

PHYTOSOCIOLOGICAL DESCRIPTION OF SITES OF *SALVIA HISPANICA* L. (*LAMIACEAE*) ON RIVERINE GRAVEL TERRACES IN WESTERN SLOVENIA

FITOCENOLOŠKI OPIS RASTIŠČ VRSTE *SALVIA HISPANICA* (*LAMIACEAE*) NA PRODIŠČIH V ZAHODNI SLOVENIJI

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ABSTRACT

Phytosociological description of sites of *Salvia hispanica* L. (*Lamiaceae*) on riverine gravel terraces in western Slovenia

In late summer and autumn (late August, beginning of November) of 2018 we observed a mass occurrence (more than 500 specimens) of *Salvia hispanica*, commonly known as chia, on gravel bars of several rivers in western Slovenia (the Soča and the Sava river basins). It was blooming on many sites in the first half of November, but low daily temperatures in the second half of the month prevented seed development. This Central-American (Mexico, Guatemala) species, which is distributed as a crop also outside its native range, grew mainly in initial plant communities of riverine gravel terraces classified into associations *Polygono lapathifoliae-Salicetum eleagni* (described as new), *Chaerophyllo-Petasitetum officinalis* and *Bidenti frondosae-Panicetum barbipulvinati* nom. prov. The dominating species in these associations are perennials or hemicyptophytes (50%) and annual plants – therophytes (32%). The proportion of alien species (neophytes) is 22% and the proportion of species originating in America is 10%. The warmer climate with less precipitation and less frequent high waters in the last decade, combined with the fact that chia seeds are a commercially available food product or an ingredient in various foods (nutrients), increases the likelihood of successful seed production in chia plants and their distribution in nature. The threat of *Salvia hispanica* becoming an invasive species is therefore serious.

Key words: Chia, alien (adventive) species, plant communities, riverine gravel terraces, syntaxonomy, Slovenia

IZVLEČEK

Fitocenološki opis rastišč vrste *Salvia hispanica* (*Lamiaceae*) na prodiščih v zahodni Sloveniji

V poznem poletju in v jeseni (druga polovica avgusta-prva polovica novembra 2018) smo na prodiščih nekaterih rek v zahodni Sloveniji (povodji Soče in Save) ugotovili množično pojavljanje vrste *Salvia hispanica*, poznamo jo pod imenom čija (skupno več kot 500 primerkov). Na precej nahajališčih je v prvi polovici novembra tudi cvetela, razvoj semen pa zaradi bolj hladnih dni v drugi polovici tega meseca ni bil več mogoč. Srednjeameriška vrsta (Mehika, Gvatemala), ki je kot kulturna rastlina že precej razširjena tudi zunaj svoje domovine, je rasla predvsem v inicialnih združbah prodišč, ki jih uvrščamo v asociacije *Polygono lapathifoliae-Salicetum eleagni* (opisali smo jo kot novo), *Chaerophyllo-Petasitetum officinalis* in *Bidenti frondosae-Panicetum barbipulvinati* nom. prov. V njih ob trajnicah oz. hemikriptofitih (50 %) prevladujejo enoletnice – terofiti (32 %). Delež tujerodnih vrst (neofitov) je 22 %, delež vrst, ki so doma v Ameriki, pa 10 %. Zaradi toplejšega podnebja z manj padavinami in redkejšimi visokimi vodami v zadnjem desetletju in ker so semena čije v prosti prodaji ali kot sestavina različnih živil (hranil), je večja možnost za uspešno semeničenje rastlin in njeno širjenje v naravi. Obstaja resna nevarnost, da bo vrsta *Salvia hispanica* v prihodnjih letih postala invazivka.

Ključne besede: čija, tujerodne vrste, prodišča, rastlinske združbe, Slovenija

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1 INTRODUCTION

The centre of origin of *Salvia hispanica* (family *Lamiaceae*) is in mountain areas of central and southern Mexico and Guatemala, in the tropical and subtropical climate, at elevations between 400 to 2500 m a.s.l. The plant is intolerant to freezing (frost) in all development stages. It grows in environments where minimum temperatures rarely drop below 11 °C and the maximum temperature does not exceed 36 °C, with an optimum range of 16 to 26 °C. Being a short-day plant (12 to 13 hours), its period of growth and flowering depends on the latitude of its location. In the Northern Hemisphere chia begins to flower in October. Its seeds were one of the four staple foods in the diet of Central American civilizations in the pre-Columbian era (BAGINSKY et al. 2017). Due to the composition of its seeds (fats, carbohydrates and proteins) – see COSTANTINI et al. (2014), chia is cultivated not only in both countries of origin, but also in Paraguay, Bolivia, Colombia, Peru, Argentina and Australia. Seeds are exported from Mexico also to the United States of America, Japan and Europe (BAGINSKY et al. 2017). Chia seed has been allowed as an ingredient of food products in the market of the European Union since 2009, or 2013 (Commission Decision 2009/827/EC (2) of 13. 10. 2009; Commission Implementing Decision of 22. 1. 2013). More recently, since 2012, certain European countries have reported its subsponaneous occurrence, in particular on gravel terraces and ruderal sites (VERLOOVE 2015, VERLOOVE et al. 2018, SAUBERER & TILL 2015, HOHLA 2016, AYMERICH 2016, KAPLAN et al. 2018, SHAH

& COULSON 2018, Martini, in litt.). In this articles *Salvia hispanica* is mainly considered a casual alien species that does not form self-sustaining populations in the natural environment. Experiments in Slovenia several years ago (2013) in Novo Mesto also demonstrated that the tested samples of chia did not bloom and produce seeds, despite vigorous growth (180 cm), which was attributed to photoperiodism, as it is not adapted to the length of our days (or nights) – Kreft, in litt.

Salvia hispanica was first photographed in Slovenia on 23 August 2018 on gravel terraces of the Bača River near the village of Koritnica (photo I. Dakskobler). We identified it as an alien species, a member of the mint family (*Lamiaceae*), at the excavation site on a conglomerate embankment at Tolmin in mid-September 2018 (leg. I. Dakskobler), and determined it when the plant developed buds (det. B. Vreš, 21 October 2018). On the gravel terraces along the Bača, Tolminka and Soča rivers it flowered in the first half of November 2018 (photo I. Dakskobler), at about the same time as the specimen collected on the gravel terrace and cultivated at home (photo B. Vreš) – DAKSKOBLER et al. (2018). Its occurrence was monitored simultaneously with phytosociological research of gravel terraces in western Slovenia. As phytosociological conditions on subsponaneous localities of this Central-American species in Europe have not yet been studied in more detail, this paper provides an insight into its localities in Slovenia.

2 METHODS

Vegetation of gravel terraces along the rivers in western and partly central Slovenia (the Soča, Tolminka, Idrijca, Bača, Nadiža, Sava Bohinjka, Sava) was studied applying the BRAUN-BLANQUET (1964) method. The relevés were entered into the FloVegSi database (Fauna, Flora, Vegetation and Paleovegetation of Slovenia) of the Jovan Hadži Institute of Biology at ZRC SAZU (T. SELIŠKAR, VREŠ & A. SELIŠKAR 2003) and arranged into Table 1 based on hierarchical classification. We transformed the combined cover-abundance values with numerical values (1–9) according to van der MAAREL (1979). Numerical comparisons were performed with the SYN-TAX 2000 program package (PODANI 2001). The relevés were compared by means of “(unweighted) average linkage method” – UPGMA, using Wishart’s similarity ratio. The nomenclatural source

for the names of vascular plants are the Mala flora Slovenia (MFS – MARTINČIČ et al. 2007), Flora alpina (AESCHIMANN et al. 2004a,b) and GALLASO et al. (2018). The names of syntaxa follow THEURILLAT (2004), ŠILC & ČARNI (2012) and MUCINA et al. (2016). In the classification of species into phytosociological groups (groups of diagnostic species) we mainly refer to the Flora alpina (AESCHIMANN et al. 2004 a,b). The geographic coordinates of relevés from Slovenia are determined according to the Slovenian geographic coordinate system D 48 (5th zone) on the Bessel ellipsoid and with Gauss-Krüger projection.

The study area is geologically very diverse (BUSER 2009), which is reflected in variegated pebbles, especially along the Bača and Idrijca rivers (limestone and dolomite as well as marlstone, chert, claystone, tuff).

Limestone pebbles dominate along the Soča, Tolminka, Nadiža and Sava Bohinjka. The climate in the lower, partly also in the central areas of the Bača and Idrijca valleys, as well as in the Soča Valley downstream from Tolmin, is relatively warm. Mean annual temperature is (9) 10–11 °C (CEGNAR 1998). A slightly lower (9 °C–10 °C) mean annual temperature is along the Soča between Tolmin and Kobarid, and along the Nadiža, whereas mean annual temperature in the stretch along the upper Bača, the Soča between Srpenica and Žaga, and along the Sava Bohinjka between Soteska and Nomenj is (7) 8–(8) 9 °C (CEGNAR, *ibid.*).

Mean annual precipitation volume is 1800 to 3000 mm (ZUPANČIČ 1998). Rivers are torrential and release large amounts of sediments every year (Bača around 700 m³/km² of sediments – PAULIČ, 1995). A distinct absence of previously almost annual heavy rainfall in spring and autumn months that we have witnessed in the last decade has led to low water levels and exposed gravel terraces (DOLINAR 2018, HRVATIN & ZORN 2018). This became especially obvious in the warm, although not droughty year of 2018, when there was no substantial rainfall between April and November.

3 RESULTS AND DISCUSSION

3.1 Distribution of *Salvia hispanica* in Slovenia and the most frequent accompanying species

The distribution of *Salvia hispanica* in Slovenia was determined based on 68 relevés and 7 floristic records (Figure 1).

The localities are situated at 70 to 480 m a.s.l., in the Alpine, pre-Alpine and sub-Mediterranean phytogeographical region of Slovenia. Most of them are along the Bača River and along the Tolminka River near Tolmin (Figure 2).

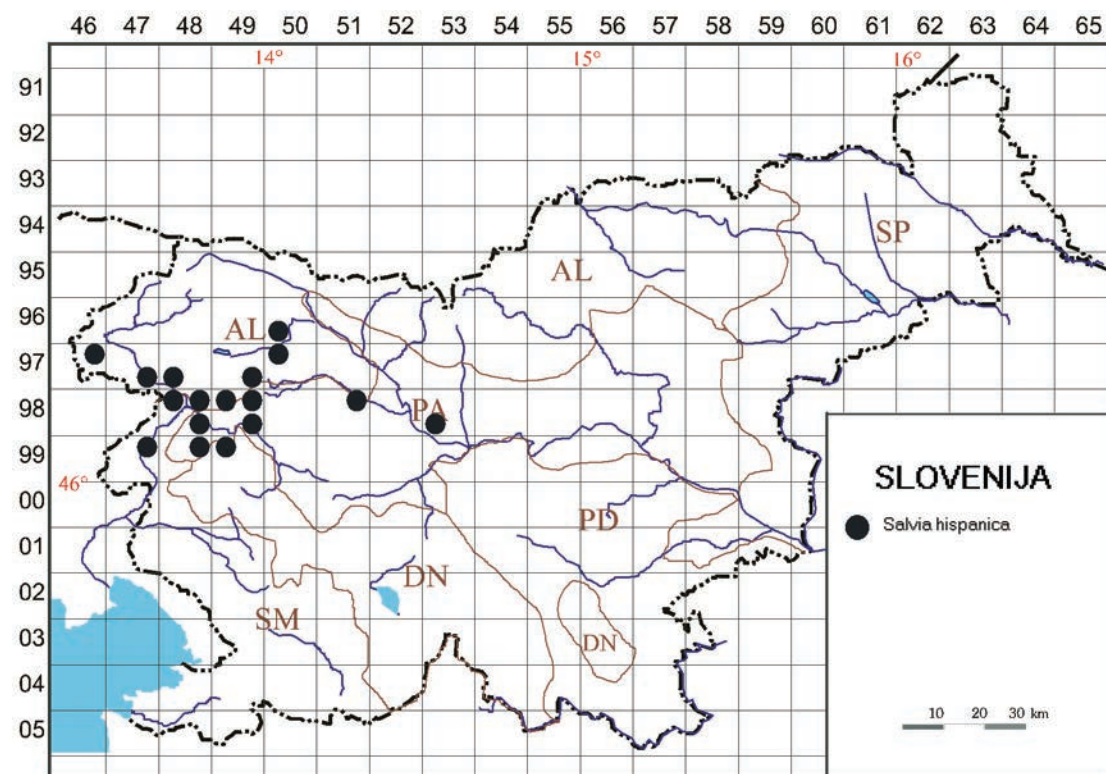


Figure 1: Distribution of *Salvia hispanica* in Slovenia, according the data obtained from September to November 2018
Slika 1: Razširjenost vrste *Salvia hispanica* v Sloveniji po podatkih iz obdobja od septembra do novembra 2018

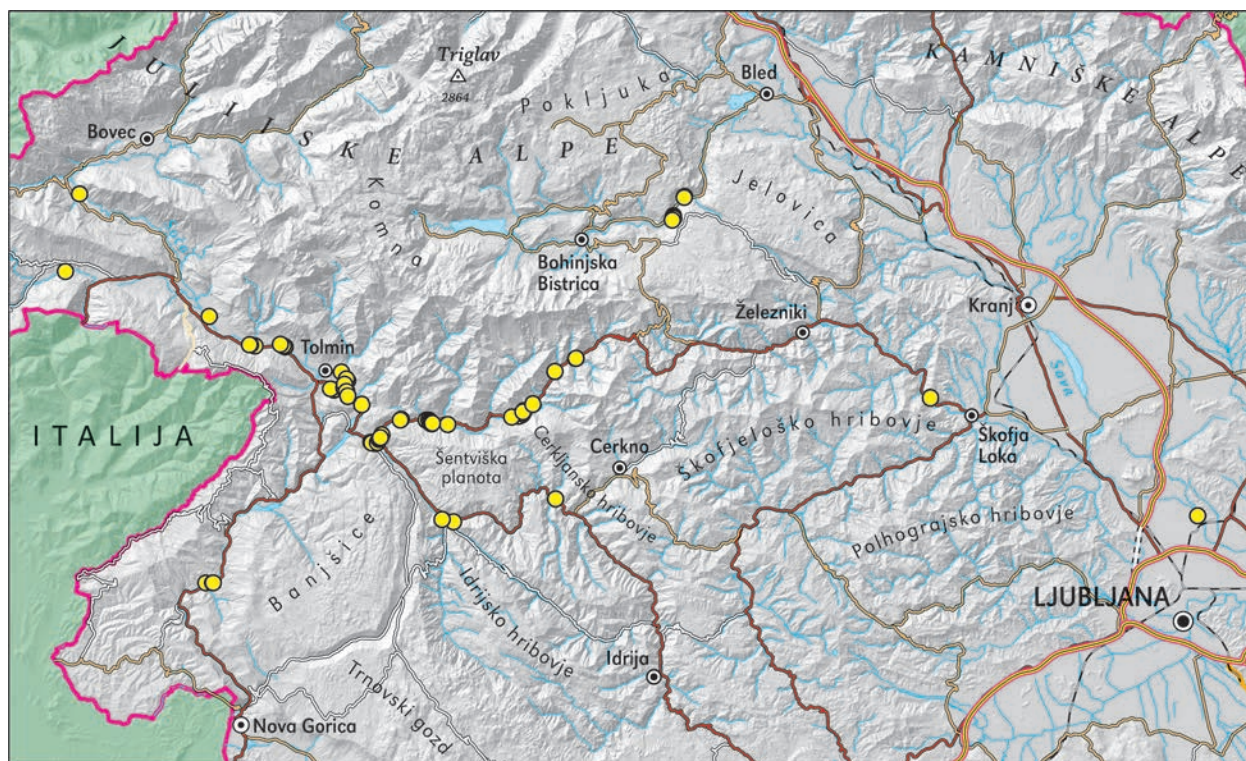


Figure 2: Localities of *Salvia hispanica* in western and partly central Slovenia, according to the data in autumn 2018
 Slika 2: Nahajališča vrste *Salvia hispanica* v zahodni in deloma osrednji Sloveniji, stanje jeseni 2018

Based on the analysis of 68 relevés in Table 1 we can determine which species occur the most frequently on the sites of *Salvia hispanica*. More than 48 relevés (70% of all relevés) comprise *Plantago major* s. str., *Salix eleagnos*, *Taraxacum* sect. *Ruderalia*, *Melilotus albus*, *Polygonum mite*, *P. lapathifolium*, *Panicum barbipulvinatum* (*P. capillare* subsp. *barbipulvinatum*, syn. *P. riparium*), *Setaria pumila*, *Artemisia vulgaris*, *Myosoton aquaticum*, *Mentha longifolia* s. lat., *Saponaria officinalis*, *Sonchus asper*, *Agrostis stolonifera*, *Petasites hybridus* and *Poa annua*. Among a total of 356 determined taxa, 77 (22 %) were alien species or cultivated species that had escaped from gardens, including 35 (10%) American species. With the exception of the stretch along the Bača and Idrija downstream from the confluence with the Bača, and in Tolmin (on the gravel below the cemetery at Sv. Urh and along the Tolminka), the number of chia specimens detected at individual localities was small (from one to not more than ten). The total number of observed plants in the relevés is nevertheless estimated to be more than 500.

3.2 Phytosociological description of sites of *Salvia hispanica* in Slovenia

Using hierarchical classification we compared 68 relevés of communities that comprised the studied species (Figure 3).

Based on the obtained dendrogram we arranged the relevés into Table 1. The group of five relevés in the right part of the dendrogram (Figure 3) and Table 1 stands out the most, with relevé 64 characterising an open stand of a grey willow shrub community (*Salicetum eleagno-purpureae*) and relevé 65 characterising an atypical ruderalised community on the embankment of the Sava River, where the underlying bedrock is admixed with claystone. Relevés 66 and 67 with dominant taxa *Bidens frondosa* and *Panicum barbipulvinatum* are classified into the provisional new association *Bidentifrondosae-Panicetum barbipulvinati* nom. prov. (*Salsonion ruthenicae*, *Digitario sanguinalis-Eragrostietea minoris*). Relevé 68 characterises a ruderal community with dominant *Ranunculus repens* and *Artemisia verlotiorum* (*Dauco-Melilotion*, *Artemisietea vulgaris*).

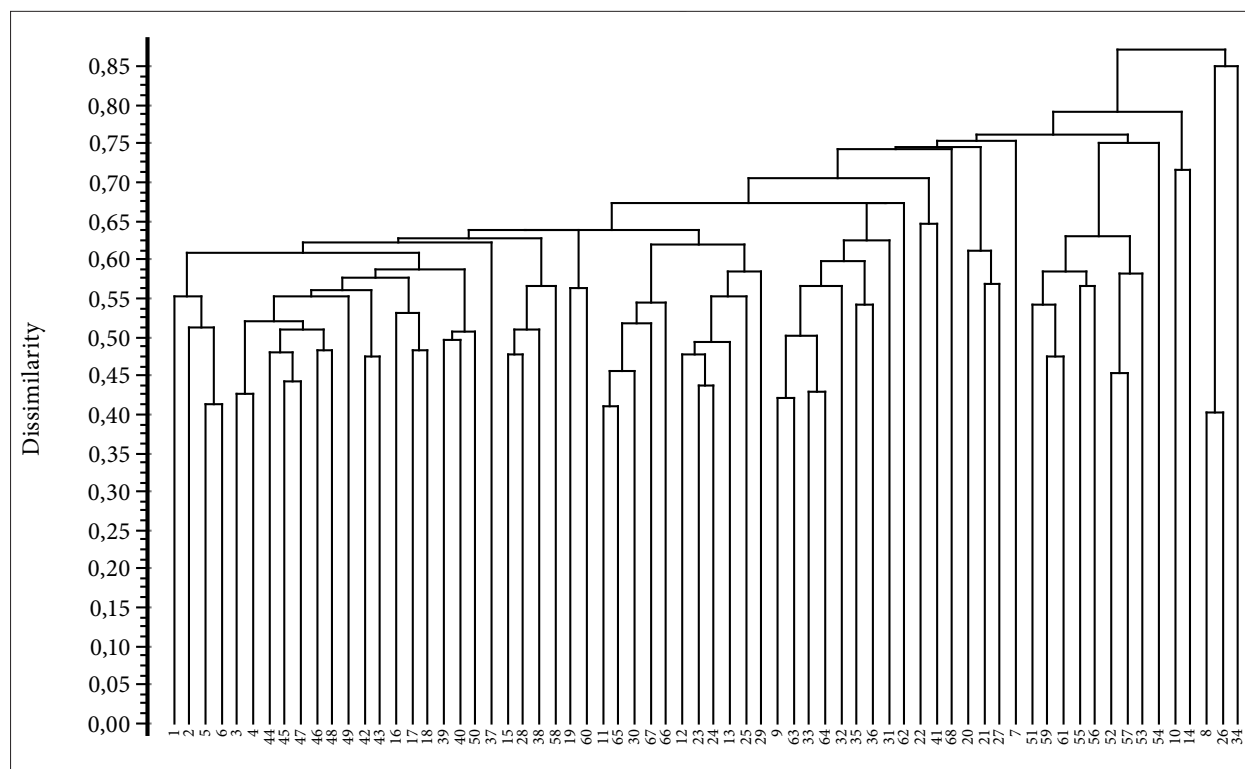


Figure 3: Dendrogram of stands with *Salvia hispanica* in western and central Slovenia, UPGMA, 1-similarity ratio
 Slika 3: Dendrogram sestojev z vrsto *Salvia hispanica* v zahodni in osrednji Sloveniji, UPGMA, 1-similarity ratio

All other relevés characterise initial plant communities of riverine gravel terraces. So far, in western Slovenia phytosociological research of such initial plant communities has been conducted only for the gravel terraces along the Soča near Bovec (T. WRABER 1965: *Leontodonti berinii-Chondriletum*; ČUŠIN & ŠILC 2006: *Salici-Myricarietum*), the Nadiža (ČUŠIN 2001: *Epilobio-Scrophularietum caninae*) and along the Idrija (DAKSKOBLER 2010: *Chaerophyllo-Petasitetum officinalis*). PETKOVŠEK (1966) described a similar initial community of gravel terraces and river embankments along the central and lower courses of rivers in central, eastern and southwestern Slovenia and classified it into the association *Calistegio-Salicetum purpureae*. In order to compare the relevés with *Salvia hispanica* with stands of the last three associations (initial plant communities on gravel terraces near Bovec are quite different) we made a synoptic table (Table 2) comprising the following syntaxa (which were named after we had conducted the comparisons):

PLSe *Polygono lapathifoliae-Salicetum eleagni*, this article, relevés 1–27 in Table 1;

PLSe–Sa *Polygono lapathifoliae-Salicetum eleagni*, this article, relevés 28–38 in Table 1 (relevés from the

Soča Valley between Volarje and Žaga and from the Sava Bohinjka Valley);

ChPo–Ba *Chaerophyllo-Petasitetum officinalis*, this article, relevés 39–46 in Table 1 (the upper part of the Bača Valley from the hamlet Humar to Podbrdo);

PLSe–ne *Polygono lapathifoliae-Salicetum eleagni*, this article, relevés 47–54 in Table 1 (atypical relevés from the valleys of the Soča, Bača, Nadiža and Sava Bohinjka);

PLSe–To, *Polygono lapathifoliae-Salicetum eleagni*, this article, relevés 55–63, initial plant community on gravel terraces of the Tolminka River near Tolmin;

ESc–Na *Epilobio-Scrophularietum caninae*, the Nadiža Valley, ČUŠIN (2001, Table 1);

ChPo–Id *Chaerophyllo-Petasitetum officinalis*, the Idrija Valley, DAKSKOBLER (2010, Table 1);

CsSp *Calystegio-Salicetum purpureae*, central and southeastern Slovenia, PETKOVŠEK (1966)

The listed syntaxa were mutually compared using hierarchical classification, which produced the dendrogram in Figure 4:

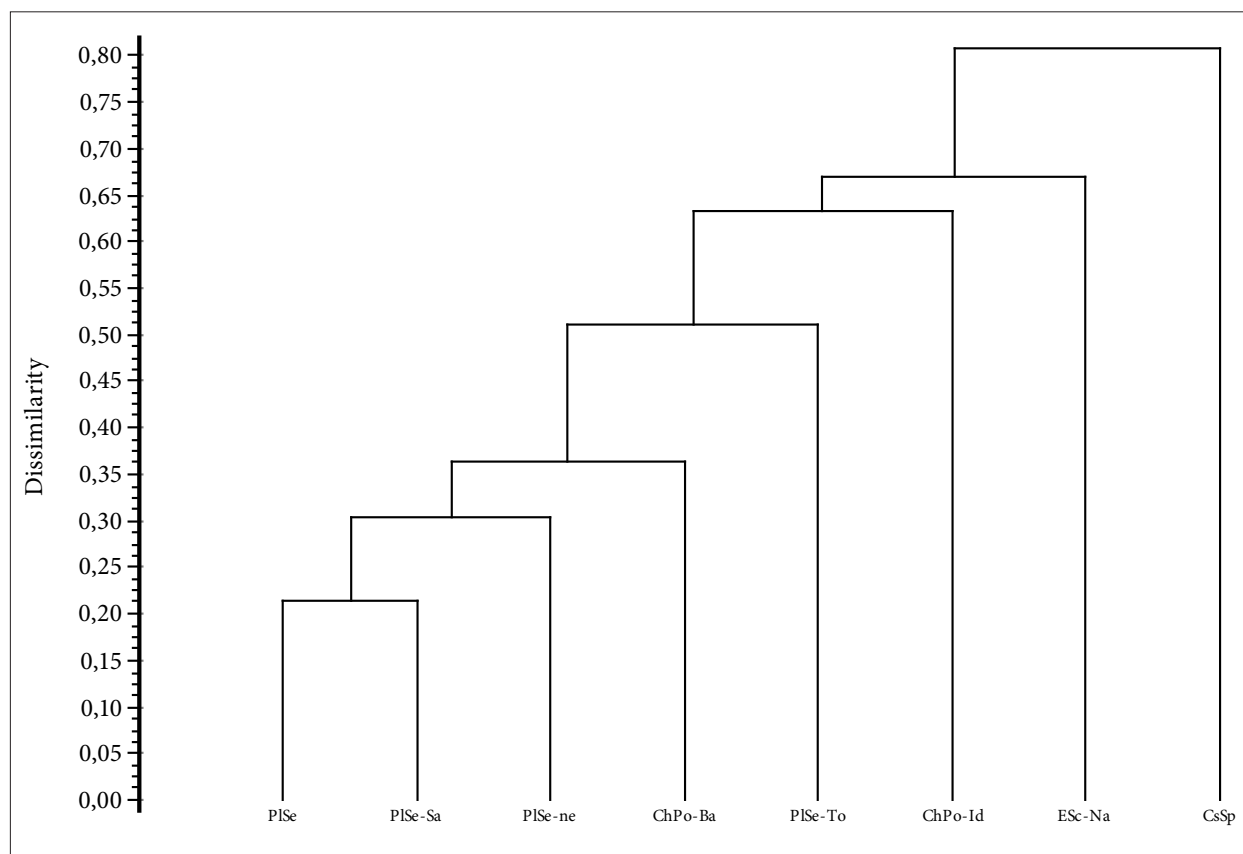


Figure 4: Dendrogram of various forms of gravel terraces communities in Slovenia (UPGMA, 1-similarity ratio)
 Slika 4: Dendrogram različnih oblik prodiščnih združb v Sloveniji (UPGMA, 1-similarity ratio)

The comparison shows that gravel site stands with *Salvia hispanica* are floristically very different from the stands of associations *Epilobio-Scrophularietum caninae* and *Calystegio-Salicetum purpureae*. Floristic similarity with the stands of the association *Chaerophyllo-Petasitetum officinalis* is slightly higher and this association could also comprise stands along the upper course of the Bača between Humar and Podbrdo. While *Petasites hybridus* usually occurs also in other relevés, in places even with higher coverage, other diagnostic species of the association, such as *Chaerophyllum hirsutum*, *Filipendula ulmaria* and *Aegopodium podagraria*, and in particular the diagnostic species of the class *Mulgedio-Aconitetea*, into which this association is classified (ŠILC & ČARNI 2012, MUCINA et al. 2016), are very rare. The stands along the lower course of the Tolminka near Tolmin are the most initial, but cannot be classified into any of the three associations described above because they do not comprise enough character species of any of said associations. The analysis by groups of diagnostic species and

life forms (Tables 3 and 4) also shows differences between the compared syntaxa. The proportion of diagnostic species of the class *Thlaspietea rotundifolii* in the stands of the association *Epilobio-Scrophularietum caninae* is about 15%, and only 5% or less in the studied communities. Initial gravel terraces along the Nadiža have a significantly smaller proportion – less than 15% – of ruderal and segetal annuals from classes *Papaveretea rhoeadis* (*Stellarietea mediae*), *Sisymbrietea* and *Digitario sanguinalis-Eragrostietea*, whereas other compared communities always comprise more than 20% of these species. Characteristic for the stands of the association *Epilobio-Scrophularietum* is the absence of species of the class *Bidentetea tripartiti* (summer-annual pioneer vegetation of seasonally flooded nutrient-rich river alluvia, lacustrine banks and heavily nutrient-loaded anthropogenic habitats of boreo-temperate Europe and North Africa) and a relatively high relative proportion of species of dry grasslands and thermophilous fringe communities (nearly 15%). In terms of life forms the community is dominated by

hemicryptophytes (almost 60%), whereas the proportion of therophytes is smaller than in any other compared community.

Characteristically, stands of the association *Chaerophyllo-Petasitetum officinalis* in the Idrijca Valley have comparatively the highest proportion of species of classes *Bidentetea* and *Filipendulo-Convolvuletea* (semi-natural fringe vegetation on banks of rivers and other water bodies of temperate Europe and the Mediterranean), and comparatively the highest proportion of species of the class *Mulgedio-Aconitetea* and alliances *Tilio-Acerion* and *Alnion incanae*. In terms of life forms this community comprises comparatively the highest proportion of geophytes.

Stands of the association *Calystegio-Salicetum purpureae* comprise a very small proportion of scree species of the class *Thlaspietea rotundifolii* and its lower syntaxonomic units; also relatively small is the proportion of species of the class *Papaveretea rhoeadis* (*Stellarietea mediae*), whereas comparatively the highest is the proportion of species of classes *Salicetea purpureae*, *Artemisieteae vulgaris*, *Galio-Urticetea* and in particular of classes *Filipendulo-Convolvuletea* and *Phragmiti-Magnocaricetea*, and order *Agropyretalia intermedio-repentis*. Compared to our relevés, life forms comprise a slightly higher proportion of hemicryptophytes and a slightly smaller proportion of therophytes.

The studied gravel bar communities in which *Salvia hispanica* germinated and flowered in late summer and autumn 2018 are characterised by a predominating proportion of ruderal and segetal annuals and tall herbs of ruderal and semi-ruderal sites on nutrient-rich soil and a relatively small proportion of species characteristic for gravel terraces of mountain rivers. The predominating life forms are hemicryptophytes and therophytes. Pebbles in the studied gravel terraces, in particular those along the Bača River, are often mixed with sand. This is partly due to the geological composition of the area where this river flows, i.e. frequent admixtures of claystones, marlstone and chert in the predominantly calcareous bedrock, and partly due to the anthropogenic impact on the river course and partial transformation of the river bed that started already 120 years ago with the construction of the railway line and continued to the present day with various interventions, including construction of embankments and small hydroelectric power plants.

Analyses and comparisons that have been conducted demonstrate the complexity of classification of the studied communities into a syntaxonomic system. In terms of development, in favourable conditions the community of grey and red willow (*Salicetum eleagno-*

-purpureae) develops on these gravel terraces. It is marked by the presence of saplings and in places also low shrubs of grey willow (*Salix eleagnos*), partly also red willow (*Salix purpurea*) and black poplar (*Populus nigra*). If, for already stated reasons, the community is not named after the butterbur (*Petasites hybridus*), priority should be given to the species that can form the next development stage, even though that stage frequently does not develop. In the studied community it is the willows and black poplar that indicate at least a probability of higher permanence. However, at the same time we also have to take into consideration a frequently transitory nature of the studied community, which is a result of the weather conditions and occasionally also of direct human interventions. One of the species that are common in the studied gravel terraces, both in terms of constancy and medium coverage, and manifest this transitory nature is *Polygonum lapathifolium*. It is a character species of the class *Bidentetea*. In the studied community it indicates nutrient-rich gravel terraces and its seasonal, late summer-autumn peak of development.

In terms of site ecology (gravel deposits and river banks), the studied gravel bar communities are rather similar to those classified by PETKOVŠEK (1966) into the association *Calystegio-Salicetum purpureae*. The species he identified as character species and are frequent in our relevés include *Saponaria officinalis*, *Rubus caesius*, *Solanum dulcamara* and *Agrostis stolonifera*, partly also *Lycopus europaeus*, whereas *Typhoides arundinacea* (*Phalaris arundinaceae*), *Calystegia sepium* and *Anthriscus sylvestris* are very rare and *Silene baccifera* (*Cucubulus baccifer*) completely absent. PETKOVŠEK (ibid.) classified his association into the class *Bidentetea*. A character species of this class that is common to both communities is *Polygonum mite*, but *Polygonum lapathifolium* and *Bidens frondosa* are missing in Petkovšek's relevés, while *Bidens tripartita* is missing in ours. Frequent in both compared communities are also *Polygonum persicaria*, *Erigeron annuus*, *Chenopodium album*, *C. polyspermum*, *Urtica dioica*, *Artemisia vulgaris*, *Myosoton aquaticum*, *Conyza canadensis*, *Agropyron repens*, *Galeopsis pubescens*, *Solidago gigantea*, *Impatiens glandulifera*, *Scrophularia canina*, *Microrrhinum minus*, *M. littorale*, *Tanacetum vulgare* and *Equisetum arvense*. Both communities also comprise certain willows, with *Salix eleagnos* much more frequent in our relevés and *Salix purpurea* in Petkovšek's. *Populus nigra* is absent in his relevés, whereas our relevés are without *Salix fragilis* and *S. alba* as well as *Alnus glutinosa*. Some species diagnostic for our community are missing in Petkovšek's relevés, such as *Petasites hybridus*, *P. paradoxus*, *Silene vulgaris*

and *Scrophularia nodosa*, as well as certain very frequent species such as *Mentha longifolia*, *Barbarea vulgaris*, *Brachypodium sylvaticum*, *Plantago lanceolata*, *P. major*, *Solanum nigrum*, *Taraxacum* sect. *Ruderalia*, *Sonchus asper*, *Poa annua*, *Cerastium sylvaticum*, *Medicago lupulina*, *Galium mollugo*, *Leontodon hispidus*, *Daucus carota*, *Rumex obtusifolius*, *Cirsium oleraceum*, *Epilobium parviflorum*, *Verbascum thapsus*, *Ballota nigra*, *Geranium robertianum* and several others, whereas *Echinocystis lobata*, *Lysimachia vulgaris* and *Gratiola officinalis* are missing in our relevés. Due to low floristic similarity our stands cannot be classified into the association *Calystegio-Salicetum purpureae*, despite similar ecology and certain shared species.

We therefore decided to describe a new association *Polygono lapathifoliae-Salicetum eleagni*, into which we classify communities rich in (semi)ruderal and segetal annuals and tall herbs on relatively nutrient-rich gravel terraces along the middle course of mountain rivers that are a successional stage towards shrub communities of willows and black poplar (*Salicetum eleagno-purpureae*, *Salicetum albae*). The diagnostic species of the new association are *Salix eleagnos*, *Polygonum lapathifolium*, *Myosoton aquaticum*, *Petasites hybridus*, *Agrostis stolonifera*, *Melilotus albus*, *Scrophularia nodosa*, *Solanum dulcamara*, *Silene vulgaris* and *Petasites paradoxus*. They indicate a transitional form of gravel bar communities between the stands of associations *Epilobio-Scrophularietum caninae* and *Chaerophyllo-Petasitetum officinalis*, and demonstrate a significant ecological, and to a lesser extent floristic similarity with stands of the association *Calystegio-Salicetum purpureae*. The nomenclatural type of the new association, *holotypus* hoc loco, is relevé 5 in Table 1.

The new association can be classified into two different higher syntaxonomic units. In terms of site characteristics, this is the vegetation of gravel terraces of mountain rivers and could therefore be classified into the alliance *Epilobion fleischeri* (syn. *Salicion incanae*), order *Epilobietalia fleischeri* and class *Thlaspietea rotundifolii*. The problem with such classification is that most of the diagnostic species of the alliance and order are either very rare in the studied community or have not been recorded at all. Another option is to consider the entire species composition of the community and the predominating proportion of species that belong to various types of anthropogenic vegetation. We propose a new alliance *Polygono miti-Salicion eleagni* all. nov. (initial communities of nutrient-rich gravel terraces along the middle and lower course of mountain rivers with willows and short-lived annuals) into which we classify also the association *Calystegio-Salicetum purpureae* Petkovšek 1966. Diagnostic species of the new alli-

ance are *Salix eleagnos*, *Salix purpurea*, *Polygonum mite*, *P. lapathifolium*, *P. persicaria*, *Diplotaxis tenuifolia*, *Artemisia vulgaris*, *Galeopsis pubescens*, *Myosoton aquaticum* and *Saponaria officinalis*. The new alliance is classified into the order *Convolvuletalia sepium* and class *Epilobietea angustifolii*. According to the analysis of groups of diagnostic species such classification is more appropriate than classification into the class *Bidentetea*. The nomenclatural type of the new alliance, *holotypus* hoc loco, is the association *Polygono lapathifoliae-Salicetum eleagni*.

3.3 Review of the studied syntaxa

Digitario sanguinalis-Eragrostietea minoris Mucina, Lososová et Silc in Mucina et al. 2016

Eragrostietalia J. Tx. ex Poli 1966

Salsolion ruthenicae Philippi ex Oberd. 1983

Bidenti frondosae-Panicetum barbipulvinati nom. prov.

Artemisietea vulgaris Lohmeyer et al. in Tx. Ex von Rochow 1951

Onopordetalia acanthii Br.-Bl. et Tx. ex Klika et Hadač 1944

Dauco-Melilotion Görs ex Rostański et Gutte 1971

Ranunculus repens-Artemisia verlotiorum community prov.

Epilobietea angustifolii Tx. et Preising ex von Rochow 1951

Convolvuletalia sepium Tx. ex Moor 1958

Polygono miti-Salicion eleagni all. nov.

Polygono lapathifoliae-Salicetum eleagni ass. nov.

Mulgedio-Aconitetea Hadač et Klika in Klika et Hadač 1944

Petasito-Chaerophylletalia Morariu 1967

Petasition officinalis Sillinger 1933

Chaerophyllo-Petasitetum officinalis Kaiser 1926

Salicetea purpureae Moor 1958

Salicetalia purpureae Moor 1958

Salicion eleagno-daphnoidis (Moor 1958) Grass 1993

Salicetum eleagno-purpureae Sillinger 1933

3.4 Assessment of invasiveness of *Salvia hispanica* in Slovenia

The plants we saw flowering in 2018 were unable to successfully develop seeds. The abundant occurrence of *Salvia hispanica* on gravel terraces of rivers in western Slovenia may be at least partly attributed to weather conditions (very warm autumn, low water levels).

Many foods and foodstuffs used in Slovenia already comprise chia seeds and these have obviously made their way to nature.

Two predictions can be made:

- *Salvia hispanica* will occasionally occur on gravel terraces and similar ruderal sites, gravelly and talus slopes and embankments, in the colline and submontane belt, but the population will not persist in the same localities for consecutive years.

- Gradually, a stable population will develop that will be able to successfully complete the entire development cycle on certain localities. As a result, chia will invade riverine plant communities, not only on gravel terraces, but also on embankments and in open gaps in riverine stands as well as on other ruderal and segetal sites in the colline and submontane belt.

4 CONCLUSIONS

The Central-American species *Salvia hispanica* (Mexican chia) is a crop whose seeds are used in certain foods that have become popular and freely available in recent years also throughout Europe. In recent years, several European countries have reported its subsynchronous occurrence on ruderal sites, embankments and river gravel terraces. In Slovenia it germinated, grew and even flowered in late summer and autumn of 2018 quite abundantly (at least 500 specimens), mainly on gravel terraces along the middle and lower course of torrential mountain rivers in western, and partly the central part of the country, and completed its development cycle (except for seeds) in the period between mid-August and mid-November. The weather conditions were extremely favourable, with warm autumn, little rainfall and very few days with temperatures near frost. *Salvia hispanica* was, in particular along the Bača River, one of the most constant species in the relatively nutrient-rich gravel bar community that we classify into the association *Polygono lapathifoliae-Salicetum eleagni* and is a developmental stage towards the community of grey and red willow (*Salicetum eleagno-purpureae*). Stands of the association

Polygono lapathifoliae-Salicetum eleagni frequently comprises also other short-lived annuals, character species of various groups of anthropogenic vegetation. These include a number of alien species, including those considered invasive in Slovenia (*Erigeron annuus*, *Ambrosia artemisiifolia*, *Impatiens glandulifera*, *Helianthus tuberosus*, *Solidago gigantea*, *Bidens frondosa*, *Panicum barbipulvinatum*, *Buddleja davidii*, *Senecio inaequidens*, *Artemisia verlotiorum* and others). For now, *Salvia hispanica* does not have the status of an invasive species in Europe as it is assumed unable to self-sustain and spread further into local plant communities. Its occurrence therefore depends on seeds that are introduced into these communities via foods in various ways, but always with indirect human intervention. Based on the phytosociological analysis of the communities in which this Central-American species grew in western Slovenia in autumn 2018, climate prognoses as well as its increased cultivation and use, and taking into account possible development of adapted genotypes we estimate that the threat of this species becoming invasive in Central and Southern Europe is serious.

5 POVZETEK

Srednjeameriška vrsta *Salvia hispanica* (mehiška čija) iz družine *Lamiaceae* je tudi kulturna rastlina, katere semena so vsebovana v nekaterih živilih, ki so v zadnjih letih v pogosti prodaji in uporabi tudi v Evropi. V zadnjih letih v nekaj evropskih državah opažajo njeno subsynchronous pojavljanje na ruderalnih rastiščih, brežinah in prodiščih rek. V Sloveniji je v poznem poletju in jeseni 2018 precej množično (najmanj 500 primerkov) vzklila, zrasla in v novembru celo cvetela predvsem na prodiščih srednjega in spodnjega teka gorskih hudourniških rek v zahodnem in deloma osrednjem delu države (Nadiža, Soča, Tolminka, Bača, Idrijca, Sava Bohinj-

ka, Selška Sora, Sava), in ves razvojni cikel (razen semen) naredila v času od srede avgusta do srede novembra. Vremenske razmere so bile zelo ugodne, topla jesen z malo padavinami in zelo redkimi dnevi s temperaturami blizu slane. Še posebej ob reki Bači je bila v tem letu ena izmed najbolj stalnih vrst v s hranili razmeroma bogati prodiščni združbi, ki je razvojna stopnja proti združbi sive in rdeče vrbe (*Salicetum eleagno-purpureae*) in jo uvrščamo v novo asociacijo *Polygono lapathifoliae-Salicetum eleagni*. V tej združbi so pogoste tudi druge kratkožive enoletnice, značilnice različnih skupin antropogene vegetacije. Med njimi je precej tujerodnih

vrst, tudi take, ki jih v Sloveniji obravnavamo kot invazivke (*Erigeron annuus*, *Ambrosia artemisiifolia*, *Impatiens glandulifera*, *Helianthus tuberosus*, *Solidago gigantea*, *Bidens frondosa*, *Panicum barbipulvinatum*, *Buddleja davidii*, *Senecio inaequidens*, *Artemisia verlotiorum* idr.). Nekatere prodiščne sestoje, v katerih se pojavlja vrsta *Salvia hispanica* v zgornjem delu doline Bače med domačijo Humar in Podbrdom in kjer je v zeliščni plasti pogost navaden repuh (*Petasites hybridus*), uvrščamo v asociacijo *Chaerophyllo-Petasitetum officinalis*. Na dveh krajih, pri sotočju Idrijce in Trebušice in ob Savi pri Ježici (tam manj očitno), smo oljno kaduljo (čijo) popisali v zelo vrzelastih grmiščnih sestojih z vrbami (*Salicetum eleagno-purpureae* s. lat.). Pri Tolminu pa smo jo opazili tudi v bolj ruderalni združbi na izkopu konglomeratne brežine, v kateri sta prevladovali vrsti *Bidens frondosa* in *Panicum barbipulvinatum* in jo zača-

sno uvrščamo v asociacijo *Bidenti frondosae-Panicetum barbipulvinati* nom. prov., in v še bolj ruderalni združbi na peščenih tleh, s prevladujočima vrstama *Ranunculus repens* in *Artemisia verlotiorum*.

Vrsta *Salvia hispanica* za zdaj v Evropi še nima statusa invazivke, saj predpostavljamo, da se ni sposobna sama ohraniti in se naprej širiti v tukajšnje rastlinske združbe, torej je njeno pojavljanje vezano na semena, ki iz živil na različne načine, a vedno s posrednim človekovim posredovanjem, pridejo vanje. Na podlagi fitocenološke analize združb, v katerih je jeseni leta 2018 uspevala v zahodni Sloveniji, podnebnih prognoz in povečane gojitve in uporabe, z možnostjo razvoja prilagojenih genotipov, ocenjujemo, da je resna nevarnost, da ta srednjeameriška vrsta v srednji in južni Evropi postane invazivna.

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Figure 5: Stand of the association *Bidentifruktosa-Panicetum barbipulvinati* at Tolmin
 Slika 5: Sestoj asociacije *Bidentifruktosa-Panicetum barbipulvinati* pri Tolminu



Figure 6: Stand of the association *Chaerophyllo hirsuti*-*Petasitetum officinalis* at Podbrdo
Slika 6: Sestoj asociacije *Chaerophyllo hirsuti*-*Petasitetum officinalis* pri Podbrdu



Figure 7: Stand of the association *Polygono lapathifoliae*-*Salicetum eleagni* at Bača pri Modreju
Slika 7: Sestoj asociacije *Polygono lapathifoliae*-*Salicetum eleagni* pri Bači pri Modreju



Figure 8: *Salvia hispanica* on gravel bars of Bača at Bača pri Modreju in the first half of November 2018
Slika 8: Oljna kadulja (*Salvia hispanica*) na prodiščih Bače pri Bači pri Modreju v začetku novembra 2018

Table 1: Communities with *Salvia hispanica* in Slovenia
Preglednica 1: Združbe z vrsto *Salvia hispanica* v Sloveniji

		1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Number of relevé (Zaporedna številka popisa)		1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Database number of relevé (Delovna številka popisa)		272214	272215	272227	272228	272220	272221	272778	272780	272782	272781	272783	272784	272763	272770		
Elevation in m (Nadmorska višina v m)		350	214	338	346	175	175	206	206	210	210	210	210	206	206		
Aspect (Lega)		NW	0	0	0	0	0	0	0	0	0	0	0	0	0		
Slope in degrees (Nagib v stopinjah)		2	0	0	0	0	0	0	0	0	0	0	0	0	0		
Parent material (Matična podlaga)		Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr		
Soil (Tla)		Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl		
Stoniness in % (Kamnitost v %)		100	100	100	100	100	100	100	100	100	100	100	100	100	50		
Cover of tree layer in % (Zastiranje drevesne plasti v %):		E3															
Cover of shrub layer in % (Zastiranje grmovne plasti v %):		E2															
Cover of herb layer in % (Zastiranje zeliščne plasti v %):		E1	70	50	70	70	45	50	35	40	35	60	50	65	40	50	
Number of species (Število vrst)		45	59	106	84	90	60	62	53	58	96	88	68	52	48		
Relevé area (Velikost popisne ploskve)		m ²	50	50	100	100	100	100	100	100	100	100	100	100	100		
Date of the relevé (Datum popisa)		8/23/2018	8/24/2018	8/23/2018	8/23/2018	8/24/2018	8/24/2018	9/29/2018	9/29/2018	9/29/2018	9/29/2018	9/29/2018	9/29/2018	9/29/2018	9/29/2018		
Locality (Nahajališče)		Humar-Bača	Slatne-Bača	Humar-Bratina-Bača	Humar-Bača	Lušin-Bača	Lušin-Bača	Klavže-Bača	Klavže-Bača	Klavže-Bača	Klavže-Bača	Klavže-Bača	Klavže-Bača	Klavže-Bača	Klavže-Bača		
Quadrant (Kvadrant)		9849/1	9849/1	9849/1	9849/1	9848/2	9848/2	9848/2	9848/2	9848/2	9848/2	9848/2	9848/2	9848/2	9848/2		
Coordinate GK Y (D-48)		m	415346	410138	415134	415411	406874	406819	408816	408873	408963	408893	409018	409059	408694	408626	
Coordinate GK X (D-48)		m	5113947	5113273	5113856	5114013	5113638	5113588	5113583	5113527	5113337	5113401	5113321	5113360	5113578	5113579	
Diagnostic species of the associations (Diagnostične vrste asociacij)																	
SP	Fa	<i>Salix eleagnos</i>	E3a	
SP	Fa	<i>Salix eleagnos</i>	E2a	
SP	Fa	<i>Salix eleagnos</i>	E1	1	1	.	2	1	3	2	+	1	2	1	2	2	
AV	He	<i>Melilotus albus</i>	E1	1	.	1	1	1	1	1	1	1	1	1	+	.	
BT	Te	<i>Polygonum lapathifolium</i>	E1	1	+	2	1	2	1	+	1	2	2	1	2	1	+
FP	He	<i>Myosoton aquaticum</i>	E1	1	1	1	1	+	1	+	1	1	.	1	+	+	+
GU	Ge	<i>Petasites hybridus</i>	E1	2	3	2	2	+	+	2	1	1	1	2	2	2	3
PP	He	<i>Agrostis stolonifera</i>	E1	.	+	+	+	+	+	+	+	+	+	+	+	+	+
FS	Ge	<i>Scrophularia nodosa</i>	E1	+	1	+	1	1	+	+	+	+	+	1	1	.	+
AI	Ha	<i>Solanum dulcamara</i>	E1	.	+	+	+	+	.	+	+	+	+	+	+	+	+
FB	He	<i>Silene vulgaris</i>	E1	+	+	+	+	+	+	.	+	+
PeP	Ge	<i>Petasites paradoxus</i>	E1	.	+	+	.	+	1	+	.	+
FP	Ha	<i>Mentha longifolia</i>	E1	1	+	+	+	1	+	.	1	+	1	1	+	+	1

15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44				
272539	272540	272541	272755	272756	272788	272753	272538	272715	272754	272799	272641	272801	272501	272812	272721	272816	272814	272521	272698	272699	272522	272700	272718	272475	272807	272724	272808	272723	272751				
149	149	149	160	160	160	162	156	155	160	160	224	160	470	475	480	480	480	157	170	175	157	175	330	360	346	415	362	415	445				
0	0	0	0	0	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr				
Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl				
70	100	100	40	30	10	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	80	80	60				
																30																	20
70	40	40	60	70	50	35	30	25	40	30	30	35	40	40	40	50	50	25	30	35	25	40	35	70	70	70	70	690	60				
66	68	69	74	76	52	75	47	36	59	44	60	67	40	63	60	79	54	68	65	73	80	91	92	53	59	35	47	27	37				
50	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	50	50	50	50	50	20				
10/14/2018	10/14/2018	10/14/2018	9/30/2018	9/30/2018	9/30/2018	9/30/2018	10/14/2018	9/7/2018	9/30/2018	10/22/2018	10/4/2018	10/22/2018	10/15/2018	10/15/2018	10/18/2018	10/18/2018	10/18/2018	5/1/2009	10/10/2018	10/10/2018	5/1/2009	10/10/2018	10/16/2018	10/1/2018	10/20/2018	10/20/2018	10/20/2018	10/20/2018	11/8/2018				
Most na Soči-Idrjica	Most na Soči-Idrjica	Most na Soči-Idrjica	Bača pri Modreju	Bača pri Modreju	Bača pri Modreju	Bača pri Modreju	Bača pri Modreju	Bača pri Modreju	Bača pri Modreju	Tolmin-Tolminka	Reka-Kurnik	Tolmin-Tolminka	Soteska-Sava Bohinjka	Soteska-Sava Bohinjka	Soteska-Nomenj-Sava	Soteska-Nomenj-Sava	Soteska-Nomenj-Sava	Volarje-Soča	Ladra-Soča	Volarje-Kamno-Soča	Volarje-Soča	Volarje-Kamno-Soča	Žaga-Soča	Humar-Bača	Humar-Bača	Znojile,pri Honzu-Bača	Znojile,pri Honzu-Bača	Znojile,pri Honzu-Bača	Podbrdo-Mahorc-Bača				
9848/4	9848/4	9848/4	9848/4	9848/4	9848/4	9848/2	9848/4	9848/4	9848/4	9848/1	9849/4	9848/1	9650/3	9650/3	9750/1	9750/1	9750/1	9748/3	9747/4	9747/4	9748/3	9747/4	9746/2	9849/1	9849/1	9849/2	9849/1	9849/2	9749/4				
404755	404781	404814	405354	405398	405416	405477	405073	405209	405320	402852	417723	403030	426785	426764	426006	426022	398712	393388	396599	398576	396286	384276	415523	415435	417678	416131	417669	419166					
5112025	5111992	5111977	5112262	5112315	5112349	5112467	5111938	5112005	5112223	5115827	5108047	5115566	5129284	5129206	5127908	5127737	5127837	5118698	5120842	5118767	5118774	5118851	5129454	5114252	5114160	5116978	5114680	5116963	5117901				
.			
+	1	1	2	.	1	3	3	2	3	3	2	2	3	3	1	1	2	2	2	3	2	.	1	1	1	1	+	2	.				
1	1	2	1	1	1	+	+	+	+	.	1	1	1	1	1	1	2	+	+	+	+	+	1	+	+	+	+	2	+				
.	1	2	1	1	1	+	1	+	1	1	.	1	1	1	1	1	2	+	+	+	+	+	.	+	+	+	1	1	+				
1	+	+	+	+	+	.	+	+	+	.	+	+	1	2	1	1	1	1	+	+	1	+	1	1	1	1	1	.	+				
+	+	+	1	+	1	2	+	1	+	.	1	+	+	+	+	+	+	+	+	+	+	+	1	1	1	1	1	1	1				
.	+	+	+	+	+	+	.	.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	1	1	1	1	1	1	1				
+	+	1	+	+	+	+	+	+	+	+	+	+	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
+	+	.	.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
.	.	.	1	2	1	1	.	.	1	+	+	+	+	+	+	+	+	1	1	1	2	1	1	1	1	1	1	1	1				
1	1	1	1	1	+	+	.	+	+	+	+	+	+	+	1	1	1	1	1	1	1	1	1	1	1	3	2	2	1				

			Number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
	Mo	He	<i>Cirsium oleraceum</i>	E1	.	.	+	+	.	+	.	r	.	.	+	+	.	.
Am-N	BT	Te	<i>Bidens frondosa</i>	E1	.	.	+	.	+	+	.	.	.	+	+	+	+	.
Am-N	SM	Te	<i>Panicum barbipulvinatum</i> (<i>P. riparium</i>)	E1	+	.	+	.	1	+	+	+	+	1	+	.	+	+
Am-N	FC	Ge	<i>Helianthus tuberosus</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.	+
As-E	AV	He	<i>Artemisia verlotiorum</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.	.
	MA	He	<i>Ranunculus repens</i>	E1	+	.	.	.	.	.	.	.	.	.	+	+	.	.
	EF		<i>Epilobion fleischeri</i>															
		He	<i>Scrophularia canina</i>	E1	.	.	.	.	+	.	+	.	.	+	+	+	+	.
As-E		Fa	<i>Buddleja davidii</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Te	<i>Erucastrum gallicum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Hieracium piloselloides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Ge	<i>Equisetum ramosissimum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Stc		<i>Stipion calamagrostis</i>															
		He	<i>Calamintha einseleana</i>	E1	.	+	+	+	+	+	+	+	+	+	+	.	.	+
		Te	<i>Microrrhinum litorale</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.	.
		He	<i>Equisetum variegatum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Ha	<i>Chamaenerion palustre</i>	E1	.	.	r	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Peucedanum verticillare</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Achnatherum calamagrostis</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.	.
		Te	<i>Galeopsis angustifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	PeP		<i>Petasition paradoxii</i>															
		He	<i>Arabis alpina</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Ha	<i>Gypsophila repens</i>	E1	.	.	.	.	+	.	.	.	.	.	r	.	.	.
		He	<i>Hieracium porrifolium</i>	E1	.	.	.	.	.	.	.	.	.	.	r	.	.	.
		He	<i>Aquilegia einseleana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Aurinia petraea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Campanula cespitosa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Cerastium subtriflorum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Leontodon hispidus</i> subsp. <i>hyoseroides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	GA		<i>Galeopsietalia segetum</i>															
		He	<i>Epilobium collinum</i>	E1	.	.	r	.	.	.	.	.	.	.	.	.	.	.
	TR		<i>Thlaspietia rotundifolii</i>															
		He	<i>Hieracium bifidum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Af-S		Ha	<i>Senecio inaequidens</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	AT		<i>Asplenetia trichomanis</i>															
		He	<i>Cymbalaria muralis</i>	E1	+	.	+	+	.	.	.	.	+	+	+	.	.	.
		Te	<i>Sedum hispanicum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Moehringia muscosa</i>	E1	.	.	r	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Sedum album</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	.
		He	<i>Hieracium glaucum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Ha	<i>Micromeria thymifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	MuA		<i>Mulgedio-Aconitetea</i>															
		He	<i>Senecio ovatus</i>	E1	.	.	.	+	+	.	.	.	.	.	+	.	.	.
		He	<i>Silene dioica</i>	E1	.	.	.	.	+	+	.	.	.	.	.	+	.	.
		Fa	<i>Salix appendiculata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	SP		<i>Salicetea purpureae</i>															
		Fa	<i>Populus nigra</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Fa	<i>Populus nigra</i>	E2	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Fa	<i>Populus nigra</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Fa	<i>Salix purpurea</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	.
		He	<i>Humulus lupulus</i>	E1	.	.	.	.	.	r	+	.	.	.	.	.	.	.
		Fa	<i>Salix daphnoides</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Fa	<i>Salix alba</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	BT		<i>Bidentetea</i>															
		Te	<i>Polygonum mite</i>	E1	.	.	+	.	1	.	1	2	1	2	2	2	1	2
		Te	<i>Rorippa palustris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Te	<i>Polygonum hydropiper</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.	.
	SM		<i>Papaveretea rhoeadis</i> (<i>Stellarietea mediae</i>)															
		He	<i>Plantago major</i>	E1	.	+	+	+	+	+	+	+	+	+	+	+	+	+
		He	<i>Taraxacum</i> sect. <i>Ruderalia</i>	E1	+	1	1	1	1	2	+	1	1	1	1	.	1	+
		Te	<i>Sonchus asper</i>	E1	+	+	1	1	1	1	+	+	+	+	+	+	1	+
		Te	<i>Poa annua</i>	E1	+	.	+	.	+	+	+	1	+	+	+	1	+	+

		Number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Am-C,S	Te	<i>Solanum nigrum subsp. nigrum</i>	E1	.	+	+	.	1	+	+	+	+	+	.	+	+
	Te	<i>Solanum lycopersicum</i>	E1	.	+	+	1	+	+	.	+	+	+	+	.	+
Am-N	Te	<i>Erigeron annuus subsp. annuus</i>	E1	.	+	.	+	+	+	.	.	.	+	.	+	+
Am-S	Te	<i>Microrrhinum minus</i>	E1	.	+	+	1	+	+	+	.	+	.	+	.	.
	Te	<i>Galinsoga ciliata</i>	E1	.	+	+	.	+	+	.	+	.	+	+	.	.
AS-Ce	Te	<i>Polygonum persicaria</i>	E1	1	2	1	1	1	1	+	1	+	1	.	+	1
	Te	<i>Stellaria media</i>	E1	+	+	+	+	+	.	.	+	.	+	+	+	.
	He	<i>Cardamine hirsuta</i>	E1	.	+	.	.	.	.	.	.	+	.	.	.	.
	Te	<i>Oxalis fontana</i>	E1	.	.	+	+	+	+	+	.	+	+	+	.	.
AM-S	Te	<i>Rorippa sylvestris</i>	E1	+	.	+	+	.	.	+	+	.	+	+	+	+
	Te	<i>Veronica persica</i>	E1	.	.	.	.	+	+	.	.	.	+	+	.	.
Am-N	Te	<i>Polygonum aviculare</i>	E1	+	.	+	.	+	.	+	+	.	+	.	.	.
	Te	<i>Capsella bursa-pastoris</i>	E1	.	.	+	+	.	.	.	.	.	.	.	.	.
Med	Te	<i>Galinsoga parviflora</i>	E1	+	1	+	+	1	1	+	.	+	+	+	.	.
	Te	<i>Senecio vulgaris</i>	E1	.	+	.	.	.	.	.	.	.	+	+	+	.
Am-N	He	<i>Chelidonium majus</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.
	Te	<i>Helianthus annuus</i>	E1	1	+	2	2	1	+	.	.	.	.	.	.	.
E-Af	Te	<i>Sonchus oleraceus</i>	E1	.	.	+	.	+	.	.	.	.	+	.	.	+
	Te	<i>Lamium purpureum</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.
Med	Te	<i>Satureja hortensis</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.
	Te	<i>Guizotia abyssinica</i>	E1	.	.	.	.	+	.	.	.	.	.	.	+	.
AS	Te	<i>Matricaria chamomilla</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Cucumis sativus</i>	E1	.	.	+	.	+	+	.	.	.	+	.	.	.
Am-N	Te	<i>Cucurbita pepo</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.
	Te	<i>Cerastium glomeratum</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.
Goj.	te	<i>Euphorbia helioscopia</i>	E1	.	.	+	+	+	.	.	.	.	.	.	.	+
	Te	<i>Fallopia convolvulus</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.
Med	He	<i>Mentha arvensis</i>	E1	.	.	.	.	.	.	+	.	.	.	.	+	.
	He	<i>Viola x wittrockiana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Goj.	Te	<i>Beta vulgaris subsp. vulgaris</i>	E1	.	.	.	.	+	.	.	.	.	+	.	.	.
	Te	<i>Lactuca sativa</i>	E1	.	+	+	.	.	.	.	.	.	.	.	.	.
Am-C,S	Te	<i>Linum usitatissimum</i>	E1	.	.	.	.	r	.	.	.	.	.	.	.	.
	Te	<i>Tagetes erecta</i>	E1	.	.	+	+	.	.	.	.	.	.	.	.	.
Med.	He	<i>Verbena bonariensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Calendula officinalis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
As-E	Te	<i>Brassica napus subsp. napus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Callistephus chinensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-C,S	Te	<i>Cleome spinosa</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.
	Te	<i>Consolida ajacis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Med	Te	<i>Myosotis arvensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Papaver rhoeas</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Aus-Nz	Te	<i>Tetragonia tetragonoides</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.
	Te	<i>Veronica arvensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Eu-SE	te	<i>Vicia hirsuta</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	+
	He	<i>Antirrhinum majus</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.
Eu-W- med	Am-S	Te	<i>Bidens bipinnata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Brassica oleracea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Med-As-W	Te	<i>Brassica sp.</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Cichorium sp.</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Goj.	GE	<i>Convolvulus arvensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Avena sativa</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.
As-SW	te	<i>Euphorbia platyphyllos</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.
	Te	<i>Galium aparine</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Med	Te	<i>Papaver somniferum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Secale cereale</i>	E1	.	+	.	.	.	.	.	.	.	.	.	.	.
Am-N	Te	<i>Sinapis arvensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Sonchus asper subsp. glaucescens</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.
SI	He	<i>Veronica sp.</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Viola sororia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Sisymbrietea</i>														
	He	<i>Diplotaxis tenuifolia</i>	E1	+	+	.	1	+	.	1	.	+	+	+	+	+
	Te	<i>Anagallis arvensis</i>	E1	.	.	+	.	+	+	.	.	+	+	+	.	.

		Number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Am-S	Te	<i>Lactuca serriola</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Physalis peruviana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Atriplex patula</i>	E1	.	.	+	.	+	+	.	.	+	.	+	.	.
	He	<i>Cichorium intybus</i>	E1	.	.	.	+	.	.	.	.	.	.	.	+	.
Med-As	he	<i>Crepis taraxacifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Euphorbia lathyris</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	+
Am-N	Te	<i>Geranium purpureum</i>	E1	.	.	+	.	+	.	.	.	.	.	+	.	.
	Te	<i>Lepidium virginicum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-C,S	Te	<i>Solanum nigrum</i> subsp. <i>schultesii</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.
	Te	<i>Datura stramonium</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.
EU-S	Te	<i>Iberis umbellata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Potentilla norvegica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
DE	Te	<i>Sisymbrium officinale</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
		<i>Digitario sanguinalis-Eragrostietea minoris</i>														
Am-N	Te	<i>Setaria pumila</i>	E1	1	1	1	1	1	1	+	+	+	+	+	+	+
	Te	<i>Digitaria sanguinalis</i>	E1	.	.	.	.	+	1	.	.	.	+	+	.	+
Am-N	Te	<i>Conyza canadensis</i>	E1	.	.	+	+	.	.	.	.	.	.	.	.	.
	Te	<i>Ambrosia artemisiifolia</i>	E1	.	.	+	+	.	.	.	.	.	+	+	.	.
Am-N	Te	<i>Echinochloa crus-galli</i>	E1	.	+	.	.	+	+	.	.	+	.	.	+	+
	Te	<i>Chenopodium album</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.
Am-N,C	Te	<i>Chenopodium polyspermum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.
	Te	<i>Amaranthus powellii</i>	E1	.	.	.	.	+	.	.	.	.	.	.	+	.
Am-N,C	Te	<i>Amaranthus cruentus</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.
	Te	<i>Digitaria ischaemum</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.
As-E	Te	<i>Setaria faberi</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.
Am-N	Te	<i>Acalypha virginica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Amaranthus blitum</i> (A. <i>lividus</i>)	E1	.	.	.	.	.	.	.	.	.	.	+	.	.
Med	Te	<i>Euphorbia peplus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Eragrostis cilianensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	Te	<i>Euphorbia marginata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	+
Am-S	Te	<i>Conyza sumatrensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.
As-S	He	<i>Abutilon theophrasti</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
As-S	Te	<i>Amaranthus caudatus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	Te	<i>Amaranthus retroflexus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	te	<i>Setaria italica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	Te	<i>Euphorbia nutans</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	+
		AV														
Am-C,S	Te	<i>Artemisietea vulgaris</i>														
	Te	<i>Salvia hispanica</i>	E1	+	+	3	2	2	+	+	+	+	1	1	+	+
Am-C,S	He	<i>Artemisia vulgaris</i>	E1	1	1	2	1	+	+	+	1	1	1	+	1	1
	He	<i>Rumex obtusifolius</i>	E1	+	.	+	+	.	+	.	.	+	+	+	+	.
Am-C,S	He	<i>Ballota nigra</i> subsp. <i>meridionalis</i>	E1	.	.	.	.	+	+	+	.	+	+	+	+	.
	Te	<i>Silene latifolia</i> subsp. <i>alba</i>	E1	.	.	.	1	+	.	.	.	.	.	.	.	+
As-E	He	<i>Tanacetum vulgare</i>	E1	+	.	.	.	.	.	.	.	.	.	+	.	.
	Te	<i>Fallopia japonica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
As-E	He	<i>Arctium minus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Dipsacus fullonum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Apen-S	He	<i>Picris hieracioides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Ha	<i>Cerastium tomentosum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Med	he	<i>Cirsium vulgare</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Linaria vulgaris</i>	E1	.	.	+	.	.	.	.	.	.	.	+	.	.
Med	He	<i>Melissa officinalis</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.
	He	<i>Mentha spicata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	He	<i>Reseda lutea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Ha	<i>Artemisia absinthium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	He	<i>Mentha x villosa-nervata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Oenothera glazioviana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	G	<i>Phytolacca americana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Eu-se/As	He	<i>Tanacetum parthenium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Verbascum densiflorum</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.
GU		<i>Galio-Urticetea</i>														
	He	<i>Urtica dioica</i>	E1	+	+	+	+	.	.	+	1	+	1	1	1	+
GU	Te	<i>Geranium robertianum</i>	E1	+	+	+	1	+	.	+	+	.	+	.	+	+

15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
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		Number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
	Te	<i>Galeopsis pubescens</i>	E1	+	+	1	1	1	+	.	.	+	+	.	+	+	
As	Te	<i>Impatiens glandulifera</i>	E1	+	+	1	r	+	.	+	2	+	+	.	+	.	
Am-N	He	<i>Solidago gigantea</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	+
AS-E	Te	<i>Impatiens parviflora</i>	E1	+	.	+	1	1	+	.	.	.	+	+	.	.	
As-E	Te	<i>Commelina communis</i>	E1	.	.	+	.	+	.	.	+	.	+	.	+	.	
	Te	<i>Aethusa cynapium</i>	E1	.	+	+	.	+	.	.	.	.	+	.	+	.
	He	<i>Aegopodium podagraria</i>	E1	.	.	+	+	.	.	.	.	+	+	+	+	.
	He	<i>Lamium maculatum</i>	E1	.	.	.	.	.	.	.	.	.	+	+	.	.
	Te	<i>Lapsana communis</i>	E1	.	.	+	.	.	.	.	.	.	+	.	.	+
	He	<i>Alliaria petiolata</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.
	He	<i>Glechoma hederacea</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.
As	Te	<i>Impatiens balfourii</i>	E1	.	.	+	r	.	.	.	.	.	.	.	.	.
	He	<i>Parietaria officinalis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Anthriscus sylvestris</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.
	Ha	<i>Chaerophyllum sp.</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.
	He	<i>Geum urbanum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	He	<i>Solidago canadensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Torilis japonica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
FP		Filipendulo-Petasion															
	He	<i>Symphytum officinale</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Lythrum salicaria</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Ge	<i>Stachys palustris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
FC		Convolvuletalia sepium															
	He	<i>Saponaria officinalis</i>	E1	+	.	1	1	1	1	1	+	+	1	+	+	1	+
	He	<i>Epilobium parviflorum</i>	E1	.	+	+	+	+	.	.	+	.	+	+	.	.	+
	He	<i>Epilobium hirsutum</i>	E1	.	.	+	+	.	.	.
	Ge	<i>Calystegia sepium</i>	E1	.	.	r	+	.	.	.	.	.	.	.	.	.
Am-N	He	<i>Aster lanceolatus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	He	<i>Aster novi-belgii</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Galega officinalis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
EA		Epilobietea angustifolii															
	He	<i>Eupatorium cannabinum</i>	E1	+	1	1	+	1	1	1	1	1	1	1	1	1	1
	He	<i>Verbascum thapsus</i>	E1	.	.	.	.	.	.	+	+	+	+	+	+	.
	Te	<i>Galeopsis speciosa</i>	E1	+	+	.	1	1	.	.	+	+	+	.	+	.	
	He	<i>Atropa bella-donna</i>	E1	+	.	.	+	.	.	.	+
	He	<i>Verbascum nigrum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Arctium nemorosum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Fragaria vesca</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.
	He	<i>Stachys sylvatica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Verbascum lanatum</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.
PM		Phragmiti-Magnocaricetea															
	Hi	<i>Veronica beccabunga</i>	E1	+	.	.	+
	Hi	<i>Nasturtium officinale</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.
	He	<i>Lycopus europaeus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Typhoides arundinacea</i>	E1	.	.	.	.	.	.	.	+	.	+	.	.	.
	He	<i>Galium palustre</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Hi	<i>Veronica anagallis-aquatica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Carex elata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
IN		Isoëto-Nanojuncetea															
	He	<i>Juncus articulatus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Mentha pulegium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Cyperus fuscus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Ca		Calthion, Molinion															
Mo	He	<i>Centaurea carniolica</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.
	He	<i>Angelica sylvestris</i>	E1	.	.	.	+	.	.	.	.	.	.	+	+	.
	Ge	<i>Scirpus sylvaticus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Myosotis palustris (M. scorpioides)</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
PP		Potentillo-Polygonetalia															
	He	<i>Barbarea vulgaris</i>	E1	+	+	.	+	+	.	.	+	+	+	+	.	+	+
	He	<i>Rumex crispus</i>	E1	.	.	+	+	.	.	.	.	.	+	.	+	.
	Te	<i>Verbena officinalis</i>	E1	.	.	.	.	.	.	.	+	.	+	.	.	.
	He	<i>Carex hirta</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.

		Number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
AR	He <i>Juncus inflexus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Agropyretalia intermedio-repentis																	
	Ge <i>Tussilago farfara</i>	E1	+	+	1	1	1	+	+	+	1	+	.	.	+	.		
	Ge <i>Equisetum arvense</i>	E1	.	+	1	+	+	.	+	+	.	+	+	+	+	.		
	He <i>Agropyron repens</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	.
MA	He <i>Poa compressa</i>	E1	.	.	+	.	.	.	.	.	.	.	+	.	.	.
	Molinio-Arrhenatheretea																	
	He <i>Galium mollugo</i>	E1	1	+	+	1	1	1	+	+	+	+	+	+	+	+	+	
	he <i>Plantago lanceolata</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	.	+	.	
	He <i>Leontodon hispidus</i>	E1	.	.	.	+	+	+	.	.	+	+	+	.	.	.	.
	Te <i>Daucus carota</i>	E1	.	.	+	+	+	+	+	+	+	+	+	+	+	+	+	
	He <i>Trifolium pratense</i>	E1	+	+	+	+	+	.	.	.	.	.	.	.	+	.	.
	He <i>Achillea millefolium</i>	E1	.	+	+	+	+	.	.	.	.	.	+	+	.	.	.
	He <i>Leucanthemum vulgare</i>	E1	.	+	+	+	.	.	+	.	+	.	.	.	.	.	.
	He <i>Pastinaca sativa</i>	E1	+	+	+	+	+	.	+	.	+	.	+	.	+	.	.	
	he <i>Deschampsia cespitosa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.
	He <i>Dactylis glomerata s.str.</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
	Ha <i>Prunella vulgaris</i>	E1	.	.	.	.	.	+	+	.	.	+	+	.	.	.	.
	He <i>Trifolium repens</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.
	He <i>Ranunculus nemorosus</i>	E1	+
	He <i>Pimpinella major</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.
	He <i>Rumex acetosa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Ranunculus acris</i>	E1	+	.	r	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Vicia cracca</i>	E1	+	+	+
	He <i>Lotus corniculatus</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Poa trivialis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Centaurea jacea</i>	E1	.	.	+	+	.	.	.	.	.	.	.	.	.	.	.
	He <i>Cerastium holosteoides</i>	E1	+	.	.	+	.	.	.	.	.	.	.	.	.	.	.
	He <i>Lychnis flos-cuculi</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Vicia sepium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Arrhenatherum elatius</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Bellis perennis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Leontodon autumnalis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Potentilla reptans</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	KC	Koelerio-Coryneporetea																
		Te <i>Echium vulgare</i>	E1	.	.	+	+	+	.	+	.	.	.	.	+	.	.
		Te <i>Arenaria serpyllifolia agg.</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.	.
		He <i>Cardaminopsis arenosa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	+	.
He <i>Petrorhagia saxifraga</i>		E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FB	He <i>Medicago minima</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Festuco-Brometea																	
	He <i>Medicago lupulina</i>	E1	.	+	+	.	+	+	+	.	.	.	.	.	+	.
	He <i>Sanguisorba minor</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.	.
	He <i>Bupthalmum salicifolium</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.	.	.
	He <i>Pimpinella saxifraga</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Brachypodium rupestre</i>	E1	.	.	.	r	.	.	.	.	.	.	.	.	.	.
	He <i>Campanula rotundifolia</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.	.
	He <i>Centaurea fritschii</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Euphorbia cyparissias</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te <i>Euphrasia stricta</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.	.
	He <i>Galium corrudifolium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Plantago media</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Salvia pratensis</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.	.
	He <i>Scabiosa triandra</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Stachys recta</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	TG	Trifolio-Geranietea																
		He <i>Hypericum perforatum (subsp. veronense)</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.	.
		He <i>Verbascum austriacum</i>	E1	.	.	.	+	.	+	.	.	.	.	.	.	.	.
		He <i>Lathyrus sylvestris</i>	E1	.	.	r	.	.	.	.	.	.	.	.	.	.	.
He <i>Astragalus glycyphyllos</i>		E1	.	.	+	.	+	.	.	.	.	.	.	.	.	.
He <i>Clinopodium vulgare</i>		E1	.	+	.	.	.	.	.	.	.	.	.	.	.	.
He <i>Coronilla varia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.

		Number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	He	<i>Digitalis grandiflora</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Inula conyza</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.
	He	<i>Libanotis sibirica</i> subsp. <i>montana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Peucedanum venetum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Trifolium aureum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Verbascum lychnitis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	SC	<i>Sambuco-Salicion capreae</i>														
Am-N	Fa	<i>Robinia pseudoacacia</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	Fa	<i>Robinia pseudoacacia</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	Fa	<i>Robinia pseudoacacia</i>	E1	.	+	.	.	+	+	.	+	+	+	+	.	+
As-E	Fa	<i>Ailanthus glandulosa</i> (<i>A. altissima</i>)	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Fa	<i>Betula pendula</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.
	Fa	<i>Salix caprea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	RP	<i>Rhamno-Prunetea</i>														
	Fa	<i>Cornus sanguinea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	NFa	<i>Rubus fruticosus</i> agg.	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.
	Fa	<i>Berberis vulgaris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.
Med-As w	Fa	<i>Ficus carica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
As-E	Fa-vzp	<i>Lonicera japonica</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.
Aa-E	Nfa	<i>Lonicera nitida</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.
	Fa	<i>Platanus x hispanica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	TA	<i>Tilio-Acerion</i>														
	He	<i>Cardamine impatiens</i>	E1	.	.	.	.	.	.	+	+	+	.	.	.	.
	Fa	<i>Ulmus glabra</i>	E1	.	+	.	.	1	+	.	+	.	+	+	.	+
	He	<i>Aruncus dioicus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Lunaria rediviva</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.
	AI	<i>Alnion incanae</i>														
	NFa	<i>Rubus caesius</i>	E1	+	.	+	.	+	.	+	.	+	.	.	.	+
	He	<i>Festuca gigantea</i>	E1	+	+	+	+	.	.	.	.	.	+	.	.	+
	Fa	<i>Frangula alnus</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.
	Ha	<i>Chaerophyllum hirsutum</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.
	He	<i>Agropyron caninum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Fa	<i>Alnus incana</i>	E1	.	.	+	.	.	.	.	.	.	.	.	+	.
Goj.	Fa-vzp	<i>Vitis vinifera</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.
Am-N	Fa	<i>Acer negundo</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Ge	<i>Circaea intermedia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	te	<i>Impatiens noli-tangere</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.
	FS	<i>Fagetalia sylvaticae</i>														
	He	<i>Brachypodium sylvaticum</i>	E1	.	+	+	+	+	+	+	+	+	.	.	+	.
	He	<i>Salvia glutinosa</i>	E1	.	+	+	+	.	+	+	.	.	+	+	+	+
	He	<i>Mycelis muralis</i>	E1	.	+	+	+	.	.	+	+	.	+	+	.	.
	He	<i>Myosotis sylvatica</i> agg.	E1	.	+	+	+	.	.	.	.	.	.	.	.	.
	Fa	<i>Carpinus betulus</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.
	He	<i>Galium laevigatum</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.
	He	<i>Campanula trachelium</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.
	He	<i>Carex sylvatica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.
	He	<i>Heracleum sphondylium</i>	E1	.	.	.	r	+	.	.	.	.	.	.	.	.
	Ge	<i>Circaea lutetiana</i>	E1	.	.	.	.	r	.	.	.	.	.	.	.	.
	Fa	<i>Laburnum alpinum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Ranunculus lanuginosus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Fa	<i>Sambucus nigra</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Viola reichenbachiana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Aposeris foetida</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	QP	<i>Quercetalia pubescenti-petraeae</i>														
	He	<i>Arabis turrta</i>	E1	.	.	.	.	+	+	.	.	.	.	.	+	.
	He	<i>Calamintha sylvatica</i>	E1	.	.	.	.	.	.	+	.	.	.	.	.	.
	Fa	<i>Ostrya carpinifolia</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.
	Fa	<i>Ostrya carpinifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	QF	<i>Quercu-Fagetea</i>														
	Fa-vz	<i>Clematis vitalba</i>	E1	.	+	.	+	+	+	1	+	+	+	+	+	.
	He	<i>Cerastium sylvaticum</i>	E1	.	.	.	.	.	.	.	+	.	+	+	.	.
	Me	<i>Moehringia trinervia</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.

Number of relevé (Zaporedna številka popisa)		1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Fa <i>Ulmus minor</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Fa-vzp <i>Hedera helix</i>	E1	.	.	.	.	.	.	+	.	+	.	.	.	.
	Fa <i>Corylus avellana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Fa <i>Quercus robur</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
EP	<i>Erico-Pinetea</i>														
	He <i>Carex ornithopoda</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Me <i>Molinia arundinacea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Aquilegia nigricans</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Calamagrostis varia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Ha <i>Chamaecytisus hirsutus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
O	Other species (Druge vrste)														
	He <i>Cerastium sp.</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Crepis sp.</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.

15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
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	Number of relevé (Zaporedna številka popisa)	45	46	47	48	49	50	51	52	53	54	55	56	57	
	Database number of relevé (Delovna številka popisa)	272752	272722	272806	272694	272757	272817	272673	272685	272712	272234	272792	272800	272804	
	Elevation in m (Nadmorska višina v m)	445	445	150	260	160	480	80	82	180	320	160	160	150	
	Aspect (Lega)	0	SSE	0	0	0	0	SW	0	SW	0	0	SE	0	
	Slope in degrees (Nagib v stopinjah)	0	5	0	0	0	0	3	0	2	0	0	1	0	
	Parent material (Matična podlaga)	Pr	Gr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	
	Soil (Tla)	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	
	Stoniness in % (Kamnitost v %)	40	80	40	80	40	100	100	100	100	20	100	100	100	
	Cover of tree layer in % (Zastiranje drevesne plasti v %):	E3													
	Cover of shrub layer in % (Zastiranje grmovne plasti v %):	E2						20		10					
	Cover of herb layer in % (Zastiranje zeliščne plasti v %):	E1	60	30	60	30	60	40	35	60	35	80	60	60	35
	Number of species (Število vrst)	34	50	77	45	78	43	21	47	47	44	34	51	48	
	Relevé area (Velikost popisne ploskve)	m ²	20	20	100	100	100	50	100	200	100	50	50	50	
	Date of the relevé (Datum popisa)	11/8/2018	10/20/2018	10/13/2018	10/9/2018	9/30/2018	10/18/2018	10/8/2018	10/8/2018	9/7/2018	8/23/2018	10/22/2018	10/22/2018	10/13/2018	
	Locality (Nahajališče)	Podbrdo-Mahorc-Bača	Podbrdo-Mahorc-Bača	Modrejce-Soča	Borjana-Nadiža	Bača pri Modreju	Soteska-Nomenj-Sava	Deskle-Soča	Anhovo-Soča	Dolenja Trebuša-Oblaz-Idrijca	Klonte-Koritnica-Bača	Tolmin-Tolminka	Tolmin-Tolminka	Tolmin-Tolminka	
	Quadrant (Kvadrant)	9749/4	9749/4	9848/2	9746/2	9848/2	9750/1	9947/2	9947/2	9948/2	9849/1	9848/1	9848/1	9848/1	
	Coordinate GK Y (D-48)	m	419155	419132	404112	383288	405520	425931	393158	393671	409745	414643	402910	402902	
	Coordinate GK X (D-48)	m	5117897	5117886	5114652	5123999	5112552	5127604	5102132	5102139	5106605	5113797	5116098	5116079	
	Diagnostic species of the associations (Diagnostične vrste asociacij)														
SP	Fa	<i>Salix eleagnos</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.
SP	Fa	<i>Salix eleagnos</i>	E2a	.	.	.	.	.	+	.	.	.	.	.	.
SP	Fa	<i>Salix eleagnos</i>	E1	.	1	1	1	1	.	+	1	1	1	.	1
AV	He	<i>Melilotus albus</i>	E1	+	2	+	+	1	+	+	2	1	+	.	.
BT	Te	<i>Polygonum lapathifolium</i>	E1	+	1	.	.	.	.	.	1	+	1	+	+
FP	He	<i>Myosoton aquaticum</i>	E1	.	.	.	.	.	.	.	+	+	1	.	+
GU	Ge	<i>Petasites hybridus</i>	E1	3	1	1	.	.	.	.	+	+	.	.	+
PP	He	<i>Agrostis stolonifera</i>	E1	1	1	1	+	.	.	.	.	.	.	.	.
FS	Ge	<i>Scrophularia nodosa</i>	E1	.	+	+	.	+	+	.	.	.	.	.	.
AI	Ha	<i>Solanum dulcamara</i>	E1	+	+	+	+	+	+	.	+	+	.	.	.
FB	He	<i>Silene vulgaris</i>	E1	.	.	.	+	+	1	.	.	+	.	+	+
PeP	Ge	<i>Petasites paradoxus</i>	E1	.	.	.	1	1	+	.	+	+	.	.	+
FP	Ha	<i>Mentha longifolia</i>	E1	+	1	2	.	1	.	.	+	+	+	.	.
Mo	He	<i>Cirsium oleraceum</i>	E1	.	+	.	+	+	.	.	.	.	.	.	.
Am-N	BT	Te	<i>Bidens frondosa</i>	E1	.	.	1	.	+	.	.	.	.	.	+
Am-N	SM	Te	<i>Panicum barbipulvinatum (P. riparium)</i>	E1	+	+	+	+	.	+	+	+	+	2	1

58	59	60	61	62	63	64	65	66	67	68
272796	272797	272793	272798	272794	272795	272485	272529	272450	272711	272750
170	155	160	155	155	170	177	284	150	150	154
S	0	0	0	0	0	0	NE	SW	0	0
2	0	0	0	0	0	0	5	5	0	0
Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr	Pr
Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl
100	100	100	100	100	100	80	80	30	10	5
					60					
					20	10				
80	75	30	30	30	30	30	40	80	80	90
53	73	30	47	60	23	22	53	31	17	19
50	50	50	100	100	50	100	100	20	20	10
10/22/2018	10/22/2018	10/22/2018	10/22/2018	10/22/2018	10/22/2018	10/14/2018	10/24/2018	9/22/2018	11/7/2018	11/8/2018
Tolmin-Tolminka	Tolmin-Tolminka	Tolmin-Tolminka	Tolmin-Tolminka	Tolmin-Tolminka	Tolmin-Tolminka	Dolenja Trebuša-Idrjica	Ježica-Sava	Tolmin-sv. Urh	Tolmin-sv. Urh	Tolmin-sv. Urh
9848/1	9848/1	9848/1	9848/1	9848/1	9848/1	9949/1	9853/3	9848/1	9848/1	9848/1
403031	403055	402950	402930	402883	403120	410548	462835	402155	402124	401921
5116452	5115586	5116115	5115697	5115735	5116331	5106441	5106864	5115650	5115664	5115744
.	.	.	.	.	.	2	.	.	.	Pr. Fr.
.	.	.	.	.	.	.	.	.	.	1 1
.	.	.	.	.	.	.	.	.	.	1 2
+	+	2	3	+	3	1	+	.	.	57 84
.	.	.	.	.	.	1	+	+	+	54 79
+	1	.	+	1	.	.	.	.	.	52 76
1	+	+	+	+	.	.	+	.	+	52 76
.	+	.	.	.	.	+	1	.	.	49 72
.	.	.	+	.	.	+	+	.	.	49 72
+	.	.	.	+	.	+	+	.	.	47 69
.	.	.	.	+	.	.	.	.	.	44 65
.	.	.	+	+	.	.	+	.	.	43 63
.	.	+	+	+	.	1	+	.	.	38 56
.	.	.	.	+	.	.	+	.	.	50 74
.	.	.	.	.	.	.	+	.	.	22 32
.	+	.	+	+	.	.	.	2	3	29 43
+	1	+	+	+	.	.	.	3	3	52 76

			Number of relevé (Zaporedna številka popisa)	45	46	47	48	49	50	51	52	53	54	55	56	57
Am-N	FC	Ge	<i>Helianthus tuberosus</i>	E1	.	.	1	.	.	.	.	+	+	.	.	.
As-E	AV	He	<i>Artemisia verlotiorum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	MA	He	<i>Ranunculus repens</i>	E1	.	+	+	.	.	.	.	.	+	.	.	.
	EF		<i>Epilobion fleischeri</i>													
		He	<i>Scrophularia canina</i>	E1	.	.	r	+	+	+	.	.	.	.	.	+
As-E		Fa	<i>Buddleja davidii</i>	E1	.	.	1	.	.	.	.	.	.	.	.	.
		Te	<i>Erucastrum gallicum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Hieracium piloselloides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
		Ge	<i>Equisetum ramosissimum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Stc		<i>Stipion calamagrostis</i>													
		He	<i>Calamintha einseleana</i>	E1	.	.	+	+	+	+	.	.	+	.	.	.
		Te	<i>Microrrhinum litorale</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.
		He	<i>Equisetum variegatum</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.
		Ha	<i>Chamaenerion palustre</i>	E1	+	.	.	.	+	.	.	.	.	.	.	.
		He	<i>Peucedanum verticillare</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.
		He	<i>Achnatherum calamagrostis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
		Te	<i>Galeopsis angustifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	PeP		<i>Petasion paradoxi</i>													
		He	<i>Arabis alpina</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.
		Ha	<i>Gypsophila repens</i>	E1	.	.	.	+	.	.	.	.	.	+	.	.
		He	<i>Hieracium porrifolium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Aquilegia einseleana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Aurinia petraea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Campanula cespitosa</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.
		He	<i>Cerastium subtriflorum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Leontodon hispidus</i> subsp. <i>hyoseroides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	GA		<i>Galeopsietalia segetum</i>													
		He	<i>Epilobium collinum</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.
	TR		<i>Thlaspietea rotundifolii</i>													
		He	<i>Hieracium bifidum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
Af-S		Ha	<i>Senecio inaequidens</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	AT		<i>Asplenietea trichomanis</i>													
		He	<i>Cymbalaria muralis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+
		Te	<i>Sedum hispanicum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+
		He	<i>Moehringia muscosa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Sedum album</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
		He	<i>Hieracium glaucum</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.
		Ha	<i>Micromeria thymifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	MuA		<i>Mulgedio-Aconitetea</i>													
		He	<i>Senecio ovatus</i>	E1	.	+	+	.	.	.	.	.	.	.	.	.
		He	<i>Silene dioica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
		Fa	<i>Salix appendiculata</i>	E1	+	1	.	.	.	.	.	.	.	.	.	.
	SP		<i>Salicetea purpureae</i>													
		Fa	<i>Populus nigra</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.
		Fa	<i>Populus nigra</i>	E2	.	.	.	.	.	+	.	.	.	.	.	.
		Fa	<i>Populus nigra</i>	E1	.	.	.	.	1	.	3	4	2	.	.	.
		Fa	<i>Salix purpurea</i>	E1	+	.	1	.	+	.	1	+	1	+	.	.
		He	<i>Humulus lupulus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
		Fa	<i>Salix daphnoides</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.
		Fa	<i>Salix alba</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.
	BT		<i>Bidentetea</i>													
		Te	<i>Polygonum mite</i>	E1	.	+	+	+	.	+	+	1	3	.	.	+
		Te	<i>Rorippa palustris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	1
		Te	<i>Polygonum hydropiper</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	SM		<i>Papaveretea rhoeadis (Stellarietea mediae)</i>													
		He	<i>Plantago major</i>	E1	1	1	1	+	.	+	+	r	+	.	1	+
		He	<i>Taraxacum</i> sect. <i>Ruderalia</i>	E1	+	2	+	+	.	.	.	1	1	.	1	1
		Te	<i>Sonchus asper</i>	E1	.	.	.	.	+	.	.	+	.	.	1	+
		Te	<i>Poa annua</i>	E1	.	1	+	.	.	+	.	.	.	.	2	2
		Te	<i>Solanum nigrum</i> subsp. <i>nigrum</i>	E1	.	+	.	.	+	.	+	+	+	.	+	+
Am-C,S		Te	<i>Solanum lycopersicum</i>	E1	.	.	+	+	+	.	.	.	+	.	1	2
Am-N		Te	<i>Erigeron annuus</i> subsp. <i>annuus</i>	E1	.	.	.	+	1	.	.	.	+	+	.	+

58	59	60	61	62	63	64	65	66	67	68	Pr.	Fr.
.	+	+	2	2	.	15	22
.	2	2	4	6
.	+	.	.	4	16	24
.	.	.	+	+	29	43
.	9	13
.	8	12
.	3	4
.	2	3
.	+	.	.	28	41
.	14	21
.	3	4
.	3	4
.	1	1
.	1	1
.	1	1
.	.	+	+	r	.	.	.	.	.	.	8	12
.	6	9
.	2	3
.	1	1
r	1	1
.	1	1
.	1	1
.	1	1
.	2	3
.	2	3
.	.	.	.	+	2	3
+	+	+	+	+	+	19	28
.	.	.	.	+	4	6
.	.	.	.	+	3	4
.	+	2	3
.	1	1
.	+	1	1
.	9	13
.	.	.	.	+	6	9
.	4	6
.	1	.	.	.	.	1	1
.	1	.	.	.	.	3	4
.	+	.	.	.	+	1	1	.	.	.	21	31
.	+	+	+	.	.	29	43
.	+	+	.	5	7
.	1	1
.	+	.	.	.	1	1
2	+	+	+	.	.	.	+	+	.	.	54	79
.	3	4
.	1	1
+	1	+	+	+	.	.	+	+	+	1	59	87
1	1	.	+	.	.	1	2	1	1	.	55	81
1	+	.	+	+	.	.	+	+	+	.	50	74
2	1	1	1	2	+	.	+	.	+	.	48	71
2	1	+	+	+	.	.	+	+	.	+	44	65
1	1	1	1	1	1	.	.	+	.	.	41	60
+	+	+	+	1	1	1	40	59

		Number of relevé (Zaporedna številka popisa)	45	46	47	48	49	50	51	52	53	54	55	56	57	
Am-S	Te	<i>Microrrhinum minus</i>	E1	.	+	+	1	+	+	.	.	.	+	.	+	.
	Te	<i>Galinsoga ciliata</i>	E1	+	+	+	+	+	.	1	1	+
	Te	<i>Polygonum persicaria</i>	E1	+	.	+	.	2	1	.	+	.
	Te	<i>Stellaria media</i>	E1	+	+	1	+
	He	<i>Cardamine hirsuta</i>	E1	.	+	.	.	.	+	.	.	+	.	1	1	+
AS-Ce	Te	<i>Oxalis fontana</i>	E1	.	.	+	+
	Te	<i>Rorippa sylvestris</i>	E1	+
	Te	<i>Veronica persica</i>	E1	+	+	1	1	+
	Te	<i>Polygonum aviculare</i>	E1	+
	Te	<i>Capsella bursa-pastoris</i>	E1	+	.	+
AM-S	Te	<i>Galinsoga parviflora</i>	E1	+
	Te	<i>Senecio vulgaris</i>	E1	+	+	+
Am-N	He	<i>Chelidonium majus</i>	E1
	Te	<i>Helianthus annuus</i>	E1	+	+	.	.	.
	Te	<i>Sonchus oleraceus</i>	E1	+	.	+	+
Med	Te	<i>Lamium purpureum</i>	E1	+
	Te	<i>Satureja hortensis</i>	E1
	E-Af	<i>Guizotia abyssinica</i>	E1	+	+
	Med	<i>Matricaria chamomilla</i>	E1	+	+	+
	AS	<i>Cucumis sativus</i>	E1
	Am-N	Te	<i>Cucurbita pepo</i>	E1
	Te	<i>Cerastium glomeratum</i>	E1	+
	te	<i>Euphorbia helioscopia</i>	E1
	Te	<i>Fallopia convolvulus</i>	E1	+	.
	He	<i>Mentha arvensis</i>	E1
Goj.	He	<i>Viola x wittrockiana</i>	E1	.	.	.	.	.	.	.	.	.	.	+	+
Med	Te	<i>Beta vulgaris subsp. vulgaris</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.
Goj.	Te	<i>Lactuca sativa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
Goj.	Te	<i>Linum usitatissimum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
Am-C,S	Te	<i>Tagetes erecta</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.
Am-S	He	<i>Verbena bonariensis</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.
Med.	Te	<i>Calendula officinalis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Brassica napus subsp. napus</i>	E1	.	.	.	.	.	+	.	.	.	.	.	+
	Te	<i>Callistephus chinensis</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.
Am-C,S	Te	<i>Cleome spinosa</i>	E1	.	.	.	.	.	.	.	+	.	.	.
As-W	Te	<i>Consolida ajacis</i>	E1	.	.	.	.	.	.	.	.	.	.	.
Te	<i>Myosotis arvensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
Med	Te	<i>Papaver rhoeas</i>	E1	.	.	.	.	+	.	.	.	.	.	.
Aus-Nz	Te	<i>Tetragonia tetragonoides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Veronica arvensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	te	<i>Vicia hirsuta</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
Eu-SE	He	<i>Antirrhinum majus</i>	E1	.	.	.	.	.	.	.	.	.	.	.
Am-S	Te	<i>Bidens bipinnata</i>	E1	.	.	.	.	.	.	.	.	.	.	.
Eu-W- med	Te	<i>Brassica oleracea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Brassica sp.</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Cichorium sp.</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	GE	<i>Convolvulus arvensis</i>	E1	.	+	.	.	.	.	.	.	.	.	.	.
	Te	<i>Avena sativa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
Med-As-W	te	<i>Euphorbia platyphyllos</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Galium aparine</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Papaver somniferum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Goj.	Te	<i>Papaver somniferum</i>	E1	.	.	.	.	.	.	.	.	.	.	.
	As-SW	Te	<i>Secale cereale</i>	E1	.	.	.	.	.	.	.	.	.	.	.
Med	Te	<i>Sinapis arvensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Sonchus asper subsp. glaucescens</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Veronica sp.</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Viola sororia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	SI	<i>Sisymbrietea</i>														
	He	<i>Diplotaxis tenuifolia</i>	E1	.	+	+	+	1	+	.	.	.	1	.	.	
	Te	<i>Anagallis arvensis</i>	E1	.	+	.	.	.	.	.	.	.	.	.	.
	Te	<i>Lactuca serriola</i>	E1	.	+	.	.	+	.	.	.	.	.	.	.
	He	<i>Physalis peruviana</i>	E1	.	.	.	.	.	.	.	.	.	.	+	+
Am-S	Te	<i>Atriplex patula</i>	E1	.	.	.	.	.	.	.	.	.	.	.

		Number of relevé (Zaporedna številka popisa)	45	46	47	48	49	50	51	52	53	54	55	56	57		
Med-As	He	<i>Cichorium intybus</i>	E1	.	.	+	.	+	.	.	.	.	.	.	.	+
	he	<i>Crepis taraxacifolia</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.
	Te	<i>Euphorbia lathyris</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.
	Te	<i>Geranium purpureum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	Te	<i>Lepidium virginicum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-C,S	Te	<i>Solanum nigrum subsp. schultesii</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Datura stramonium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
EU-S	Te	<i>Iberis umbellata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Potentilla norvegica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Sisymbrium officinale</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
DE	Digitario sanguinalis-Eragrostietea minoris																
	Te	<i>Setaria pumila</i>	E1	+	.	+	1	1	+	+	1	+	1	+	1	+	
Am-N	Te	<i>Digitaria sanguinalis</i>	E1	.	+	.	+	+	.	+	.	.	.	.	+	+
	Te	<i>Conyza canadensis</i>	E1	+	.	+	.	.	.	.	+	.	.	+	+	+
Am-N	Te	<i>Ambrosia artemisiifolia</i>	E1	.	+	.	.	.	.	.	+	.	.	.	.	.
	Te	<i>Echinochloa crus-galli</i>	E1	.	.	.	.	.	.	.	+	+	.	.	.	.
Am-N,C	Te	<i>Chenopodium album</i>	E1	.	1	.	.	+	.	.	+	+	.	.	.	.
	Te	<i>Chenopodium polyspermum</i>	E1	.	.	+	.	.	.	.	.	+	+	.	.	.
	Te	<i>Amaranthus powellii</i>	E1	.	.	.	.	.	r	+	.	.	.	.	.	.
	Te	<i>Amaranthus cruentus</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.
As-E	Te	<i>Digitaria ischaemum</i>	E1	.	.	.	.	.	.	.	r	.	.	.	.	.
	Te	<i>Setaria faberi</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	Te	<i>Acalypha virginica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Amaranthus blitum (A. lividus)</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.
	Te	<i>Euphorbia peplus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	+
Med	Te	<i>Eragrostis cilianensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	+
Am-N	Te	<i>Euphorbia marginata</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.
Am-S	Te	<i>Conyza sumatrensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
As-S	He	<i>Abutilon theophrasti</i>	E1	.	r	.	.	.	.	.	.	.	.	.	.	.
As-S	Te	<i>Amaranthus caudatus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	Te	<i>Amaranthus retroflexus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	+
	te	<i>Setaria italica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	+
Am-N	Te	<i>Euphorbia nutans</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-C,S	Artemisietea vulgaris																
	Te	<i>Salvia hispanica</i>	E1	1	1	+	r	+	+	+	+	1	+	+	3	1	
	He	<i>Artemisia vulgaris</i>	E1	+	1	1	+	2	+	.	.	+	1	.	.	.	+
	He	<i>Rumex obtusifolius</i>	E1	.	+	+	.	1	.	+	+
	He	<i>Ballota nigra subsp. meridionalis</i>	E1	.	.	+	.	.	+	.	.	+	.	.	.	.
	Te	<i>Silene latifolia subsp. alba</i>	E1	.	.	.	.	.	+	.	.	.	.	.	.	.
	He	<i>Tanacetum vulgare</i>	E1	.	.	.	.	.	+	.	.	.	.	.	.	.
	As-E	Te	<i>Fallopia japonica</i>	E1	+
		He	<i>Arctium minus</i>	E1
	Apen-S	He	<i>Dipsacus fullonum</i>	E1	.	.	r
		He	<i>Picris hieracioides</i>	E1	+	.
Ha		<i>Cerastium tomentosum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
he		<i>Cirsium vulgare</i>	E1	.	+	.	.	.	.	.	.	.	.	.	.	.
Med	He	<i>Linaria vulgaris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Melissa officinalis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Mentha spicata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Reseda lutea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	Ha	<i>Artemisia absinthium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Mentha x villosa-nervata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	He	<i>Oenothera glazioviana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	G	<i>Phytolacca americana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Eu-se/As	He	<i>Tanacetum parthenium</i>	E1	.	+	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Verbascum densiflorum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
GU	Galio-Urticetea																
	He	<i>Urtica dioica</i>	E1	+	1	+	+	1
	Te	<i>Geranium robertianum</i>	E1	+	.	+	+	+	+
	Te	<i>Galeopsis pubescens</i>	E1	.	.	+	+	+	1
As	Te	<i>Impatiens glandulifera</i>	E1	.	+	.	.	+	.	.	.	.	1	.	.	.
Am-N	He	<i>Solidago gigantea</i>	E1	.	.	+	+	+	.	.	.	.	.	.	.	.

58	59	60	61	62	63	64	65	66	67	68	Pr.	Fr.
.	+	.	.	.	.	.	.	.	.	.	8	12
.	+	.	.	.	.	.	.	.	.	.	8	12
.	.	.	.	.	.	.	.	.	.	.	3	4
.	.	.	.	.	.	.	.	.	.	.	3	4
.	+	.	+	.	.	.	.	.	.	.	3	4
.	.	.	.	.	.	.	.	.	.	.	3	4
.	.	.	.	.	.	.	.	r	.	.	2	3
.	.	.	.	.	.	.	.	.	.	.	2	3
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
1	+	+	+	.	.	.	.	1	1	.	54	79
+	.	+	.	.	.	.	.	+	.	.	23	34
+	+	.	+	.	+	.	.	.	.	.	21	31
.	+	.	.	.	.	.	.	.	.	.	20	29
+	.	.	.	.	.	.	.	1	.	.	18	26
.	.	.	.	.	.	.	.	.	.	.	14	20
r	.	.	+	.	.	.	.	.	.	.	13	19
.	+	.	.	.	.	.	.	.	.	.	10	15
.	.	.	.	.	.	.	.	.	.	.	7	10
.	.	.	.	.	.	.	+	.	.	.	7	10
.	+	.	.	.	.	.	.	.	.	.	6	9
+	.	.	.	.	.	.	.	+	+	.	3	4
.	.	.	.	.	.	.	.	.	.	.	3	4
.	.	.	.	r	+	.	.	.	.	.	3	4
.	.	.	.	.	.	.	.	.	.	.	2	3
.	.	.	.	.	.	.	.	.	.	.	2	3
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
+	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
1	2	+	1	2	1	r	+	2	1	r	68	100
.	1	.	+	+	.	.	.	.	.	.	53	78
+	1	+	.	+	.	.	.	.	.	1	37	54
.	.	.	.	.	.	.	.	.	.	.	21	31
+	+	.	.	.	.	.	+	.	.	.	14	21
.	.	.	.	.	.	.	.	.	.	.	9	13
.	.	.	.	.	.	.	+	.	.	.	8	12
+	.	.	.	.	.	.	.	.	.	.	6	9
.	.	.	.	.	.	.	.	.	.	.	4	6
.	.	.	.	.	.	.	+	.	.	.	4	6
.	.	.	+	+	.	.	.	.	.	.	2	3
.	.	.	.	.	.	.	.	.	.	.	2	3
.	.	.	.	.	.	.	.	.	.	.	2	3
.	.	.	.	.	.	.	.	.	.	.	2	3
.	.	.	.	.	.	.	.	.	.	.	2	3
.	+	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
3	1	+	1	1	.	.	.	1	.	+	44	65
+	.	+	+	+	+	.	.	.	.	.	42	62
+	+	.	.	.	.	.	.	.	.	.	33	49
.	.	.	.	.	.	.	.	.	.	.	20	29
.	+	.	.	.	.	.	+	+	1	+	17	25

		Number of relevé (Zaporedna številka popisa)	45	46	47	48	49	50	51	52	53	54	55	56	57	
AS-E	Te	<i>Impatiens parviflora</i>	E1	.	.	.	.	+	.	.	.	.	1	.	.	.
As-E	Te	<i>Commelina communis</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.
	Te	<i>Aethusa cynapium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Aegopodium podagraria</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.
	He	<i>Lamium maculatum</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Lapsana communis</i>	E1	.	+	.	.	.	.	.	.	.	.	+	.	.
	He	<i>Alliaria petiolata</i>	E1	.	.	+	.	.	+	.	.	.	.	.	.	.
	He	<i>Glechoma hederacea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
As	Te	<i>Impatiens balfourii</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.
	He	<i>Parietaria officinalis</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.
	He	<i>Anthriscus sylvestris</i>	E1	.	+	.	.	.	.	.	.	.	.	.	.	.
	Ha	<i>Chaerophyllum sp.</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Geum urbanum</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.
Am-N	He	<i>Solidago canadensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Torilis japonica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
FP		Filipendulo-Petasion														
	He	<i>Symphytum officinale</i>	E1	.	.	.	.	.	.	.	+	+	.	.	.	.
	He	<i>Lythrum salicaria</i>	E1	.	+	+	.	.	.	.	+	.	.	.	.	.
	Ge	<i>Stachys palustris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
FC		Convolvuletalia sepium														
	He	<i>Saponaria officinalis</i>	E1	.	.	.	.	+	1	+	+	1	.	.	.	+
	He	<i>Epilobium parviflorum</i>	E1	.	+	+	.	.	.	.	.	.	.	.	.	.
	He	<i>Epilobium hirsutum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Ge	<i>Calystegia sepium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	He	<i>Aster lanceolatus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	He	<i>Aster novi-belgii</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Galega officinalis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
EA		Epilobietea angustifolii														
	He	<i>Eupatorium cannabinum</i>	E1	.	+	.	+	.	.	+	+	.	1	.	+	.
	He	<i>Verbascum thapsus</i>	E1	.	+	.	.	.	+	.	.	.	+	.	+	+
	Te	<i>Galeopsis speciosa</i>	E1	.	.	.	+	+	.	.	.	.	.	.	.	.
	He	<i>Atropa bella-donna</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	+
	He	<i>Verbascum nigrum</i>	E1	.	.	.	.	.	.	.	.	.	.	+	+	+
	He	<i>Arctium nemorosum</i>	E1	.	.	.	.	+	.	.	.	.	+	.	.	.
	He	<i>Fragaria vesca</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.
	He	<i>Stachys sylvatica</i>	E1	.	+	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Verbascum lanatum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
PM		Phragmiti-Magnocaricetea														
	Hi	<i>Veronica beccabunga</i>	E1	+	.	+	.	.	.	.	.	.	.	.	.	.
	Hi	<i>Nasturtium officinale</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.
	He	<i>Lycopus europaeus</i>	E1	.	.	+	.	.	.	.	r	.	.	.	.	.
	He	<i>Typhoides arundinacea</i>	E1	.	.	.	.	.	.	.	.	+	.	.	.	.
	He	<i>Galium palustre</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Hi	<i>Veronica anagallis-aquatica</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.
	He	<i>Carex elata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
IN		Isoëto-Nanojuncetea														
	He	<i>Juncus articulatus</i>	E1	+	.	.	.	.	.	.	.	+	.	.	.	.
	He	<i>Mentha pulegium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Cyperus fuscus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
Ca		Calthion, Molinion														
Mo	He	<i>Centaurea carniolica</i>	E1	.	.	+	.	+	.	.	.	.	+	.	+	.
	He	<i>Angelica sylvestris</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.
	Ge	<i>Scirpus sylvaticus</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.	.
	He	<i>Myosotis palustris (M. scorpioides)</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	+
PP		Potentillo-Polygonetalia														
	He	<i>Barbarea vulgaris</i>	E1	+	.	+	.	.	+	.	.	+	+	.	.	+
	He	<i>Rumex crispus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Verbena officinalis</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.
	He	<i>Carex hirta</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Juncus inflexus</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.	.
AR		Agropyretalia intermedio-repentis														
	Ge	<i>Tussilago farfara</i>	E1	.	+	.	+	+	.	.	.	+	+	.	.	.

58	59	60	61	62	63	64	65	66	67	68	Pr.	Fr.
.	16	24
+	16	24
.	.	.	.	+	12	18
.	11	16
.	11	16
+	+	11	16
.	8	12
.	5	7
.	5	7
.	4	6
.	2	3
.	1	1
.	1	1
.	+	.	.	.	1	1
.	1	1
.	+	7	10
.	3	4
.	1	1
.	1	+	+	+	.	.	+	.	.	.	50	74
+	+	.	.	.	29	43
.	6	9
.	3	4
.	1	1
.	+	.	.	.	1	1
.	1	1
.	47	69
+	.	+	+	.	r	.	.	.	.	.	27	40
.	+	.	.	.	17	25
.	11	16
.	+	.	+	+	.	.	.	+	.	.	9	13
.	3	4
.	+	3	4
.	3	4
.	2	3
.	.	.	+	12	18
.	8	12
.	7	10
.	+	.	.	.	4	6
.	3	4
.	3	4
.	1	1
.	5	7
.	3	4
.	2	3
.	r	+	.	.	.	18	26
.	10	15
.	4	6
.	1	1
.	1	.	.	.	.	.	.	.	.	.	39	57
.	9	13
.	7	10
.	1	1	1
.	1	1
.	+	.	.	.	31	46

		Number of relevé (Zaporedna številka popisa)	45	46	47	48	49	50	51	52	53	54	55	56	57
MA	Ge	<i>Equisetum arvense</i>	E1	+	.	1	.	.	.	+
	He	<i>Agropyron repens</i>	E1	+	+	+
	He	<i>Poa compressa</i>	E1	.	.	+
		Molinio-Arrhenatheretea													
	He	<i>Galium mollugo</i>	E1	+	.	+	+	+	1	.	+
	he	<i>Plantago lanceolata</i>	E1	.	.	+	+	+	.	.	+	+	+	1	.
	He	<i>Leontodon hispidus</i>	E1	1	+	+	.	+	+	+	.	+	.	.	+
	Te	<i>Daucus carota</i>	E1	.	.	+	.	+
	He	<i>Trifolium pratense</i>	E1	+	.	+	.	+	.	.	+
	He	<i>Achillea millefolium</i>	E1	.	.	+	.	+	+
He	<i>Leucanthemum vulgare</i>	E1	.	.	+	.	.	.	.	.	+	+	.	.
He	<i>Pastinaca sativa</i>	E1	.	.	.	.	+	+	.	.	.	+	.	.
he	<i>Deschampsia cespitosa</i>	E1	.	.	+	.	.	.	.	.	.	.	.	+
He	<i>Dactylis glomerata s.str.</i>	E1	.	.	.	.	.	+	.	.	.	.	.	+
Ha	<i>Prunella vulgaris</i>	E1	.	+	+	.	.	.	.	.	.	.	.	+
He	<i>Trifolium repens</i>	E1	.	.	+	.	.	.	.	.	+	.	.	.
He	<i>Ranunculus nemorosus</i>	E1	.	.	.	.	.	+	.	.	.	.	.	.
He	<i>Pimpinella major</i>	E1	.	.	.	+	+	.	.	.	.	.	.	.
He	<i>Rumex acetosa</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.
He	<i>Ranunculus acris</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.
He	<i>Vicia cracca</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
He	<i>Lotus corniculatus</i>	E1	.	.	.	.	.	.	+	.	.	.	.	.
He	<i>Poa trivialis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
He	<i>Centaurea jacea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
He	<i>Cerastium holosteoides</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
He	<i>Lychnis flos-cuculi</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.
He	<i>Vicia sepium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
He	<i>Arrhenatherum elatius</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
He	<i>Bellis perennis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
He	<i>Leontodon autumnalis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
He	<i>Potentilla reptans</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
KC		Koelerio-Corynepherea													
	Te	<i>Echium vulgare</i>	E1	+	+	.	+	+	+	.	.	.	+	.	
	Te	<i>Arenaria serpyllifolia</i> agg.	E1	+	+	+
	He	<i>Cardaminopsis arenosa</i>	E1	.	.	+
	He	<i>Petrorhagia saxifraga</i>	E1
FB	He	<i>Medicago minima</i>	E1	.	.	.	.	r	.	.	.	.	.	.
		Festuco-Brometea													
	He	<i>Medicago lupulina</i>	E1	.	+	+	.	+	+	+	.	.	.	.
	He	<i>Sanguisorba minor</i>	E1	.	.	.	.	+	.	.	.	.	.	.
	He	<i>Buphthalmum salicifolium</i>	E1	.	.	.	+	+	.	.	.	.	.	.
	He	<i>Pimpinella saxifraga</i>	E1	.	.	.	.	+	.	.	.	.	.	.
	He	<i>Brachypodium rupestre</i>	E1	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Campanula rotundifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Centaurea fritschii</i>	E1	.	.	.	.	.	.	+	.	.	.	.
	He	<i>Euphorbia cyparissias</i>	E1	.	.	.	+	.	.	.	.	.	.	.
	Te	<i>Euphrasia stricta</i>	E1	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Galium corrudifolium</i>	E1	.	.	.	.	.	.	.	.	+	.	.
	He	<i>Plantago media</i>	E1	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Salvia pratensis</i>	E1	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Scabiosa triandra</i>	E1	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Stachys recta</i>	E1	.	.	+	.	.	.	.	.	.	.	.
	TG		Trifolio-Geranietea												
He		<i>Hypericum perforatum</i> (subsp. <i>veronense</i>)	E1	.	.	+	.	+	.	.	.	.	+	.
He		<i>Verbascum austriacum</i>	E1	.	.	.	.	.	+	.	.	.	+	.
He		<i>Lathyrus sylvestris</i>	E1	.	.	.	.	.	.	.	.	.	+	.
He		<i>Astragalus glycyphyllos</i>	E1	.	.	.	.	.	.	.	.	.	.	.
He		<i>Clinopodium vulgare</i>	E1	.	.	.	.	.	.	.	.	.	.	.
He		<i>Coronilla varia</i>	E1	.	.	.	.	.	.	.	.	.	.	.
He		<i>Digitalis grandiflora</i>	E1	.	.	.	.	.	.	.	.	.	.	.
He		<i>Inula conyza</i>	E1	.	.	.	.	.	.	.	.	.	.	.
He		<i>Libanotis sibirica</i> subsp. <i>montana</i>	E1	.	.	.	.	.	.	.	.	.	.	.

58	59	60	61	62	63	64	65	66	67	68	Pr.	Fr.
.	.	.	.	.	.	.	.	.	.	.	27	40
+	1	.	.	+	.	.	.	.	.	+	13	19
.	.	.	.	.	.	.	.	.	.	.	7	10
.	+	.	.	.	.	+	+	.	.	+	45	66
.	+	+	.	+	+	.	.	.	.	+	41	60
.	.	.	+	+	1	.	.	.	.	.	35	51
+	+	.	.	.	.	.	.	.	.	.	33	49
+	+	.	.	.	+	+	.	.	.	.	26	38
.	+	.	.	+	.	.	.	.	.	.	18	26
.	.	.	.	.	.	.	.	.	.	.	17	25
.	.	.	.	.	.	.	.	.	.	.	17	25
1	+	.	.	+	.	+	.	.	.	.	15	22
+	.	.	.	+	.	.	.	.	.	.	12	18
.	.	.	.	.	.	+	.	.	.	.	10	15
.	+	.	.	.	.	.	.	.	.	1	9	13
.	.	.	.	.	.	.	.	.	.	.	8	12
.	.	.	.	.	.	.	.	.	.	.	6	9
+	.	.	.	+	.	.	.	.	.	.	6	9
.	.	.	.	.	.	.	.	.	.	+	5	7
.	.	.	.	.	.	.	.	.	.	.	4	6
.	.	.	+	.	.	.	.	.	.	.	3	4
.	+	.	.	+	.	.	.	.	.	.	3	4
.	.	.	.	.	.	.	.	.	.	.	2	3
.	.	.	.	.	.	.	.	.	.	.	2	3
.	+	.	.	.	.	.	.	.	.	.	2	3
.	+	.	.	.	.	.	.	.	.	.	2	3
.	+	.	.	.	.	.	.	.	.	.	1	1
.	r	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	1	1	1
.	.	.	.	.	.	.	.	.	.	.	19	28
+	+	+	.	+	.	.	.	.	.	.	13	19
.	.	.	.	+	.	.	.	.	.	.	10	15
.	+	.	.	.	.	.	.	.	.	.	3	4
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	+	.	.	.	.	.	29	43
.	.	.	.	.	.	.	.	.	.	.	4	6
.	.	.	.	.	.	.	.	.	.	.	3	4
.	.	.	.	.	.	.	.	.	.	.	2	3
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	+	.	.	.	.	+	+	.	.	.	12	18
.	.	.	.	.	.	.	.	.	.	.	8	12
.	+	.	.	.	.	.	+	.	.	.	6	9
.	.	.	.	.	.	.	.	.	.	.	2	3
.	.	.	.	.	.	.	.	.	.	.	2	3
.	.	.	.	.	.	.	+	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1
.	.	.	.	.	.	.	.	.	.	.	1	1

		Number of relevé (Zaporedna številka popisa)	45	46	47	48	49	50	51	52	53	54	55	56	57
	He	<i>Peucedanum venetum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Te	<i>Trifolium aureum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Verbascum lychnitis</i>	E1	.	.	.	.	.	.	.	.	+	.	.	.
	SC	<i>Sambuco-Salicion capreae</i>													
Am-N	Fa	<i>Robinia pseudoacacia</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.
Am-N	Fa	<i>Robinia pseudoacacia</i>	E2a	.	.	.	.	.	.	1	.	+	.	.	.
Am-N	Fa	<i>Robinia pseudoacacia</i>	E1	.	.	.	+	+	.	1	2	+	.	.	.
As-E	Fa	<i>Ailanthus glandulosa</i> (A. <i>altissima</i>)	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Fa	<i>Betula pendula</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Fa	<i>Salix caprea</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.
	RP	<i>Rhamno-Prunetea</i>													
	Fa	<i>Cornus sanguinea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	NFa	<i>Rubus fruticosus</i> agg.	E2a	.	.	.	.	.	.	.	.	.	.	.	.
	Fa	<i>Berberis vulgaris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
Med-As w	Fa	<i>Ficus carica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
As-E	Fa-vzp.	<i>Lonicera japonica</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.
Aa-E	Nfa	<i>Lonicera nitida</i>	E2a	.	.	.	.	.	.	.	.	.	+	.	.
	Fa	<i>Platanus x hispanica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	TA	<i>Tilio-Acerion</i>													
	He	<i>Cardamine impatiens</i>	E1	+	.	.	.	.	.	.	.	+	.	.	.
	Fa	<i>Ulmus glabra</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.
	He	<i>Aruncus dioicus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Lunaria rediviva</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	AI	<i>Alnion incanae</i>													
	NFa	<i>Rubus caesius</i>	E1	.	.	+	+	+	.	+	+	.	.	.	.
	He	<i>Festuca gigantea</i>	E1	.	.	.	.	.	+	.	.	+	.	.	.
	Fa	<i>Frangula alnus</i>	E1	.	.	.	+	.	.	.	+	.	.	.	.
	Ha	<i>Chaerophyllum hirsutum</i>	E1	+	.	+	.	.	.	.	.	.	.	.	.
	He	<i>Agropyron caninum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Fa	<i>Alnus incana</i>	E1	.	.	.	.	r	.	.	.	.	.	.	.
Goj.	Fa-vzp	<i>Vitis vinifera</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.
Am-N	Fa	<i>Acer negundo</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Ge	<i>Circaea intermedia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	te	<i>Impatiens noli-tangere</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	FS	<i>Fagetalia sylvaticae</i>													
	He	<i>Brachypodium sylvaticum</i>	E1	.	.	+	+	.	+	.	.	.	.	.	.
	He	<i>Salvia glutinosa</i>	E1	.	+	+	+	.	.	.	.	.	.	.	.
	He	<i>Mycelis muralis</i>	E1	.	.	+	.	.	+	.	.	.	.	.	+
	He	<i>Myosotis sylvatica</i> agg.	E1	.	.	.	.	.	.	.	.	.	.	.	+
	Fa	<i>Carpinus betulus</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.
	He	<i>Galium laevigatum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Campanula trachelium</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.
	He	<i>Carex sylvatica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Heracleum sphondylium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Ge	<i>Circaea lutetiana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Fa	<i>Laburnum alpinum</i>	E1	.	+	.	.	.	.	.	.	.	.	.	.
	He	<i>Ranunculus lanuginosus</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.
	Fa	<i>Sambucus nigra</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	He	<i>Viola reichenbachiana</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.
	He	<i>Aposeris foetida</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	QP	<i>Quercetalia pubescenti-petraeae</i>													
	He	<i>Arabis turrata</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.
	He	<i>Calamintha sylvatica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Fa	<i>Ostrya carpinifolia</i>	E2a	.	.	.	.	.	.	.	.	+	.	.	.
	Fa	<i>Ostrya carpinifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	QF	<i>Quercu-Fagetea</i>													
	Fa-vz	<i>Clematis vitalba</i>	E1	.	.	.	+	+	.	.	+	.	+	.	+
	He	<i>Cerastium sylvaticum</i>	E1	+	.	+	.	.	+	.	.	.	.	.	+
	Me	<i>Moehringia trinervia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Fa	<i>Ulmus minor</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Fa-vzp	<i>Hedera helix</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Fa	<i>Corylus avellana</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.

58	59	60	61	62	63	64	65	66	67	68	Pr.	Fr.
.	1	1
.	1	1
.	1	1
.	1	.	.	.	.	1	1
.	1	.	.	+	.	4	6
.	1	.	.	.	.	28	41
.	3	4
.	1	1
.	1	1
.	3	4
.	+	.	2	3
.	1	1
.	1	1
.	+	.	1	1
.	1	1
.	+	.	1	1
.	.	.	+	+	15	22
.	15	22
.	1	1
.	1	1
.	1	+	+	+	.	23	34
.	14	21
.	6	9
.	5	7
.	4	6
.	4	6
.	3	4
.	1	1
.	1	1
.	1	1
.	+	1	+	.	.	.	37	54
.	+	+	.	.	.	29	43
.	.	+	24	35
.	.	.	+	+	9	13
.	4	6
.	4	6
.	2	3
.	2	3
.	2	3
.	1	1
.	1	1
.	1	1
.	+	.	1	1
.	1	1
.	1	1
.	.	+	.	1	.	.	.	.	.	.	7	10
.	1	1
.	1	1
.	1	1
.	+	+	+	.	.	.	37	54
+	+	+	+	.	+	.	+	.	.	.	33	49
.	.	.	+	.	+	6	9
.	.	+	+	+	4	6
.	2	3
.	1	1

		Number of relevé (Zaporedna številka popisa)												
		45	46	47	48	49	50	51	52	53	54	55	56	57
EP	Fa <i>Quercus robur</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	<i>Erico-Pinetea</i>													
	He <i>Carex ornithopoda</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Me <i>Molinia arundinacea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Aquilegia nigricans</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
O	He <i>Calamagrostis varia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Ha <i>Chamaecytisus hirsutus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	Other species (Druge vrste)													
	He <i>Cerastium sp.</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.
	He <i>Crepis sp.</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.

Legend - Legenda

Pr. Presence (number of relevés in which the species is presented) - število popisov, v katerih se pojavlja vrsta

Fr. Frequency in % - frekvenca v %

Pr Gravel - Prod

Fl Luvisols - Obrečna tla

Te Therophytes - Terofiti

Ha Chamaephytes - Hamefiti

Ge - Geophytes - Geofiti

He Hemicryptophytes - Hemikriptofiti

Hi Hydrophytes - Hidrofiti

Fa Phanerophytes - Fanerofiti

Am American species - ameriška vrsta

Af - African species - afriška vrsta

As - Asian species - azijska vrsta

Med - Mediterranean species - sredozemska vrsta

Go. Cultivated species - gojena vrsta

Aus-Nz Australian and New Zealand species - avstralska in novozelandska vrsta

58	59	60	61	62	63	64	65	66	67	68	Pr.	Fr.
.	+	.	.	.	1	1
.	3	4
.	+	.	.	.	3	4
.	2	3
.	2	3
.	1	1
.	.	.	.	+	1	1
.	1	1

Table 2: Synoptic table of initial plant communities on riverine gravel terraces in Slovenia
Preglednica 2: Sintezna preglednica inicialnih prodiščnih združb v Sloveniji

Successive number (Zaporedna številka)	1	2	3	4	5	6	7	8
Sign for syntaxa (Oznaka združb)	PlSe	PlSe-Sa	PlSe-ne	ChPo-Ba	PlSe-To	ChPo-Id	ESc-Na	CsSp
Author (Avtor)	ID	ID	ID	ID	ID	ID	BČ	VP
Number of relevés (Število popisov)	27	11	8	8	9	9	12	10
<i>Epilobion fleischeri</i>								
<i>Scrophularia canina</i>	E1 41	100	50	.	33	.	100	40
<i>Buddleja davidii</i>	E1 11	45	13	.	.	.	.	.
<i>Erucastrum gallicum</i>	E1 7	55	.	.	.	.	67	.
<i>Equisetum ramosissimum</i>	E1 7	.	.	.	.	.	.	.
<i>Hieracium piloselloides</i>	E1 .	27	.	.	.	.	58	.
<i>Chamaenerion palustre</i>	E1 .	.	.	.	.	.	42	.
<i>Aethionema saxatile</i>	E1 .	.	.	.	.	.	8	.
<i>Stipion calamagrostis</i>								
<i>Calamintha einseleana</i>	E1 56	64	63	.	.	.	.	.
<i>Microrrhinum litorale</i>	E1 26	55	13	.	.	.	.	40
<i>Chamaenerion palustre</i>	E1 4	.	13	13	.	.	.	.
<i>Achnatherum calamagrostis</i>	E1 4	.	.	.	.	.	50	.
<i>Galeopsis angustifolia</i>	E1 4	.	.	.	.	.	.	.
<i>Equisetum variegatum</i>	E1 .	18	13	.	.	.	.	.
<i>Peucedanum verticillare</i>	E1 .	.	13	.	.	.	50	.
<i>Petasition paradoxii</i>								
<i>Petasites paradoxus</i>	E1 56	91	63	38	33	11	100	.
<i>Arabis alpina</i>	E1 7	18	13	.	33	.	.	.
<i>Gypsophila repens</i>	E1 7	18	25	.	.	.	25	.
<i>Hieracium porrifolium</i>	E1 7	.	.	.	.	.	25	.
<i>Aquilegia einseleana</i>	E1 .	9	.	.	.	.	17	.
<i>Cerastium subtriflorum</i>	E1 .	9	.	.	.	.	.	.
<i>Leontodon hyoseroides</i>	E1 .	9	.	.	.	.	.	.
<i>Campanula cespitosa</i>	E1 .	.	13	.	.	.	17	.
<i>Aurinia petraea</i>	E1 .	.	.	.	11	.	.	.
<i>Carduus crassifolius</i>	E1 .	.	.	.	.	.	17	.
<i>Euphorbia kernerii</i>	E1 .	.	.	.	.	.	8	.
<i>Galeopsietalia segetum</i>								
<i>Epilobium collinum</i>	E1 4	.	13	.	.	.	.	.
<i>Thlaspietea rotundifolii</i>								
<i>Hieracium bifidum</i>	E1 .	9	.	13	.	.	.	.
<i>Senecio inaequidens</i>	E1 .	9	.	.	11	.	.	.
<i>Asplenietea trichomanis</i>								
<i>Cymbalaria muralis</i>	E1 33	9	.	25	78	.	.	.
<i>Moehringia muscosa</i>	E1 4	9	.	.	11	.	.	.
<i>Sedum album</i>	E1 4	.	.	.	11	.	.	.
<i>Sedum hispanicum</i>	E1 .	18	.	.	22	.	.	.
<i>Hieracium glaucum</i>	E1 .	.	13	.	.	.	.	.
<i>Micromeria thymifolia</i>	E1 .	.	.	.	11	.	.	.
<i>Kernera saxatilis</i>	E1 .	.	.	.	.	.	8	.
<i>Mulgedio-Aconitetea</i>								
<i>Petasites hybridus</i>	E1 96	55	63	100	22	100	8	.
<i>Senecio ovatus</i>	E1 19	18	13	13	.	.	.	.
<i>Silene dioica</i>	E1 19	.	.	.	11	.	.	.
<i>Salix appendiculata</i>	E1 .	.	.	50	.	.	.	.
<i>Salicetea purpureae</i>								
<i>Salix eleagnos</i>	E3a .	.	.	.	.	.	.	.
<i>Salix eleagnos</i>	E2a .	.	13	.	.	.	.	.
<i>Salix eleagnos</i>	E1 89	91	88	75	89	33	83	20
<i>Populus nigra</i>	E2 4	.	13	.	.	.	.	.
<i>Populus nigra</i>	E1 41	18	50	.	22	22	.	.
<i>Salix purpurea</i>	E1 41	45	75	50	11	11	25	60
<i>Humulus lupulus</i>	E1 7	9	.	.	.	.	.	40
<i>Salix daphnoides</i>	E2a 4	.	.	.	.	.	.	.
<i>Salix alba</i>	E2a .	.	.	.	.	.	.	40

Successive number (Zaporedna številka)	1	2	3	4	5	6	7	8
<i>Salix fragilis</i>	E2	.	.	.	.	.	.	20
Bidentetea								
<i>Polygonum lapathifolium</i>	E1	93	100	38	75	78	44	.
<i>Polygonum mite</i>	E1	85	100	75	75	67	78	50
<i>Bidens frondosa</i>	E1	52	55	38	.	44	22	.
<i>Polygonum hydropiper</i>	E1	4	.	.	.	.	.	.
<i>Rorippa palustris</i>	E1	.	18	.	.	11	.	.
<i>Bidens tripartita</i>	E1	.	.	.	.	.	.	30
<i>Xanthium italicum</i>	E1	.	.	.	.	.	.	20
Papavetea rhoeadis (Stellarietea mediae)								
<i>Plantago major</i>	E1	93	73	75	100	89	11	42
<i>Taraxacum sect. Ruderalia</i>	E1	93	73	50	100	67	44	75
<i>Sonchus asper</i>	E1	93	82	25	50	78	11	8
<i>Solanum nigrum subsp. nigrum</i>	E1	85	36	50	38	78	11	.
<i>Poa annua</i>	E1	81	64	25	75	100	22	.
<i>Polygonum persicaria</i>	E1	78	36	50	13	22	22	33
<i>Microrrhinum minus</i>	E1	67	100	63	13	44	11	92
<i>Oxalis fontana</i>	E1	67	45	25	13	.	.	.
<i>Solanum lycopersicum</i>	E1	63	82	50	13	100	67	.
<i>Erigeron annuus subsp. annuus</i>	E1	59	73	50	50	33	33	58
<i>Stellaria media</i>	E1	56	36	.	50	89	56	.
<i>Galinsoga ciliata</i>	E1	52	64	38	88	56	44	.
<i>Rorippa sylvestris</i>	E1	44	27	13	50	.	33	.
<i>Galinsoga parviflora</i>	E1	44	9	13	.	11	33	.
<i>Veronica persica</i>	E1	33	9	13	25	67	.	.
<i>Helianthus annuus</i>	E1	33	.	38	.	.	.	.
<i>Polygonum aviculare</i>	E1	30	18	.	25	44	22	.
<i>Cardamine hirsuta</i>	E1	26	36	25	75	100	11	.
<i>Capsella bursa-pastoris</i>	E1	22	27	.	.	67	.	.
<i>Senecio vulgaris</i>	E1	22	18	.	13	67	.	17
<i>Sonchus oleraceus</i>	E1	22	9	13	.	33	22	.
<i>Guizotia abyssinica</i>	E1	15	0	13	.	11	.	.
<i>Cucumis sativus</i>	E1	15	9	.	.	.	.	.
<i>Euphorbia helioscopia</i>	E1	15	.	.	.	.	.	.
<i>Satureja hortensis</i>	E1	11	27	.	.	11	.	.
<i>Cucurbita pepo</i>	E1	11	18	.	.	.	11	.
<i>Chelidonium majus</i>	E1	7	45	.	25	33	11	.
<i>Mentha arvensis</i>	E1	7	18	.	.	.	11	20
<i>Fallopia convolvulus</i>	E1	7	9	13	.	.	11	17
<i>Tagetes erecta</i>	E1	7	.	13	.	.	11	.
<i>Verbena bonariensis</i>	E1	7	.	13	.	.	.	.
<i>Beta vulgaris subsp. vulgaris</i>	E1	7	.	.	.	11	.	.
<i>Lactuca sativa</i>	E1	7	.	.	.	11	.	.
<i>Vicia hirsuta</i>	E1	7	.	.	.	.	22	.
<i>Lamium purpureum</i>	E1	4	45	.	.	33	11	.
<i>Calendula officinalis</i>	E1	4	18	.	.	.	.	.
<i>Cerastium glomeratum</i>	E1	4	9	.	.	33	.	.
<i>Cleome spinosa</i>	E1	4	.	13	.	.	.	.
<i>Papaver rhoeas</i>	E1	4	.	13	.	.	.	.
<i>Tetragonia tetragonoides</i>	E1	4	.	.	13	.	.	.
<i>Linum usitatissimum</i>	E1	4	.	.	.	22	.	.
<i>Veronica arvensis</i>	E1	4	.	.	.	11	.	.
<i>Antirrhinum majus</i>	E1	4	.	.	.	.	.	.
<i>Brassica oleracea</i>	E1	4	.	.	.	.	.	.
<i>Cichorium sp.</i>	E1	4	.	.	.	.	.	.
<i>Avena sativa</i>	E1	4	.	.	.	.	11	.
<i>Euphorbia platyphyllos</i>	E1	4	.	.	.	.	.	.
<i>Galium aparine</i>	E1	4	.	.	.	.	.	.
<i>Secale cereale</i>	E1	4	.	.	.	.	.	.
<i>Sonchus asper subsp. glaucescens</i>	E1	4	.	.	.	.	.	.
<i>Consolida ajacis</i>	E1	.	18	.	.	.	.	.
<i>Callistephus chinensis</i>	E1	.	9	13	.	.	.	.

Successive number (Zaporedna številka)	1	2	3	4	5	6	7	8
<i>Brassica</i> sp.	E1 .	9	.	.	.	.	.	.
<i>Papaver somniferum</i>	E1 .	9	.	.	.	.	.	.
<i>Sinapis arvensis</i>	E1 .	9	.	.	.	.	.	.
<i>Veronica</i> sp.	E1 .	9	.	.	.	.	.	.
<i>Matricaria chamomilla</i>	E1 .	9	.	.	44	.	.	.
<i>Brassica napus</i> subsp. <i>napus</i>	E1 .	.	13	.	11	.	.	.
<i>Convolvulus arvensis</i>	E1 .	.	.	13	.	.	.	.
<i>Viola x wittrockiana</i>	E1 .	.	.	.	44	.	.	.
<i>Myosotis arvensis</i>	E1 .	.	.	.	22	.	.	.
<i>Viola sororia</i>	E1 .	.	.	.	11	.	.	.
<i>Xanthium strumarium</i>	E1 .	.	.	.	.	.	20	.
<i>Veronica chamaedrys</i>	E1 .	.	.	.	.	.	8	.
Sisymbrietea								
<i>Diplotaxis tenuifolia</i>	E1 70	64	63	25	33	.	67	.
<i>Anagallis arvensis</i>	E1 33	.	.	13	11	11	.	.
<i>Atriplex patula</i>	E1 30	9	.	.	.	.	.	.
<i>Crepis taraxacifolia</i>	E1 22	.	13	.	11	.	.	.
<i>Cichorium intybus</i>	E1 15	.	25	.	22	.	.	.
<i>Geranium purpureum</i>	E1 11	.	.	.	.	.	.	.
<i>Lactuca serriola</i>	E1 7	27	13	13	22	.	.	.
<i>Euphorbia lathyris</i>	E1 7	.	13	.	.	.	.	.
<i>Iberis umbellata</i>	E1 7	.	.	.	.	.	.	.
<i>Physalis peruviana</i>	E1 4	18	.	.	44	.	.	.
<i>Solanum nigrum</i> subsp. <i>schultesii</i>	E1 4	9	.	13	.	22	.	.
<i>Lepidium virginicum</i>	E1 4	.	.	.	22	.	.	.
<i>Datura stramonium</i>	E1 4	.	.	.	.	.	.	.
<i>Potentilla norvegica</i>	E1 4	.	.	.	.	.	.	.
<i>Sisymbrium officinale</i>	E1 .	9	.	.	.	.	.	.
<i>Diplotaxis muralis</i>	E1 .	.	.	.	.	.	17	.
Digitario sanguinalis-Eragrostietea minoris								
<i>Setaria pumila</i>	E1 93	55	100	75	78	56	.	.
<i>Panicum barbipulvinatum</i> (<i>P. riparium</i>)	E1 74	64	88	75	100	.	.	.
<i>Ambrosia artemisiifolia</i>	E1 52	18	13	25	11	11	.	.
<i>Echinochloa crus-galli</i>	E1 41	27	25	.	11	44	.	60
<i>Digitaria sanguinalis</i>	E1 33	36	38	25	44	11	.	.
<i>Chenopodium album</i>	E1 26	18	25	38	.	.	.	80
<i>Conyza canadensis</i>	E1 19	45	25	25	78	.	17	50
<i>Chenopodium polyspermum</i>	E1 19	27	38	.	22	11	.	70
<i>Digitaria ischaemum</i>	E1 19	.	13	.	.	.	.	.
<i>Amaranthus powellii</i>	E1 15	27	25	.	11	.	.	.
<i>Setaria faberi</i>	E1 15	9	.	.	11	.	.	.
<i>Amaranthus cruentus</i> L.	E1 11	27	13	.	.	22	.	.
<i>Amaranthus blitum</i> (<i>A. lividus</i>)	E1 7	.	.	.	11	11	.	.
<i>Euphorbia marginata</i>	E1 4	.	13	.	.	.	.	.
<i>Conyza sumatrensis</i>	E1 4	.	.	.	.	.	.	.
<i>Euphorbia nutans</i>	E1 4	.	.	.	.	.	.	.
<i>Abutilon theophrasti</i>	E1 .	.	.	13	.	.	.	.
<i>Euphorbia peplus</i>	E1 .	.	.	.	33	.	.	.
<i>Eragrostis cilianensis</i>	E1 .	.	.	.	22	.	.	.
<i>Acalypha virginica</i>	E1 .	.	.	.	11	.	.	.
<i>Amaranthus caudatus</i>	E1 .	.	.	.	11	.	.	.
<i>Amaranthus retroflexus</i>	E1 .	.	.	.	11	.	.	.
<i>Setaria italica</i>	E1 .	.	.	.	11	.	.	.
<i>Setaria viridis</i>	E1 .	.	.	.	.	22	8	.
Artemisietea vulgaris								
<i>Salvia hispanica</i>	E1 100	100	100	100	100	.	.	.
Artemisia vulgaris	E1 93	91	75	100	44	22	83	70
<i>Melilotus albus</i>	E1 89	91	100	88	11	56	92	20
<i>Rumex obtusifolius</i>	E1 52	82	13	63	78	44	.	.
<i>Ballota nigra</i> subsp. <i>meridionalis</i>	E1 52	27	38	13	.	.	.	.
<i>Silene latifolia</i> subsp. <i>alba</i>	E1 26	27	13	.	22	22	8	.
<i>Tanacetum vulgare</i>	E1 15	36	13	.	.	.	17	50

Successive number (Zaporedna številka)	1	2	3	4	5	6	7	8
<i>Dipsacus fullonum</i>	E1 11	.	13	.	.	.	.	.
<i>Arctium minus</i>	E1 7	27	.	.	11	.	.	.
<i>Picris hieracioides</i>	E1 7	.	13	.	.	.	8	.
<i>Artemisia verlotiorum</i>	E1 7	.	.	.	.	.	.	.
<i>Linaria vulgaris</i>	E1 7	.	.	.	.	.	.	.
<i>Melissa officinalis</i>	E1 7	.	.	.	.	.	.	.
<i>Reseda lutea</i>	E1 7	.	.	.	.	.	25	.
<i>Fallopia japonica</i>	E1 4	45	13	.	.	11	.	.
<i>Mentha spicata</i>	E1 4	9	.	.	.	.	.	.
<i>Cirsium vulgare</i>	E1 4	.	.	13	.	.	.	.
<i>Oenothera glazioviana</i>	E1 4	.	.	.	.	.	.	.
<i>Phytolacca americana</i>	E1 4	.	.	.	.	.	.	.
<i>Verbascum densiflorum</i>	E1 4	.	.	.	.	.	.	.
<i>Mentha x villosa-nervata</i>	E1 .	9	.	.	.	.	.	.
<i>Tanacetum parthenium</i>	E1 .	.	.	13	.	.	.	.
<i>Cerastium tomentosum</i>	E1 .	.	.	.	22	.	.	.
<i>Artemisia absinthium</i>	E1 .	.	.	.	11	.	.	.
<i>Arctium tomentosum</i>	E1 .	.	.	.	.	.	25	.
<i>Melilotus officinalis</i>	E1 .	.	.	.	.	.	8	20
<i>Arctium lappa</i>	E1 .	.	.	.	.	.	.	50
<i>Asclepias syriaca</i>	E1 .	.	.	.	.	.	.	20
<i>Humulus scandens (H. japonicus)</i>	E1 .	.	.	.	.	.	.	10
Galio-Urticetea								
<i>Geranium robertianum</i>	E1 70	100	50	38	56	22	92	.
<i>Galeopsis pubescens</i>	E1 70	64	50	13	22	.	75	70
<i>Urtica dioica</i>	E1 67	91	13	75	78	22	.	70
<i>Impatiens glandulifera</i>	E1 56	9	25	25	.	11	.	40
<i>Commelina communis</i>	E1 44	9	13	13	11	11	.	.
<i>Impatiens parviflora</i>	E1 33	45	25	.	.	11	58	.
<i>Aegopodium podagraria</i>	E1 33	9	13	.	.	11	.	40
<i>Aethusa cynapium</i>	E1 30	9	.	25	11	.	.	.
<i>Solidago gigantea</i>	E1 26	18	38	.	11	.	.	40
<i>Lapsana communis</i>	E1 19	.	.	38	33	.	.	.
<i>Lamium maculatum</i>	E1 15	36	.	38	.	.	.	20
<i>Parietaria officinalis</i>	E1 11	.	13	.	.	.	.	40
<i>Alliaria petiolata</i>	E1 7	36	25	.	.	.	.	.
<i>Glechoma hederacea</i>	E1 7	27	.	.	.	.	.	.
<i>Impatiens balfourii</i>	E1 7	9	13	13	.	.	.	.
<i>Anthriscus sylvestris</i>	E1 4	.	.	13	.	.	.	60
<i>Chaerophyllum sp.</i>	E1 4	.	.	.	.	.	.	.
<i>Torilis japonica</i>	E1 4	.	.	.	.	.	.	.
<i>Geum urbanum</i>	E1 .	.	13	.	.	.	.	.
<i>Solidago canadensis</i>	E1 .	.	.	.	.	11	.	.
<i>Cruciata laevipes</i>	E1 .	.	.	.	.	.	8	.
Epilobietea angustifolii								
<i>Eupatorium cannabinum</i>	E1 100	82	50	75	11	22	42	20
<i>Verbascum thapsus</i>	E1 52	36	25	13	67	.	.	.
<i>Galeopsis speciosa</i>	E1 33	36	38	.	.	11	92	40
<i>Atropa bella-donna</i>	E1 22	27	.	13	11	.	.	.
<i>Verbascum nigrum</i>	E1 4	9	.	.	67	.	.	.
<i>Fragaria vesca</i>	E1 4	.	.	.	22	.	.	.
<i>Verbascum lanatum</i>	E1 4	9	.	.	.	.	.	.
<i>Stachys sylvatica</i>	E1 .	9	.	25	.	22	.	.
<i>Arctium nemorosum</i>	E1 .	.	25	13	.	.	.	.
Filipendulo-Petasition								
<i>Mentha longifolia</i>	E1 93	91	63	100	11	67	42	.
<i>Myosoton aquaticum</i>	E1 89	100	50	63	67	44	33	60
<i>Symphytum officinale</i>	E1 4	27	25	0	11	44	.	.
<i>Stachys palustris</i>	E1 4	.	.	.	.	11	.	.
<i>Lythrum salicaria</i>	E1 .	.	25	13	.	11	.	30
Filipendulo-Convolveutea								
<i>Saponaria officinalis</i>	E1 93	100	63	38	56	44	58	100

Successive number (Zaporedna številka)	1	2	3	4	5	6	7	8
<i>Epilobium parviflorum</i>	E1 48	100	13	25	11	.	.	.
<i>Helianthus tuberosus</i>	E1 22	18	38	.	.	67	17	40
<i>Epilobium hirsutum</i>	E1 19	9	.	.	.	.	.	.
<i>Calystegia sepium</i>	E1 7	.	.	13	.	.	.	80
<i>Galega officinalis</i>	E1 4	.	.	.	.	11	.	40
<i>Aster lanceolatus</i>	E1 .	9	.	.	.	.	.	.
<i>Echinocystis lobata</i>	E1 .	.	.	.	.	.	.	80
<i>Silene baccifera</i> (<i>Cucubalus baccifer</i>)	E1 .	.	.	.	.	.	.	60
<i>Lysimachia vulgaris</i>	E1 .	.	.	.	.	.	.	30
<i>Rudbeckia laciniata</i>	E1 .	.	.	.	.	.	.	20
Phragmiti-Magnocaricetea								
<i>Veronica beccabunga</i>	E1 7	36	13	50	11	.	.	.
<i>Nasturtium officinale</i>	E1 7	45	13	.	.	.	.	.
<i>Typhoides arundinacea</i>	E1 7	.	13	.	.	33	.	100
<i>Galium palustre</i>	E1 4	18	.	.	.	.	.	.
<i>Lycopus europaeus</i>	E1 .	45	25	.	.	.	.	70
<i>Veronica anagallis-aquatica</i>	E1 .	18	13	.	.	.	.	.
<i>Carex elata</i>	E1 .	9	.	.	.	.	.	.
<i>Mentha aquatica</i>	E1 .	.	.	.	.	11	.	20
Isoëto-Nanojuncetea								
<i>Juncus articulatus</i>	E1 7	9	13	13	.	.	.	.
<i>Mentha pulegium</i>	E1 7	9	.	.	.	.	.	50
<i>Cyperus fuscus</i>	E1 .	18	.	.	.	.	.	.
Calthion, Molinion								
<i>Cirsium oleraceum</i>	E1 33	55	25	50	.	22	.	.
<i>Centaurea carniolica</i>	E1 26	27	38	25	11	11	25	.
<i>Angelica sylvestris</i>	E1 15	18	13	38	.	11	17	20
<i>Scirpus sylvaticus</i>	E1 4	18	13	.	.	.	.	.
<i>Myosotis palustris</i> (<i>M. scorpioides</i>)	E1 .	.	.	.	11	.	.	.
<i>Selinum carvifolia</i>	E1 .	.	.	.	.	11	.	.
<i>Gratiola officinalis</i>	E1 .	.	.	.	.	.	.	40
Potentillo-Polygonetalia								
<i>Agrostis stolonifera</i>	E1 85	100	38	100	22	22	17	60
<i>Barbarea vulgaris</i>	E1 63	100	50	63	22	22	75	.
<i>Rumex crispus</i>	E1 19	36	.	.	.	.	.	.
<i>Verbena officinalis</i>	E1 11	27	.	.	11	.	.	.
<i>Juncus inflexus</i>	E1 .	.	13	.	.	.	.	.
Agropyretalia intermedio-repentis								
<i>Tussilago farfara</i>	E1 74	27	50	38	.	11	25	.
<i>Equisetum arvense</i>	E1 56	45	25	63	.	67	8	40
<i>Agropyron repens</i>	E1 22	.	13	.	56	.	.	50
<i>Poa compressa</i>	E1 11	18	13	13	.	.	25	.
<i>Chondrilla juncea</i>	E1 .	.	.	.	.	.	.	40
Molinio-Arrhenatheretea								
<i>Galium mollugo</i>	E1 81	91	63	50	11	44	83	.
<i>Plantago lanceolata</i>	E1 74	45	88	38	56	22	42	.
<i>Daucus carota</i>	E1 74	45	25	50	22	33	50	.
<i>Trifolium pratense</i>	E1 44	45	38	25	33	11	8	.
<i>Leontodon hispidus</i>	E1 37	82	63	75	56	.	50	.
<i>Pastinaca sativa</i>	E1 37	18	38	25	.	11	.	.
<i>Achillea millefolium</i>	E1 30	45	25	.	33	.	25	.
<i>Leucanthemum vulgare</i>	E1 26	36	38	38	.	.	.	.
<i>Deschampsia cespitosa</i>	E1 19	27	13	13	44	33	58	.
<i>Prunella vulgaris</i>	E1 19	9	13	13	11	11	.	.
<i>Ranunculus nemorosus</i>	E1 19	18	13	.	.	.	.	.
<i>Vicia cracca</i>	E1 15	.	.	.	.	.	.	50
<i>Ranunculus repens</i>	E1 11	45	25	50	.	.	.	.
<i>Dactylis glomerata s.str.</i>	E1 11	27	13	25	33	22	17	.
<i>Pimpinella major</i>	E1 11	.	25	13	.	.	.	.
<i>Ranunculus acris</i>	E1 11	.	13	.	.	.	.	.
<i>Trifolium repens</i>	E1 7	.	25	38	11	11	8	.

Successive number (Zaporedna številka)	1	2	3	4	5	6	7	8
<i>Centaurea jacea</i>	E1	7	.	.	.	.	.	.
<i>Cerastium holosteoides</i>	E1	7	.	.	.	.	.	.
<i>Rumex acetosa</i>	E1	4	9	.	13	33	.	.
<i>Lotus corniculatus</i>	E1	4	.	13	.	11	.	8
<i>Poa trivialis</i>	E1	4	.	.	.	22	.	.
<i>Leontodon autumnalis</i>	E1	4	.	.	.	.	.	.
<i>Vicia sepium</i>	E1	.	.	.	13	11	.	.
<i>Lychnis flos-cuculi</i>	E1	.	.	.	.	22	.	.
<i>Arrhenatherum elatius</i>	E1	.	.	.	.	11	.	.
<i>Bellis perennis</i>	E1	.	.	.	.	11	.	.
<i>Agrostis capillaris</i>	E1	.	.	.	.	.	.	8
<i>Lathyrus pratensis</i>	E1	.	.	.	.	.	.	8
<i>Leucanthemum ircutianum</i>	E1	.	.	.	.	.	.	8
Koelerio-Corynephoretea								
<i>Echium vulgare</i>	E1	37	27	50	25	.	.	67
<i>Arenaria serpyllifolia</i> agg. (inc. <i>A. leptoclados</i>)	E1	7	27	13	.	78	.	25
<i>Cardaminopsis arenosa</i>	E1	7	55	13	.	11	.	.
<i>Petrorhagia saxifraga</i>	E1	.	18	.	.	11	.	.
<i>Medicago minima</i>	E1	.	.	13	.	.	.	.
<i>Sedum sexangulare</i>	E1	.	.	.	.	.	.	17
Festuco-Brometea								
<i>Silene vulgaris</i>	E1	78	91	50	25	56	11	83
<i>Medicago lupulina</i>	E1	52	45	63	50	11	.	50
<i>Sanguisorba minor</i>	E1	7	9	13	.	.	11	8
<i>Bupthalmum salicifolium</i>	E1	4	.	25	.	.	.	17
<i>Euphrasia stricta</i>	E1	4	.	.	.	.	.	17
<i>Salvia pratensis</i>	E1	4	.	.	.	.	.	17
<i>Brachypodium rupestre</i> (inc. <i>B. pinnatum</i>)	E1	4	.	.	.	.	.	20
<i>Campanula rotundifolia</i>	E1	4	.	.	.	.	.	.
<i>Scabiosa triandra</i>	E1	4	.	.	.	.	.	.
<i>Pimpinella saxifraga</i>	E1	.	9	13	.	.	.	.
<i>Plantago media</i>	E1	.	9	.	.	.	.	.
<i>Euphorbia cyparissias</i>	E1	.	.	13	.	.	.	83
<i>Centaurea scabiosa</i> subsp. <i>fritschii</i>	E1	.	.	13	.	.	.	.
<i>Galium corrudifolium</i>	E1	.	.	13	.	.	.	.
<i>Stachys recta</i>	E1	.	.	13	.	.	.	8
<i>Asperula cynanchica</i>	E1	.	.	.	.	.	.	17
<i>Thymus praecox</i>	E1	.	.	.	.	.	.	17
<i>Satureja montana</i>	E1	.	.	.	.	.	.	17
<i>Koeleria pyramidata</i>	E1	.	.	.	.	.	.	8
<i>Genista tinctoria</i>	E1	.	.	.	.	.	.	8
<i>Hipocrepis comosa</i>	E1	.	.	.	.	.	.	8
<i>Arabis hirsuta</i>	E1	.	.	.	.	.	.	8
<i>Centaurea stoebe</i> (<i>C. rhenana</i>)	E1	.	.	.	.	.	.	40
Trifolio-Geranietea								
<i>Verbascum austriacum</i>	E1	19	9	25	.	.	.	.
<i>Hypericum perforatum</i> (inc. subsp. <i>veronense</i>)	E1	15	9	38	13	11	.	50
<i>Lathyrus sylvestris</i>	E1	11	.	13	.	11	22	.
<i>Astragalus glycyphyllos</i>	E1	7	.	.	.	.	.	.
<i>Clinopodium vulgare</i>	E1	4	9	.	.	.	.	.
<i>Digitalis grandiflora</i>	E1	4	.	.	.	.	.	.
<i>Inula conyza</i>	E1	4	.	.	.	.	.	.
<i>Peucedanum venetum</i>	E1	4	.	.	.	.	.	.
<i>Libanotis sibirica</i> subsp. <i>montana</i>	E1	.	9	.	.	.	.	.
<i>Trifolium aureum</i>	E1	.	9	.	.	.	.	.
<i>Verbascum lychnitis</i>	E1	.	.	13	.	.	.	.
Sambuco-Salicion capreae								
<i>Robinia pseudoacacia</i>	E2a	.	.	25	.	.	.	.
<i>Robinia pseudoacacia</i>	E1	67	36	63	.	.	33	.
<i>Betula pendula</i>	E1	4	.	.	.	.	.	.
<i>Ailanthus glandulosa</i> (<i>A. altissima</i>)	E1	.	27	.	.	.	.	.

Successive number (Zaporedna številka)	1	2	3	4	5	6	7	8
<i>Salix caprea</i>	E1	.	.	13	.	.	.	.
Rhamno-Prunetea								
<i>Cornus sanguinea</i>	E1	7	9	.	.	11	25	.
<i>Rubus fruticosus</i> agg.	E2a	4	.	.	.	.	.	.
<i>Berberis vulgaris</i>	E1	4	.	.	.	.	.	.
<i>Ficus carica</i>	E1	4	.	.	.	.	.	.
<i>Lonicera nitida</i>	E2a	.	.	13	.	.	.	.
<i>Euonymus europaea</i>	E1	.	.	.	.	11	.	.
Tilio-Acerion								
<i>Cardamine impatiens</i>	E1	19	18	13	63	22	11	.
<i>Ulmus glabra</i>	E1	37	36	13	.	.	22	.
<i>Lunaria rediviva</i>	E1	4	.	.	.	.	11	.
<i>Aruncus dioicus</i>	E1	.	9	.	.	.	11	.
<i>Anthriscus nitida</i>	E1	.	.	.	.	.	11	.
<i>Acer pseudoplatanus</i>	E1	.	.	.	.	.	8	.
Alnion incanae								
<i>Solanum dulcamara</i>	E1	81	91	75	63	11	33	58
<i>Rubus caesius</i>	E1	37	36	63	.	.	33	25
<i>Festuca gigantea</i>	E1	30	9	25	38	.	33	.
<i>Alnus incana</i>	E1	11	.	13	.	.	8	.
<i>Frangula alnus</i>	E1	4	27	25	.	.	50	.
<i>Chaerophyllum hirsutum</i>	E1	4	.	13	38	.	22	17
<i>Vitis vinifera</i>	E1	4	.	13	13	.	.	.
<i>Impatiens noli-tangere</i>	E1	4	.	.	.	.	11	.
<i>Agropyron caninum</i>	E1	.	36	.	.	.	11	100
<i>Acer negundo</i>	E1	.	9	.	.	.	.	.
<i>Circaea intermedia</i>	E1	.	9	.	.	.	.	.
<i>Alnus glutinosa</i>	E2	.	.	.	.	.	.	20
Fagetalia sylvaticae								
<i>Scrophularia nodosa</i>	E1	85	100	38	63	33	11	25
<i>Brachypodium sylvaticum</i>	E1	67	91	38	38	11	33	.
<i>Salvia glutinosa</i>	E1	59	64	25	25	.	22	50
<i>Mycelis muralis</i>	E1	37	73	25	25	22	.	.
<i>Myosotis sylvatica</i> agg.	E1	11	27	.	.	33	.	.
<i>Carpinus betulus</i>	E1	11	.	13	.	.	.	.
<i>Galium laevigatum</i>	E1	11	9	.	.	.	33	.
<i>Heracleum sphondylium</i>	E1	7	.	.	.	.	11	.
<i>Carex sylvatica</i>	E1	4	9	.	.	.	.	.
<i>Campanula trachelium</i>	E1	4	.	13	.	.	11	.
<i>Circaea lutetiana</i>	E1	4	.	.	.	.	.	.
<i>Aposeris foetida</i>	E1	.	9	.	.	.	.	.
<i>Ranunculus lanuginosus</i>	E1	.	.	13	.	.	11	17
<i>Viola reichenbachiana</i>	E1	.	.	13	.	.	.	.
<i>Laburnum alpinum</i>	E1	.	.	.	13	.	.	.
<i>Knautia drymeia</i>	E1	.	.	.	.	.	11	42
<i>Lamium orvala</i>	E1	.	.	.	.	.	11	.
<i>Geranium nodosum</i>	E1	.	.	.	.	.	11	.
<i>Allium ursinum</i>	E1	.	.	.	.	.	11	.
<i>Galeobdolon flavidum</i>	E1	.	.	.	.	.	11	.
Quercetalia pubescenti-petraeae								
<i>Arabis turrata</i>	E1	15	.	13	.	22	.	.
<i>Calamintha sylvatica</i>	E1	4	.	.	.	.	.	.
<i>Ostrya carpinifolia</i>	E2a	.	.	13	.	.	.	.
<i>Ostrya carpinifolia</i>	E1	.	9	.	.	.	8	.
<i>Fraxinus ornus</i>	E1	.	.	.	.	.	8	.
Quercu-Fagetea								
<i>Clematis vitalba</i>	E1	81	45	50	25	22	11	83
<i>Cerastium sylvaticum</i>	E1	37	82	25	50	78	.	33
<i>Hedera helix</i>	E1	7	.	.	.	.	.	.
<i>Moehringia trinervia</i>	E1	4	18	.	13	22	.	.
<i>Ulmus minor</i>	E1	4	.	.	.	33	.	.
<i>Corylus avellana</i>	E1	.	.	13	.	.	.	.

Successive number (Zaporedna številka)	1	2	3	4	5	6	7	8
<i>Ranunculus cassubicus</i>	E1	.	.	.	.	11	.	.
<i>Anemone nemorosa</i>	E1	.	.	.	.	11	.	.
<i>Hieracium murorum</i>	E1	.	.	.	.	.	25	.
<i>Cruciata glabra</i>	E1	.	.	.	.	.	8	.
Erico-Pinetea, Vaccinio-Piceetea								
<i>Molinia arundinacea</i>	E1	4	9	.	.	.	25	.
<i>Calamagrostis varia</i>	E1	4	9	.	.	.	42	.
<i>Carex ornithopoda</i>	E1	.	18	.	13	.	.	.
<i>Aquilegia nigricans</i>	E1	.	18	.	.	.	.	.
<i>Chamaecytisus hirsutus</i>	E1	.	9	.	.	.	.	.
<i>Solidago virgaurea</i>	E1	.	.	.	.	.	8	.
Other species (Druge vrste)								
<i>Crepis sp.</i>	E1	.	.	13	.	.	.	.
<i>Cerastium sp.</i>	E1	.	.	.	.	11	.	.
Mosses (Mahovi)								
<i>Brachythecium rutabulum</i>	E0	.	.	.	.	11	.	.
<i>Mnium undulatum</i>	E0	.	.	.	.	.	.	20
<i>Eurhynchium sp.</i>	E0	.	.	.	.	.	.	20

Legend - Legenda

ID Igor Dakskobler, BČ Boško Čušin, VP Viktor Petkovšek

1 PLSe *Polygono lapathifoliae-Salicetum eleagni*, this article, relevés 1–27 in Table 1

2 PLSe–Sa *Polygono lapathifoliae-Salicetum eleagni*, this article, relevés 28–38 in Table 1 (relevés from the Soča Valley between Volarje and Žaga and from the Sava Bohinjka Valley)

3 PLSe-ne *Polygono lapathifoliae-Salicetum eleagni*, this article, relevés 47–54 in Table 1 (atypical relevés from the valleys of the Soča, Bača, Nadiža and Sava Bohinjka)

4 ChPo–Ba *Chaerophyllo-Petasitetum officinalis*, this article, relevés 39–46 in Table 1 (the upper part of the Bača Valley from the hamlet Humar to Podbrdo).

5 PLSe-To *Polygono lapathifoliae-Salicetum eleagni*, this article, relevés 55–63, initial plant community on gravel terraces of the Tolminka River near Tolmin

6 ChPo–Id *Chaerophyllo-Petasitetum officinalis*, the Idrijca Valley, Dakskobler (2010, Table 1)

7 ESc–Na *Epilobio-Scrophularietum caninae*, the Nadiža Valley, Čušin (2001, Table 1)

8 CsSp *Calystegio-Salicetum purpureae*, central and southeastern Slovenia, Petkovšek (1966)

Table 3: Sociological groups of initial plant communities on riverine gravel terraces in western Slovenia (relative frequencies)
Preglednica 3: Skupine diagnostičnih vrst v prodiščnih združbah v zahodni Sloveniji (relativne frekvence)

Successive number (Zaporedna številka)	1	2	3	4	5	6	7	8
Sign for syntax (Oznaka združb)	PlSe	PlSe-Sa	PlSe-ne	ChPo-Ba	PlSe-To	ChPo-Id	ESc-Na	CsSp
Author (Avtor)	ID	ID	ID	ID	ID	ID	BČ	VP
Number of relevés (Število popisov)	27	11	8	8	9	9	12	10
<i>Epilobion fleischeri</i>	1.02	3.27	1.24	0	0.72	0	7.36	1.41
<i>Stipion calamagrostis</i>	1.42	1.96	2.23	0.29	0	0	2.68	1.41
<i>Petasition paradoxo</i>	1.19	2.22	2.23	0.88	1.67	0.42	5.59	0
<i>Galeopsietalia segetum</i>	0.06	0	0.25	0	0	0	0	0
<i>Thlaspietea rotundifolii</i>	0	0.26	0	0.29	0.24	0	0	0
<i>Asplenieta trichomanis</i>	0.62	0.52	0.25	0.58	2.86	0	0.21	0
<i>Mulgedio-Aconitetea</i>	2.04	1.05	1.49	3.80	0.72	3.81	0.21	0
<i>Salicetea purpureae</i>	2.84	2.35	4.71	2.92	2.63	2.51	2.89	6.34
<i>Bidentetea</i>	3.58	3.92	2.98	3.51	4.30	5.48	0	3.52
<i>Papaveretea rhoeadis (Stellarietea mediae)</i>	20.7	17.12	13.9	19.59	31.3	21.01	9.36	6.34
<i>Sisymbrietea</i>	3.41	1.96	2.48	1.46	3.58	1.26	2.25	0
<i>Digitario sanguinalis-Eragrostieta minoris</i>	6.64	5.10	8.19	6.14	10.26	7.16	0.67	9.15
<i>Artemisieta vulgaris</i>	7.72	7.84	7.69	9.06	6.44	5.90	7.12	8.45
<i>Galio-Urticetea</i>	7.78	6.67	5.71	6.73	4.77	3.77	6.23	13.38
<i>Epilobiete a angustifolii</i>	3.35	3.01	2.73	3.22	3.82	2.09	3.58	2.11
<i>Filipendulo-Petasition</i>	2.90	3.14	3.23	4.09	1.91	6.74	2.01	3.17
<i>Filipendulo-Convolveuletea</i>	2.95	3.40	2.23	1.75	1.43	4.64	2.01	15.85
<i>Phragmiti-Magnocaricetea</i>	0.40	2.48	1.49	1.17	0.24	1.67	0	6.69
<i>Isoëto-Nanojuncetea</i>	0.23	0.52	0.25	0.29	0	0	0	1.76
<i>Calthion, Molinion</i>	1.19	1.70	1.74	2.63	0.48	2.09	1.12	2.11
<i>Potentillo-Polygonetalia</i>	2.73	3.79	1.98	3.80	1.19	1.67	2.46	2.11
<i>Agropyretalia intermedio-repentis</i>	2.50	1.31	1.98	2.63	1.19	2.97	1.55	4.58
<i>Molinio-Arrhenatheretea</i>	8.52	7.84	10.42	11.11	9.31	7.54	9.98	1.76
<i>Koelerio-Corynephoretea</i>	0.80	1.83	1.74	0.58	2.15	0	2.92	0
<i>Festuco-Brometea</i>	2.44	2.35	4.22	1.75	1.43	0.84	9.79	2.82
<i>Trifolio-Geranietea</i>	1.02	0.65	1.74	0.29	0.48	0.84	1.34	0
<i>Sambuco-Salicion capreae</i>	1.08	0.91	1.74	0.29	0	1.26	0	0
<i>Rhamno-Prunetea</i>	0.28	0.13	0.25	0	0	0.84	0.67	0
<i>Alnion incane, Tilio-Acerion</i>	3.58	4.05	4.96	4.97	0.72	7.96	7.12	6.34
<i>Fagetalia sylvaticae</i>	4.60	5.49	3.47	3.80	2.15	5.86	4.68	0
<i>Quercetalia pubescenti-petraeae, Quercu-Fagetea</i>	2.33	2.22	2.23	2.05	3.82	1.26	4.41	0.70
<i>Erico-Pinetea</i>	0.11	0.91	0	0.29	0	0	1.79	0
Other species (Druge vrste)	0	0	0.2	0	0.2	0.42	0	0
Total (Skupaj)	100	100	100	100	100	100	100	100

Legend - Legenda

ID Igor Dakskobler, BČ Boško Čušin, VP Viktor Petkovšek

 1 PlSe *Polygono lapathifoliae-Salicetum eleagni*, this article, relevés 1–27 in Table 1

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 8 CsSp *Calystegio-Salicetum purpureae*, central and southeastern Slovenia, Petkovšek (1966)

Table 4: Life forms spectra of initial plant communities on riverine gravel terraces in Slovenia
Preglednica 4: Spekter življenjskih oblik v inicialnih prodiščnih združbah v Sloveniji

Successive number (Zaporedna številka)	1	2	3	4	5	6	7	8
Sign for syntaxa (Oznaka združb)	PlSe	PlSe-Sa	PlSe-ne	ChPo-Ba	PlSe-To	ChPo-Id	ESc-Na	CsSp
Author (Avtor)	ID	ID	ID	ID	ID	ID	BČ	VP
Number of relevé (Število popisov)	27	11	8	8	9	9	12	10
Phanerophytes (Fanerofiti)	6.64	5.75	9.68	5.56	3.82	5.89	7.97	6.34
Nanophanerophytes (Nanofanerofiti)	0.62	0.52	1.49	0	0	1.26	0.67	2.82
Gephytes (Geofiti)	6.42	5.23	5.71	7.60	1.91	11.47	4.90	7.04
Chamaephytes (Hamefiti)	3.24	3.27	3.97	5.26	1.91	5.08	7.14	2.82
Hemicryptophytes (Hemikriptofiti)	43.67	49.80	47.39	50	44.15	39.14	57.68	53.17
Hydrophytes (Hidrofiti)	0.23	1.44	0.74	1.17	0.24	0	0	0
Therophytes (Terofiti)	39.18	33.98	31.01	30.41	47.97	37.16	21.64	27.82
Total (Skupaj)	100	100	100	100	100	100	100	100

Legend - see Table 3 / **Legenda** - glej preglednico 3

