, Infante M. 2009. Handbook of liverworts and hornworts of the Iberian Peninsula and the Balearic Island: illustrated keys to genera and species. Institut d'Estudis Catalans. Secció de Ciències Biològiques, Barcelona.
- Casas C, Brugués M, Cros RM, Sérgio C. 206. Handbook of Mosses of the Iberian Peninsula and the Balearic islands. Illustrated Keys to the Genera and Species. Institut d'Estudis Catalans, Barcelona.
- Chytrý M, Řezníčková M, Novotný P, Holubová D, Preislerová Z, Attorre F, Biurrún I, Blažek P, Bonari G, Borovyk D, et al. 2024. FloraVeg.EU – an online database of European vegetation, habitats and flora. Applied Vegetation Science 27: e12798. <https://doi.org/10.1111/avsc.12798>
- Dug S, Muratović E, Drešković N, Boškailo A, Dudević S. 2013. Crvena lista flore Federacije Bosne i Hercegovine. Sarajevo, BA: EU »Greenway«. <https://www.fmoit.gov.ba/upload/file/okolis/Crvena%20lista%20Flore%20FBiH.pdf>
- Fischer MA, Oswald K, Adler W. 2008. Exkursionsflora für Österreich, Liechtenstein und Südtirol. Biologiezentrum der Oberösterreichischen Landesmuseen, Linz.
- Formanek E. 1890. Zweiter Beitrag zur Flora von Bosnien und der Hercegovina. Österreichische Botanische Zeitung. 40(2): 73-16.
- Frey W, Frahm J-P, Fischer E, Lobin W. 206. The Liverworts, Mosses and Ferns of Europe. Harley Books, Essex.
- Grau J, Merxmüller H. 1972. 29. *Myosotis* L. In: Tutin TG et al. (eds.) Flora Europaea, Vol. 3, Cambridge University Press. p. 111-117.
- Hodgetts N, Lockhart N. 2020. Checklist and country status of European bryophytes – update 2020. Irish Wildlife Manuals 123. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.
- Hodgetts NG, Söderström L, Blockeel TL, Caspari S, Ignatov MS, Konstantinova NA, Lockhart N, Papp B, Schröck C, Sim-Sim M, et al. 2020. An annotated checklist of bryophytes of Europe, Macaronesia and Cyprus. Journal of Bryology. 42(1): 1-116. <https://doi.org/10.1080/03736687.2019.1694329>
- Hodgetts N, Cáliz M, Englefield E, Fettes N, García Criado M, Patin L, Nieto A, Bergamini A, Bisang I, Baisheva E, et al. 2019. A miniature world in decline: European Red List of Mosses, Liverworts and Hornworts. IUCN, Brussels.
- Kirschner J, Štěpánek J. 1985. »*Taraxacum hoppeanum*« and its allies (Studies in *Taraxacum* 4.). Preslia. 57: 111-134.
- Köckinger H, Hedenäs L. 2017. A farewell to *Tortella bambergi* (Pottiaceae) as understood over the last decades. Journal of Bryology. 39(3): 1-13. <https://doi.org/10.1080/03736687.2017.1307313>
- Köckinger H, Hedenäs L. 2023. The supposedly well-known carbonate indicator *Tortella tortuosa* (Pottiaceae, Bryophyta) split into eight species in Europe. Lindbergia. 2023: e2493.





- Koljanin D, Milanović Đ, Stupar V. 2021. New data on the distribution and threat status of three rare spring geophytes from Bosnia and Herzegovina. *Phytologia Balcanica*. 27(1): 107-114.
- Kuzmanović N, Lakušić D, Frajman B, Alegro A, Schönschwetter P. 2017. Phylogenetic relationships in *Seslerieae* (Poaceae) including resurrection of *Psilathera* and *Sesleriella*, two monotypic genera endemic to the Alps. *Taxon*. 66(6): 1349-1370. <https://doi.org/10.12705/666.5>
- Lakušić R, Muratspahić-Pavlović D, Redžić S. 1982. Vegetacija ekosistema kraških polja Hercegovine. Godišnjak Biološkog Instituta Univerziteta u Sarajevu. 35: 81-92.
- Lüth M. 2019. Mosses of Europe. A Photographic Flora, set of 3 volumes. Freiburg, Germany.
- Malý K. 1928. Prilozi za floru Bosne i Hercegovine X. *Glasnik Zemaljskog Muzeja u Bosni i Hercegovini*. 40(1): 107-166.
- Malý K. 1933. Materialien zu G. v. Beck's Flora des ehemaligen Bosnien-Hercegovina. *Glasnik Zemaljskog Muzeja u Bosni i Hercegovini*. 45(1): 71-141.
- Maslo S. 2014. The urban flora of the city of Mostar (Bosnia and Herzegovina). *Natura Croatica*. 23(1): 101-145.
- Maslo S, Abadžić S. 2015. Vascular flora of the town of Blagaj (South Bosnia and Herzegovina). *Natura Croatica*. 24(1): 59-92.
- Maslo S, Boškailo A. 2018. Vascular flora of the old town of Počitelj and its surrounding area (South Bosnia and Herzegovina). *Glasnik Zemaljskog Muzeja u Sarajevu Prirodne Nauke Nova Serija*. 37: 19-45.
- Milanović Đ. 2014. Prilog poznavanju rasprostranjenja nekih rijetkih vrsta iz roda *Carex* L. u Bosni i Hercegovini. *Glasnik Šumarskog Fakulteta Univerziteta u Banjoj Luci*. 21: 5-23.
- Milanović Đ. 2022. Biljne zajednice sa Pančičevom omorikom (*Picea omorika* (Pančić) Prukyne) u Bosni i Hercegovini [Master Thesis]. Univerzitet u Banjoj Luci, Šumarski fakultet, Banja Luka.
- Milanović Đ, Stupar V, Brujić J. 2013. Novelties for vascular flora of Bosnia and Herzegovina. *Botanica Serbica*. 37(2): 173-181.
- Mojićević M, Tomić B. 1981. Osnovna geološka karta SFRJ, list Kalinovik.
- Nikolić T. 2019. Flora Croatica - Vaskularna flora Republike Hrvatske. Zagreb, HR: Alfa d.d.
- Nyholm E. 1998. Illustrated Flora of Nordic Mosses, fasc. 4. Nord. Bryol. Soc. Coenhaged and Lund.
- Ottley T, Blockeel T. 2019. *Tortella fasciculata* and *T. pseudofragilis* in Britain and Ireland. *Field Bryology*. 121: 19-22.
- Pantocsek J. 1874. Adnotationes ad floram et faunam Hercegovinae, Crnagorae et Dalmatiae. Posonii: C. F. Wigand.
- Paton AJ. 1999. The liverwort flora of the British Isles. Harley Books, Colchester.
- Perić R, Škondrić S, Knežević J. 2018. First confirmed record of *Carex limosa* L. (Cyperaceae) and community *Caricetum limosae* Br.-Bl. for Nevesinjsko polje (Bosnia & Herzegovina). *Ecologica Montenegrina*. 19: 152-158. <https://doi.org/10.37828/em.2018.19.15>
- Pichler A. 1890. Slike iz mostarske flore. Mostar: Velika gimnazija Peti godišnji izvještaj Velike gimnazije u Mostaru.
- POWO. 2024. Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew; [accessed 12. 8. 2024]. <https://powo.science.kew.org/>
- Rat M. 2019. *Ornithogalum* Sect. *Heliocharmos* Baker (Hyacinthaceae, Ornithogaloideae) na Balkanskom poluostrvu i Panonskoj niziji: revizija nomenklature, taksonomije i rasprostranjenja [doctoral thesis]. [Novi Sad, RS]: Univerzitet u Novom Sadu.
- Redžić S, Barudanović S. 2010. The patterns of diversity of forest vegetation of the Crvanj Mountain in the Herzegovina (west Balkan Peninsula). *Šumarski List*. 134(5-6): 261-274.
- Redžić S, Lakušić R, Muratspahić D, Barudanović S. 1996. Fitocenoze subalpskog i alpskog pojasa planine Crvanj u Hercegovini. *Glasnik Zemaljskog Muzeja Bosne Hercegovine Prirodne Nauke Nova Serija*. 31: 285-310.
- Redžić S, Trakić S, Barudanović S. 2013. Patterns of vegetation diversity of grasslands and pastures – Crvanj Mt. (Herzegovina, Western Balkan). *Sci Res Essays*. 8(39): 1944-1965.
- Ritter-Studnička H. 1952. Prilozi za floru Bosne i Hercegovine. Godišnjak Biološkog Instituta u Sarajevu. 5(1-2): 349-380.
- Ritter-Studnička H. 1953. Prilozi za floru Bosne i Hercegovine II. Godišnjak Biološkog Instituta u Sarajevu. 6(1-2): 21-37.
- Ritter-Studnička H. 1954. Flora i vegetacija livada kraških polja Bosne i Hercegovine. Godišnjak Biološkog Instituta u Sarajevu. 7(1-2): 25-109.
- Ritter-Studnička H. 1955. O rasprostranjanju nekih manje poznatih biljaka u kraškim poljima Bosne i Hercegovine. *Radovi Naučnog Društva BiH*. 1: 193-23.
- Ritter-Studnička H. 1956. Prvo nalazište mesojedne biljke »*Drosera rotundifolia* L.« u NR Bosni i Hercegovini. *Naše Starine*. 3: 307-309.
- Ritter-Studnička H. 1970. Die Flora der Serpentinvorkommen in Bosnien. Schweizerbart Science Publishers, Stuttgart.
- Sagorski E. 191. Beitrag zur Flora der Herzegovina. Mitteilungen des Thüringischen Botanischen Vereins. 16: 33-50.
- Sagorski E. 1912a. Neue Beiträge zur illyrischen Flora. Allgemeine Botanische Zeitschrift für Systematik, Floristik, Pflanzengeographie etc. 18(1-3): 10-18.
- Sagorski E. 1912b. Neue Beiträge zur illyrischen Flora. Allgemeine Botanische Zeitschrift für Systematik, Floristik, Pflanzengeographie etc. 18(4-6): 48-54.
- Sagorski E. 1914a. Vierter Beitrag zur illyrischen Flora. Allgemeine Botanische Zeitschrift für Systematik, Floristik, Pflanzengeographie etc. 20(3): 33-36.





- Sagorski E. 1914b. Vierter Beitrag zur illyrischen Flora. Allgemeine Botanische Zeitschrift für Systematik, Floristik, Pflanzengeographie etc. 20(5): 65-74.
- Schumacker R, Váňa J. 205. Identification keys to the liverworts and hornworts of Europe and Macaronesia (distribution and status). 2nd ed. Sorus, Poznań, Poland.
- Šilić Č. 1996. Spisak biljnih vrsta (*Pteridophyta* i *Spermatophyta*) za Crvenu knjigu Bosne i Hercegovine. Glasnik Zemaljskog Muzeja Bosne Hercegovine Prirodne Nauke Nova Serija. 31: 323-367.
- Speta F. 1990. *Ornithogalum gussonei* Ten., *O. collinum* Guss. und *O. exscapum* Ten., drei häufig verkannte, aus Italien beschriebene Arten (Hyacinthaceae). Phytion Austria. 30(1):97-171.
- Struschka H. 1880. Die Umgebung Mostars (Eine geographisch-naturwissenschaftliche Studie). Programm K K Staats-Gymn Kremsier Veröffentlicht Am Schlusse Schuljahres. 187980: 3-43.
- Tutin TG, Heywood VH, Burges NA, Valentine DH, Walters SM, Webb DA. 201. Flora Europaea on CD-ROM. Cambridge, UK: Cambridge University Press.
- Uredba o strogo zaštićenim i zaštićenim divljim vrstama. 2020. Služ Glas Repub Srp. 65/20:2-33.
- Vandas K. 1889. Beiträge zur Kenntniss der Flora von Süd-Herzegovina. Österreichische Botanische Zeitung. 39(7): 266-269.
- Vandas K. 1909. Reliquiae Formanekianae. Eenumeratio critica plantarum vascularium, quas itineribus in Haempeninsula et Asia Minore (Bithynia) factis collegit dr Ed. Formanek, professor Gymnasii Brunensis Bohemici. Bruna: Typis Jos. Jelinek.
- [WFO] World Flora Online. 2024 *Myosotis sicula* Guss; [accessed on 19. 9. 2024]. <http://www.worldfloraonline.org/taxon/wfo-0000368533>

## SUPPLEMENTARY MATERIAL

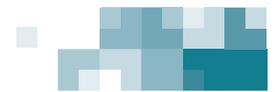
**Table S1.** Localities in the Upper Neretva River valley and the Zalomka River valley with surroundings (Bosnia and Herzegovina), where we studied vascular plants and bryophytes in June 2023. We produced either species lists or phytosociological relevés, of which only the species lists are presented in the article. The coordinates and elevations correspond mostly to the centres of the study plots.

**Tabela S1.** Nahajališča v dolini zgornje Neretve in dolini reke Zalomke z okolico (Bosna in Hercegovina), kjer smo junija 2023 preučevali vaskularne rastline in mahove. Izdelali smo bodisi sezname vrst bodisi popise združb, od katerih so v članku predstavljeni le sezname vrst. Koordinate in nadmorske višine večinoma ustrezajo središčem preučevanih ploskev.

**Tabela S1.** Lokalitete u dolini gornjeg toka rijeke Neretve i doline rijeke Zalomke sa okolinom (Bosna i Hercegovina), gdje su proučavane vaskularne biljke i mahovine u junu 2023. godine. Napravili smo ili liste vrsta ili fitocenološke snimke, od kojih su samo liste vrsta predstavljene u članku. Koordinate i nadmorske visine uglavnom odgovaraju centrima proučavanih ploha.

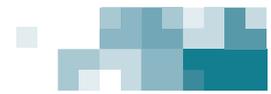
No	Locality	Latitude	Longitude	Habitat	Date	Source	Elevation
<b>Upper Neretva River valley</b>							
N1	Carina near Ulog (Površ)	43.420206	18.306599	Meso-thermophilous <i>Quercus cerris</i> forest	5. 6. 2023	relevé	725
N2	Ulog - settlement (Površ)	43.416709	18.309037	Roadside chanal	5. 6. 2023	floristic list	690
N3	Ulog - under mosque (Zelengora)	43.413317	18.314367	<i>Salix eleagnos</i> riparian shrub	1. 6. 2023	relevé	645
N4	Ulog - under Pearnik (Zelengora)	43.41457	18.31484	<i>Salix eleagnos</i> riparian forest	1. 6. 2023	relevé	645
N5	Under Pearnik 1 (Zelengora)	43.410822	18.315616	<i>Salix eleagnos</i> - <i>Alnus rohlenae</i> riparian forest	1. 6. 2023	relevé	647
N6	Under Pearnik 2 (Zelengora)	43.410804	18.316579	Mesophyllous <i>Quercus cerris</i> forest	1. 6. 2023	relevé	655
N7	Vidikovac above Nedavić (Zelengora)	43.448664	18.316856	Limestone cliffs and outcrops	4. 6. 2023	floristic list	810
N8	Pearnik (Zelengora)	43.410584	18.319001	Road margin	5. 6. 2023	floristic list	675
N9	Confluence of Paleški potok 1 (Zelengora)	43.405176	18.323485	<i>Alnus rohlenae</i> riparian forest	1. 6. 2023	relevé	650
N10	Pearnik-Kovačići (Zelengora)	43.41389	18.324169	<i>Quercus cerris</i> forest	4. 6. 2023	floristic list	880
N11	Četović - under Grbovac (Zelengora)	43.402047	18.324334	<i>Carpinus orientalis</i> thermophilous shrub	2. 6. 2023	relevé	660
N12	Četović - under Zli do (Zelengora)	43.397731	18.328138	<i>Salix alba</i> riparian forest	2. 6. 2023	relevé	665
N13	Kovačići (Zelengora)	43.41639	18.33056	<i>Quercus cerris</i> forest	4. 6. 2023	floristic list	1000
N14	Jablanići (Zelengora)	43.400807	18.33296	Meso-thermophilous <i>Quercus cerris</i> forest	2. 6. 2023	relevé	820
N15	Kunište above Jasen (Zelengora)	43.419136	18.33323	<i>Quercus cerris</i> forest	4. 6. 2023	floristic list	1160
N16	Četović - along Neretva (Zelengora)	43.398082	18.33325	<i>Salix alba</i> riparian forest	2. 6. 2023	relevé	670





No	Locality	Latitude	Longitude	Habitat	Date	Source	Elevation
N17	Četovič - under Jablaniči (Zelengora)	43.399238	18.333523	Shaded limestone rocks in forest	2. 6. 2023	relevé	760
N18	Kunište-Lisičjak (Zelengora)	43.418267	18.335783	Open rocky grassland	4. 6. 2023	floristic list	1190
N19	Lisičjak (Zelengora)	43.417176	18.335891	Closed grassland	4. 6. 2023	floristic list	1160
N20	Četovič - confluence of Grabovik (Zelengora)	43.397033	18.336424	<i>Salix fragilis</i> riparian forest	2. 6. 2023	relevé	675
N21	Under Tuhobič - along Neretva (Površ)	43.379448	18.354495	<i>Salix alba</i> riparian forest	4. 6. 2023	relevé	685
N22	Under Cerova - along Neretva (Površ)	43.378151	18.357191	<i>Alnus rohlenae</i> riparian forest	4. 6. 2023	relevé	688
N23	Under Kovačuša - along Neretva (Površ)	43.376479	18.357853	<i>Alnus rohlenae</i> riparian forest	4. 6. 2023	relevé	688
N24	Under Rosulja - along Neretva (Površ)	43.376353	18.359123	<i>Alnus rohlenae</i> riparian forest	4. 6. 2023	relevé	690
N25	Međedak stream under Zli do (Površ)	43.34256	18.35984	Shaded and wet rocks along the stream	6. 6. 2023	floristic list	1030
N26	Grčko groblje 1 (Površ)	43.356025	18.364488	Mesophyllous <i>Quercus cerris</i> forest	3. 6. 2023	relevé	1090
N27	Grčko groblje 2 (Površ)	43.355737	18.36468	Meadow + thermophilous <i>Fraxinus ornus</i> forest	3. 6. 2023	floristic list	1100
N28	Grčko groblje - Kovačević (Površ)	43.35669	18.366616	Thermophilous <i>Carpinus orientalis-Fraxinus ornus</i> shrub	3. 6. 2023	relevé + floristic list	1000
N29	Kovačević-Boroviča gaj 1 (Površ)	43.360644	18.368866	Forest clearing + <i>Quercus petraea-Carpinus betulus</i> mesophilous forest	3. 6. 2023	floristic list	830
N30	Kovačević-Boroviča gaj 1 (Površ)	43.362456	18.37001	<i>Carpinus betulus</i> mesophilous forest	3. 6. 2023	floristic list	770
N31	Confluence od Tuniski potok (Zelengora)	43.36521	18.370254	<i>Salix purpurea-Salix eleagnos</i> riparian shrub	3. 6. 2023	floristic list	705
N32	Under Kovačević 1 (Površ)	43.36478	18.370636	<i>Carpinus betulus</i> mesophilous forest	3. 6. 2023	floristic list	720
N33	Under Kovačević 2 (Površ)	43.364001	18.371257	<i>Carpinus betulus</i> mesophilous forest	3. 6. 2023	relevé	710
N34	Under Tomišlja (Zelengora)	43.355174	18.385265	<i>Quercus cerris</i> forest	5. 6. 2023	floristic list	810
N35	Tomišlja (Zelengora)	43.358538	18.386474	Meadow and <i>Quercus cerris</i> forest	5. 6. 2023	floristic list	850
N36	Above Ruda glava (Zelengora)	43.374803	18.393778	<i>Fagus sylvatica</i> forest	5. 6. 2023	floristic list	1320
N37	Dubrava above Tomišlja (Zelengora)	43.368939	18.395032	Forest clearing	5. 6. 2023	floristic list	1180
N38	Babin do (Zelengora)	43.417882	18.397312	Mountain slope	6. 6. 2023	floristic list	1380
N39	Čengića bara (Zelengora)	43.420642	18.397514	Meadows with <i>Sesleria uliginosa</i>	6. 6. 2023	floristic list	1350
N40	Above Dubrava (Zelengora)	43.373956	18.401992	Mountain meadow	5. 6. 2023	floristic list	1320
N41	Dubrava-Crvene stijene (Zelengora)	43.377618	18.402595	Mountain meadow	5. 6. 2023	floristic list	1430
N42	Babin do - cote 1536 (Zelengora)	43.416316	18.404027	Mountain slope	6. 6. 2023	floristic list	1535
N43	Under Crvene stijene (Zelengora)	43.380966	18.40589	Mountain meadow	5. 6. 2023	floristic list	1500
N44	Crvene stijene (Zelengora)	43.383736	18.41128	Mountain meadow	5. 6. 2023	floristic list	1770
N45	Marčinkovo vrelo (Zelengora)	43.41906	18.412902	Mountain meadow and mountain slope	6. 6. 2023	floristic list	1360
N46	Kladopoljsko jezero (Zelengora)	43.417765	18.422724	Glacial lake and its surroundings	6. 6. 2023	floristic list	1385
N47	Čašica jama (Zelengora)	43.441546	18.326585	Cave entrance and in the cave	5.6. 2023	floristic list	1070
N48	Jama Golubnjača (Zelengora)	43.431611	18.332472	Cave entrance and in the cave	5.6. 2023	floristic list	1130
N49	The road by Tuniski potok (Zelengora)	43.367611	18.372056	On the gravel road	3.6. 2023	floristic list	720
N50	Ulog (Površ)	43.417361	18.311806	Orchard west from the bridge over Neretva	3.6. 2023	floristic list	645
N51	Nedavič (Zelengora)	43.460237	18.321882	In vegetation on the gravelly river bed	3.6. 2023	floristic list	600





No	Locality	Latitude	Longitude	Habitat	Date	Source	Elevation
<b>Zalomka River valley and surroundings</b>							
Z1	Selište near Nevesinje (Nevesinjsko polje)	43.268458	18.10828	Neutrophilous <i>Quercus cerris</i> forest	5. 6. 2023	relevé	900
Z2	Vranjača (Nevesinjsko polje)	43.185801	18.115788	Cave entrance	5. 6. 2023	floristic list	810
Z3	Srednja voda (Nevesinjsko polje)	43.301212	18.117714	Mires	5. 6. 2023	floristic list	845
Z4	Vranjača-Ponor (Nevesinjsko polje)	43.18637	18.117906	Path to cave entrance	5. 6. 2023	floristic list	820
Z5	Jezerine near Batkovići (Nevesinjsko polje)	43.267353	18.159486	Thermo-acidophilous <i>Quercus cerris</i> forest	3. 6. 2023	relevé	860
Z6	Biogradski most (Nevesinjsko polje)	43.18542	18.163859	Willow shrub on the gravelly stream bed	4. 6. 2023	relevé	817
Z7	Rakova gomila (Trusina)	43.153647	18.173266	Neutrophilous <i>Fagus sylvatica</i> forest	4. 6. 2023	relevé	920
Z8	Upsteam of Gvozdeni most (Nevesinjsko polje)	43.201033	18.205837	Willow shrub on the stony stream bed (river isle)	4. 6. 2023	relevé	840
Z9	Under Granice - along Zalomka (Crvanj)	43.285879	18.241329	Willow shrub on the gravelly stream bank	2. 6. 2023	relevé	865
Z10	Granice (Crvanj)	43.286823	18.24153	Calciphilous <i>Quercus cerris</i> forest	2. 6. 2023	relevé	895
Z11	Kunjak - along Zalomka (Površ)	43.25984	18.356402	Willow shrub on the gravelly stream bed	3. 6. 2023	relevé	930

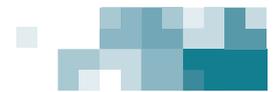
**Table S2.** List of vascular plant species and bryophytes recorded in the Neretva and Zalomka River valleys (Bosnia and Herzegovina) in June 2023. Locality numbers correspond to the Appendix Table 1. Superscripts indicate plants (1) endemic to the Balkan Peninsula, (2) endangered in BiH according to Šilić (1996), (3) endangered in the Federation BiH according to Đug et al. (2013), and (4) protected in the Republic of Srpska.

**Tabela S2.** Seznam vrst vaskularnih rastlin in mahov, zabeleženih v dolinah rek Neretve in Zalomke (Bosna in Hercegovina) junija 2023. Številke nahajališč ustrežajo preglednici 1 v Dodatku. S števkami v nadpisih so označene vrste, ki so (1) endemične za Balkanski polotok, (2) ogrožene v BiH po Šiliću (1996), (3) ogrožene v Federaciji BiH po Đugu in sod. (2013) in (4) zavarovane v Republici Srbski.

**Tabela S2.** Spisak vrsta vaskularnih biljaka i mahovina zabilježenih u dolinama rijeka Neretve i Zalomke (Bosna i Hercegovina) u junu 2023. godine. Brojevi lokaliteta odgovaraju Tabeli 1. Brojevi u natpisima označavaju vrste koje su (1) endemične za Balkansko poluostrvo, (2) ugrožene u Bosni i Hercegovini prema Šiliću (1996), (3) ugrožene u Federaciji Bosne i Hercegovine prema Đugu i sar. (2013) i (4) zaštićeni u Republici Srpskoj.

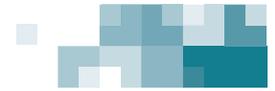
No	Species	Localities
<b>Neretva River valley</b>		
<b>Bryoflora</b>		
1	<i>Abietinella abietina</i> (Hedw.) M. Fleisch.	N7, N8, N19, N27, N38
2	<i>Alleniella besserii</i> (Lobarz.) S. Olsson, Enroth & D. Quandt	N9, N18, N51
3	<i>Alleniella complanata</i> (Hedw.) S. Olsson, Enroth & D. Quandt	N9, N11, N16, N20, N25, N28, N31, N48, N49, N51
4	<i>Amblystegium serpens</i> (Hedw.) Schimp.	N12, N16, N20, N48
5	<i>Anomodon viticulosus</i> (Hedw.) Hook. & Taylor	N12, N16, N17, N20, N25, N28, N31, N51
6	<i>Antitrichia curtispindula</i> (Hedw.) Brid.	N25, N31
7	<i>Aulacomnium palustre</i> (Hedw.) Schwägr.	N39
8	<i>Barbilophozia barbata</i> (Schreb.) Loeske	N38, N39
9	<i>Brachythecium velutinum</i> (Hedw.) Ignatov & Huttunen	N28
10	<i>Brachythecium glareosum</i> (Spruce) Schimp.	N38
11	<i>Brachythecium mildeanum</i> (Schimp.) Schimp.	N39
12	<i>Brachythecium rutabulum</i> (Hedw.) Schimp.	N12, N16, N20, N25, N31, N48
13	<i>Brachythecium salebrosum</i> (F. Weber & D. Mohr) Schimp.	N31
14	<i>Brachythecium tommasinii</i> (Boulay) Ignatov & Huttunen	N25
15	<i>Bryoerythrophyllum recurvirostrum</i> (Hedw.) P. C. Chen	N12
16	<i>Bryum elegans</i> Brid.	N18
17	<i>Callicladium imponens</i> (Hedw.) Hedenäs, Schlesak & D. Quandt	N7
18	<i>Calliergonella cuspidata</i> (Hedw.) Loeske	N8, N20, N39, N48
19	<i>Campyliadelphus chrysophyllus</i> (Brid.) Kanda	N8, N28





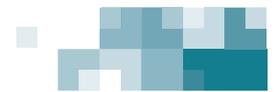
No	Species	Localities
20	<i>Campylium protensum</i> (Brid.) Kindb.	N31
21	<i>Campylophyllopsis calcarea</i> (Crundw. & Nyholm) Ochyra	N31, N48
22	<i>Cephaloziella hampeana</i> (Nees) Loeske	N39
23	<i>Chiloscyphus pallescens</i> (Hoffm.) Dumort.	N31
24	<i>Cirriphyllum crassinervium</i> (Wilson) Loeske & M. Fleisch.	N7
25	<i>Climacium dendroides</i> (Hedw.) F. Weber & D. Mohr	N39, N50
26	<i>Ctenidium molluscum</i> (Hedw.) Mitt.	N7, N9, N11, N25, N28, N31, N38, N48, N49, N51
27	<i>Dicranum scoparium</i> Hedw.	N38
28	<i>Didymodon ferrugineus</i> (Besch.) M. O. Hill	N20
29	<i>Drepanocladus aduncus</i> (Hedw.) Warnst.	N39
30	<i>Encalypta streptocarpa</i> Hedw.	N7, N18
31	<i>Eurhynchiastrum pulchellum</i> (Hedw.) Ignatov & Huttunen (?)	N8
32	<i>Eurhynchium striatum</i> (Hedw.) Schimp.	N51
33	<i>Exsertotheca crispa</i> (Hedw.) S. Olsson, Enroth & D. Quandt	N11
34	<i>Fissidens bryoides</i> Hedw.	N38
35	<i>Fissidens dubius</i> P. Beauv.	N18
36	<i>Fissidens osmundoides</i> Hedw.	N18
37	<i>Fissidens taxifolius</i> Hedw.	N31, N48
38	<i>Flexitrichum flexicaule</i> (Schwägr.) Ignatov & Fedosov	N7, N19, N27
39	<i>Flexitrichum gracile</i> (Mitt.) Ignatov & Fedosov	N25
40	<i>Frullania dilatata</i> (L.) Dumort.	N9, N11, N12, N14, N16, N20, N28, N48, N49
41	<i>Frullania tamarisci</i> (L.) Dumort.	N11
42	<i>Grimmia dissimulata</i> E. Maier	N7, N27, N38
43	<i>Grimmia pulvinata</i> (Hedw.) Sm.	N19
44	<i>Homalia trichomanoides</i> (Hedw.) Brid.	N25
45	<i>Homalothecium lutescens</i> (Hedw.) H. Rob.	N7, N8, N9, N11, N17, N19, N25, N28, N38
46	<i>Homalothecium philippeanum</i> (Spruce) Schimp.	N12
47	<i>Homalothecium sericeum</i> (Hedwig) Schimp.	N7, N9, N11, N14, N16, N17, N19, N25, N27, N28, N47, N48, N49, N51
48	<i>Homomallium incurvatum</i> (Brid.) Loeske	N14
49	<i>Hygroamblystegium humile</i> (P. Beauv.) Vanderp., Goffinet & Hedenäs	N16
50	<i>Hygroamblystegium varium</i> (Hedw.) Mönk.	N12, N16
51	<i>Hylocomiadelphus triquetrus</i> (Hedw.) Ochyra & Stebel	N38
52	<i>Hypnum cupressiforme</i> Hedw.	N28
53	<i>Hypnum cupressiforme</i> var. <i>cupressiforme</i> Hedw.	N7, N9, N11, N14, N17, N31, N48, N49, N51
54	<i>Hypnum cupressiforme</i> var. <i>lacunosum</i> Brid.	N19, N27, N28, N38
55	<i>Hypnum vaucheri</i> Lesq.	N19
56	<i>Isothecium alopecuroides</i> (Dubois) Isov.	N16, N49
57	<i>Kindbergia praelonga</i> (Hedw.) Ochyra	N47
58	<i>Lejeunea cavifolia</i> (Ehrh.) Lindb.	N9, N11, N31, N49, N51
59	<i>Lescuraea incurvata</i> (Hedw.) E. Lawton	N18
60	<i>Leskea polycarpa</i> Hedw.	N20
61	<i>Leucodon sciuroides</i> (Hedw.) Schwägr.	N9, N11, N14, N16, N17, N20, N25, N28, N31, N49, N51
62	<i>Lewinskya affinis</i> (Brid.) F. Lara, Garilleti & Goffinet	N12, N16
63	<i>Lewinskya speciosa</i> (Nees) F. Lara, Garilleti & Goffinet	N20





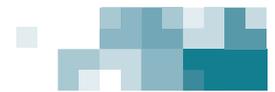
No	Species	Localities
64	<i>Lewinskya striata</i> (Hedw.) F. Lara, Garilleti & Goffinet	N11, N28, N48
65	<i>Lophocolea bidentata</i> (L.) Dumort.	N31
66	<i>Lophocolea heterophylla</i> (Schrad.) Dumort.	N9
67	<i>Marchantia quadrata</i> Scop.	N38
68	<i>Metzgeria conjugata</i> Lindb.	N51
69	<i>Metzgeria furcata</i> (L.) Corda	N49
70	<i>Mnium marginatum</i> (Dicks.) P. Beauv.	N9, N25
71	<i>Mnium stellare</i> Hedw.	N25, N31, N38
72	<i>Orthotrichum cupulatum</i> Brid.	N18, N38
73	<i>Orthotrichum pallens</i> Brid.	N49
74	<i>Orthotrichum pumilum</i> Schimp.	N28
75	<i>Orthotrichum stramineum</i> Brid.	N11
76	<i>Oxyrrhynchium hians</i> (Hedw.) Loeske	N11, N12, N16, N31, N47, N48
77	<i>Palustriella commutata</i> (Hedw.) Ochyra	N39
78	<i>Philonotis fontana</i> (Hedw.) Brid.	N39
79	<i>Philonotis tomentella</i> Molendo	N39
80	<i>Plagiochila porelloides</i> (Nees) Lindenb.	N7, N9, N11, N25, N28, N31, N47, N49, N51
81	<i>Plagiomnium cuspidatum</i> (Hedw.) T. J. Kop.	N12
82	<i>Plagiomnium elatum</i> (Brusch & Schimp.) T. J. Kop.	N31, N39
83	<i>Plagiomnium ellipticum</i> (Brid.) T. J. Kop.	N20
84	<i>Plagiomnium rostratum</i> (Schrad.) T. J. Kop.	N12, N16, N25, N31
85	<i>Plagiomnium undulatum</i> (Hedw.) T. J. Kop.	N12, N20, N25, N31, N48, N49
86	<i>Plasteurhynchium meridionale</i> (Schimp.) M. Fleisch.	N47
87	<i>Plasteurhynchium striatulum</i> (Spruce) M. Fleisch.	N47, N48
88	<i>Platygyrium repens</i> (Brid.) Schimp.	N28
89	<i>Polytrichum juniperinum</i> Hedw.	N7, N19, N39
90	<i>Porella platyphylla</i> (L.) Pfeiff.	N31
91	<i>Pseudanomodon attenuatus</i> (Hedw.) Ignatov & Fedosov	N9, N11, N12, N16, N17, N20, N25, N31, N48, N49, N51
92	<i>Pseudoamblystegium subtile</i> (Hedw.) Vanderp. & Hedenäs	N11
93	<i>Pseudoleskeella catenulata</i> (Schrad.) Kindb.	N9, N18
94	<i>Pseudoleskeella nervosa</i> (Brid.) Nyholm	N25
95	<i>Pseudoscleropodium purum</i> (Hedw.) M. Fleisch.	N9, N11
96	<i>Pterigynandrum filiforme</i> Hedw.	N14, N25, N51
97	<i>Ptychostomum capillare</i> (Hedw.) Holyoak & N. Pedersen	N49
98	<i>Ptychostomum capillare</i> agg.	N19
99	<i>Ptychostomum compactum</i> Hornsch.	N38
100	<i>Ptychostomum pseudotriquetrum</i> (Hedw.) Holyoak & N. Pedersen	N39, N48
101	<i>Pulviger a lyellii</i> (Hook. & Taylor) Plášek, Sawicki & Ochyra	N14, N16, N20, N48
102	<i>Racomitrium canescens</i> (Hedw.) Brid.	N38
103	<i>Racomitrium ericoides</i> (Brid.) Brid.	N7, N19, N27
104	<i>Radula complanata</i> (L.) Dumort.	N9, N12, N16, N25, N28, N49
105	<i>Reboulia hemisphaerica</i> (L.) Raddi	N7, N38
106	<i>Rhizomnium punctatum</i> (Hedw.) T. J. Kop.	N12
107	<i>Rhynchostegiella litorea</i> (De Not.) Limpr.	N39
108	<i>Rhynchostegium murale</i> (Hedwig) Schimp.	N25





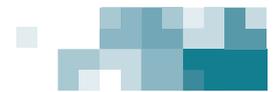
No	Species	Localities
109	<i>Rhytidiadelphus squarrosus</i> (Hedw.) Warnst.	N38
110	<i>Rhytidium rugosum</i> (Hedw.) Kindb.	N38, N39
111	<i>Scapania aspera</i> M. Bernet & Bernet	N25
112	<i>Schistidium apocarpum</i> (Hedw.) Bruch & Schimp.	N27
113	<i>Schistidium confertum</i> (Funck) Bruch & Schimp.	N11, N25, N48
114	<i>Schistidium elegantulum</i> H. H. Blom	N27
115	<i>Schistidium robustum</i> (Nees & Hornsch.) H. H. Blom	N28
116	<i>Sciuro-hypnum starkei</i> (Brid.) Ignatov & Huttunen	N9
117	<i>Syntrichia ruraliformis</i> (Besch.) Mans.	N19
118	<i>Syntrichia ruralis</i> (Hedw.) F. Weber & D. Mohr	N14, N17, N18, N27, N50
119	<i>Thamnobryum alopecurum</i> (Hedw.) Gangulee	N25, N47, N48
120	<i>Thuidium assimile</i> (Mitt.) A. Jaeger	N7, N11,
121	<i>Tortella fasciculata</i> (Culm.) Culm.	N27, N28
122	<i>Tortella inclinata</i> (R. Hedw.) Limpr.	N19
123	<i>Tortella pseudofragilis</i> (Thér.) Köckinger & Hedenäs	N25
124	<i>Tortella tortuosa</i> (Hedw.) Limpr. s.lat	N7, N9, N17, N19, N27, N28, N31, N38, N47
125	<i>Tortula subulata</i> Hedw.	N11
126	<i>Ulota crispa</i> (Hedw.) Brid.	N9, N20, N48
127	<i>Zygodon viridissimus</i> (Dicks.) Brid.	N49
<b>Vascular flora</b>		
128	<i>Abies alba</i> Mill.	N32
129	<i>Acer campestre</i> L.	N1, N4-N6, N9, N11-N14, N16, N19-N24, N26, N29, N31-N34
130	<i>Acer monspessulanum</i> L.	N18, N28
131	<i>Acer platanoides</i> L.	N9, N21, N23, N26, N30, N36
132	<i>Acer pseudoplatanus</i> L.	N3, N5, N9, N12, N20-N24, N29, N31, N33, N37, N38
133	<i>Achillea millefolium</i> L. subsp. <i>collina</i> (Wirtg.) Oborny	N19, N27, N39
134	<i>Achillea millefolium</i> L. subsp. <i>millefolium</i>	N26, N27, N31, N34
135	<i>Actaea spicata</i> L.	N23, N42
136	<i>Adoxa moschatellina</i> L.	N30
137	<i>Aegonychon purpurocaeruleum</i> (L.) Holub	N11, N13, N28, N31, N32
138	<i>Aegopodium podagraria</i> L.	N4, N5, N10, N16, N21-N24, N29, N31-N33, N38, N43
139	<i>Aethionema saxatile</i> (L.) W. T. Aiton	N18, N43
140	<i>Aethusa cynapium</i> L.	N31
141	<i>Agrimonia eupatoria</i> L.	N4, N9, N13, N19, N27, N34
142	<i>Agrostis capillaris</i> L.	N39
143	<i>Agrostis stolonifera</i> L.	N34, N46
144	<i>Ajuga genevensis</i> L.	N27, N35, N46
145	<i>Ajuga reptans</i> L.	N3-N6, N10, N12, N13, N16, N21-N24, N29, N31, N32, N34
146	<i>Alchemilla glaucescens</i> Wallr.	N38, N43
147	<i>Alchemilla xanthochlora</i> Rothm.	N39, N41
148	<i>Alisma lanceolatum</i> With.	N39
149	<i>Alliaria petiolata</i> (M.Bieb.) Cavara & Grande	N13, N20, N31, N35
150	<i>Allium carinatum</i> L.	N27
151	<i>Allium ursinum</i> L.	N5, N9, N12, N20-N24, N27, N32





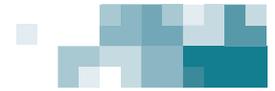
No	Species	Localities
152	<i>Alnus rohlenae</i> Vít, Douda & Mandák <sup>1</sup>	N3, N5, N9, N20-N24, N31
153	<i>Alopecurus aequalis</i> Sobol.	N46
154	<i>Alopecurus geniculatus</i> L.	N39
155	<i>Alopecurus pratensis</i> L.	N39, N43
156	<i>Alyssoides utriculata</i> (L.) Medik.	N7, N18
157	<i>Alyssum alyssoides</i> (L.) L.	N19, N27, N35
158	<i>Alyssum bosniacum</i> Beck1	N18, N39, N40
159	<i>Amelanchier ovalis</i> Medik.	N44, N45
160	<i>Anacamptis morio</i> (L.) R.M.Bateman, Pridgeon & M.W.Chase	N19, N35, N39
161	<i>Anacamptis pyramidalis</i> (L.) Rich. <sup>2,4</sup>	N35
162	<i>Androsace villosa</i> L.	N38, N43
163	<i>Anemone nemorosa</i> L.	N10, N22, N23, N26, N28, N29, N32, N39, N43
164	<i>Anemone ranunculoides</i> L.	N32, N38
165	<i>Angelica sylvestris</i> L.	N3, N12, N16, N20, N31
166	<i>Antennaria dioica</i> (L.) Gaertn.	N39
167	<i>Anthemis arvensis</i> L.	N27
168	<i>Anthoxanthum odoratum</i> L.	N19, N27, N37, N39
169	<i>Anthriscus cerefolium</i> (L.) Hoffm.	N10
170	<i>Anthriscus sylvestris</i> (L.) Hoffm.	N10, N13, N23, N35
171	<i>Anthyllis montana</i> L. subsp. <i>jacquinii</i> (Rchb.f.) Rohlena	N39, N43
172	<i>Anthyllis vulneraria</i> L. subsp. <i>polyphylla</i> (DC.) Nyman	N27, N39, N40
173	<i>Anthyllis vulneraria</i> L. subsp. <i>weldeniana</i> (Rchb.) Cullen <sup>4</sup>	N19
174	<i>Aposeris foetida</i> (L.) Less.	N1, N5, N6, N9, N10, N22, N29, N31-N33, N41
175	<i>Aquilegia nigricans</i> Baumg.	N9, N31, N36
176	<i>Arabidopsis thaliana</i> (L.) Heynh.	N18
177	<i>Arabis caucasica</i> Willd.	N38, N43
178	<i>Arabis ciliata</i> Clairv.	N18, N43
179	<i>Arabis hirsuta</i> (L.) Scop.	N20, N24, N45
180	<i>Arabis sagittata</i> (Bertol.) DC.	N19, N27, N31, N38, N34
181	<i>Arctium lappa</i> L.	N13, N35
182	<i>Arctium nemorosum</i> Lej. <sup>4</sup>	N36
183	<i>Arctostaphylos uva-ursi</i> (L.) Spreng.	N43
184	<i>Aremonia agrimonoides</i> (L.) DC.	N1, N6, N13, N26, N28, N29, N30, N32, N33, N35, N38, N39
185	<i>Arenaria gracilis</i> Waldst. & Kit. <sup>1,2,4</sup>	N45
186	<i>Arenaria serpyllifolia</i> L. aggr.	N19, N27, N28, N35, N39
187	<i>Aria edulis</i> (Willd.) M.Roem	N27, N35
188	<i>Aristolochia lutea</i> Desf.	N26, N28, N29
189	<i>Arrhenatherum elatius</i> (L.) P.Beauv. ex J.Presl & C.Presl	N35
190	<i>Artemisia alba</i> Turra	N18
191	<i>Artemisia vulgaris</i> L.	N31, N35
192	<i>Arum maculatum</i> L.	N5, N6, N12, N16, N18, N22, N23, N28-N30, N36
193	<i>Aruncus dioicus</i> (Walter) Fernald	N9, N32
194	<i>Asarum europaeum</i> L.	N18, N21-N23, N32, N33, N38, N41
195	<i>Asperula taurina</i> L. <sup>4</sup>	N5, N9, N16, N22, N23, N32





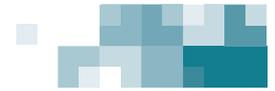
No	Species	Localities
196	<i>Asphodelus albus</i> Mill. <sup>4</sup>	N19, N28, N37, N39, N46
197	<i>Asplenium ceterach</i> L.	N7, N11, N17, N19, N28, N35, N38
198	<i>Asplenium ruta-muraria</i> L.	N19, N27, N38, N43
199	<i>Asplenium trichomanes</i> L.	N11, N18, N26, N28, N38, N43
200	<i>Astragalus depressus</i> L. <sup>4</sup>	N27
201	<i>Astragalus glycyphyllos</i> L.	N11, N13, N31, N38
202	<i>Astragalus hypoglottis</i> L. subsp. <i>hypoglottis</i>	N34
203	<i>Astragalus vesicarius</i> L. subsp. <i>carniolicus</i> (A. Kern.) Chater	N19, N38, N41
204	<i>Astrantia major</i> L.	N10, N28, N29, N32, N33, N37, N38
205	<i>Athyrium filix-femina</i> (L.) Roth	N36
206	<i>Atropa bella-donna</i> L.	N36
207	<i>Avenula pubescens</i> (Huds.) Dumort.	N18, N27, N39
208	<i>Barbarea intermedia</i> Boreau	N39
209	<i>Barbarea vulgaris</i> W. T. Aiton	N20, N24, N31
210	<i>Bellardiochloa variegata</i> (Lam.) Kerguélen	N27
211	<i>Bellis perennis</i> L.	N15, N19, N35, N46
212	<i>Betonica alopecurus</i> L.	N45
213	<i>Betonica officinalis</i> L.	N6, N26, N28, N30, N37, N39
214	<i>Bistorta officinalis</i> Delarbre <sup>4</sup>	N39
215	<i>Blitum bonus-henricus</i> (L.) Rchb.	N44
216	<i>Brachypodium pinnatum</i> (L.) P. Beauv.	N11, N15, N26, N28, N29, N34, N39
217	<i>Brachypodium rupestre</i> (Host) Roem. & Schult.	N13, N19
218	<i>Brachypodium sylvaticum</i> (Huds.) P. Beauv.	N3-N6, N9, N11-N14, N16, N19-N24, N28, N29, N31, N32, N34
219	<i>Briza media</i> L.	N13, N27, N34, N39
220	<i>Bromus commutatus</i> Schrad.	N18
221	<i>Bromus hordeaceus</i> L.	N13, N19
222	<i>Bromus pannonicus</i> Kumm. et Sendtn.	N13, N19, N27, N28, N34, N39
223	<i>Bromus ramosus</i> Huds.	N24, N31
224	<i>Bromus sterilis</i> L.	N13, N34
225	<i>Buglossoides arvensis</i> (L.) I.M. Johnst.	N40
226	<i>Bunium alpinum</i> Waldst. et Kit. subsp. <i>montanum</i> (W. D. J. Koch) P. W. Ball <sup>4</sup>	N26, N37, N38
227	<i>Caltha palustris</i> L.	N41
228	<i>Calystegia sepium</i> (L.) R. Br.	N20, N21, N31
229	<i>Campanula bononiensis</i> L.	N13, N28, N34
230	<i>Campanula glomerata</i> L.	N38
231	<i>Campanula lingulata</i> Waldst. & Kit.	N7, N8, N13
232	<i>Campanula patula</i> L.	N18, N37, N38
233	<i>Campanula persicifolia</i> L.	N1, N28, N36, N38
234	<i>Campanula rapunculoides</i> L.	N35
235	<i>Campanula scheuchzeri</i> Vill.	N44
236	<i>Campanula trachelium</i> L.	N9-N11, N14, N20, N23, N24, N31-N34
237	<i>Capsella bursa-pastoris</i> (L.) Medik.	N13, N18, N46
238	<i>Cardamine bulbifera</i> (L.) Crantz	N10, N12, N16, N20-N23, N26, N28, N29, N31-N33, N35, N38
239	<i>Cardamine enneaphyllos</i> (L.) Crantz	N38





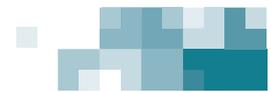
No	Species	Localities
240	<i>Cardamine hirsuta</i> L.	N18, N28, N31, N35
241	<i>Cardamine impatiens</i> L.	N16, N20, N31, N32, N36
242	<i>Carduus collinus</i> Waldst. et Kit.	N15, N18, N27, N37
243	<i>Carex caryophyllea</i> Latourr.	N19, N27, N34, N39
244	<i>Carex diandra</i> Schrank <sup>4</sup>	N46
245	<i>Carex digitata</i> L.	N4, N5, N11, N28, N31, N36, N45
246	<i>Carex distans</i> L.	N35, N46
247	<i>Carex flacca</i> Schreb. subsp. <i>flacca</i>	N3, N4, N13, N15, N31, N34
248	<i>Carex halleriana</i> Asso	N7, N13, N19, N34, N42
249	<i>Carex hirta</i> L.	N39, N41
250	<i>Carex humilis</i> Leyss.	N43
251	<i>Carex kitaibeliana</i> Degen ex Bech.	N43, N45
252	<i>Carex lepidocarpa</i> Tausch <sup>4</sup>	N39, N41, N46
253	<i>Carex muricata</i> L.	N13, N46
254	<i>Carex nigra</i> (L.) Reichard <sup>2,4</sup>	N39, N46
255	<i>Carex oederi</i> Retz. <sup>4</sup>	N39
256	<i>Carex ornithopoda</i> Willd.	N43
257	<i>Carex otrubae</i> Podp.	N2, N36
258	<i>Carex pallescens</i> L.	N39
259	<i>Carex panicea</i> L. <sup>4</sup>	N39, N41
260	<i>Carex paniculata</i> L.	N41, N46
261	<i>Carex remota</i> L.	N2, N36
262	<i>Carex rostrata</i> Stokes	N46
263	<i>Carex spicata</i> Huds.	N29, N35, N46
264	<i>Carex sylvatica</i> Huds.	N5, N6, N13, N16, N29, N30
265	<i>Carex tomentosa</i> L.	N29, N34, N46
266	<i>Carlina acanthifolia</i> All.	N19, N37
267	<i>Carlina acaulis</i> L.	N27, N37
268	<i>Carlina vulgaris</i> L.	N27, N43
269	<i>Carpinus betulus</i> L.	N1, N3-N6, N9-N12, N14, N21-N24, N26, N29, N31-N33, N41
270	<i>Carpinus orientalis</i> Mill.	N1, N3-N6, N9-N11, N18, N34
271	<i>Carum carvi</i> L.	N39, N46
272	<i>Centaurea jacea</i> L. subsp. <i>angustifolia</i> (DC.) Gremlí	N19, N27
273	<i>Centaurea jacea</i> L. subsp. <i>jacea</i>	N13, N31, N34, N38
274	<i>Centaurea micrantha</i> Hoffmanns. & Link	N19, N27
275	<i>Centaurea scabiosa</i> L.	N27, N37
276	<i>Centaurea triumfettii</i> All.	N44
277	<i>Cephalanthera damasonium</i> (Mill.) Druce <sup>2,4</sup>	N10, N18, N30, N35
278	<i>Cephalanthera longifolia</i> (L.) Fritsch <sup>2,3,4</sup>	N13, N35
279	<i>Cephalaria pastricensis</i> Dörfel. & Hayek <sup>1,2,3,4</sup>	N31
280	<i>Cerastium arvense</i> L.	N39, N43
281	<i>Cerastium brachypetalum</i> Desp. ex Pers.	N19, N27, N28, N31, N35, N39
282	<i>Cerastium decalvans</i> Schloss. et Vuk. <sup>1,2,4</sup>	N38, N43
283	<i>Cerastium grandiflorum</i> Waldst. et Kit. <sup>1,2,4</sup>	N7, N43, N46





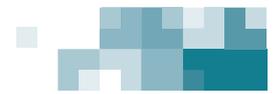
No	Species	Localities
284	<i>Cerastium holosteoides</i> Fr.	N19, N29, N39
285	<i>Cerastium malyi</i> (T.Georgiev) Niketić subsp. <i>malyi</i> <sup>1,4</sup>	N38
286	<i>Cerastium pumilum</i> Curtis	N19
287	<i>Cerastium sylvaticum</i> Waldst. et Kit.	N22, N24, N31
288	<i>Chaerophyllum aromaticum</i> L.	N12, N21, N23, N31
289	<i>Chaerophyllum aureum</i> L.	N30, N37, N46
290	<i>Chaerophyllum bulbosum</i> L.	N35
291	<i>Chaerophyllum coloratum</i> L. <sup>1,2,3,4</sup>	N7, N27
292	<i>Chaerophyllum hirsutum</i> L.	N20-N22, N24, N31
293	<i>Chaerophyllum temulum</i> L.	N13, N31, N35
294	<i>Chamaecytisus hirsutus</i> (L.) Link	N1, N13, N15, N31, N34, N38
295	<i>Chamaecytisus supinus</i> (L.) Link	N13
296	<i>Chelidonium majus</i> L.	N16, N31, N36
297	<i>Chondrilla juncea</i> L.	N27
298	<i>Cicerbita pancicii</i> Beauverd <sup>1,2,3,4</sup>	N32, N41
299	<i>Cichorium intybus</i> L.	N13, N19, N31, N35
300	<i>Circaea lutetiana</i> L.	N5, N12, N16, N20, N22, N23
301	<i>Cirsium acaulon</i> (L.) Scop.	N19, N27, N34
302	<i>Cirsium arvense</i> (L.) Scop.	N31, N37
303	<i>Cirsium candelabrum</i> Griseb.	N31
304	<i>Cirsium vulgare</i> (Savi) Ten.	N13, N15, N34, N46
305	<i>Clematis vitalba</i> L.	N1, N3-N6, N9, N13-N15, N20, N21, N23, N24, N31, N33, N34, N42
306	<i>Clinopodium acinos</i> (L.) Kuntze	N19, N27, N34
307	<i>Clinopodium album</i> (Waldst. & Kit.) Bräuchler & Govaerts <sup>2,4</sup>	N18
308	<i>Clinopodium alpinum</i> (L.) Kuntze	N27, N39, N40
309	<i>Clinopodium vulgare</i> L.	N1, N4, N13, N14, N26, N28, N34, N38
310	<i>Cnidium silaifolium</i> (Jacq.) Simonk.	N1, N13, N15, N16, N28, N31, N32, N34
311	<i>Colchicum autumnale</i> L.	N13, N15, N27, N34, N39
312	<i>Colutea arborescens</i> L.	N28, N35
313	<i>Convallaria majalis</i> L. <sup>2,4</sup>	N27, N45
314	<i>Convolvulus arvensis</i> L.	N19, N27, N31, N34
315	<i>Cormus domestica</i> (L.) Spach	N9, N11
316	<i>Cornus mas</i> L.	N1, N4, N6, N9, N11, N13, N14, N22, N28, N32-N34
317	<i>Cornus sanguinea</i> L.	N3-N5, N8, N9, N12, N13, N15, N19-N21, N23, N31, N32, N34
318	<i>Coronilla vaginalis</i> Lam.	N43, N45
319	<i>Coronilla varia</i> L.	N13, N28, N31, N34
320	<i>Corydalis cava</i> (L.) Schweigg. & Körte	N28, N38, N43
321	<i>Corylus avellana</i> L.	N1, N5, N6, N10, N12-N14, N16, N20-N24, N26, N32-N34
322	<i>Cotoneaster integerrimus</i> Medik.	N18, N38, N43, N45
323	<i>Cotoneaster tomentosus</i> (Aiton) Lindl.	N9, N26
324	<i>Crataegus laevigata</i> (Poir.) DC.	N27
325	<i>Crataegus monogyna</i> Jacq.	N1, N4-N6, N9, N11, N13, N14, N19, N21-N24, N26, N28, N31-N33, N46
326	<i>Crepis biennis</i> L.	N31
327	<i>Crepis froelichiana</i> DC. subsp. <i>dinarica</i> (Beck) Gutermann <sup>2,3,4</sup>	N39, N45





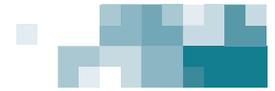
No	Species	Localities
328	<i>Crepis neglecta</i> L.	N7
329	<i>Crocus vernus</i> (L.) Hill	N18
330	<i>Cruciata glabra</i> (L.) Opiz	N1, N13, N15, N19, N23, N32, N34, N39
331	<i>Cruciata laevipes</i> Opiz	N13, N19, N28, N29, N35, N39, N46
332	<i>Cruciata pedemontana</i> (Bellardi) Ehrend.	N19, N27, N46
333	<i>Crupina vulgaris</i> Pers. ex Cass.	N15, N27, N40
334	<i>Cuscuta epithimum</i> (L.) L.	N27?, N37, N38
335	<i>Cynanchica aristata</i> (L.f.) P.Caputo & Del Guacchio subsp. <i>scabra</i> (C.Presl) P.Caputo & Del Guacchio	N18, N31
336	<i>Cynanchica pyrenaica</i> (L.) P.Caputo & Del Guacchio subsp. <i>cynanchica</i> (L.) P.Caputo & Del Guacchio	N3
337	<i>Cynoglossum creticum</i> Mill. <sup>4</sup>	N10, N18, N46
338	<i>Cynoglottis barrelieri</i> (All.) Vural et Kit Tan	N43
339	<i>Cynosurus cristatus</i> L.	N19, N46
340	<i>Cystopteris fragilis</i> (L.) Bernh.	N26, N27, N38, N43, N45
341	<i>Dactylis glomerata</i> L. subsp. <i>glomerata</i>	N1, N4-N6, N11, N13, N14, N16, N19, N21, N24, N26-N28, N31, N33, N34
342	<i>Dactylis glomerata</i> L. subsp. <i>lobata</i> (Drejer) H.Lindb.	N28, N32
343	<i>Dactylorhiza maculata</i> (L.) Soó subsp. <i>fuchsii</i> (Druce) Hyl.	N9, N22, N23, N29, N32, N43
344	<i>Dactylorhiza sambucina</i> (L.) Soó <sup>4</sup>	N39
345	<i>Daphne alpina</i> L.	N18, N38, N43
346	<i>Daphne mezereum</i> L.	N23
347	<i>Daucus carota</i> L.	N3, N6, N13, N21, N22, N24, N31, N34
348	<i>Deschampsia cespitosa</i> (L.) P.Beauv.	N39
349	<i>Dianthus carthusianorum</i> L. subsp. <i>sanguineus</i> (Vis.) Hegi <sup>1,2</sup>	N19, N27, N35
350	<i>Dianthus sylvestris</i> Wulfen	N31, N43, N45
351	<i>Dichoropetalum carvifolia</i> (Vill.) Pimenov & Kljuykov	N27
352	<i>Digitalis ferruginea</i> L.	N27
353	<i>Dioscorea communis</i> (L.) Caddick & Wilkin	N5, N6, N13, N22, N29, N30, N34
354	<i>Dipsacus fullonum</i> L.	N31
355	<i>Doronicum columnae</i> Ten.	N38, N43
356	<i>Draba lasiocarpa</i> Rochel <sup>4</sup>	N19, N42, N43
357	<i>Draba muralis</i> L.	N19, N27, N35, N38
358	<i>Draba nemorosa</i> L.	N28
359	<i>Draba verna</i> L.	N19, N39, N43
360	<i>Dryas octopetala</i> L. <sup>2,3,4</sup>	N44
361	<i>Dryopteris filix-mas</i> (L.) Schott	N5, N32, N41
362	<i>Dryopteris villarii</i> (Bellardi) Woyn. ex Schinz & Thell.	N38, N43
363	<i>Drypis spinosa</i> L. <sup>4</sup>	N37
364	<i>Echinops ritro</i> L.	N27
365	<i>Echium vulgare</i> L.	N31, N35
366	<i>Edraianthus graminifolius</i> (L.) A.DC. ex Meisn. <sup>4</sup>	N38, N43, N45
367	<i>Eleocharis mamillata</i> (H.Lindb.) H.Lindb.?	N39, N46
368	<i>Eleocharis palustris</i> (L.) Roem. & Schult.?	N46
369	<i>Elymus caninus</i> (L.) L.	N31
370	<i>Epilobium angustifolium</i> L.	N46
371	<i>Epilobium hirsutum</i> L.	N16, N20





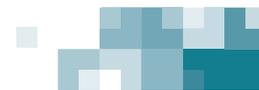
No	Species	Localities
372	<i>Epilobium montanum</i> L.	N36
373	<i>Epilobium parviflorum</i> Schreb.	N46
374	<i>Equisetum arvense</i> L.	N10, N20, N21, N24, N31, N41, N46
375	<i>Equisetum palustre</i> L.	N46
376	<i>Equisetum ramosissimum</i> Desf.	N46
377	<i>Equisetum telmateia</i> Ehrh.	N10, N16, N41
378	<i>Erigeron annuus</i> (L.) Desf.	N35
379	<i>Erodium cicutarium</i> (L.) L' Hér.	N19, N35
380	<i>Eryngium amethystinum</i> L.	N19, N27, N34
381	<i>Eryngium palmatum</i> Pančić & Vis. <sup>1,2,4</sup>	N28
382	<i>Erysimum odoratum</i> Ehrh.	N39
383	<i>Erythronium dens-canis</i> L. <sup>2</sup>	N26, N28, N30, N38
384	<i>Euonymus europaeus</i> L.	N12, N22-N24, N35
385	<i>Euonymus verrucosus</i> Scop.	N11, N28
386	<i>Eupatorium cannabinum</i> L.	N9, N20, N31, N35
387	<i>Euphorbia amygdaloides</i> L.	N1, N4, N5, N11, N13, N15, N22, N26, N28, N29, N31, N34
388	<i>Euphorbia cyparissias</i> L.	N26-N28
389	<i>Euphorbia exigua</i> L.	N35
390	<i>Euphorbia montenegrina</i> (Bald.) K.Maly <sup>1,2,3,4</sup>	N37
391	<i>Euphorbia myrsinites</i> L.	N27, N40, N45
392	<i>Euphorbia platyphyllos</i> L.	N13, N20, N23, N36
393	<i>Euphorbia stricta</i> L.	N10, N13, N31, N35
394	<i>Fagus sylvatica</i> L.	N5, N9, N13, N16, N21-N24, N29, N31, N32, N35, N38
395	<i>Ferulago sylvatica</i> (Besser) Rchb.	N27, N35, N46
396	<i>Festuca bosniaca</i> Kumm. & Sendtn. <sup>2,3,4</sup>	N18, N38, N43
397	<i>Festuca heterophylla</i> Lam.	N13, N14, N26, N28, N29, N32-N34
398	<i>Festuca nigrescens</i> Lam.	N13, N18
399	<i>Festuca rubra</i> L.	N38, N39
400	<i>Festuca rupicola</i> Heuff.	N13?, N19, N34
401	<i>Festuca valesiaca</i> Schleich. ex Gaudin	N26-N28
402	<i>Filago arvensis</i> L.	N19, N35
403	<i>Filipendula vulgaris</i> Moench	N19, N26-N29, N34, N39
404	<i>Fragaria moschata</i> Duchesne ex Weston	N4, N13, N18, N28, N29, N31, N34
405	<i>Fragaria vesca</i> L.	N1, N3, N9, N11, N13, N14, N23, N26, N28, N31-N34, N38
406	<i>Fragaria viridis</i> Weston	N19, N27, N39, N40
407	<i>Frangula rupestris</i> (Scop.) Schur	N18
408	<i>Fraxinus excelsior</i> L.	N3-N5, N9, N13, N18, N20-N24, N26, N29, N31-N34
409	<i>Fraxinus ornus</i> L.	N1, N3, N9, N11, N14, N17, N18, N24, N26, N28, N34
410	<i>Fritillaria montana</i> Hoppe ex W. D. J. Koch <sup>2,3,4</sup>	N18, N43
411	<i>Fumana procumbens</i> (Dunal) Gren. & Godr.	N34
412	<i>Gagea villosa</i> (M.Bieb.) Sweet	N18
413	<i>Galanthus nivalis</i> L. <sup>2</sup>	N38
414	<i>Galeopsis speciosa</i> Mill.	N31
415	<i>Galium anisophyllum</i> Vill.	N39





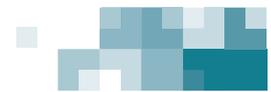
No	Species	Localities
416	<i>Galium aparine</i> L.	N13, N16, N28, N29, N35
417	<i>Galium intermedium</i> Schult.	N10, N14, N31, N32
418	<i>Galium lucidum</i> All. subsp. <i>corrudifolium</i> (Vill.) Bonnier	N7, N19, N27, N31, N35, N39, N45
419	<i>Galium mollugo</i> L.	N13, N31
420	<i>Galium odoratum</i> (L.) Scop.	N41
421	<i>Galium palustre</i> L.	N46
422	<i>Galium spurium</i> L.	N15, N28, N35
423	<i>Galium sylvaticum</i> L.	N1, N5, N6, N14, N21, N24, N33
424	<i>Galium verum</i> L.	N13, N19, N27, N29, N34, N39
425	<i>Gelasia villosa</i> (Scop.) Cass.	N19, N27, N37, N38
426	<i>Genista januensis</i> Viv.	N27, N45
427	<i>Genista sagittalis</i> L.	N13, N19, N27, N34, N39
428	<i>Genista tinctoria</i> L.	N1, N8, N13, N19, N34
429	<i>Gentiana cruciata</i> L.	N27, N37
430	<i>Gentiana verna</i> L. subsp. <i>tergestina</i> (Beck) Hayek <sup>1,4</sup>	N39, N43
431	<i>Geocaryum cynapioides</i> (Guss.) Engstrand <sup>4</sup>	N28
432	<i>Geranium columbinum</i> L.	N13, N19, N27, N28, N34
433	<i>Geranium dissectum</i> L.	N31, N35
434	<i>Geranium lucidum</i> L.	N17, N18, N26, N28, N35
435	<i>Geranium molle</i> L. <sup>2,4</sup>	N19
436	<i>Geranium phaeum</i> L.	N16, N31, N32
437	<i>Geranium pusillum</i> L.	N35, N46
438	<i>Geranium pyrenaicum</i> Burm.f.	N15, N46
439	<i>Geranium robertianum</i> L.	N13, N16, N18, N21, N22, N24, N31, N32, N38, N41, N45
440	<i>Geranium sanguineum</i> L.	N18, N26-N28, N34
441	<i>Geranium sylvaticum</i> L.	N39
442	<i>Geum molle</i> Vis. & Pančić	N19, N38, N41
443	<i>Geum rivale</i> L.	N39
444	<i>Geum urbanum</i> L.	N5, N6, N13, N16, N19-N22, N27, N28, N31, N35, N45, N46
445	<i>Glechoma hederacea</i> L.	N5, N23
446	<i>Glechoma hirsuta</i> Waldst. & Kit.	N4, N5, N10, N21, N22, N27, N28, N33
447	<i>Globularia meridionalis</i> (Podp.) O.Schwarz	N19, N37, N39
448	<i>Glyceria notata</i> Chevall.	N46
449	<i>Grafia golaka</i> (Hacq.) Rchb. <sup>2,4</sup>	N40
450	<i>Gymnadenia conopsea</i> (L.) R.Br.	N39, N46
451	<i>Hedera helix</i> L.	N5, N9-N11, N28, N30
452	<i>Hedlundia austriaca</i> (Beck) Sennikov & Kurtto <sup>4</sup>	N37
453	<i>Helianthemum canum</i> (L.) Hornem.	N19, N38, N43
454	<i>Helianthemum nummularium</i> (L.) Mill.	N13, N19, N27, N31, N34, N39
455	<i>Helictochloa blaii</i> (Asch. & Janka) Romero Zarco <sup>1,2,4</sup>	N18
456	<i>Heliosperma pusillum</i> (Waldst. & Kit.) Rchb.	N45
457	<i>Helleborus odorus</i> Waldst. et Kit. ex Willd. subsp. <i>odorus</i>	N1, N4-N6, N11, N13, N14, N17, N22, N23, N26-N28, N31-N34, N39
458	<i>Heracleum sphondylium</i> L.	N16, N31, N35
459	<i>Herniaria glabra</i> L.	N38





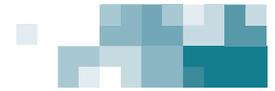
No	Species	Localities
460	<i>Herniaria incana</i> Lam.	N19, N35
461	<i>Hesperis laciniata</i> All.	N18
462	<i>Hieracium laevigatum</i> Willd.	N4, N5, N9
463	<i>Hieracium murorum</i> L. agg.	N1, N11, N14, N30, N35
464	<i>Hieracium racemosum</i> Waldst. & Kit. ex Willd.	N9, N14
465	<i>Hieracium sabaudum</i> L.	N11
466	<i>Hieracium waldsteinii</i> Tausch <sup>1,2,3,4</sup>	N18, N45
467	<i>Hippocrepis comosa</i> L.	N13, N15, N19, N27, N34, N39
468	<i>Holcus lanatus</i> L.	N15
469	<i>Humulus lupulus</i> L.	N3, N12, N20
470	<i>Hylotelephium maximum</i> (L.) Holub	N17, N28, N35
471	<i>Hypericum barbatum</i> Jacq.	N27, N38
472	<i>Hypericum hirsutum</i> L.	N36
473	<i>Hypericum maculatum</i> Crantz	N39, N43
474	<i>Hypericum perforatum</i> L.	N13, N18, N27, N31, N34
475	<i>Hypochaeris maculata</i> L. subsp. <i>pelivanovicii</i> (Velen.) Hayek <sup>1,2,3,4</sup>	N18, N27, N38
476	<i>Hypochaeris radicata</i> L.	N19
477	<i>Iris graminea</i> L.	N14, N18, N28, N32, N37
478	<i>Iris pallida</i> Lam.	N7
479	<i>Iris reichenbachii</i> Heuff.	N18, N44
480	<i>Isopyrum thalictroides</i> L.	N23
481	<i>Juglans regia</i> L.	N13
482	<i>Juncus conglomeratus</i> L.	N39
483	<i>Juncus effusus</i> L.	N39
484	<i>Juncus inflexus</i> L.	N35, N46
485	<i>Juncus tenuis</i> Willd.	N35
486	<i>Juniperus communis</i> L.	N11, N18, N31, N35, N38, N43, N45
487	<i>Juniperus sabina</i> L. <sup>2,4</sup>	N37, N42
488	<i>Jurinea mollis</i> (L.) Rchb.	N7, N18, N43, N45
489	<i>Kernera saxatilis</i> (L.) Sweet <sup>2,3,4</sup>	N43, N45
490	<i>Knautia albanica</i> Briq. <sup>1,2,3,4</sup>	N27, N37
491	<i>Knautia dinarica</i> (Murb.) Borbás <sup>1,2,4</sup>	N39, N44
492	<i>Knautia drymeja</i> Heuff.	N3, N31
493	<i>Knautia visianii</i> Szabó <sup>1,2</sup>	N13, N28, N31, N34
494	<i>Koeleria splendens</i> C. Presl	N13, N19, N27, N28, N34, N39
495	<i>Lactuca muralis</i> (L.) Gaertn.	N17, N18, N21, N22, N24, N31, N33, N41
496	<i>Lactuca saligna</i> L.	N13, N18
497	<i>Lactuca serriola</i> L.	N13, N31, N34
498	<i>Lamium galeobdolon</i> (L.) Crantz subsp. <i>flavidum</i> (F.Herm.) Á.Löve & D.Löve	N42
499	<i>Lamium galeobdolon</i> (L.) Crantz subsp. <i>montanum</i> (Pers.) Hayek	N5, N16, N32
500	<i>Lamium hybridum</i> Vill.	N15, N19
501	<i>Lamium maculatum</i> (L.) L.	N16, N17, N21, N31, N35
502	<i>Lapsana communis</i> L.	N13, N21, N23, N31, N35
503	<i>Laserpitium krapfii</i> Crantz	N9, N10, N30, N41
504	<i>Lathyrus cicera</i> L.	N27





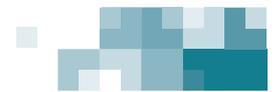
No	Species	Localities
505	<i>Lathyrus latifolius</i> L.	N13, N15, N29, N34
506	<i>Lathyrus niger</i> (L.) Bernh.	N1, N11, N13, N14, N26, N28, N32-N34
507	<i>Lathyrus nissolia</i> L.	N18, N34
508	<i>Lathyrus pratensis</i> L.	N13, N15, N31, N34, N39
509	<i>Lathyrus tuberosus</i> L.	N35
510	<i>Lathyrus venetus</i> (Mill.) Wohlfl.	N6, N11, N13, N14, N18, N26, N28, N32, N35
511	<i>Lathyrus vernus</i> (L.) Bernh.	N11
512	<i>Leontodon crispus</i> Vill.	N7, N19, N21, N24, N27, N38, N46
513	<i>Leontodon hispidus</i> L.	N27, N31, N38, N39
514	<i>Lepidium campestre</i> (L.) W. T. Aiton	N31
515	<i>Lepidium rudemale</i> L.	N13, N34
516	<i>Leucanthemum adustum</i> (W.D.J.Koch) Gremler	N24, N31
517	<i>Leucanthemum vulgare</i> Lam.	N4, N13, N34, N39
518	<i>Ligustrum vulgare</i> L.	N4-N6, N9, N10, N23, N24, N31-N34
519	<i>Lilium bosniacum</i> (Beck) Fritsch <sup>1,2,4</sup>	N43, N45
520	<i>Lilium martagon</i> L. <sup>2</sup>	N1, N11, N18, N22, N26, N28, N32, N41
521	<i>Linaria vulgaris</i> Mill.	N3, N29, N36
522	<i>Linum alpinum</i> Jacq.	N39
523	<i>Linum capitatum</i> Kit. ex Schult. <sup>1,4</sup>	N37
524	<i>Linum catharticum</i> L.	N27, N35
525	<i>Lithospermum officinale</i> L.	N10, N27
526	<i>Lolium giganteum</i> (L.) Darbysh.	N12, N16, N20, N31, N36
527	<i>Lolium perenne</i> L.	N15
528	<i>Lolium pratense</i> (Huds.) Darbysh.	N27, N31, N35
529	<i>Lonicera alpigena</i> L.	N41
530	<i>Lonicera caprifolium</i> L.	N31-N33
531	<i>Lonicera xylosteum</i> L.	N11, N27
532	<i>Lophiolepis eriophora</i> (L.) Del Guacchio, Bureš, Iamónico & P.Caputo	N19, N39
533	<i>Lotus corniculatus</i> L.	N13, N19, N27, N31, N34, N39
534	<i>Lotus germanicus</i> (Gremler) Peruzzi	N19, N27, N39
535	<i>Lotus herbaceus</i> (Vill.) Jauzein	N13, N19, N34
536	<i>Lunaria rediviva</i> L.	N20
537	<i>Luzula campestris</i> (L.) DC.	N19, N27
538	<i>Luzula forsteri</i> (Sm.) DC.	N13, N28, N30, N35
539	<i>Luzula luzulina</i> (Vill.) Racib.	N6
540	<i>Luzula luzuloides</i> (Lam.) Dandy & Wilmott	N6, N32, N36, N37
541	<i>Luzula taurica</i> (V.I.Krecz.) Novikov	N27, N39
542	<i>Lycopus europaeus</i> L.	N20, N36
543	<i>Lysimachia arvensis</i> (L.) U.Manns & Anderb.	N13
544	<i>Lysimachia nummularia</i> L.	N4, N5, N12, N16, N20, N21, N32, N39, N41
545	<i>Lysimachia punctata</i> L.	N29
546	<i>Lysimachia vulgaris</i> L.	N3, N20
547	<i>Lythrum salicaria</i> L.	N3
548	<i>Malcolmia orsiniana</i> (Ten.) Ten. subsp. <i>angulifolia</i> (Boiss. & Orph.) Stork <sup>1,2,3,4</sup>	N46
549	<i>Malus sylvestris</i> (L.) Mill.	N1, N22-N24, N33, N34





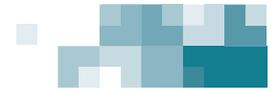
No	Species	Localities
550	<i>Malva setigera</i> K.F.Schimp. & Spenn.	N35
551	<i>Malva sylvestris</i> L.	N35
552	<i>Marrubium incanum</i> Desr.	N7, N27
553	<i>Medicago arabica</i> (L.) Huds.	N36
554	<i>Medicago falcata</i> L.	N19, N27, N34, N38
555	<i>Medicago lupulina</i> L.	N3, N13, N19, N27, N31, N34, N38
556	<i>Medicago minima</i> (L.) Bartal.	N18, N27
557	<i>Medicago orbicularis</i> (L.) Bartal.	N35
558	<i>Medicago truncatula</i> Gaertn.	N35
559	<i>Melampyrum nemorosum</i> L.	N10, N31, N32
560	<i>Melampyrum pratense</i> L.	N3-N6, N9, N21, N22
561	<i>Melica nutans</i> L.	N1, N28, N30
562	<i>Melica uniflora</i> Retz.	N18, N22-N24, N26, N28, N32, N33, N35
563	<i>Melilotus albus</i> Medik.	N31
564	<i>Melilotus officinalis</i> (L.) Lam.	N13, N31
565	<i>Melissa officinalis</i> L. <sup>4</sup>	N13, N35
566	<i>Melittis melissophyllum</i> L.	N1, N10, N11, N26, N28, N29, N32, N35
567	<i>Mentha aquatica</i> L.	N31, N46
568	<i>Mentha arvensis</i> L.	N20
569	<i>Mentha longifolia</i> (L.) L.	N20, N31, N35, N39, N46
570	<i>Mentha pulegium</i> L.	N39
571	<i>Mercurialis ovata</i> Sternb. & Hoppe	N18, N41, N45
572	<i>Mercurialis perennis</i> L.	N5, N9, N11, N12, N22, N23, N28, N32
573	<i>Minuartia bosniaca</i> (Beck) K.Maly <sup>1,2,3,4</sup>	N7, N19, N38, N43, N46
574	<i>Moehringia muscosa</i> L.	N17, N38, N41
575	<i>Moehringia trinervia</i> (L.) Clairv.	N30
576	<i>Moenchia mantica</i> (L.) Bartl.	N39
577	<i>Molinia caerulea</i> (L.) Moench	N41
578	<i>Muscari comosum</i> (L.) Mill.	N27
579	<i>Muscari neglectum</i> Guss. ex Ten.	N19, N27, N37, N39
580	<i>Mutarda arvensis</i> (L.) D.A.German	N13
581	<i>Myosotis alpestris</i> F. W. Schmidt subsp. <i>suaveolens</i> (Waldst. & Kit. ex Willd.) Strid <sup>1,4</sup>	N38, N43, N45
582	<i>Myosotis arvensis</i> (L.) Hill	N19, N27, N31, N35
583	<i>Myosotis ramosissima</i> Rochel ex Schult.	N19, N27, N46
584	<i>Myosotis scorpioides</i> L.	N41
585	<i>Myosotis sicula</i> Guss.	N39
586	<i>Myosotis stricta</i> Link ex Roem. & Schult. <sup>4</sup>	N18, N39, N40
587	<i>Myosotis sylvatica</i> Ehrh. ex Hoffm.	N27, N28
588	<i>Nardus stricta</i> L.	N39
589	<i>Nasturtium officinale</i> W.T.Aiton	N46
590	<i>Neotinea tridentata</i> (Scop.) R.M.Bateman, Pridgeon & M.W.Chase <sup>4</sup>	N19, N39
591	<i>Neotinea ustulata</i> (L.) R.M.Bateman, Pridgeon & M.W.Chase <sup>4</sup>	N38, N46
592	<i>Neottia nidus-avis</i> (L.) Rich.	N6, N13, N14, N30, N35
593	<i>Neottia ovata</i> (L.) Hartm.	N23, N33, N41, N46





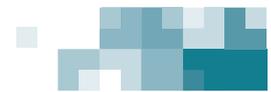
No	Species	Localities
594	<i>Nepeta nuda</i> L. subsp. <i>nuda</i>	N19, N27, N37, N46
595	<i>Noccaea perfoliata</i> (L.) Al-Shehbaz	N13, N19, N28
596	<i>Noccaea praecox</i> (Wulfen) F.K.Mey.	N18, N27, N38-N40
597	<i>Nuphar lutea</i> (L.) Sm. <sup>2,3,4</sup>	N46
598	<i>Odontarrhena muralis</i> (Waldst. & Kit.) Endl.	N15, N18, N35, N46
599	<i>Omalotheca sylvatica</i> (L.) Sch. Bip. et F. W. Schultz	N36
600	<i>Ononis spinosa</i> L.	N31
601	<i>Onopordum acanthium</i> L.	N15
602	<i>Ophioglossum vulgatum</i> L. <sup>4</sup>	N39
603	<i>Ophrys apifera</i> Huds. <sup>4</sup>	N8
604	<i>Orchis mascula</i> (L.) L. subsp. <i>speciosa</i> (Mutel) Hegi <sup>4</sup>	N18, N27, N37, N38
605	<i>Origanum vulgare</i> L.	N28, N35
606	<i>Orlaya grandiflora</i> (L.) Hoffm.	N7, N27, N28, N35
607	<i>Ornithogalum dalmaticum</i> Speta <sup>1</sup>	N19, N35, N38, N46
608	<i>Ornithogalum orthophyllum</i> Ten. subsp. <i>kochii</i> (Parl.) Zahar.	N7, N19, N39
609	<i>Orobanche alsatica</i> Kirschl.	N37
610	<i>Orobanche caryophyllacea</i> Sm.	N46
611	<i>Orobanche gracilis</i> Sm.	N13, N34
612	<i>Orobanche lutea</i> Baumg.	N27, N34
613	<i>Orobanche pancicii</i> Beck <sup>2,3,4</sup>	N19
614	<i>Ostrya carpinifolia</i> Scop.	N9, N13, N18, N31, N32, N34
615	<i>Papaver dubium</i> L.	N13
616	<i>Papaver rhoeas</i> L.	N35
617	<i>Parietaria officinalis</i> L.	N12, N20
618	<i>Paris quadrifolia</i> L.	N23, N29, N30
619	<i>Paronychia kapela</i> (Hacq.) A. Kern.	N19, N38, N43
620	<i>Pastinaca sativa</i> L.	N14, N21, N24, N31
621	<i>Pentanema germanicum</i> (L.) D.Gut.Larr., Santos-Vicente, Anderb., E.Rico & M.M.Mart.Ort.	N1, N26
622	<i>Pentanema hirtum</i> (L.) D.Gut.Larr., Santos-Vicente, Anderb., E.Rico & M.M.Mart.Ort.	N15, N18
623	<i>Pentanema oculus-christi</i> (L.) D.Gut.Larr., Santos-Vicente, Anderb., E.Rico & M.M.Mart.Ort.	N19, N37, N46
624	<i>Pentanema salicinum</i> (L.) D.Gut.Larr., Santos-Vicente, Anderb., E.Rico & M.M.Mart.Ort.	N29, N34
625	<i>Pentanema spiraeifolium</i> (L.) D.Gut.Larr., Santos-Vicente, Anderb., E.Rico & M.M.Mart.Ort. <sup>4</sup>	N37
626	<i>Petasites albus</i> (L.) Gaertn.	N21
627	<i>Petasites hybridus</i> (L.) G.Gaertn., B.Mey. & Scherb.	N12, N16, N20, N24, N31, N41
628	<i>Petasites kablikianus</i> Bercht. <sup>2,3,4</sup>	N21, N23, N24, N31, N41
629	<i>Petrorhagia saxifraga</i> (L.) Link	N7, N19, N27
630	<i>Phleum phleoides</i> (L.) H. Karst.	N18, N27
631	<i>Picris hieracioides</i> L.	N13, N19, N31, N34
632	<i>Pilosella hoppeana</i> (Schult.) F.W.Schultz & Sch.Bip.	N19, N27, N39
633	<i>Pilosella piloselloides</i> (Vill.) Soják	N27, N34
634	<i>Pimpinella major</i> (L.) Huds. <sup>4</sup>	N29
635	<i>Pimpinella saxifraga</i> L.	N3
636	<i>Pimpinella serbica</i> (Vis.) Benth. & Hook.f. ex Drude <sup>1,2,3,4</sup>	N38, N40





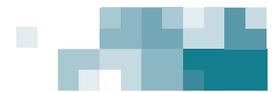
No	Species	Localities
637	<i>Pinus mugo</i> Turra	N45
638	<i>Pinus sylvestris</i> L.	N38
639	<i>Plantago argentea</i> Chaix	N39, N42, N43
640	<i>Plantago holosteum</i> Scop.	N19, N27, N34, N39, N42
641	<i>Plantago lanceolata</i> L.	N3, N13, N19, N27, N31, N34
642	<i>Plantago major</i> L.	N13, N20, N31
643	<i>Plantago media</i> L.	N13, N19, N20, N27, N34, N39
644	<i>Platanthera bifolia</i> (L.) Rich. <sup>2,4</sup>	N1, N10, N13, N32
645	<i>Platanthera chlorantha</i> (Custer) Rchb. <sup>2,4</sup>	N27, N34
646	<i>Poa alpina</i> L.	N43
647	<i>Poa angustifolia</i> L.	N15, N27, N34, N39
648	<i>Poa annua</i> L.	N15, N35
649	<i>Poa bulbosa</i> L.	N7, N13, N19, N27, N28, N35, N39
650	<i>Poa compressa</i> L.	N13, N26, N27, N34
651	<i>Poa nemoralis</i> L.	N3, N10, N20, N22, N28, N31, N40
652	<i>Poa pratensis</i> L.	N13, N15, N29, N34, N39
653	<i>Poa trivialis</i> L.	N3, N35, N46
654	<i>Poa ursina</i> Velen.	N19, N43, N45
655	<i>Polygala amarella</i> Crantz	N39
656	<i>Polygala major</i> Jacq.	N37
657	<i>Polygala nicaeensis</i> Risso ex W. D. J. Koch	N27, N36
658	<i>Polygala vulgaris</i> L.	N13, N19, N34, N39
659	<i>Polygonatum multiflorum</i> (L.) All.	N9, N16, N28, N32, N33, N41
660	<i>Polygonatum odoratum</i> (Mill.) Druce	N11, N43
661	<i>Polypodium vulgare</i> L.	N11, N32, N33
662	<i>Populus tremula</i> L.	N33, N37
663	<i>Potamogeton natans</i> L.	N46
664	<i>Potentilla argentea</i> L.	N27, N37, N46
665	<i>Potentilla erecta</i> (L.) Raeusch.	N39
666	<i>Potentilla heptaphylla</i> L.	N18, N27, N35, N39
667	<i>Potentilla micrantha</i> Ramond ex DC.	N1, N6, N11, N13, N14, N26, N28, N31, N33, N34
668	<i>Potentilla recta</i> L.	N19, N27, N28, N34
669	<i>Potentilla reptans</i> L.	N4, N26, N31, N34, N39, N46
670	<i>Prenanthes purpurea</i> L.	N32, N33, N36
671	<i>Primula intricata</i> Gren. & Godr. <sup>2,4</sup>	N27
672	<i>Primula veris</i> L. subsp. <i>columnae</i> (Ten.) Maire & Petitm.	N11, N13, N18, N26-N28, N37
673	<i>Primula vulgaris</i> Huds.	N1, N4-N6, N10, N14, N16, N29, N31, N33, N35, N38
674	<i>Prunella laciniata</i> (L.) L.	N34
675	<i>Prunella vulgaris</i> L.	N1, N5, N12, N13, N21, N24, N31, N34
676	<i>Prunus avium</i> (L.) L.	N1, N6, N13, N14, N22, N26, N29, N31-N33, N35
677	<i>Prunus cerasifera</i> Ehrh.	N9
678	<i>Prunus spinosa</i> L.	N4, N6, N13, N14, N27, N31, N34
679	<i>Pseudopodospermum hispanicum</i> (L.) Zaika, Sukhor. & N.Kilian	N37
680	<i>Pseudoturritis turrata</i> (L.) Al-Shehbaz L.	N11, N24, N26-N28, N31, N35
681	<i>Pteridium aquilinum</i> (L.) Kuhn	N13, N15, N27, N35





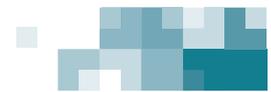
No	Species	Localities
682	<i>Pulmonaria officinalis</i> L.	N4-N6, N10-N12, N16, N22, N23, N26, N32, N33, N41
683	<i>Pyrus communis</i> L. subsp. <i>communis</i>	N1, N4, N6, N9, N13, N19, N26-N28, N30, N31, N33, N34, N39, N46
684	<i>Quercus cerris</i> L.	N1, N4-N6, N13, N14, N19, N26-N29, N31, N33, N34
685	<i>Quercus petraea</i> (Matt.) Liebl.	N1, N6, N10, N11, N14, N29, N31, N33, N34
686	<i>Quercus pubescens</i> Willd.	N34
687	<i>Rabelera holostea</i> (L.) M.T.Sharpley & E.A.Tripp	N1, N11, N13-N15, N26, N28, N30, N35
688	<i>Ranunculus acris</i> L.	N13, N31, N39, N46
689	<i>Ranunculus auricomus</i> L. aggr. <sup>2,3,4</sup>	N39
690	<i>Ranunculus bulbosus</i> L.	N3, N13, N19, N27, N28, N37
691	<i>Ranunculus carinthiacus</i> Hoppe	N39, N43
692	<i>Ranunculus circinatus</i> Sibth. <sup>4</sup>	N39
693	<i>Ranunculus ficaria</i> L.	N4-N6, N9, N12, N15, N16, N20-N23, N30, N33, N39
694	<i>Ranunculus lanuginosus</i> L.	N5, N20, N22
695	<i>Ranunculus millefoliatus</i> Vahl	N19, N27, N28, N39, N43
696	<i>Ranunculus platanifolius</i> L.	N23, N30, N41
697	<i>Ranunculus repens</i> L.	N12, N21, N31, N39
698	<i>Ranunculus sardous</i> Crantz	N4, N31, N34
699	<i>Ranunculus trichophyllus</i> Chaix	N39
700	<i>Ranunculus tuberosus</i> Lapeyr.	N39
701	<i>Rhamnus cathartica</i> L.	N31, N34
702	<i>Rhamnus fallax</i> Boiss.	N3, N9, N23, N31, N38, N43
703	<i>Rhinanthus freynii</i> (Sterneck) Fiori	N37
704	<i>Rhinanthus minor</i> L.	N27, N46
705	<i>Rhinanthus rumelicus</i> Velen.	N27
706	<i>Rhizomatophora aegopodioides</i> (Boiss.) Pimenov <sup>1,4</sup>	N10, N32
707	<i>Ribes alpinum</i> L.	N38, N43
708	<i>Rorippa islandica</i> (Oeder) Borbás	N46
709	<i>Rorippa lippizensis</i> (Wulfen) Rchb.	N19, N27, N35, N39
710	<i>Rosa arvensis</i> Huds.	N3, N4, N6, N13, N14, N21-N24, N26, N30, N34
711	<i>Rosa canina</i> L.	N1, N5, N13, N19, N26, N31-N34, N38
712	<i>Rosa gallica</i> L.	N10, N34
713	<i>Rosa glauca</i> Pourr.	N27, N37, N39, N45
714	<i>Rosa pendulina</i> L.	N28, N43
715	<i>Rosa spinosissima</i> L.	N14
716	<i>Rubus caesius</i> L.	N3-N5, N9, N12, N14, N16, N20-N24, N31, N35
717	<i>Rubus idaeus</i> L.	N37
718	<i>Rumex acetosa</i> L.	N29, N39
719	<i>Rumex acetosella</i> L.	N19, N37, N39
720	<i>Rumex arifolius</i> All.	N37, N45
721	<i>Rumex obtusifolius</i> L.	N13, N20, N35, N46
722	<i>Rumex sanguineus</i> L.	N20, N35
723	<i>Rumex scutatus</i> L.	N43
724	<i>Sabulina verna</i> (L.) Rchb.	N27, N39, N40
725	<i>Salix × fragilis</i> L.	N16, N20, N21, N31, N46





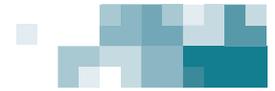
No	Species	Localities
726	<i>Salix alba</i> L.	N9, N12, N16, N20, N21, N41
727	<i>Salix caprea</i> L.	N27, N35, N45, N46
728	<i>Salix cinerea</i> L.	N46
729	<i>Salix eleagnos</i> Scop.	N3-N5, N21, N31, N34, N46
730	<i>Salix purpurea</i> L.	N21, N31, N41, N46
731	<i>Salix triandra</i> L.	N23, N24
732	<i>Salvia glutinosa</i> L.	N9, N23, N24, N32
733	<i>Salvia pratensis</i> L.	N13, N19, N27, N34
734	<i>Salvia verticillata</i> L.	N3, N4, N13, N27, N29, N34
735	<i>Sambucus ebulus</i> L.	N2, N41
736	<i>Sambucus nigra</i> L.	N6, N12, N20, N22-N24, N35
737	<i>Sanguisorba minor</i> Scop.	N13, N19, N28, N31, N34, N39
738	<i>Sanicula europaea</i> L.	N6, N10, N30, N41
739	<i>Saponaria officinalis</i> L.	N21, N31
740	<i>Satureja montana</i> L.	N19, N46
741	<i>Saxifraga adscendens</i> L.	N38
742	<i>Saxifraga blavii</i> (Engl.) Beck <sup>1,4</sup>	N42
743	<i>Saxifraga bulbifera</i> L. <sup>4</sup>	N19
744	<i>Saxifraga paniculata</i> Mill.	N43, N45
745	<i>Saxifraga tridactylites</i> L.	N19, N27, N28, N38, N39, N43
746	<i>Scabiosa cinerea</i> Lam. subsp. <i>cinerea</i>	N19, N27, N37, N39
747	<i>Scirpus sylvaticus</i> L.	N22, N41
748	<i>Scleranthus annuus</i> L.	N19, N46
749	<i>Scorzonera rosea</i> Waldst. & Kit.	N37, N39
750	<i>Scrophularia canina</i> L.	N31, N35
751	<i>Scrophularia nodosa</i> L.	N14, N16, N20, N21, N31, N32, N35
752	<i>Scrophularia scopolii</i> Hoppe ex Pers. <sup>2,4</sup>	N38
753	<i>Scutellaria altissima</i> L.	N4, N5, N22-N24, N28, N29, N31
754	<i>Sedum acre</i> L.	N7, N27, N38
755	<i>Sedum album</i> L.	N7, N46
756	<i>Sedum dasyphyllum</i> L.	N18, N38, N43, N45
757	<i>Sedum hispanicum</i> L.	N38
758	<i>Sedum ochroleucum</i> Chaix	N19, N38, N43
759	<i>Sedum sexangulare</i> L.	N13, N19, N27, N34
760	<i>Sempervivum heuffelii</i> Schott <sup>2,4</sup>	N18
761	<i>Sempervivum marmoreum</i> Griseb.	N18, N43
762	<i>Senecio ovatus</i> (P. Gaertn., B. Mey. et Scherb.) Willd.	N32
763	<i>Senecio sylvaticus</i> L.	N36
764	<i>Seseli pallasii</i> Besser	N18, N34
765	<i>Sesleria autumnalis</i> (Scop.) F. W. Schultz	N1, N11, N13-N15, N26, N28, N31, N32, N34
766	<i>Sesleria interrupta</i> Vis. <sup>1</sup>	N43, N45
767	<i>Sesleria robusta</i> Schott, Nyman & Kotschy <sup>1,4</sup>	N43
768	<i>Sesleria uliginosa</i> Opiz	N39
769	<i>Sherardia arvensis</i> L.	N19, N35, N46
770	<i>Silene acaulis</i> (L.) Jacq.	N43





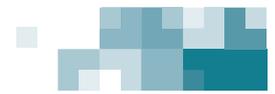
No	Species	Localities
771	<i>Silene dioica</i> (L.) Clairv.	N13, N14
772	<i>Silene latifolia</i> Poir.	N13, N31, N35
773	<i>Silene nutans</i> L.	N11, N13, N15, N19, N26-N28, N35, N38
774	<i>Silene otites</i> (L.) Wibel	N18
775	<i>Silene saxifraga</i> L.	N18, N38
776	<i>Silene sendtneri</i> Boiss. <sup>1,2,4</sup>	N27, N38-N40
777	<i>Silene vulgaris</i> (Moench) Garcke	N28, N31, N34
778	<i>Siler garganicum</i> (Ten.) Thell.	N43, N45
779	<i>Smyrniium perfoliatum</i> L.	N13, N22, N30
780	<i>Solanum dulcamara</i> L.	N20, N24, N31
781	<i>Solidago virgaurea</i> L.	N9, N11, N21, N22, N31, N33
782	<i>Sonchus arvensis</i> L.	N35
783	<i>Sonchus asper</i> (L.) Hill	N13, N35
784	<i>Sonchus oleraceus</i> L.	N13
785	<i>Sorbus aucuparia</i> L.	N9, N23, N26, N31, N35, N46
786	<i>Stachys alpina</i> L. subsp. <i>dinarica</i> Murb. <sup>1,4</sup>	N39, N41
787	<i>Stachys germanica</i> L.	N7, N27, N35
788	<i>Stachys recta</i> L. subsp. <i>recta</i>	N31
789	<i>Stachys recta</i> L. subsp. <i>subcrenata</i> (Vis.) Briq. <sup>1,4</sup>	N27, N28, N46
790	<i>Stachys sylvatica</i> L.	N13, N16, N24, N30, N33, N36
791	<i>Stellaria aquatica</i> (L.) Scop.	N20
792	<i>Stellaria graminea</i> L.	N29, N39
793	<i>Stellaria media</i> (L.) Vill.	N15, N20, N41, N46
794	<i>Stellaria neglecta</i> (Lej.) Weihe	N19
795	<i>Stellaria nemorum</i> L.	N5
796	<i>Stipa pennata</i> L. subsp. <i>pennata</i>	N18
797	<i>Succisa pratensis</i> Moench	N39
798	<i>Symphytum tuberosum</i> L.	N4-N6, N11, N13, N14, N22, N23, N26, N28, N32, N33, N37
799	<i>Tanacetum corymbosum</i> (L.) Sch. Bip.	N11, N26, N28, N32, N33, N35
800	<i>Taraxacum</i> sect. <i>Erythrosperma</i> Dahlst.	N19, N27, N35, N38
801	<i>Taraxacum janchenii</i> Kirschner & Štěpánek	N18
802	<i>Taraxacum</i> sect. <i>Taraxacum</i> F.H.Wigg.	N3, N13, N18, N31, N34
803	<i>Taraxacum paludosum</i> (Scop.) Crépin <sup>4</sup>	N39
804	<i>Telekia speciosa</i> (Schreb.) Baumg. <sup>2,3,4</sup>	N12, N16
805	<i>Tephrosieris papposa</i> (Rchb.) Schur <sup>4</sup>	N18, N27, N37, N38
806	<i>Teucrium chamaedrys</i> L.	N13, N19, N26-N28, N31, N34, N38
807	<i>Teucrium montanum</i> L.	N19, N43, N45
808	<i>Thalictrum minus</i> L.	N26-N28, N34, N46
809	<i>Thalictrum simplex</i> L. <sup>4</sup>	N29, N39
810	<i>Thesium linophyllum</i> L.	N19, N27
811	<i>Thesium parnassi</i> A.DC. <sup>2,3,4</sup>	N38
812	<i>Thliphthisa purpurea</i> (L.) P.Caputo & Del Guacchio	N13, N34, N46
813	<i>Thymus jankae</i> Čelak. <sup>1,4</sup>	N13, N19, N34, N39
814	<i>Thymus longicaulis</i> C. Presl	N7, N13, N19, N27, N35, N39





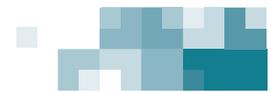
No	Species	Localities
815	<i>Thymus pulegioides</i> L.	N4, N31, N34
816	<i>Thymus striatus</i> Vahl. subsp. <i>acicularis</i> (Waldst. & Kit.) Ronniger	N7
817	<i>Tilia cordata</i> Mill.	N4, N5, N9
818	<i>Tilia tomentosa</i> Moench	N23
819	<i>Torilis japonica</i> (Houtt.) DC.	N13, N31
820	<i>Torminalis glaberrima</i> (Gand.) Sennikov & Kurtto	N1, N10, N14, N28, N34
821	<i>Tragopogon balcanicus</i> Velen. <sup>4</sup>	N7, N19
822	<i>Tragopogon orientalis</i> L.	N13, N19, N27, N34
823	<i>Traunsteinera globosa</i> (L.) Rchb. <sup>2,4</sup>	N40
824	<i>Trifolium alpestre</i> L.	N18, N27, N37, N38
825	<i>Trifolium arvense</i> L.	N13, N18, N19, N27, N43
826	<i>Trifolium campestre</i> Schreb.	N7, N19, N27, N35, N46
827	<i>Trifolium dalmaticum</i> Vis. <sup>1,4</sup>	N18
828	<i>Trifolium incarnatum</i> L.	N19
829	<i>Trifolium medium</i> L.	N21, N28, N31, N35
830	<i>Trifolium montanum</i> L.	N13, N19, N27, N34, N39
831	<i>Trifolium pannonicum</i> Jacq.	N4, N37
832	<i>Trifolium patulum</i> Tausch	N7, N10, N13, N14, N31, N34, N38
833	<i>Trifolium pratense</i> L.	N13, N15, N31, N34, N46
834	<i>Trifolium repens</i> L.	N19, N39
835	<i>Trifolium striatum</i> L.	N27
836	<i>Trinia glauca</i> (L.) Dumort.	N40, N45
837	<i>Tripleurospermum inodorum</i> (L.) Sch.Bip.	N13
838	<i>Trollius europaeus</i> L. <sup>2,4</sup>	N39, N40
839	<i>Turritis glabra</i> L.	N35
840	<i>Tussilago farfara</i> L.	N3, N21, N22, N24, N31, N34, N46
841	<i>Typha latifolia</i> L.	N46
842	<i>Ulmus glabra</i> Huds.	N5, N22, N41
843	<i>Ulmus minor</i> Mill.	N6, N10, N35
844	<i>Urtica dioica</i> L.	N12, N16, N18, N20, N24, N39
845	<i>Vaccinium myrtillus</i> L.	N38
846	<i>Valeriana</i> × <i>braunii-blanquetii</i> Lakušić <sup>1</sup>	N45
847	<i>Valeriana montana</i> L.	N28
848	<i>Valeriana officinalis</i> L. subsp. <i>officinalis</i>	N3, N21-N24, N26
849	<i>Valeriana rimosa</i> (Bastard) Christenh. & Byng	N27
850	<i>Valeriana stolonifera</i> Czern. subsp. <i>angustifolia</i> Soó	N28
851	<i>Valeriana tuberosa</i> L.	N7, N19, N38, N43
852	<i>Veratrum album</i> L.	N39, N40
853	<i>Veratrum nigrum</i> L.	N18, N26, N28, N30, N40
854	<i>Verbascum lanatum</i> Schrad. subsp. <i>lanatum</i>	N13, N15, N38
855	<i>Verbascum lychnitis</i> L.	N18, N46
856	<i>Verbascum nigrum</i> L.	N14, N26, N27
857	<i>Verbena officinalis</i> L.	N34
858	<i>Veronica arvensis</i> L.	N19, N27, N40
859	<i>Veronica austriaca</i> L. subsp. <i>jacquinii</i> (Baumg.) Watzl	N19, N27, N28, N34





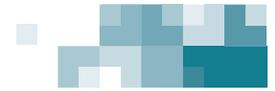
No	Species	Localities
860	<i>Veronica beccabunga</i> L.	N41, N46
861	<i>Veronica chamaedrys</i> L.	N1, N4, N13, N14, N17, N19, N24, N26, N31, N32, N35, N39
862	<i>Veronica fruticans</i> Jacq. <sup>2,4</sup>	N43, N45
863	<i>Veronica montana</i> L.	N12, N16, N20
864	<i>Veronica officinalis</i> L.	N4, N13, N24, N35, N38
865	<i>Veronica persica</i> Poir.	N35
866	<i>Veronica scutellata</i> L. <sup>4</sup>	N39
867	<i>Veronica serpyllifolia</i> L.	N13, N20, N35, N39
868	<i>Veronica teucrium</i> L.	N39
869	<i>Veronica urticifolia</i> Jacq.	N32, N36
870	<i>Viburnum lantana</i> L.	N4, N6, N8, N9-N11, N26, N31, N33, N34
871	<i>Viburnum opulus</i> L.	N9, N20, N22, N24, N31
872	<i>Vicia cracca</i> L.	N1, N13, N31, N34
873	<i>Vicia grandiflora</i> Scop.	N10, N34
874	<i>Vicia hirsuta</i> (L.) Gray	N35
875	<i>Vicia incana</i> Gouan	N3, N18, N27-N29, N34, N39
876	<i>Vicia lathyroides</i> L.	N18, N39
877	<i>Vicia onobrychioides</i> L.	N27
878	<i>Vicia sativa</i> L. subsp. <i>cordata</i> (Wulfen ex Hoppe) Batt.	N27, N28, N31
879	<i>Vicia sativa</i> L. subsp. <i>nigra</i> Ehrh.	N27, N35
880	<i>Vicia sativa</i> L. subsp. <i>sativa</i>	N27
881	<i>Vicia sepium</i> L.	N3, N4, N6, N13, N14, N26-N28, N31, N35
882	<i>Vicia sylvatica</i> L.	N31
883	<i>Vicia tetrasperma</i> (L.) Schreb.	N18, N27
884	<i>Vincetoxicum fuscatum</i> (Hornem.) Endl.	N18, N27
885	<i>Vincetoxicum hirundinaria</i> Medik.	N45
886	<i>Viola alba</i> Besser subsp. <i>alba</i>	N22
887	<i>Viola arvensis</i> Murray	N18, N27
888	<i>Viola canina</i> L.	N37, N39
889	<i>Viola hirta</i> L.	N4, N11
890	<i>Viola odorata</i> L.	N1
891	<i>Viola elegantula</i> Schott <sup>1,2,3,4</sup>	N18
892	<i>Viola reichenbachiana</i> Jord. ex Boreau	N1, N4, N13, N21, N26, N28, N29, N31-N33
893	<i>Viola riviniana</i> Rchb.	N5, N9, N34, N38
894	<i>Viola suavis</i> M. Bieb.	N6, N13, N19, N28, N34
895	<i>Viola tricolor</i> L.	N13, N27, N37, N39
896	<i>Viscaria vulgaris</i> Bernh.	N38
897	<i>Viscum album</i> L. subsp. <i>album</i>	N18
<b>Zalomka River valley</b>		
<b>Bryoflora</b>		
1	<i>Abietinella abietina</i> (Hedw.) M. Fleisch.	Z4
2	<i>Alleniella besseri</i> (Lobarz.) S. Olsson, Enroth & D. Quandt	Z2
3	<i>Alleniella complanata</i> (Hedw.) S. Olsson, Enroth & D. Quandt	Z2, Z4
4	<i>Anomodon viticulosus</i> (Hedw.) Hook. & Taylor	Z4





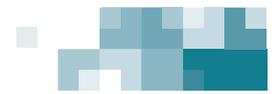
No	Species	Localities
5	<i>Aulacomnium palustre</i> (Hedw.) Schwägr.	Z3
6	<i>Brachythecium mildeanum</i> (Schimp.) Schimp.	Z2
7	<i>Brachythecium rutabulum</i> (Hedw.) Schimp.	Z3
8	<i>Chiloscyphus polyanthos</i> (L.) Corda	Z2
9	<i>Cololejeunea calcarea</i> (Lib.) Steph.	Z2
10	<i>Conocephalum salebrosum</i> Szwedk., Buczk. & Odrzyk.	Z2
11	<i>Distichium capillaceum</i> (Hedw.) Bruch & Schimp.	Z2
12	<i>Exsertotheca crispa</i> (Hedw.) S. Olsson, Enroth & D. Quandt	Z2
13	<i>Fissidens gracilifolius</i> Brugg.-Nann. & Nyholm	Z2
14	<i>Flexitrichum gracile</i> (Mitt.) Ignatov & Fedosov	Z2
15	<i>Homalia trichomanoides</i> (Hedw.) Brid.	Z2
16	<i>Hypnum cupressiforme</i> var. <i>cupressiforme</i> Hedw.	Z4
17	<i>Jungermannia atrovirens</i> Dumort.	Z2
18	<i>Mesoptychia bantriensis</i> (Hook.) L. Söderstr. & Váňa	Z2
19	<i>Neckera menziesii</i> Drumm.	Z2
20	<i>Orthothecium intricatum</i> (Hartm.) Schimp.	Z2
21	<i>Orthothecium rufescens</i> (Brid.) Schimp.	Z2
22	<i>Oxyrrhynchium hians</i> (Hedw.) Loeske	Z2
23	<i>Pedinophyllum interruptum</i> (Nees) Kaal.	Z2
24	<i>Plagiomnium rostratum</i> (Schrad.) T. J. Kop.	Z2
25	<i>Plagiomnium undulatum</i> (Hedw.) T. J. Kop.	Z2, Z4
26	<i>Pseudanomodon attenuatus</i> (Hedw.) Ignatov & Fedosov	Z2
27	<i>Seligeria trifaria</i> (Brid.) Lindb.	Z2
28	<i>Solenostoma hyalinum</i> (Lyell) Mitt.	Z2
29	<i>Sphagnum auriculatum</i> Schimp.	Z3
30	<i>Sphenobolus minutus</i> (Schreb.) Berggr.	Z2
31	<i>Thamnobryum alopecurum</i> (Hedw.) Gangulee	Z2
32	<i>Thuidium delicatulum</i> (Hedw.) Schimp.	Z4
<b>Vascular flora</b>		
33	<i>Acer campestre</i> L.	Z1, Z7-Z11
34	<i>Acer pseudoplatanus</i> L.	Z7
35	<i>Acer tataricum</i> L.	Z5
36	<i>Achillea millefolium</i> L. subsp. <i>millefolium</i>	Z8
37	<i>Aegonychon purpurocaeruleum</i> (L.) Holub	Z10
38	<i>Aegopodium podagraria</i> L.	Z11
39	<i>Agrimonia eupatoria</i> L.	Z8, Z9, Z11
40	<i>Agrostis stolonifera</i> L.	Z9, Z11
41	<i>Ajuga reptans</i> L.	Z10
42	<i>Alisma plantago-aquatica</i> L.	Z8
43	<i>Alliaria petiolata</i> (M.Bieb.) Cavara & Grande	Z11
44	<i>Alopecurus pratensis</i> L.	Z8
45	<i>Anemone nemorosa</i> L.	Z1, Z5, Z7
46	<i>Angelica sylvestris</i> L.	Z11
47	<i>Anthriscus sylvestris</i> (L.) Hoffm.	Z1, Z8, Z11
48	<i>Aremonia agrimonoides</i> (L.) DC.	Z7, Z10





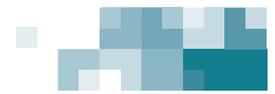
No	Species	Localities
49	<i>Aristolochia pallida</i> Willd.	Z10
50	<i>Asplenium trichomanes</i> L.	Z7
51	<i>Astrantia major</i> L.	Z1, Z10
52	<i>Barbarea vulgaris</i> W. T. Aiton	Z8, Z11
53	<i>Brachypodium pinnatum</i> (L.) P. Beauv.	Z1, Z10
54	<i>Brachypodium sylvaticum</i> (Huds.) P. Beauv.	Z10, Z11
55	<i>Bunium alpinum</i> Waldst. et Kit. subsp. <i>montanum</i> (W. D. J. Koch) P. W. Ball	Z1, Z10
56	<i>Campanula trachelium</i> L.	Z1, Z7
57	<i>Cardamine bulbifera</i> (L.) Crantz	Z1, Z7
58	<i>Cardamine impatiens</i> L.	Z6, Z8, Z9, Z11
59	<i>Carex acutiformis</i> Ehrh.	Z8, Z11
60	<i>Carex brizoides</i> L.	Z5
61	<i>Carex flacca</i> Schreb. subsp. <i>flacca</i>	Z10
62	<i>Carex hirta</i> L.	Z11
63	<i>Carex spicata</i> Huds.	Z8
64	<i>Carex sylvatica</i> Huds.	Z7
65	<i>Carpinus betulus</i> L.	Z5, Z9, Z10
66	<i>Carpinus orientalis</i> Mill.	Z1
67	<i>Carum carvi</i> L.	Z11
68	<i>Centaurea jacea</i> L. subsp. <i>jacea</i>	Z6, Z8, Z9, Z11
69	<i>Cerastium sylvaticum</i> Waldst. et Kit.	Z11
70	<i>Chaerophyllum hirsutum</i> L.	Z11
71	<i>Chamaecytisus hirsutus</i> (L.) Link	Z5
72	<i>Clematis vitalba</i> L.	Z1, Z9, Z11
73	<i>Clinopodium menthifolium</i> (Host) Merino	Z10
74	<i>Clinopodium vulgare</i> L.	Z1, Z5, Z10
75	<i>Cnidium silaifolium</i> (Jacq.) Simonk.	Z10
76	<i>Colchicum autumnale</i> L.	Z8
77	<i>Cornus mas</i> L.	Z1, Z7, Z10
78	<i>Cornus sanguinea</i> L.	Z8, Z9, Z11
79	<i>Corylus avellana</i> L.	Z1, Z5, Z7-Z11
80	<i>Crataegus monogyna</i> Jacq.	Z1, Z5-Z11
81	<i>Cruciata glabra</i> (L.) Opiz	Z1, Z5, Z10, Z11
82	<i>Cruciata laevipes</i> Opiz	Z11
83	<i>Dactylis glomerata</i> L. subsp. <i>glomerata</i>	Z1, Z5, Z10, Z11
84	<i>Dichoropetalum carvifolia</i> (Vill.) Pimenov & Kljuykov	Z1, Z10, Z11
85	<i>Elymus repens</i> (L.) Gould	Z8
86	<i>Epilobium hirsutum</i> L.	Z11
87	<i>Equisetum arvense</i> L.	Z8, Z11
88	<i>Euonymus europaeus</i> L.	Z1, Z6, Z8, Z9-Z11
89	<i>Euphorbia amygdaloides</i> L.	Z10
90	<i>Fagus sylvatica</i> L.	Z7
91	<i>Festuca heterophylla</i> Lam.	Z1, Z5, Z10
92	<i>Filipendula vulgaris</i> Moench	Z1, Z10
93	<i>Fragaria vesca</i> L.	Z5





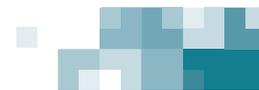
No	Species	Localities
94	<i>Fraxinus excelsior</i> L.	Z1, Z8, Z11
95	<i>Fraxinus ornus</i> L.	Z7, Z10
96	<i>Galium mollugo</i> L.	Z6, Z8, Z9, Z11
97	<i>Galium palustre</i> L.	Z11
98	<i>Galium verum</i> L.	Z8
99	<i>Geranium robertianum</i> L.	Z7, Z11
100	<i>Geranium sanguineum</i> L.	Z10
101	<i>Geum urbanum</i> L.	Z9, Z11
102	<i>Hedera helix</i> L.	Z7, Z9
103	<i>Helleborus multifidus</i> Vis. <sup>1,2,3,4</sup>	Z1, Z5, Z7, Z10
104	<i>Heracleum sphondylium</i> L.	Z11
105	<i>Hieracium racemosum</i> Waldst. & Kit. ex Willd.	Z10
106	<i>Holcus lanatus</i> L.	Z5
107	<i>Humulus lupulus</i> L.	Z8, Z9, Z11
108	<i>Hypochaeris maculata</i> L.	Z1
109	<i>Iris graminea</i> L.	Z10
110	<i>Lactuca muralis</i> (L.) Gaertn.	Z1, Z7
111	<i>Lamium galeobdolon</i> (L.) Crantz	Z7
112	<i>Lamium maculatum</i> (L.) L.	Z11
113	<i>Lapsana communis</i> L.	Z9, Z11
114	<i>Laser trilobum</i> (L.) Borkh. <sup>2,4</sup>	Z7
115	<i>Lathyrus niger</i> (L.) Bernh.	Z1, Z5, Z10
116	<i>Lathyrus venetus</i> (Mill.) Wohlf.	Z1, Z7, Z10
117	<i>Lilium martagon</i> L.	Z7
118	<i>Linaria vulgaris</i> Mill.	Z9
119	<i>Lolium giganteum</i> (L.) Darbysh.	Z6, Z9
120	<i>Lolium pratense</i> (Huds.) Darbysh.	Z8
121	<i>Lonicera caprifolium</i> L.	Z10
122	<i>Lotus corniculatus</i> L.	Z9
123	<i>Luzula forsteri</i> (Sm.) DC.	Z10
124	<i>Lysimachia nummularia</i> L.	Z8, Z9, Z11
125	<i>Lythrum salicaria</i> L.	Z11
126	<i>Malus sylvestris</i> (L.) Mill.	Z1, Z10
127	<i>Melampyrum bihariense</i> A. Kern.	Z5
128	<i>Melica uniflora</i> Retz.	Z1, Z10
129	<i>Melittis melissophyllum</i> L.	Z1, Z10
130	<i>Mentha aquatica</i> L.	Z8, Z11
131	<i>Mentha longifolia</i> (L.) L.	Z8, Z11
132	<i>Moehringia trinervia</i> (L.) Clairv.	Z11
133	<i>Neottia nidus-avis</i> (L.) Rich.	Z10
134	<i>Oenanthe silaifolia</i> M. Bieb.	Z8
135	<i>Ostrya carpinifolia</i> Scop.	Z7
136	<i>Paeonia officinalis</i> L. <sup>2,3</sup>	Z7
137	<i>Pastinaca sativa</i> L.	Z11





No	Species	Localities
138	<i>Pentanema salicinum</i> (L.) D.Gut.Larr., Santos-Vicente, Anderb., E.Rico & M.M.Mart.Ort.	Z10
139	<i>Peucedanum austriacum</i> (Jacq.) W. D. J. Koch	Z10
140	<i>Peucedanum oreoselinum</i> (L.) Moench	Z1
141	<i>Picris hieracioides</i> L.	Z11
142	<i>Pimpinella major</i> (L.) Huds.	Z11
143	<i>Pimpinella saxifraga</i> L.	Z8
144	<i>Plantago lanceolata</i> L.	Z8
145	<i>Plantago major</i> L.	Z8
146	<i>Platanthera chlorantha</i> (Custer) Rchb.	Z10
147	<i>Poa angustifolia</i> L.	Z7, Z9
148	<i>Poa trivialis</i> L.	Z6, Z8, Z9, Z11
149	<i>Polygonatum multiflorum</i> (L.) All.	Z1
150	<i>Potentilla reptans</i> L.	Z8, Z9, Z11
151	<i>Primula veris</i> L. subsp. <i>columnae</i> (Ten.) Maire & Petitm.	Z1, Z5
152	<i>Primula vulgaris</i> Huds.	Z7, Z10
153	<i>Prunella vulgaris</i> L.	Z9, Z11
154	<i>Prunus avium</i> (L.) L.	Z1, Z5, Z10
155	<i>Prunus spinosa</i> L.	Z10, Z11
156	<i>Pteridium aquilinum</i> (L.) Kuhn	Z1
157	<i>Pyrus communis</i> L. subsp. <i>communis</i>	Z7, Z8, Z10
158	<i>Quercus cerris</i> L.	Z1, Z5, Z7, Z10
159	<i>Rabelera holostea</i> (L.) M.T.Sharples & E.A.Tripp	Z1, Z7
160	<i>Ranunculus ficaria</i> L.	Z9
161	<i>Ranunculus repens</i> L.	Z8, Z9, Z11
162	<i>Rosa arvensis</i> Huds.	Z1, Z5-Z11
163	<i>Rubus caesius</i> L.	Z6, Z8, Z11
164	<i>Rumex acetosa</i> L.	Z8
165	<i>Rumex crispus</i> L.	Z6, Z8, Z9, Z11
166	<i>Salix alba</i> L.	Z8, Z11
167	<i>Salix eleagnos</i> Scop.	Z8, Z9, Z11
168	<i>Salix purpurea</i> L.	Z6, Z8, Z9, Z11
169	<i>Salix triandra</i> L.	Z11
170	<i>Sanguisorba minor</i> Scop.	Z11
171	<i>Scilla litardierei</i> Breistr. <sup>1,2,3,4</sup>	Z8
172	<i>Scutellaria altissima</i> L.	Z11
173	<i>Sedum hispanicum</i> L.	Z11
174	<i>Sesleria autumnalis</i> (Scop.) F. W. Schultz	Z7, Z10
175	<i>Silene coronaria</i> (L.) Clairv.	Z5
176	<i>Silene italica</i> (L.) Pers.	Z1, Z5
177	<i>Silene latifolia</i> Poir.	Z1, Z9
178	<i>Silene vulgaris</i> (Moench) Garcke	Z8, Z9, Z11
179	<i>Smyrniium perfoliatum</i> L.	Z1, Z11
180	<i>Solanum dulcamara</i> L.	Z8
181	<i>Symphytum tuberosum</i> L.	Z1, Z5, Z10





No	Species	Localities
182	<i>Taraxacum officinale</i> F. H. Wigg. agg.	Z6, Z8, Z9, Z11
183	<i>Thalictrum minus</i> L.	Z6, Z8
184	<i>Torminalis glaberrima</i> (Gand.) Sennikov & Kurtto	Z10
185	<i>Tragopogon orientalis</i> L.	Z8, Z9
186	<i>Trifolium alpestre</i> L.	Z1, Z10
187	<i>Trifolium pratense</i> L.	Z11
188	<i>Trifolium repens</i> L.	Z8
189	<i>Tussilago farfara</i> L.	Z11
190	<i>Urtica dioica</i> L.	Z6, Z9, Z11
191	<i>Valeriana officinalis</i> L. subsp. <i>officinalis</i>	Z6, Z9
192	<i>Veronica chamaedrys</i> L.	Z5, Z10
193	<i>Veronica officinalis</i> L.	Z7, Z10
194	<i>Veronica serpyllifolia</i> L.	Z9, Z11
195	<i>Vicia cracca</i> L.	Z1, Z5
196	<i>Vicia grandiflora</i> Scop.	Z10
197	<i>Vicia sepium</i> L.	Z1
198	<i>Viola alba</i> Besser subsp. <i>alba</i>	Z1, Z10
199	<i>Viola reichenbachiana</i> Jord. ex Boreau	Z5, Z7
200	<i>Viscaria vulgaris</i> Bernh.	Z5



Vsebina je dostopna pod pogoji licence Creative Commons Priznanje avtorstva 4.0 Mednarodna (CC BY 4.0), ki omogoča neomejeno uporabo, razširjanje in reproduciranje v katerikoli mediju ali obliki, pod pogojem, da sta ustrezno navedena izvorni avtor in vir.

The content is distributed under the terms of the Creative Commons Attribution 4.0 International License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

