

PHYTOSOCIOLOGICAL ANALYSIS OF RIVERINE FORESTS IN THE VIPAVA AND REKA VALLEYS (SOUTHWESTERN SLOVENIA)

FITOCENOLOŠKA ANALIZA OBREŽNIH GOZDOV V VIPAVSKI DOLINI IN DOLINI REKE (JUGOZHODNA SLOVENIJA)

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ABSTRACT

Phytosociological analysis of riverine forests in the Vipava and Reka Valleys (southwestern Slovenia)

Applying the standard Central-European method we studied the phytosociology of riverine forests along the rivers Vipava, Lijak, Branica, Raša and Reka with its tributaries in southwestern Slovenia and compared them to similar riverine forests along some other Slovenian rivers (Soča, Sava Bohinjka, Krka, Mirna, Sava, Drava, Mura, Rašica, Dragonja), and with similar communities in Austria and northeastern Italy. Based on this comparison we described the following syntaxa: *Lamio orvalae-Salicetum albae* ass. nov., with two new subassociations: *-caricetosum pendulae* and *-ranunculetum lanuginosae*, *Lamio orvalae-Alnetum glutinosae* ass. nov. *Ornithogalo pyrenaici-Carpinetum betuli lamietosum orvalae* subass. nov. and *Pseudostellario-Carpinetum betuli leucojetosum aestivi* subass. nov.

Key words: phytosociology, synsystematics, *Salicion albae*, *Alnion incanae*, *Fraxino pannonicae-Carpinion betuli*, *Erythronio-Carpinion*, Natura 2000, Vipava Valley, Slovenia

IZVLEČEK

Fitocenološka analiza obrežnih gozdov v Vipavski dolini in dolini Reke (jugozahodna Slovenija)

Po standardni srednjeevropski metodi smo fitocenološko raziskali obrežne gozdove ob rekah Vipavi, Lijaku, Branici, Raši in Reki s pritoki v jugozahodni Sloveniji in jih primerjali s podobnimi logi vzdolž nekaterih drugih slovenskih rek (Soče, Save Bohinjke, Krke, Mirne, Save, Rašice, Drave, Mure in Dragonje) in s podobnimi združabmi v Avstriji in severovzhodni Italiji. Na podlagi te primerjave smo opisali naslednje sintaksone: *Lamio orvalae-Salicetum albae* ass. nov., z dvema novima subasociacijama: *-caricetosum pendulae* in *-ranunculetum lanuginosae*, *Lamio orvalae-Alnetum glutinosae* ass. nov. *Ornithogalo pyrenaici-Carpinetum betuli lamietosum orvalae* subass. nov. in *Pseudostellario-Carpinetum betuli leucojetosum aestivi* subass. nov.

Ključne besede: fitocenologija, sinsistematika, *Salicion albae*, *Alnion incanae*, *Fraxino pannonicae-Carpinion betuli*, *Erythronio-Carpinion*, Natura 2000, Vipavska dolina, Slovenija

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1 INTRODUCTION

The Vipava Valley, together with the appertaining neighbouring Raša and Branica valleys is a part of the sub-Mediterranean phytogeographical region of Slovenia with predominantly agricultural land that surrounds the settlements. The forest cover is slightly more extensive in the valleys of the Branica and Raša. These two rivers have more or less maintained their river course, but the Raša is dry for most part of the year. The Vipava River and some of its tributaries from under the Trnovski Gozd plateau (such as the Lijak, Hubelj) are regulated and riparian forests are preserved only in traces, most of all in the section between the villages of Ustje and Brje, along the stream Jovšček and along the Lijak between Ajševica and Vogrsko. On

several locations they have been replaced by poplar plantations. In comparison with the Vipava River the Reka River's course is still very natural in the upper and middle sections, where despite the cultural landscape with predominantly agricultural land relatively large areas of riverine forests have been preserved along its banks, especially along the tributaries such as the Kobljak and Mareški potok creeks. The riparian stands in this valley were inventoried in the section between Trpčane and Ribnica. As riverine forests belong among the habitat types of Community interest that require conservation-based management it makes sense that its current situation and vegetation image be inventoried and described.

2 METHODS

The vegetation of riverine forests in the Vipava and Reka Valleys was researched applying the Central-Eu-

ropean method (BRAUN-BLANQUET 1964). A total of 62 relevés were made in the Vipava Valley and 25 relevés

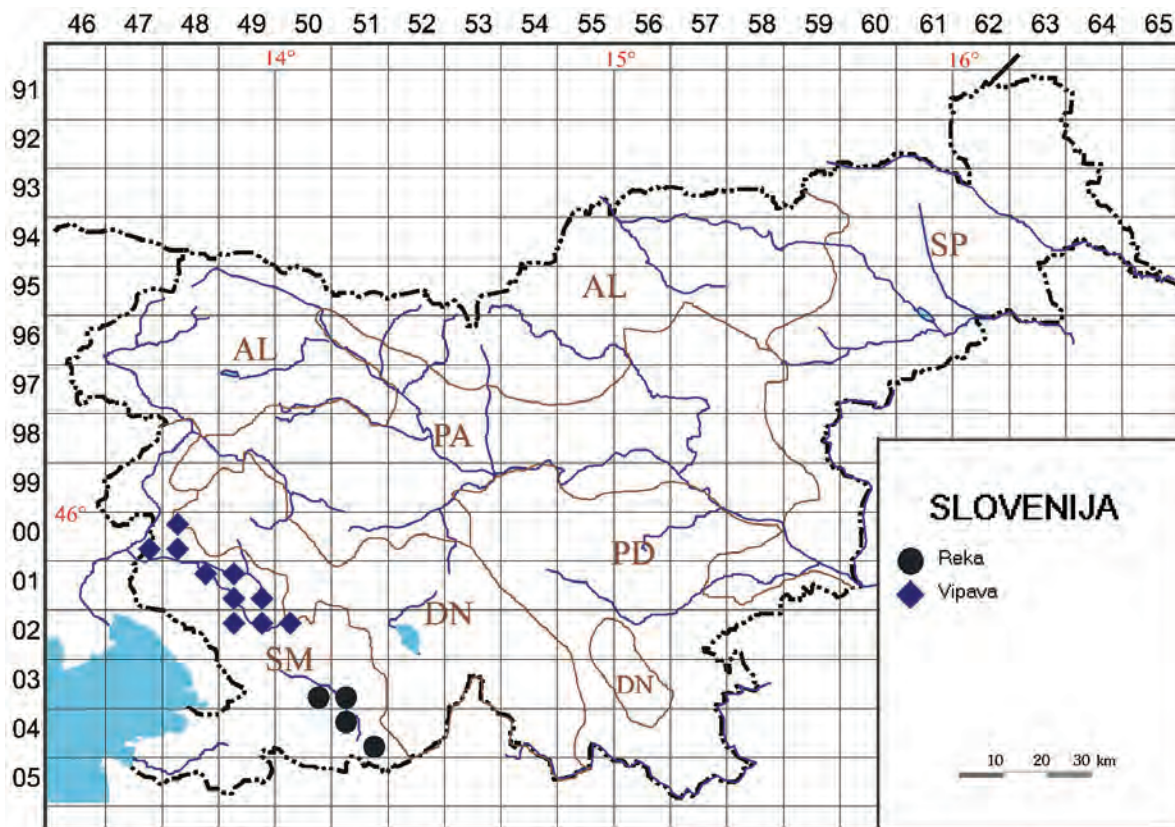


Figure 1: Approximate localities of researched stands in southwestern Slovenia
Slika 1: Približna nahajališča raziskovanih sestojev v jugozahodni Sloveniji

in the Reka Valley (Figure 1). All these relevés were entered into the FloVegSi database (T. SELIŠKAR, VREŠ & A. SELIŠKAR 2003). Combined cover-abundance values were transformed into ordinal values (van der MAAREL 1979). Numerical comparisons were made with the software package SYN-TAX (PODANI 2001). The relevés were compared using the “(Unweighted) average linkage” – UPGMA method. Wishart’s similarity ratio was applied in all comparisons. These comparisons formed the basis for six analytic tables. The established syntaxa were compared to similar, already described communities of white willow, black alder and common oak riverine and swamp forests in Slovenia and northern Italy. We made three synoptic tables, one of them (Appendix 1) is available only on the web page. These synthetic tables provided the basis for the description of several new syntaxa. The nomenclature source for the names of vascular plants is the Mala flora Slovenije (MARTINČIČ & al. 2007), except for the taxon *Helleborus odoratus* Waldst. et Kit. subsp. *istriacus* Schiffner. MARTINČIČ (2003, 2011) is the nomenclature source for the names of mosses. The nomenclature sources for the names of syntaxa are THEURILLAT (2004) and ŠILC & ČARNI (2012), except for the name of the class *Quercus-Fagetum* Braun-Blanquet et Vlieger in Vlieger 1937. The data on the parent material follow BUSER (2009). The source for the nomenclature of soil types is URBANČIČ et al. (2005).

2.1 Ecological description of the study area

The predominant parent material in both research areas is flysch. Consequently, the alluvium is mainly composed of marlstone, claystone and sandstone boulders, except for a few sites (such as along the Raša) with

predominantly limestone boulders. The predominant soil type on gravel bars is undeveloped fluvisol that transitions to eutric brown soil on slightly elevated terraces. The marshy plains that are slightly removed from the main watercourses have predominantly pseudogley and gley soils. The climate type is designated as the sub-Mediterranean climate in the hinterlands (OGRIN 1998). The average annual temperature in the Vipava Valley is 10 – 12 °C and slightly lower in the Reka Valley, where it reaches 8 – 10 °C (CEGNAR 1998). The average annual precipitation in the Vipava Valley is 1500 to 1600 mm and slightly lower in the Branica and Raša valleys, where it totals 1400 to 1500 mm. The average annual precipitation in the studied area of the Reka Valley is very similar (from 1400 to 1600 mm). In recent years, climatologists have confirmed a rise in the average annual temperature for the Vipava Valley as well as a slightly different annual distribution of precipitation (less in the winter and spring, more in the autumn) – KAJFEŽ BOGATAJ (2014: 52). Both study areas are distinguished for periodical downpour and periods of heavy rain, which causes floods already in the middle course of the Reka to the southeast of Ilirska Bistrica and in the lower course of the Vipava River. The bottom of the Vipava Valley is still in the belt of common hornbeam and oaks forests classified into the association *Ornithogalo pyrenaici-Carpinetum*, whereas beech stands (*Seslerio autumnalis-Fagetum*, *Ornithogalo-Fagetum*) – DAKSKOBLER, SELIŠKAR & VREŠ (2014) that overgrow shady slopes extend all the way down to the valley. The potentially natural vegetation of the upper and middle part of the Reka Valley is mainly beech forest (*Seslerio autumnalis-Fagetum*, *Castaneo-Fagetum sylvaticae*, *Ornithogalo-Fagetum*), whereas the real vegetation is dominated by sessile oak (*Melampyro vulgati-Quercetum petraeae*).

3 RESULTS AND DISCUSSION

3.1 Red willow community

In Table 1 we published one relevé that represents the most initial form of scrub-forest vegetation on the gravel bars along the Vipava River and is temporarily classified into the provisional association *Lamio orvalae-Salicetum purpureae* nom. prov. In the past there were probably more similar stands in the Vipava Valley. The extensive and planned regulation of the Vipava riverbed and its tributaries considerably reduced the possibility of the occurrence of gravel bars and pioneer willow stands on them. Upon more thorough exami-

nations along these and other rivers in the sub-Mediterranean part of Slovenia new stands of willow scrubs may be found that will supplement our knowledge of this pioneer community.

3.2 White willow communities

We made 24 relevés of riverine stands in both areas, with predominant white willow or black poplar in the tree layer; most of them along the Vipava, in the middle course of the river. In order to obtain an adequate

syntaxonomic classification we compared them with the other relevés of white willow communities that we had made along the Soča River (see also DAKSKOBLER, ŠILC & ČUŠIN 2004), along the Sava Bohinjka (DAKSKO-

BLER & ROZMAN 2013) and along the Sava river in the Sava Valley (VREŠ et al. 2010). The relevés formed two large groups (Figure 2) and we correspondingly arranged them into two analytic tables (Tables 2 and 3).

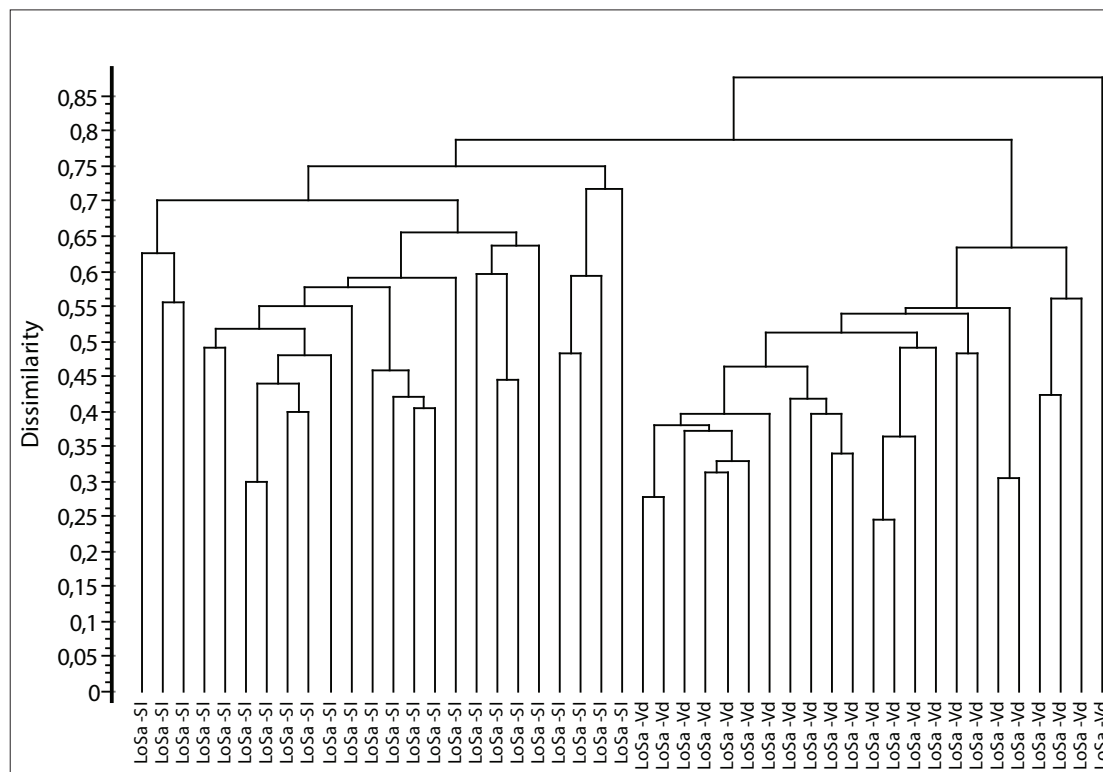


Figure 2: Dendrogram of stands with dominating *Salix alba* in the Vipava Valley (LoSA-Vd), in the Soča Valley and in other parts of Slovenia (LoSA-SI), UPGMA, similarity ratio

Slika 2: Dendrogram sestojev s prevladujočo belo vrbo v Vipavski dolini (LoSA-Vd), v Posočju in drugih delih Slovenije (LoSA-SI), UPGMA, similaritno razmerje

For an adequate syntaxonomic classification we created a synthetic table (Table 4) with the following syntaxa:

- 1 LoSa-Si *Lamio orvalae-Salicetum albae ranunculetosum lanuginosae*, Slovenia, this article, Table 3;
- 2 LoSa-Vd *Lamio orvalae-Salicetum albae caricetosum pendulae*, Slovenia, Vipava Valley, this article, Table 2;
- 3 Sa-Drava *Salicetum albae*, Slovenia, Drava Valley (Podravje), JAVORNIK (2013, Appendix A, Phytosociological table, relevés 1–8);
- 4 Sa-Mura, *Salicetum albae* Slovenia, Mura Valley, ČARNI et al. (2008, Synoptic table of forest communities, column 2, compare also P. KOŠIR et al. 2013, Table 1, relevés 1–30);
- 5 Sa-Krka, *Salicetum albae*, Slovenia, Dolenjska, ŠILC (2003, Table 4);
- 6 Sap-A *Salicetum albae phalaridetosum*, Austria, KARNER (2007, Table 2, column 3);
- 7 Sac-A *Salicetum albae cornetosum*, Austria, KARNER (2007, Table 2, column 4);
- 8 *Amorpha fruticosae-Salicetum albae* var. *Populus nigra*, N-Italy, POLDINI, VIDALI & GANIS, (2011, Table 3, column 9);
- 9 *Amorpha fruticosae-Salicetum albae* var. *Bidens frondosa*, N-Italy, POLDINI, VIDALI & GANIS, (2011, Table 3, column 11);
- 10 *Amorpha fruticosae-Salicetum albae* var. *Humulus lupulus*, N-Italy, POLDINI, VIDALI & GANIS, (2011, Table 3, column 10).

For now, our synthetic table does not include the pioneer white willow community (*Salicetum albae* s. lat.) along the Sotla that was described by ČIMPERŠEK (2010, Table 1). In terms of its species composition this community clearly differs from the studied white wil-

low communities in the Vipava and the Reka Valleys and demonstrates the greatest similarity with the white willow community along the Krka and the Mirna.

The floristic composition of the selected syntaxa was compared with hierarchical classification (Figure 3).

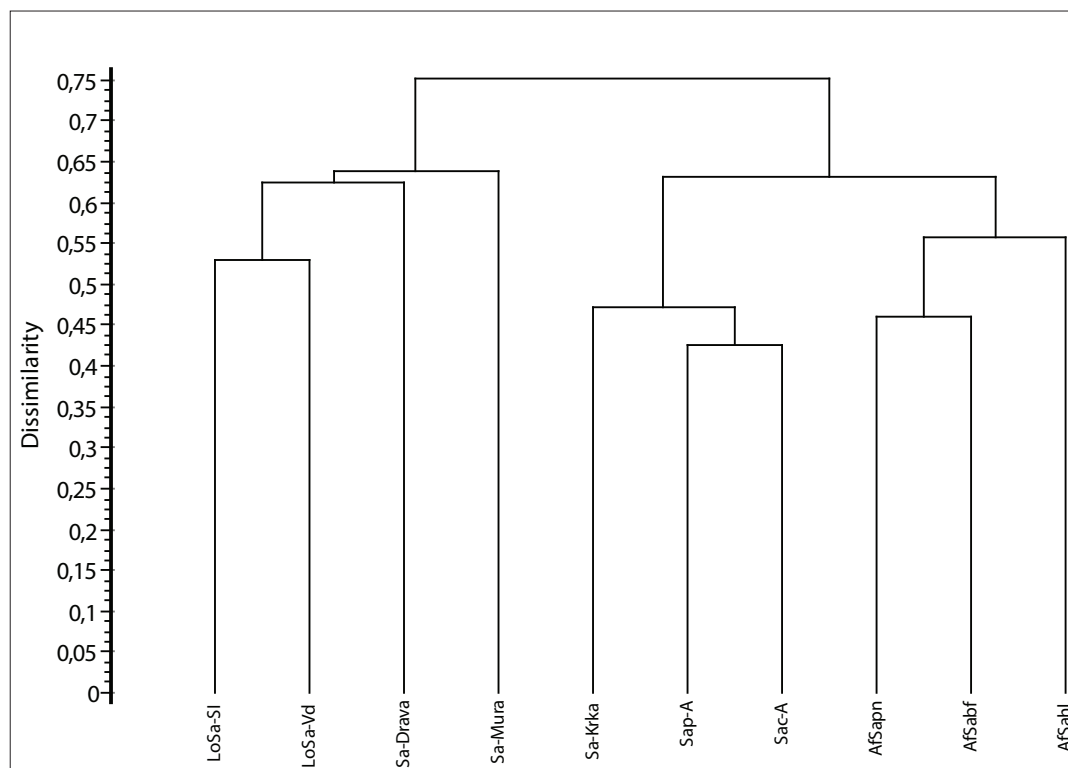


Figure 3: Dendrogram of syntaxa of the macroassociation *Salicetum albae* s. lat. from Slovenia, Austria and northern Italy, UPGMA, similarity ratio

Slika 3: Dendrogram sintaksonov makrosociacije *Salicetum albae* s. lat. iz Slovenije, Avstrije in severne Italije, UPGMA, similarity ratio

The compared syntaxa formed three groups. The first comprises the white willow communities from the Vipava, Reka, Soča and Sava River basins and the white willow communities along the Drava and the Mura. The second group comprises a white willow community along the Krka and Mirna in the Dolenjska region and white willow communities from Austria. The third group comprises white willow communities from northern Italy. Some differences between the compared syntaxa were demonstrated also with the analysis by groups of diagnostic species (Table 5). The white willow communities from the first group are mainly found on deposits of fast-flowing rivers, on gravel and sand. In some places the deposits are slightly elevated from the river surface. The soil is undeveloped, fluvio-

sol, usually flooded several times a year, but nevertheless occasionally very dry. This occasional drying out of sites is frequently the result of human activity, especially regulation of river banks and gravel excavation. The studied communities most significantly differ from real lowland white willow communities, where the soil is moist or even wet for most of the year, by a substantially higher proportion of species from the alliance *Tilio-Acerion*, order *Fageatlia sylvaticae* and class *Quercu-Fagetea* and by a significantly smaller proportion of the species from the class *Phragmiti-Magnocaricetea*. Their species composition demonstrates successional development toward communities from the alliance *Alnion incanae*, which was established also by POLDINI, VIDALI & GANIS (2011). In Austria, such

stands are classified into the subassociation *Salicetum albae cornetosum*, but their floristic composition is clearly different from the floristic composition of the studied communities (Figure 3). White willow stands in Slovenia, especially its western and southwestern part, are well differentiated also by some species of alliances *Erythronio-Carpinion* and *Aremonio-Fagion*, which is partly attributed to the forest vegetation that dominates in their vicinity.

Based on these findings we classify the studied white willow communities along the Vipava and Reka into the new association *Lamio orvalae-Salicetum albae* ass. nov. Its nomenclature type, *holotypus*, is relevé 20 in Table 2. The diagnostic species of the new association are *Salix alba*, *Lamium orvala*, *Ranunculus ficaria*, *Galanthus nivalis*, *Lunaria rediviva* and *Arum maculatum*, i.e. mostly the species that indicate the transitional status of these stands toward the communities from the alliance *Alnion incanae*. Compared to the white willow community along the Reka and the Soča the upper tree layer in the riparian white willow stands along the Vipava River is frequently dominated by black poplar (*Populus nigra*), while box elder (*Acer*

negundo) is spreading rapidly in both the lower tree layer and the shrub layer. The herb layer is best characterised by *Carex pendula*, *Ruscus aculeatus* and *Ornithogalum pyrenaicum*, which are also the differential species of the new subassociation *Lamio orvalae-Salicetum albae caricetosum pendulae*. Its nomenclature type, *holotypus*, is relevé 20 in Table 2. Said species characterise this community both ecologically (alluvium on flysch with dominating marlstone, claystone and sandstone boulders) and phytogeographically (sub-Mediterranean region with warm climate). The relevés of white willow communities from the Reka Valley grouped together with other relevés from the Upper Soča Valley and some other parts of Slovenia (Table 3). They are classified into the new subassociation *Lamio orvalae-Salicetum albae ranunculetosum lanuginosae*. Its differential species are *Ranunculus lanuginosus*, *Cardamine amara*, *Impatiens noli-tangere*, *Fraxinus excelsior* and *Leucojum verum*. The listed species indicate better developed, moist fluvisols, a transition to the communities from the alliance *Alnion incanae* and, compared to the previously described subassociation, a colder climate. Also different is the com-

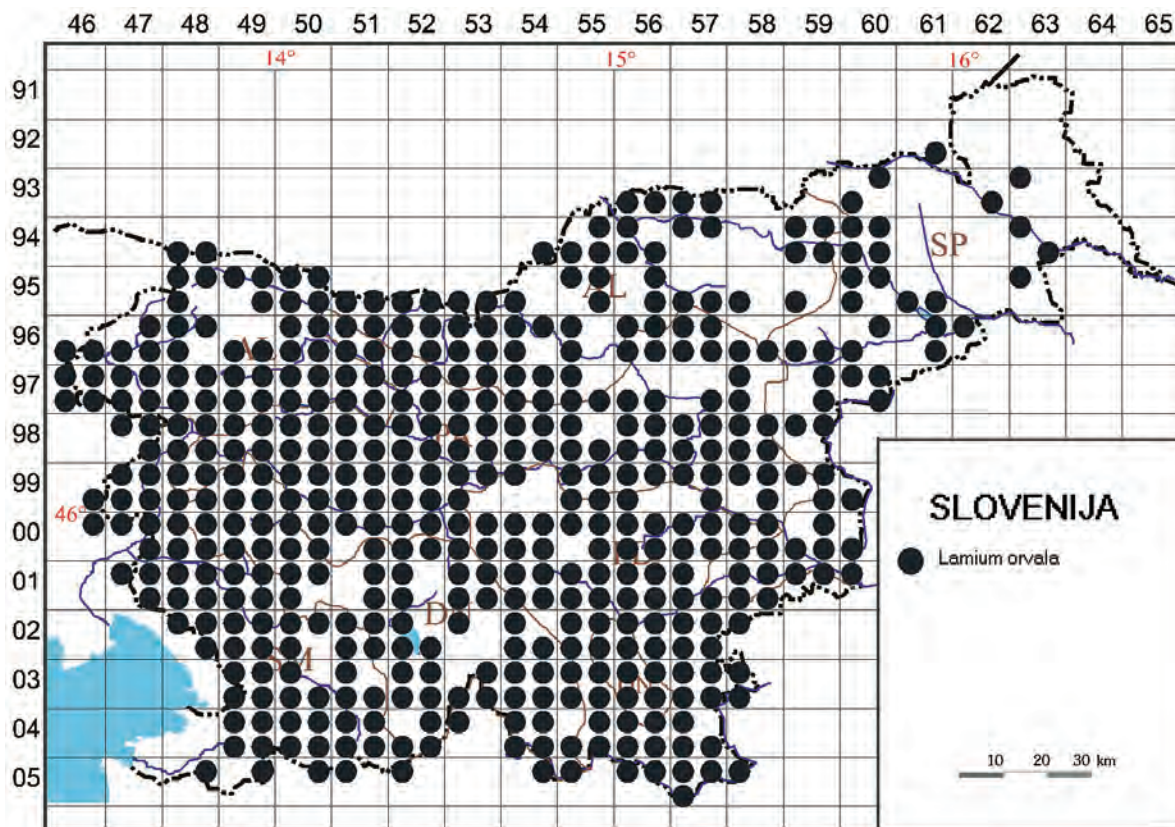


Figure 4: Distribution of *Lamium orvala* in Slovenia
Slika 4. Razširjenost vrste *Lamium orvala* v Sloveniji

position of alluvium, which is usually dominated by calcareous boulders and sand.

The nomenclature type, *holotypus*, of the subassociation *Lamio orvalae-Salicetum albae ranunculetosum lanuginosae* is reléve No. 18 in Table 3. Within this sub-association we distinguish the variant with *Leucojum vernum* (*Lamio orvale-Salicetum albae ranunculetosum lanuginosae* var. *Leucojum vernum*), which comprises the relevés originally described as the syntaxon *Salicetum albae* Issler 1926 *leucojetosum verni* Šilc, Čušin & Dakskobler in Dakskobler, Šilc et Čušin 2004 (DAKSKOBLER, ŠILC & ČUŠIN, 2004, Table 1, relevés 3–15). These relevés do not belong into the association *Salicetum albae* s. str., as was ascertained also by POLDINI, VIDALI & GANIS (2011: 144) in their comparison.

According to our comparisons the association *Lamio orvalae-Salicetum albae* could comprise also the white willow communities along the Mura (ČARNI et al. 2008; KOŠIR et al. 2013) and Drava Rivers (JAVORNIK 2013), even though some of the diagnostic species of this association were not recorded in these stands, in particular not *Lamium orvala* which grows also along the Drava and Mura (Figure 4).

3.3 *Acer negundo* community in the Vipava Valley

Box elder (also boxelder maple) is a Northern American species that was introduced to Europe in 1688 as a park tree. In its native land it grows in flood plains and riverine forests, on disturbed sites with ample water supply. It is a heliophilous and pioneer species and in its native range it often overgrows abandoned farmlands (BRUS 2005: 275). In Slovenia it is grown as an ornamental tree. It spreads spontaneously to riverine and floodplain forests, especially on sites similar to those in its native range. ČARNI et al. (2008) and P. KOŠIR et al. (2013) recorded it in the Mura Valley in the stands of the syntaxa *Salicetum albae*, *Fraxino-Ulmetum effusae allietosum ursini* and *Fraxino-Ulmetum effusae quercetosum roboris*. We recorded it in the Soča Valley, in the stands of associations *Salicetum albae* s. lat., *Lamio orvalae-Alnetum incanae* and *Lamio orvalae-Salicetum eleagni* (DAKSKOBLER, ŠILC & ČUŠIN 2004, DAKSKOBLER & ROZMAN 2013). In the lowlands it already grows spontaneously in the major part of Slovenia, especially along rivers, including the Sava, the Krka and the Drava (Figure 5).

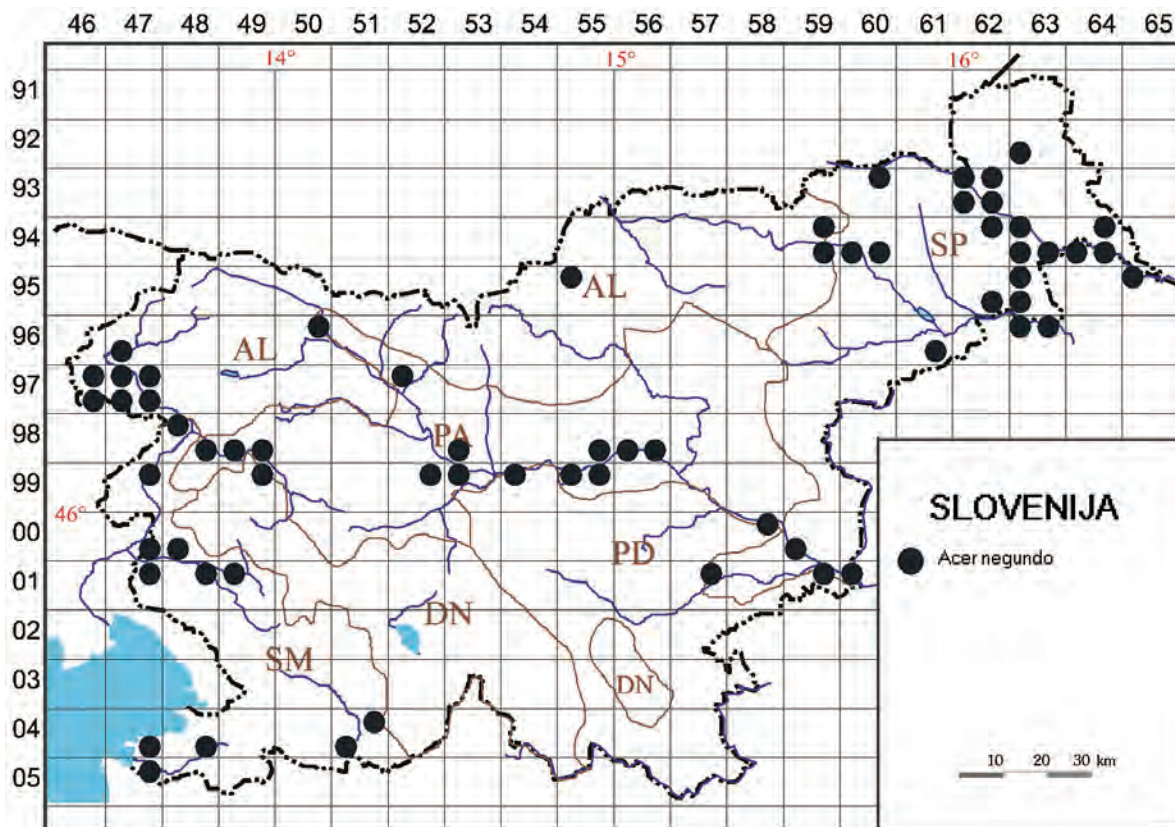


Figure 5: Distribution of *Acer negundo* in Slovenia
Slika 5: Razširjenost vrste *Acer negundo* v Sloveniji

AESCHIMANN et al. (2004: 1044) classify *Acer negundo* as a character species of the alliance *Alnion incanae*. In this article we classify it as a diagnostic species of the alliance *Salicion albae*, as it occurs the most abundantly in the white willow community in the Vipava Valley. We also recorded two riverine stands on abandoned farmland on the right bank of the Lijak between Ajševica and Vogrsko in the lower Vipava Valley, where it is the dominant species of the tree layer (Table 6). For the time being, we classify these two relevés into the provisional new association *Ornithogalo pyrenaici-Aceretum negundi* nom. prov. Its diagnostic species are *Acer negundo*, *Ruscus aculeatus* and *Ornithogalum pyrenaicum*. These stands occurred on contact sites between the communities of white willow (*Lamio orvalae-Salicetum albae*), black alder and common oak (*Lamio orvalae-Alnetum glutinosae*, *Pseudostellario-Carpinetum betuli*) and between the common hornbeam and common oak communities (*Ornithogalo pyrenaici-Carpinetum betuli caricetosum pilosae* var. *Quercus robur*). The provisional association *Ornithogalo-Aceretum negundi* is temporarily classified into the alliance *Alnion incanae*.

3.4 Communities of black alder, common oak and hornbeam

Table 7 comprises 39 relevés of riverine forests in the Vipava Valley that grouped separately from the white willow community that was described in the previous chapters. In order to obtain an adequate syntaxonomical classification of these relevés we made a synthetic table (Appendix 1, available in electronic form) with the following syntaxa:

OrClo *Ornithogalo pyrenaici-Carpinetum betuli lamietosum orvalae*, the Vipava Valley, this article, Table 7, relevés 20–39;

LoAg-Vd *Lamio orvalae-Alnetum glutinosae*, the Vipava Valley, this article, Table 7, relevés 14–19;

LoAgsb-R *Lamio orvalae-Alnetum glutinosae* var. *Scilla bifolia*, the Reka Valley, this article, Table 8, relevés 6–9;

LoAgcb-R *Lamio orvalae-Alnetum glutinosae* var. *Cardamine bulbifera*, the Reka Valley, this article, Table 8, relevés 10–19;

LoAgsb1-R *Lamio orvalae-Alnetum glutinosae* var. *Scilla bifolia*, the Reka Valley, this article, Table 8, relevés 1–5;

LoAg1-Vd *Lamio orvalae-Alnetum glutinosae*, the Vipava Valley, this article, Table 7, relevés 10–13;

LoAg-ZP *Lamio orvalae-Alnetum glutinosae* s. lat., the Soča and Idrija Valleys, Dakskobler, (2016, mscr.);

PsCbla-Vd *Pseudostellario-Carpinetum betuli leucojetosum aestivi*, the Vipava Valley, Lijak, this article, Table 7, relevés 1–9;

Fra-Is *Rusco aculeati-Fraxinetum angustifoliae* nom. prov., Istria, Dakskobler & Sadar (2016, mscr.);

CacAg-R *Carici acutae-Alnetum glutinosae* nom. prov., the Reka Valley, Dakskobler (2016, mscr.);

CraA-Md *Carici randalpinae-Alnetum glutinosae* Martinčič 2007 nom. prov., Dolenjska, the Rašica Valley, Dakskobler (2016, mscr.);

CelAggr-A *Carici elongatae-Alnetum glutinosae* var. *Geum rivale*, Dolenjska, the Kočevje region, ACCETTO (1994, Table 3);

SnAg-A *Stellario-Alnetum glutinosae* var. geogr. *Knautia drymeia*, Dolenjska, ACCETTO (1994, Table 4);

ChAg-It *Corno hungaricae-Alnetum glutinosae*, N-Italy, SBURLINO et al. (2011, Table 1);

CelAg-It *Carici elatae-Alnetum glutinosae*, N-Italy, SBURLINO et al. (2011, Table 2);

CelAgla-A *Carici elongatae-Alnetum glutinosae* var. *Leucojum aestivum*, Dolenjska, the Krka Valley, ACCETTO (1994, Table 2);

CelAgcr-A *Carici elongatae-Alnetum glutinosae caricetosum ripariae*, the Mura Valley (Pomurje), ACCETTO (1994, Table 1, relevés 1–6).

These were mutually compared through hierarchical classification, which produced the following dendrogram (Figure 6).

The results show that most of the relevés from the Vipava Valley and the Reka Valley grouped separately from the relevés of associations *Stellario-Alnetum glutinosae*, *Carici elongatae-Alnetum glutinosae*, *Corno hungaricae-Alnetum glutinosae* and *Carici elatae-Alnetum glutinosae*. The exception are the four relevés made along the stream Kobljak and along the Reka River at Topolc in which neither *Carex elongata* nor *Carex elata* occur; instead, some of these relevés comprise *Carex acuta*, *C. rostrata* and *C. riparia*. These stands are not discussed in this article and we will provide some additional relevés before we make an attempt at a relevant syntaxonomical classification.

Most of the studied black alder stands therefore do not belong to an alder carr, but to a group of riverine (riparian) stands. In Slovenia, such black alder stands are mainly classified into the association *Stellario nemorum-Alnetum glutinosae* (CIMPREŠEK 2013). Similar communities are classified into this association also elsewhere in Europe (DOUDA et al. 2016). Our relevés match the sites of this association in terms of ecology, but not in terms of floristic composition. We therefore classified the relevés with predominant black alder that were made in the Reka Valley (Table 8) into the

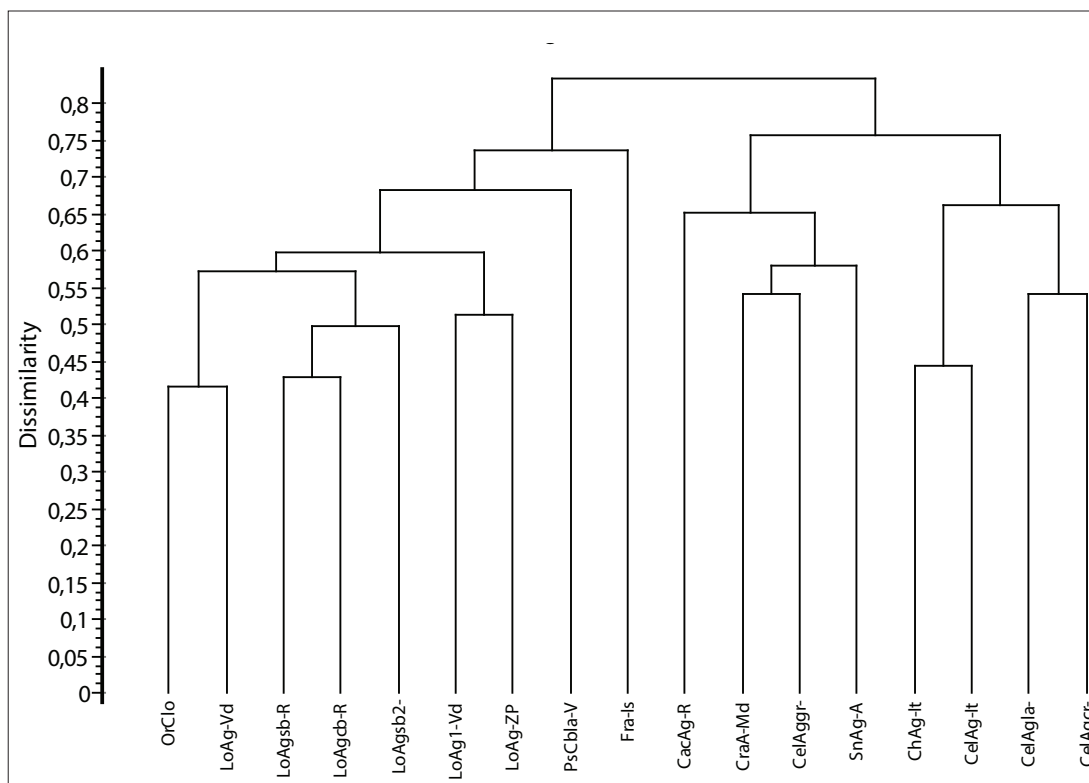


Figure 6: Dendrogram of communities with dominant *Alnus glutinosa*, *Quercus robur* and *Carpinus betulus*, Slovenia, N-Italy, UPGMA, similarity ratio

Slika 6: Dendrogram združb s prevladujočimi vrstami *Alnus glutinosa*, *Quercus robur* in *Carpinus betulus*, Slovenija, severna Italija, UPGMA, similarity ratio

new association *Lamio orvalae-Alnetum glutinosae*. Its diagnostic species are *Alnus glutinosa*, *Lamium orvala*, *Ornithogalum pyrenaicum* and *Galanthus nivalis*. The new association comprises mainly pioneer black alder and European ash stands with individual specimens of white willow, black poplar and, especially in the lower tree layer, white poplar and field maple (*Acer campestre*) on fluvisols or eutric brown soils, primarily along streams, on areas with predominantly mixed parent material (flysch, marlstone, limestone interlayered with marlstone). In the past, such riverine forests that are only occasionally flooded were frequently cut for agricultural land (meadows, orchards). Their appearance today is secondary. They are a long-term pioneer stage that may develop in secondary succession and on automorphic soil into common hornbeam (*Ornithogalo-Carpinetum*) and even beech (*Ornithogalo-Fagetum*) communities. The new association is classified into the alliance *Alnion incanae*. Its nomenclature type, *holotypus*, is relevé 9 in Table 8. In the Reka Valley we currently distinguish two variants, a more hygrophilous

one on fluvisols with *Scilla bifolia* (its differential species is also *Allium ursinum*) and a more pioneer form on predominantly eutric soil, the variant with *Cardamine bulbifera* (its differential species is also *Crocus vernus* subsp. *vernus* = *C. napolitanus*). For now, the association *Lamio orvalae-Alnetum glutinosae* in the Vipava Valley comprises ten relevés (relevés 10–19 in Table 7). We made them at different localities, mainly along lateral streams (Jovšček, Lijak, Pasji rep) and in Panovec, on fluvisols, in places also on pseudogley soils. In addition to the predominant black alder the tree layer sometimes comprises individual specimens of common oak (*Quercus robur*), narrow-leaved ash (*Fraxinus angustifolia*) and European field elm (*Ulmus minor*). *Fraxinus excelsior* and *Carpinus betulus* occur less frequently in these stands than in the stands in the Reka Valley.

Some of the relevés with predominant or frequent black alder in the tree layer (relevés 25–29 in Table 7), especially in the Branica Valley and along the Lijak, grouped with other relevés that are classified into the

association *Ornithogalo-Carpinetum betuli*. MARINČEK, POLDINI & ZUPANČIČ (1983) described this association in the lower Vipava Valley and partly also in the Central Soča Valley and northeastern Italy. Our relevés were made on slightly elevated, but still periodically flooded terraces along the Raša and Branica, a few also along the Vipava and Lijak. The tree layer of the preserved stands is dominated by *Carpinus betulus*, *Alnus glutinosa* and *Acer campestre*. It comprises also individual specimens of *Fraxinus excelsior*, *Acer pseudoplatanus*, *Ulmus glabra* and *U. minor*. Due to coppicing black locust (*Robinia pseudoacacia*) frequently dominates in the tree layer. Its predominance is generally characteristic also in other forms of this association in the Nova Gorica region and the Vipava Valley. Our stands cannot be classified within either subassociation that has been described so far: *-ostretosum carpinifolia* and *-caricetosum pilosae* (MARINČEK, POLDINI, ZUPANČIČ, *ibid.*). They are slightly similar to the stands of the syntaxon *Ornithogalo-Carpinetum caricetosum pilosae* var. *Quercus robur* subvar. *Equisetum telmateia*, except that in our relevés common oak is very rare, just like *Carex pilosa*, which was found in only one relevé, whereas *Equisetum telmateia* was not recorded at all. Our stands are therefore classified into the new subassociation *Ornithogalo-Carpinetum betuli lamietosum orvalae* subass. nov. It indicates relatively moist sites on terraces along streams and small rivers on the transition between fluvisols (hydromorphic) and automorphic (eutric) soils, where black alder occasionally establishes itself in forest stands as a pioneer species. The new subassociation was named after *Lamium orvala*, which is frequent also in other forms of the association *Ornithogalo-Carpinetum*, but indicates mesophilous riverine sites and a certain similarity and contact with the stands of the association *Lamio orvalae-Alnetum glutinosae*. Phytogeographical differential species is the taxon *Helleborus odoros* subsp. *istriacus* (= *H. multifidus* subsp. *istriacus*) that characterises primarily the stands along the Raša and Branica, which are the northern border of its distribution range. The nomenclature type, *holotypus*, of the subassociation *Ornithogalo-Carpinetum betuli lamietosum orvalae* is relevé 33 in Table 7. Relevés 25–29 can be treated as the syntaxon *Ornithogalo-Carpinetum lamietosum orvalae* var. *Alnus glutinosa*.

In the synthetic comparison (Figure 6) two syntaxa formed separate groups. The first comprises the relevés with predominating *Fraxinus angustifolia* on fluvisols in the Slovenian part of Istria. These are temporarily classified into the association *Rusco aculeati-Fraxinetum angustifoliae* nom. prov. (Dakskobler & Sadar 2016, mscr.). The other, floristically unique syn-

taxon comprises the relevés of mixed stands with predominating *Quercus robur*, *Alnus glutinosa*, *Fraxinus angustifolia*, *Ulmus minor* and *Carpinus betulus* (the latter occurs in particular in the lower tree layer) on pseudogley and gley soils on the right bank of the stream Lijak (Log, Butnica) between Ajševica and Vogrsko. These stands did not group with black alder communities on pseudogley and gley soils (associations *Carici elongatae-Alnetum glutinosae*, *Carici acutae-Alnetum glutinosae* nom. prov., *Carici randalpinae-Alnetum glutinosae* nom. prov.), nor with the stands of the syntaxa *Ornithogalo-Carpinetum betuli lamietosum orvalae* and *Lamio orvalae-Alnetum glutinosae*, even though they are more similar to them in terms of their full floristic composition than to the black alder communities in central, eastern, southwestern and southeastern Slovenia. These stands cannot be classified into the predominating forest community in the hills to the southeast of Nova Gorica, into the association *Ornithogalo-Carpinetum*, nor in its most hygrophilous form *-caricetosum pilosae* var. *Quercus robur* subvar. *Equisetum telmateia*. In comparison with the latter, *Alnus glutinosa* in the studied stands has considerably higher medium coverage and its differential species are *Fraxinus angustifolia*, *Ulmus minor* and *Leucojum aestivum*. These obvious differences indicate a much more hygrophilous community on hydromorphic soils that cannot be classified into the alliance *Erythronio-Carpinion* whose communities mainly occur on automorphic soils (brown calcareous or eutric brown soils). In order to obtain an adequate syntaxonomic classification we made a synoptic table (Table 9) that comprises the following syntaxa whose tree layer is dominated by similar species as our stands, namely *Quercus robur*, *Alnus glutinosa*, *Fraxinus angustifolia*, *Ulmus minor*, *U. laevis* and *Carpinus betulus*:

PsCbla *Pseudostellario-Carpinetum betuli leucoje-tosum aestivi*, Lijak, this article, Table 7, relevés 1–9;

PsCb *Pseudostellario-Carpinetum betuli*, Krakovski Gozd, ACCETTO (1973, 1974);

PsQrla *Pseudostellario-Quercetum roboris leucoje-tosum aestivi*, Southeastern Slovenia, ACCETTO (1995, Table 2);

FUeqr *Fraxino-Ulmetum effusae quercetosum roboris*, the Mura Valley (Pomurje), P. KOŠIR et al. (2013, Table 1, relevés 39–58).

The result of this comparison is the dendrogram in Figure 7.

The comparison showed that in terms of their floristic composition the studied stands along the Lijak are the most similar to the stands of the association *Pseudostellario-Carpinetum betuli* and less to the stands

of the association *Pseudostellario-Quercetum roboris* (into which we could probably include relevé 9 in Table 7) and *Fraxino-Ulmetum effusae quercetosum roboris*. The differences between them are evident also from the analysis by groups of diagnostic species (Table 10). Similarly to the stands of the association *Pseudostellario-Carpinetum betuli* the stands of the studied syntaxon comprise a substantially higher proportion of diagnostic species of the classes *Quercio-Fagetea* and *Fagetalia sylvaticae* (together they total more than 45%) than the stands of the syntaxon *Pseudostellario-*

-Quercetum petraeae (less than 20%). The stands of the syntaxon *Pseudostellario-Quercetum roboris* stand out with a high proportion of diagnostic species of the following syntaxonomic units: *Alnion incanae*, *Alno-Quercion roboris*, *Calthion*, *Molinietales caeruleae* and *Phragmiti-Magnocaricetea*, while the stands of the syntaxon *Fraxino-Ulmetum effusae quercetosum roboris* have a high proportion of syntaxonomic units *Alno-Quercion roboris* and *Galio-Urticetea*. Compared to the stands of the association *Pseudostellario-Carpinetum* in southeastern Slovenia the studied stands com-

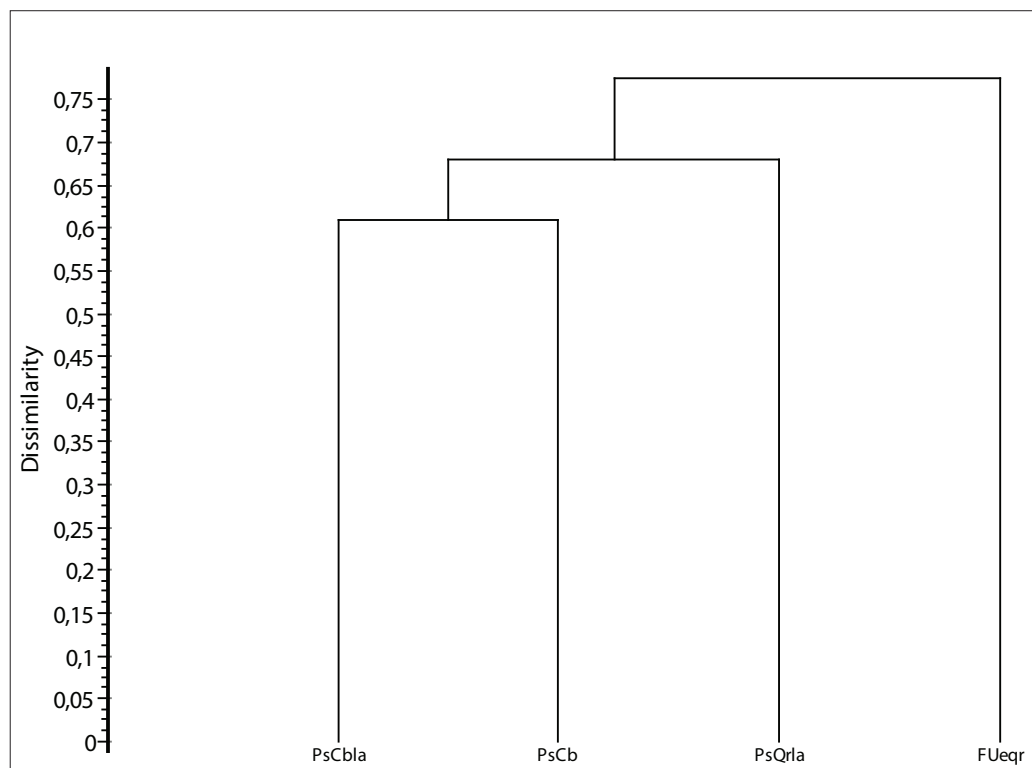


Figure 7: Dendrogram of syntaxa *Pseudostellario-Carpinetum*, *Pseudostellario-Quercetum roboris leucojetosum aestivi* and *Fraxino-Ulmetum effusae quercetosum roboris*, UPGMA, similarity ratio
Slika 7: Dendrogram sintaksonov *Pseudostellario-Carpinetum*, *Pseudostellario-Quercetum roboris leucojetosum aestivi* in *Fraxino-Ulmetum effusae quercetosum roboris*, UPGMA, similarity ratio

prise a distinctly higher proportion of diagnostic species of alliance *Erythronio-Carpinion* and class *Quercio-Fagetea* and a distinctly smaller proportion of species of syntaxonomic groups *Fagetalia sylvaticae*, *Vaccinio-Piceetea*, *Molinio-Arrhenatheretea* and *Galio-Urticetea*.

Based on said comparisons it is the most appropriate that the stands along the Lijak be classified into the new subassociation *Pseudostellario-Carpinetum betuli leucojetosum aestivi* subass. nov. Its nomenclature type,

holotypus, is relevé 5 in Table 7. The diagnostic species of the association *Pseudostellario-Carpinetum Quercus robor*, *Carex remota* and *Pseudostellaria europaea* are well represented in our relevés, whereas *Gagea spathacea* and *Pulmonaria dacica* are absent. The differential species of the new subassociation *-leucojetosum aestivi* are *Leucojum aestivum*, *Fraxinus angustifolia*, *Lamium orvala* and *Allium ursinum*, which indicate a very hygrophilous common oak-common hornbeam community whose ecology is very similar also to the stands of

a slightly more hygrophilous association *Pseudostellario-Quercetum roboris*. Riparian stands along the Lijak are classified into the new geographical variant *Pseudostellario-Carpinetum betuli* var. geogr. *Ranunculus aesontinus* var. geogr. nova. The differential species of the geographical variant are *Ranunculus aesontinus* and *Ruscus aculeatus*, which indicate the occurrence of these stands in western Slovenia and in the sub-Mediterranean phytogeographical region. *Ranunculus aesontinus* is endemic to the southwestern Julian Alps

and their foothills (Figure 8); it occurs only in the Soča Valley and in the neighbouring Friuli Venezia Giulia (WRABER 1996: 87, POLDINI 2002: 400) and characterises the studied stands both in terms of phytogeography and ecology as it is a character species of lowland and hill forest communities on moist sites. So far, the stands of the association *Pseudostellario-Carpinetum betuli* have been known mostly in southeastern Slovenia, in the pre-Dinaric and sub-Pannonian phytogeographical region (ACCETTO 2006).

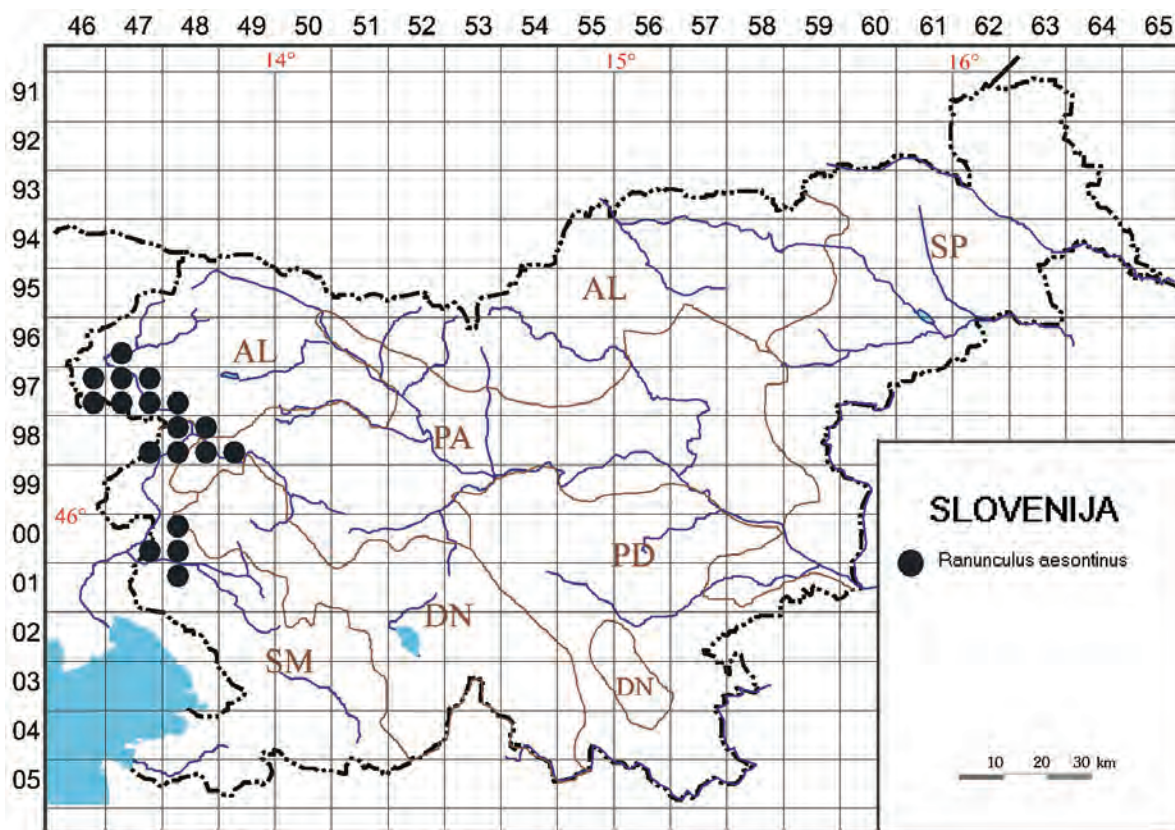


Figure 8: Distribution of *Ranunculus aesontinus* in Slovenia
Slika 8: Razširjenost vrste *Ranunculus aesontinus* v Sloveniji

4 CONCLUSIONS

The synsystematic conspectus of the communities discussed in the article is as follows:

Class: *Salicetea purpureae* Moor 1958
 Order: *Salicetalia purpureae* Moor 1958
 Alliance: *Salicion eleagno-daphnoidis* (Moor 1958) Grass 1993
 Association: *Lamio orvalae-Salicetum purpureae* nom. prov.

Alliance: *Salicion albae* Soó 1951
 Associations and subassociations:
Salicetum albae Issler 1926
 -*phalaridetosum* Wendelberger-Zelinka 1952
 -*cornteosum* Wendelberger-Zelinka 1952
 -*leucojetosum verni* Šilc, Čušin & Dakskobler in Dakskobler, Šilc et Čušin 2004
Amorpho fruticosae-Salicetum albae Poldini, Vidali et Ganis 2011
Lamio orvalae-Salicetum albae ass. nov.
 -*caricetosum pendulae* subass. nov.
 -*ranunculetosum lanuginosae* subass. nov.

Class: *Alnetea glutinosae* Br.-Bl. et Tx. 1943
 Order: *Alnetalia glutinosae* R. Tx. 1937
 Alliance: *Alnion glutinosae* Malcuit 1929
 Associations and subassociations:
Carici elongatae-Alnetum glutinosae Koch ex Tx. 1931
 -*caricetosum ripariae* Accetto 1994
Carici randalpinae-Alnetum glutinosae Martinčič 2007 nom. prov.
Carici elatae-Alnetum glutinosae Franz ex Sbrulino, Poldini, Venanzoni et Ghirelli 2011
Corno hungaricae-Alnetum glutinosae Sbrulino, Poldini, Venanzoni et Ghirelli 2011
Carici acutae-Alnetum glutinosae nom. prov.

Class: *Quercio-Fagetea* Br.-Bl. et Vlieger in Vlieger 1937
 Order: *Fagetalia sylvaticae* Walas 1933
 Alliance: *Alnion incanae* Pawłowski in Pawłowski et al. 1928
 Suballiance: *Ulmenion* Oberdorfer 1953
 Associations and subassociations:
Fraxino angustifoliae-Ulmetum effusae Slavnić 1952
quercetosum roboris P. Košir, Čarni, Marinšek et Šilc 2013
Pseudostellario europaeae-Quercetum roboris Accetto 1974
leucojetosum aestivi Accetto 1995

Suballiance: *Alnenion glutinosae-incanae* Oberdorfer 1953
 Associations:

Stellario nemorum-Alnetum glutinosae Lohmeyer 1957
Lamio orvalae-Alnetum glutinosae ass. nov.
Ornithogalo pyrenaici-Aceretum negundi nom. prov.

Alliance: *Fraxino pannonicae-Carpinion betuli* Accetto 2006
 Association and subassociation:
Pseudostellario-Carpinetum betuli Accetto 1974
leucojetosum aestivi subass. nov.
 var. geogr. *Ranunculus aesontinus* var. geogr. nov.

Alliance: *Erythronio-Carpinion* (Ht. 1938) Marinček in Mucina, Wallnöfer et Grass 1993
 Association and subassociation:
Ornithogalo pyrenaici-Carpinetum betuli Marinček, Poldini et Zupančič ex Marinček 1994
lamietosum orvalae subass. nov.

If we ignore the floristic composition and consider the appearance in terms of habitat types, the communities from the alliance *Alnion incanae* could be classified into the order *Fraxinetalia* Scamoni et Passarge 1959 and class *Populetea albae* Br.-Bl. 1962 (THEURILLAT 2004, ŠILC & ČARNI 2012). In terms of the vegetation classification that was made based on extensive databases for European floodplain forests and alder carr (DOUDA et al. 2016), some of the newly described syntaxa might group within broadly understood macroassociations *Salicetum albae* s. lat. and *Stellario-Alnetum glutinosae* s. lat.

The studied riverine forest communities mainly belong among the habitat types of Community interest (DAKSKOBLER, KUTNAR & ŠILC 2013). They are also site of some protected and Red List species (ANON. 2002, 2004) such as *Pseudostellaria europaea*, *Ranunculus aesontinus*, *Orobanche hederarum*, *Leucojum aestivum*, *Ruscus aculeatus*, *Iris pseudacorus*, *Erythronium dens-caninus*, *Galanthus nivalis*, *Lilium martagon*, *Helleborus odorus*, *Helleborus odorus* subsp. *istriacus*, *Cyclamen purpurascens*, *Neottia nidus-avis*, *Listera ovata*, *Convallaria majalis*, *Dactylorhiza fuchsii*, *Platanthera chlorantha*, *Ilex aquifolium* and *Ophioglossum vulgatum*. The stands of the studied communities are mainly preserved on small areas surrounded by farmland and are subject, especially in the Vipava Valley, to clear-cuttings and other major spatial interventions. They are also exposed to aggressive penetration of alien invasive species, especially *Robinia pseudoacacia* and *Acer negundo*, in places also *Spiraea japonica*, *Quercus rubra*, *Ailanthus altissima*, *Impatiens glandulifera*, *Solidago gigantea*, *Helianthus tuberosus* and others.

5 POVZETEK

Po standardni srednjeevropski metodi smo raziskali obrežne gozdove v Vipavski dolini (62 popisov) in dolini Reke 25 popisov). Popise smo vnesli v bazo FloVe-gSi (T. SELIŠKAR, VREŠ & A. SELIŠKAR 2003) in jih računalniško obdelali s programskim paketom SYN-TAX (PODANI 2001).

5.1 Logi bele vrbe

Pionirski sestoj rdeče vrbe ob reki Vipavi začasno uvrščamo v asociacijo *Lamio orvalae-Salicetum purpureae* nom. prov., dva popisa pionirskega gozda s prevladujočim ameriškim javorjem (*Acer negundo*) ob reki Lijak pa v asociacijo *Ornithogalo pyrenaici-Aceretum negundi* nom. prov.

V obeh raziskovanih območjih smo naredili 24 popisov obrežnih sestojev s prevladujočima belo vrbo ali črnim topolom v drevesni plasti, večino ob reki Vipavi v njenem srednjem teku. Za ustrezno sintaksonomsko uvrstitev smo jih primerjali skupaj z drugimi našimi popisi združb bele vrbe ob reki Soči (glej tudi DAKSKOBLER, ŠILC & ČUŠIN 2004), ob Savi Bohinjki (DAKSKOBLER & ROZMAN 2013), ob reki Savi v Zasavju (VREŠ et al. 2010). Popisi so se združevali v dve veliki skupini (slika 2), zato smo jih uredili v dve analitski preglednici (preglednici 2 in 3). Za njihovo ustrezno sintaksonomsko uvrstitev smo izdelali sintezno tabelo (preglednica 4), v katero smo uvrstili združbe bele vrbe ob Krki in Mirni (ŠILC (2003), Dravi (JAVORNIK (2013), Muri ČARNI et al. (2008), P. KOŠIR et al. (2013), združbe bele vrbe v Avstriji (KARNER 2007) in v severovzhodni Italiji POLDINI, VIDALI & GANIS, (2011). V sintezno tabelo za zdaj nismo uvrstili pionirske oblike združbe bele vrbe (*Salicetum albae* s. lat.) ob Sotli, ki jo je opisal CIMPERŠEK (2010, tabela 1). Ta se po vrstni sestavi očitno razlikuje od preučenihi združb bele vrbe v Vipavski dolini in dolini Reke in kaže največjo podobnost z združbo bele vrbe ob rekah Krki in Mirni.

Primerjani sintaksoni se združujejo v tri skupine. V prvi skupini so združbe bele vrbe iz porečij Vipave, Reke, Soče in Save, prav tako združbe bele vrbe ob Dravi in Muri. V drugi skupini so združba bele vrbe ob Krki in Mirni na Dolenjskem in združbe bele vrbe iz Avstrije. V tretji skupini so združbe bele vrbe iz severne Italije. Na nekatere razlike med primerjanimi sintaksoni pokaže tudi analiza po skupinah diagnostičnih vrst (preglednica 5). V prvi skupini so v glavnem združbe bele vrbe na naplavinah hitreje tekočih rek, na produ in mivki. Naplavine so ponekod nekoliko dvignjene nad gladino reke. Tla so nerazvita, obreč-

na, navadno vsako leto nekajkrat poplavljena, a občasno tudi precej suha. K delnemu osuševanju rastišč pogosto vpliva človek, predvsem z regulacijami rečnih brežin in izkopom proda. Od pravihi nižinskihi združb bele vrbe, v katerih so tla v večjem delu leta vlažna ali celo mokra, se preučene združbe najbolj očitno ločijo po bistveno večjem deležu vrst zveze *Tilio-Acerion*, reda *Fagetalia sylvaticae* in razreda *Quercio-Fagetea* in po bistveno manjšem deležu vrst iz razreda *Phragmito-Magnocaricetea*. V njihovi vrstni sestavi se kaže sukcesijski razvoj proti združbam iz zveze *Alnion incanae*, kar so ugotovili tudi POLDINI, VIDALI & GANIS (2011). V Avstriji takšne sestoje uvrščajo v subasociacijo *Salicetum albae cornetosum*, a je njihova floristična sestava očitno drugačna od floristične sestave preučenihi združb (slika 3). Sestoje bele vrbe v Sloveniji, še posebej v njenem zahodnem in jugozahodnem delu, dobro razlikujejo tudi nekatere vrste iz zvez *Erythronio-Carpinion* in *Aremonio-Fagion*, kar je deloma povezano z okoliško prevladujočo gozdno vegetacijo.

Na podlagi teh ugotovitev preučevane združbe bele vrbe ob rekah Vipavi in Reki uvrščamo v novo asociacijo *Lamio orvalae-Salicetum albae* ass. nov. Njen nomenklaturni tip, *holotypus*, je popis št. 20 v tabeli 2. Diagnostične vrste nove asociacije so *Salix alba*, *Lamium orvala*, *Ranunculus ficaria*, *Galanthus nivalis*, *Lunaria rediviva* in *Arum maculatum*, torej predvsem vrste, ki kažejo na prehodni položaj teh sestojev proti združbam iz zveze *Alnion incanae*. Posebnost logov bele vrbe ob reki Vipavi v primerjavi z združbo bele vrbe ob rekah Reki in Soči je v sestavi zgornje drevesne plasti, v kateri je pogosto prevladujoč črni topol (*Populus nigra*), v spodnji drevesni in grmovni plasti se močno širi ameriški javor (*Acer negundo*). V zeliščni plasti te sestoje najbolj označujejo vrste *Carex pendula*, *Ruscus aculeatus* in *Ornithogalum pyrenaicum*, ki so tudi razlikovalnice nove subasociacije *Lamio orvalae-Salicetum albae caricetosum pendulae*. Njen nomenklaturni tip, *holotypus*, je popis št. 20 v tabeli 2. Naštete vrste to združbo označujejo ekološko (naplavine na flišu s prevladujočimi prodniki laporovca, glinavca in peščenjaka) in fitogeografsko (submediteransko območje s toplim podnebjem). Popisi združb bele vrbe iz doline Reke so se združevali skupaj z drugimi našimi popisi iz Zgornjega Posočja in nekaterih drugih delov Slovenije (preglednica 3). Te sestoje uvrščamo v novo subasociacijo *Lamio orvalae-Salicetum albae ranunculetosum lanuginosae*. Njene razlikovalnice so vrste *Ranunculus lanuginosus*, *Cardamine amara*, *Impatiens noli-tangere*, *Fraxinus excelsior* in *Leucojum verum*. Naštete vrste kažejo na bolj razvita vlažna obrečna tla,

prehod v združbe iz zveze *Alnion incanae* in na v primerjavi s prej opisano subasociacijo bolj hladno podnebje. Drugačna je tudi sestava naplavin, v kateri navadno prevladujejo karbonatni prodniki in mivka.

Nomenklaturni tip, *holotypus*, subasociacije *Lamio orvalae-Salicetum albae ranunculetosum lanuginosae* je popis št. 18 v tabeli 3. Znotraj te subasociacije razlikujemo varianto z vrsto *Leucojum vernum* (*Lamio orvalae-Salicetum albae ranunculetosum lanuginosae* var. *Leucojum vernum*), v katero uvrščamo popise, ki smo jih prvotno opisali kot sintakson *Salicetum albae* Issler 1926 *leucojetosum verni* Šilc, Čušin & Dakskobler in Dakskobler, Šilc et Čušin 2004 (DAKSKOBLER, ŠILC & ČUŠIN, 2004, Tabela 1, popisi 3–15). Da ti popisi ne sodijo v asociacijo *Salicetum albae* s. str. so v svoji primerjavi ugotovili tudi POLDINI, VIDALI & GANIS (2011: 144).

V asociacijo *Lamio orvalae-Salicetum albae* bi po naših primerjavah lahko uvrstili tudi združbe bele vrbe ob Muri (ČARNI et al. 2008; KOŠIR et al. 2013) in Dravi (JAVORNIK 2013), čeprav v teh sestojih niso popisali nekaterih diagnostičnih vrst te asociacije, predvsem ne vrste *Lamium orvala*, ki pa uspeva tudi ob Dravi in Muri (slika 4).

5.2 Logi črne jelše, doba in belega gabra

Za ustrezno sintaksonomsko uvrstitev sestojev s prevladujočo črno jelšo v Vipavski dolini in dolini Reke smo izdelali sintezno preglednico (priloga 1, dostopna je v elektronski obliki), v katero smo poleg naših še ne objavljenih združb upoštevali do zdaj opisane združbe črne jelše iz Slovenije (ACCETTO 1994) in severne Italije (SBURLINO et al. 2011).

Rezultati (slika 6) so pokazali, da se je večina popisov iz Vipavske doline in doline Reke združevala ločeno od popisov asociacij *Stellario-Alnetum glutinosae*, *Carici elongatae-Alnetum glutinosae*, *Corno hungaricae-Alnetum glutinosae* in *Carici elatae-Alnetum glutinosae*. Izjema so štirje popisi, ki smo jih naredili ob potoku Kobljak in ob Reki pri Topolcu, v katerih pa ne uspevata vrsti *Carex elongata* in *Carex elata*, pač pa, a le na nekaterih popisih, vrste *Carex acuta*, *C. rostrata* in *C. riparia*. Teh sestojev v tem članku za zdaj ne obravnavamo, za njihovo ustrezno sintaksonomsko uvrstitev bomo poskušali poiskati še nekaj dodatnih popisov.

Večina preučениh sestojev črne jelše torej ne sodi v jelšev grez, temveč v skupino obrečnih (obvodnih) logov. Takšna črna jelševja v Sloveniji v glavnem uvrščamo v asociacijo *Stellario nemorum-Alnetum glutinosae* (CIMPREŠEK 2013) in podobne združbe tudi širše v Evropi uvrščajo v to asociacijo (DOUDA et al.

2016). Naši popisi ekološko ustrezajo rastiščem te asociacije, nikakor pa ne po floristični sestavi. Zato smo popise s prevladujočo črno jelšo, ki smo jih naredili v dolini Reke (preglednica 8) uvrstili v novo asociacijo *Lamio orvalae-Alnetum glutinosae*. Njene diagnostične vrste so *Alnus glutinosa*, *Lamium orvala*, *Ornithogalum pyrenaicum* in *Galanthus nivalis*. V novo asociacijo uvrščamo v glavnem pionirske sestoje črne jelše in velikega jesena s posamično primesjo bele vrbe, črnega topola in predvsem v spodnji drevesni plasti tudi belega gabra in poljskega javorja (*Acer campestre*) na obrečnih tleh ali evtričnih rjavih tleh, predvsem ob potokih, na območjih, kjer prevladuje mešana geološka podlaga (fliš, laporovec, apnenec s primesjo laporovca). Pogosto so bili tovrstni obrečni gozdovi, ki so le občasno poplavljeni, izkrčeni za kmetijske površine (travnike, sadovnjake). Njihova zdajšnja podoba je drugotna. So dolgotrajen pionirski stadij, ki se na avtomorfni tleh lahko v drugotni sukcesiji razvije v združbe belega gabra (*Ornithogalo-Carpinetum*) ali celo bukve (*Ornithogalo-Fagetum*). Novo asociacijo uvrščamo v zvezo *Alnion incanae*. Njen nomenklaturni tip, *holotypus*, je popis št. 9 v preglednici 8. V dolini Reke za zdaj razlikujemo dve varianti, bolj vlagoljubno varianto na obrečnih tleh z vrsto *Scilla bifolia* (njena razlikovalnica je tudi vrsta *Allium ursinum*) in bolj pionirsko obliko na prevladujočih evtričnih tleh, varianto z vrsto *Cardamine bulbifera* (razlikovalnica je tudi vrsta *Crocus vernus* subsp. *vernus* = *C. napolitanus*). V Vipavski dolini smo v asociacijo *Lamio orvalae-Alnetum glutinosae* za zdaj uvrstili deset popisov (popisi 10–19 v preglednici 7). Naredili smo jih na različnih nahajališčih, v glavnem ob stranskih potokih (Jovšček, Lijak, Pasji rep) in v Panovcu, na obrečnih, ponekod tudi psevdoglejnih tleh. V drevesni plasti poleg prevladujoče črne jelše ponekod posamično rastejo tudi dob (*Quercus robur*), ozkolistni jesen (*Fraxinus angustifolia*) in poljski brest (*Ulmus minor*). Vrsti *Fraxinus excelsior* in *Carpinus betulus* sta v teh sestojih nekoliko redkejši kot v sestojih v dolini Reke.

Nekaj popisov s prevladujočo ali pogosto črno jelšo v drevesni plasti (popisi 25–29 v preglednici 7), predvsem v dolini Branice in ob Lijaku, se je združevalo z ostalimi popisi, ki jih uvrščamo v asociacijo *Ornithogalo-Carpinetum betuli*. To asociacijo so MARINČEK, POLDINI & ZUPANČIČ (1983) opisali v spodnji Vipavski dolini in deloma tudi v srednjem Posočju in severovzhodni Italiji. Naše popise smo naredili na nekoliko dvignjenih, a še vedno občasno poplavljenih terasah ob Raši in Branici, redkeje tudi ob Vipavi in Lijaku. V drevesni plasti ohranjenih sestojev prevladujejo vrste *Carpinus betulus*, *Alnus glutinosa* in *Acer campestre*. Posamično so primešane vrste *Fraxinus*

excelsior, *Acer pseudoplatanus*, *Ulmus glabra* in *U. minor*. Pogosto v drevesni plasti prevladuje robinija (*Robinia pseudoacacia*), ker je posledica panjevskega gospodarjenja. Njena prevlada je splošna značilnost tudi v drugih oblikah te asociacije na Goriškem in v Vipavski dolini. Naše sestoje ne moremo uvrstiti v nobeno od do zdaj opisanih subasociacij: *-ostryetosum carpinifolia* in *-caricetosum pilosae* (MARINČEK, POLDINI, ZUPANČIČ, *ibid.*). Nekoliko podobni so sestojem sintaksona *Ornithogalo-Carpinetum caricetosum pilosae* var. *Quercus robur* subvar. *Equisetum telmateia*, vendar je v naših popisih dob zelo redek, prav tako vrsta *Carex pilosa* (našli smo jo na enem samem popisu), vrste *Equisetum telmateia* pa sploh nismo popisali. Zato jih uvrščamo v novo subasociacijo *Ornithogalo-Carpinetum betuli lamietosum orvalae* subass. nov. Označuje razmeroma vlažna rastišča na terasah potokov in manjših rek na prehodu med obrečnimi (hidromorfnimi) in avtomorfnimi (evtričnimi) tlemi, kjer se v sestojih ponekod kot pionir uveljavlja tudi črna jelša. Novo subasociacijo smo imenovali po vrsti *Lamium orvala*, ki je sicer pogosta tudi v drugih oblikah asociacije *Ornithogalo-Carpinetum*, a kaže na mezofilna obrečna rastišča in določeno podobnost in stik s sestoji asociacije *Lamio orvalae-Alnetum glutinosae*. Fitogeografska razlikovalnica je takson *Helleborus odorus* subsp. *istriacus* (= *H. multifidus* subsp. *istriacus*), ki označuje predvsem sestoje ob Raši in Branici, kjer ima severno mejo svoje razširjenosti. Nomenklaturni tip, *holotypus*, subasociacije *Ornithogalo-Carpinetum betuli lamietosum orvalae* je popis št. 33 v tabeli 7. Popise št. 25–29 lahko vrednotimo kot sintakson *Ornithogalo-Carpinetum lamietosum orvalae* var. *Alnus glutinosa*.

V sintezni primerjavi (slika 6) sta se ločeno od ostalih združevali dva sintaksona. V prvega smo uvrstili popise s prevladujočo vrsto *Fraxinus angustifolia* na obrečnih tleh v slovenskem delu Istre. Začasno te popise uvrščamo v asociacijo *Rusco aculeati-Fraxinetum angustifoliae* nom. prov. (Dakskobler & Sadar 2016, mscr.). V drugem floristično posebnem sintaksonu so združeni popisi mešanih sestojev s prevladujočimi vrstami *Quercus robur*, *Alnus glutinosa*, *Fraxinus angustifolia*, *Ulmus minor* in *Carpinus betulus* (slednji raste predvsem v spodnji drevesni plasti) na psevdoglejnih in oglejenih tleh na desnem bregu potoka Lijak (Log, Butnica) med Ajševico in Vogrskim. Ti sestoji se niso združevali z združbami črne jelše na psevdoglejnih in oglejenih tleh (asociacije *Carici elongatae-Alnetum glutinosae*, *Carici acutae-Alnetum glutinosae* nom. prov., *Carici randalpinae-Alnetum glutinosae* nom. prov.), niti s sestoji sintaksonov *Ornithogalo-Carpinetum betuli lamietosum orvalae* in *Lamio orvalae-Alnetum glutinosae*, čeprav so po celotni vrstni sestavi tem

bližje kot združbam črne jelše v osrednji, vzhodni, jugozahodni in jugovzhodni Sloveniji. Teh sestojev ne moremo uvrstiti v prevladujočo okoliško gozdno združbo v gričevju jugovzhodno od Nove Gorice, v asociacijo *Ornithogalo-Carpinetum*, niti v njeno najbolj vlagoljubno obliko *-caricetosum pilosae* var. *Quercus robur* subvar. *Equisetum telmateia*. V primerjavi z njo ima v preučeni sestoji bistveno večje srednje zastiranje vrsta *Alnus glutinosa*, razlikovalne pa so vrste *Fraxinus angustifolia*, *Ulmus minor* in *Leucosium aestivum*. Te očitne razlike kažejo na precej bolj vlagoljubno združbo na hidromorfnih tleh, ki je ne moremo uvrstiti v zvezo *Erythronio-Carpinion*, katere združbe v glavnem uspevajo na avtomorfnih tleh (rjava pokarbonatna ali evtrična rjava tla). Za ustrezno sintaksonomsko uvrstitev smo izdelali sintezni preglednico (preglednica 9), v kateri smo naše sestoje primerjali s sestoji sintaksonov *Pseudostellario-Carpinetum betuli* (ACCETTO 1974), *Pseudostellario-Quercetum roboris leucojetosum aestivi* (ACCETTO 1995) in *Fraxino-Ulmetum effusae quercetosum roboris* (P. KOŠIR et al. 2013). Primerjava je pokazala, da so preučeni sestoji ob Lijaku po vrstni sestavi še najbolj podobni sestojem asociacije *Pseudostellario-Carpinetum betuli*, manj pa sestojem asociacij *Pseudostellario-Quercetum roboris* (v to asociacijo bi morda lahko uvrstili popis št. 9 v preglednici 7) in *Fraxino-Ulmetum effusae quercetosum roboris*. Na razlike med njimi pokaže tudi analiza po skupinah diagnostičnih vrst (preglednica 10). V sestojih preučene sintaksona je, podobno kot v sestojih asociacije *Pseudostellario-Carpinetum betuli*, bistveno večji delež diagnostičnih vrst razreda *Quercus-Fagetalia* in *Fagetalia sylvaticae* (skupno več kot 45 %) kot v sestojih sintaksona *Pseudostellario-Quercetum petraeae* (manj kot 20 %). Sestoji sintaksona *Pseudostellario-Quercetum roboris* izstopajo po visokem deležu diagnostičnih vrst naslednjih sintaksonomskih enot: *Alnion incanae*, *Alno-Quercion roboris*, *Calthion*, *Molinietalia caeruleae* in *Phragmiti-Magnocaricetea*, sestoji sintaksona *Fraxino-Ulmetum effusae quercetosum roboris* pa po visokem deležu sintaksonomskih enot *Alno-Quercion roboris* in *Galio-Urticetea*. V preučeni sestoji je v primerjavi s sestoji asociacije *Pseudostellario-Carpinetum* v jugovzhodni Sloveniji očitno večji delež diagnostičnih vrst zveze *Erythronio-Carpinion* in razreda *Quercus-Fagetalia* ter očitno manjši delež vrst sintaksonomskih skupin *Fagetalia sylvaticae*, *Vaccinio-Piceetea*, *Molinio-Arrhenatheretea* in *Galio-Urticetea*. Na podlagi navedenih primerjav je med mogočimi izbirami za zdaj najbolj ustrezna uvrstitev sestojev ob Lijaku v novo subasociacijo *Pseudostellario-Carpinetum betuli leucojetosum aestivi* subass. nov. Njen nomenklaturni tip, *holotypus*, je popis št. 5 v preglednici

št. 7. Diagnostične vrste asociacije *Pseudostellario-Carpinetum Quercus robur*, *Carex remota* in *Pseudostellaria europaea* so v naših popisih dobro zastopane, manjkata le vrsti *Gagea spathacea* in *Pulmonaria dacica*. Razlikovalnice nove subasociacije *-leucojetosum aestivi* so vrste *Leucojum aestivum*, *Fraxinus angustifolia*, *Lamium orvala* in *Allium ursinum*, ki kažejo na zelo vlagoljubno dobovo-belogabrovo združbo, ki je po svoji ekologiji precej podobna tudi sestojem še nekoliko bolj vlagoljubne asociacije *Pseudostellario-Quercetum roboris*. Sestoje v logih ob Lijaku uvrščamo v novo geografsko varianto *Pseudostellario-Carpinetum betuli* var. geogr. *Ranunculus aesontinus* var. geogr. nova. Razlikovalnici geografske variante sta vrsti *Ranunculus aesontinus* in *Ruscus aculeatus*, ki kažeta na uspevanje teh sestojev v zahodni Sloveniji in v submediteranskem fitogeografskem območju. Vrsta *Ranunculus aesontinus* je endemit jugozahodnih Julijskih Alp s prigorjem (slika 8), razširjena le v Posočju in v sosednji Furlaniji Julijski krajini (WRABER 1996: 87, POLDINI 2002: 400) in obravnavane sestoje označuje tako fitogeografsko kot ekološko, saj je značilnica nižinskih in gričevnatih gozdnih združb na vlažnih rastiščih. Doselej smo sestoje asociacije *Pseudostellario-Carpinetum betuli* poznali predvsem v jugovzhodni Sloveniji, v preddinarskem in subpanonskem fitogeografskem območju (ACCETTO 2006).

5.3 Zaključki

Obravnavane obrežne gozdne združbe večinoma sodijo med evropsko varstveno pomembne habitatne tipe (DAKSKOBLER, KUTNAR & ŠILC 2013). V njih uspevajo tudi nekatere zavarovane vrste in vrste iz rdečega seznama (ANON. 2002, 2004), kot so *Pseudostellaria europaea*, *Ranunculus aesontinus*, *Orobancha hederatae*, *Leucojum aestivum*, *Ruscus aculeatus*, *Iris pseudacorus*, *Erythronium dens-canis*, *Galanthus nivalis*, *Lilium martagon*, *Helleborus odoratus*, *Helleborus odoratus* subsp. *istriacus*, *Cyclamen purpurascens*, *Neottia nidus-avis*, *Listera ovata*, *Convallaria majalis*, *Dactylorhiza fuchsii*, *Platanthera chlorantha*, *Ilex aquifolium* in *Ophioglossum vulgatum*. Večinoma so sestoji obravnavanih združb ohranjeni na majhnih površinah, obdani s kmetijsko krajino in še posebej v Vipavski dolini izpostavljeni krčitvam in drugim grobim posegom v prostor. Vanje agresivno prodirajo tujerodne invazivne vrste, še posebej *Robinia pseudoacacia* in *Acer negundo*, ponekod tudi *Spiraea japonica*, *Quercus rubra*, *Ailanthus altissima*, *Impatiens glandulifera*, *Solidago gigantea*, *Helianthus tuberosus* in druge.

ACKNOWLEDGEMENTS

The article is part of «The design of monitoring of the conservation status of minor Natura 2000 forest habitat types in Slovenia (V4-1430) and Planning and silvicultural intervention in the presence of alien invasive tree species» (V4-1431) projects that are financed by the Slovenian Research Agency and the Ministry of Agriculture and Environment of the RS. I would like to thank Mag. Boško Čušin, Dr. Urban Šilc (riparian stands along the Soča), Mag. Andrej Seliškar, Dr. Branko Vreš

(riparian stands along the Sava), Dr. Andrej Rozman (riparian stands along the Sava Bohinjka), Branko Dolinar (riparian stands along the Rašica), Zvone Sadar (riparian stands in Istria), Prof. Dr. Marko Accetto and Academician Dr. Mitja Zupančič for their valuable advice and help in my field work and data processing. Matej Reščič was the one who pointed out the riparian stands between Ajševica and Vogrsko and in the Brkini Hills. English translation by Andreja Šalamon Verbič.

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ABBREVIATIONS – OKRAJŠAVE

Parent material (Geološka podlaga)

Al Alluvium – rečni nanosi

Soil types (Talni tipi)

Fl Fluvisols – obrečna tla

Pg Pseudogley and gley soils – pseudoglej in oglejena tla

Eu Eutric brown soil – evtrična rjava tla



Figure 9: Stand of the association *Lamio orvalae-Salicetum albae*, the Vipava Valley
Slika 9: Sestoj asociacije *Lamio orvalae-Salicetum albae*, Vipavska dolina



Figure 10: Stand of the association *Ornithogalo-Aceretum negundi*, Lijak
Slika 10: Sestoj asociacije *Ornithogalo-Aceretum negundi*, Lijak



Figure 11: Stand of the association *Lamio orvalae-Alnetum glutinosae*, Brkini
Slika 11: Sestoj asociacije *Lamio orvalae-Alnetum glutinosae*, Brkini



Figure 12: Stand of the subassociation *Pseudostellario-Carpinetum betuli leucojetosum aestivi*, Lijak
Slika 12: Sestoj subasociacije *Pseudostellario-Carpinetum betuli leucojetosum aestivi*, Lijak

Photos– Fotografije (Photo / Foto: I. Dakskobler)

Table 1 (Preglednica 1): *Lamio orvalae-Salicetum purpureae* nom. prov.

	Number of relevé (Zaporedna številka popisa)	1
	Database number of relevé (Delovna številka popisa)	259352
	Elevation in m (Nadmorska višina v m)	70
	Aspect (Lega)	0
	Slope in degrees (Nagib v stopinjah)	0
	Parent material (Matična podlaga)	Al
	Soil (Tla)	Fl
	Stoniness in % (Kamnitost v %)	0
	Cover in % (Zastiranje v %):	
	Shrub layer (Grmovna plast)	E2 80
	Herb layer (Zeliščna plast)	E1 20
	Number of species (Število vrst)	17
	Relevé area (Velikost popisne ploskve)	m ² 200
	Date of taking relevé (Datum popisa)	14.4.2015
	Locality (Nahajališče)	Selo
	Quadrant (Kvadrant)	0148/2
	Coordinate GK Y (D-48)	m 406780
	Coordinate GK X (D-48)	m 5081966
SA	<i>Salicion albae</i>	
	<i>Populus nigra</i>	E2b +
	<i>Salix alba</i>	E2b +
	<i>Acer negundo</i>	E2a +
SP	<i>Salicetalia purpureae</i>	
	<i>Salix purpurea</i>	E2b 4
AG	<i>Alnetea glutinosae</i>	
	<i>Alnus glutinosa</i>	E2b +
AQR	<i>Alno-Quercion roboris</i>	
	<i>Fraxinus angustifolia</i>	E1 +
AF	<i>Aremonio-Fagion</i>	
	<i>Lamium orvala</i>	E1 +
QF	<i>Quercio-Fagetea</i>	
	<i>Ranunculus ficaria</i>	E1 1
FB	<i>Festuco-Brometea</i>	
	<i>Brachypodium rupestre</i>	E1 +
Mo	<i>Molinietalia caeruleae</i>	
	<i>Sanguisorba officinalis</i>	E1 +
PP	<i>Potentillo-Polygonetalia</i>	
	<i>Rumex conglomeratus</i>	E1 +
MA	<i>Molinio-Arrhenatheretea</i>	
	<i>Poa trivialis</i>	E1
	<i>Dactylis glomerata</i>	E1 +
PM	<i>Phragmiti-Magnocaricetea</i>	
	<i>Phalaris arundinacea</i>	E1 +
GU	<i>Galio-Urticetea</i>	
	<i>Alliaria petiolata</i>	E1 +
	<i>Urtica dioica</i>	E1 +
	<i>Galium aparine</i>	E1 +
O	Other species (Druge vrste)	
	<i>Allium ampeloprasum</i>	E1 +

Table 2 (Preglednica 2): *Lamio orvalae-Salicetum albae caricetosum pendulae*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Number of relevé (Zaporedna številka popisa)	252002	252003	254604	254605	259345	252078	252163	255931	255933	259343	259344	259339	259348	259341	259346	255929	252004	252005	254580	254595	254606	254607
Database number of relevé (Delovna številka popisa)																						
Elevation in m (Nadmorska višina v m)	75	75	75	75	62	74	75	70	70	70	70	70	70	70	70	64	79	80	57	60	74	72
Aspect (Lega)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Slope in degrees (Nagib v stopinjah)	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al
Parent material (Matična podlaga)	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl
Soil (Tla)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stoniness in % (Kamnitost v %)																						
Cover in % (Zastiranje v %):																						
Upper tree layer (Zgornja drevesna plast)	E3b	70	80	80	99	70	70	80	70	70	70	80	80	80	80	70	80	70	70	70	80	90
Lower tree layer (Spodnja drevesna plast)	E3a	20	20	30	20	30	30	20	20	30	20	30	20	30	10	30	20	20	30	20	30	20
Shrub layer (Grmovna plast)	E2	40	30	60	50	60	40	20	20	30	15	10	20	20	20	40	40	20	30	30	40	30
Herb layer (Zeliščna plast)	E1	90	90	95	90	90	80	60	60	80	80	80	40	90	70	80	90	85	100	60	70	60
Moss layer (Mahovna plast)	E0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0
Maximum diameter of trees (Največji prsni premer dreves)	cm	85	80	50	80	100	120	100	120	100	120	80	60	140	80	100	50	85	100	35	60	40
Maximum height of trees (Največja drevesna višina)	m	35	30	25	35	30	35	30	35	25	35	28	24	35	35	30	22	30	30	22	32	24
Number of species (Število vrst)	60	58	42	22	37	44	62	50	45	32	31	22	28	27	29	49	38	45	45	59	26	25
Relevé area (Velikost popisne ploskve)	m ²	400	400	400	200	200	400	200	200	200	200	200	200	200	200	200	200	200	200	200	400	400
Date of taking relevé (Datum popisa)	4/1/2014	4/1/2014	4/22/2014	4/22/2014	4/14/2015	4/10/2014	4/14/2014	4/14/2015	4/14/2015	4/14/2015	4/14/2015	4/14/2015	4/14/2015	4/14/2015	4/14/2015	4/14/2015	4/1/2014	4/2/2014	10/2/2014	10/2/2014	4/22/2014	4/22/2014
Locality (Nahajališče)	Velike Zabjše	Male Zabjše	Brje-Velike Zabjše	Brje-Velike Zabjše	Zalošče	Male Zabjše	Brje	Brje	Selo	Brje	Selo	Selo	Brje	Brje	Selo	Batuje	Male Zabjše	Ustje - Uhanje	Ljāk	Ljāk	Brje-Velike Zabjše	Brje-Velike Zabjše
Quadrant (Kvadrant)	0149/1	0149/1	0149/1	0149/1	0148/2	0149/1	0149/1	0148/2	0148/2	0148/2	0148/2	0148/2	0148/2	0148/2	0148/2	0148/2	0149/1	0149/1	0048/3	0048/3	0149/1	0148/2
Coordinate GK Y (D-48)	411301	409748	409783	403770	409775	409606	407496	406595	407201	407201	406652	407306	407244	407456	406707	404323	411246	412618	399659	399572	409847	408974
Coordinate GK X (D-48)	5081499	5081324	5081279	5083232	508379	5081338	5081812	5082133	5081856	5081856	5082156	5081972	5081918	5082002	5082117	5083251	5081603	5080672	5087484	5087307	5081244	5081451
Diagnostic species of the association (Diagnostične vrste asociacije)																						
<i>Salix alba</i>	E3b	1	3	+	1	+	1	1	2	1	1	4	4	1	1	.	2	3	+	4	4	4
<i>Salix alba</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Lamium orvala</i>	E1	4	2	3	2	1	3	2	3	1	1	1	1	2	1	1	3	3	1	2	1	1
<i>Ranunculus ficaria</i>	E1	4	3	4	3	3	4	2	2	4	3	3	4	3	3	3	3	2	1	2	3	3
<i>Galanthus nivalis</i>	EC	+	+	+	+	+	+	1	1	2	2	+	+	1	2	2	+	+	2	3	.	.
<i>Lunaria rediviva</i>	TA	+	+	+	+	+	+	1	1	2	2	+	+	1	2	2	+	+	2	3	.	.
<i>Arum maculatum</i>	TA	+	+	+	+	+	+	1	1	2	2	+	+	1	2	2	+	+	2	3	.	.
Fr.	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Pr.	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95

		Number of relevé (Zaporedna številka popisa)																				Pr.		
		Differential species of the subassociation (Razlikovalne vrste subasociacije)																						
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Pr.
AI	<i>Carex pendula</i>			1	4	1	1	1	+	+	+	1	+	+	+	1	+	2	+	+	+	+	22	
EC	<i>Ornithogalum pyrenaicum</i>	E1	2	+					+	+	+	1	+								2		11	
QP	<i>Ruscus aculeatus</i>	E1	+				+	+	+	+	+						1			1	2		9	
SA	<i>Salicion albae</i>																						41	
	<i>Populus nigra</i>	E3b	3	5	4	3	3	4	4	2	4	3	1	1	4	4	3	2	1	4	+	2	22	
	<i>Populus nigra</i>	E3a	r	+																			2	
	<i>Populus nigra</i>	E2a	+	r																			9	
	<i>Populus nigra</i>	E3b	2		3		3				1		3	3	2		1	+	+				3	
	<i>Acer negundo</i>	E3a	3	3	2	2	3	3	3	2	3	2	2	2	2	2	2	1	1	1	1	3	11	
	<i>Acer negundo</i>	E2b	3	2	2	2	2	2	2	1	1	2	1	2	1	1	2	+	+	+	2	3	20	
	<i>Acer negundo</i>	E2a	1	1		+	1	2	2	1	1	1	1	2	1	1	+	+	+		2	1	16	
	<i>Acer negundo</i>	E1	1				1	+	1	+	+	2	1									+	11	
	<i>Salix fragilis</i>	E3b	r	1	r		+	+	1	1	+												6	
	<i>Vitis sylvestris</i>	E3a					+		+														7	
	<i>Vitis sylvestris</i>	E2a							+														1	
	<i>Vitis sylvestris</i>	E1										+											5	
SP	<i>Solanum dulcamara</i>																						1	
	<i>Salicetalia purpureae</i>																						5	
	<i>Salix eleagnos</i>	E3b	+	+														3					3	
	<i>Salix eleagnos</i>	E3a	+																				14	
	<i>Salix purpurea</i>	E3a						r															3	
	<i>Salix purpurea</i>	E2b																1	+				1	
	<i>Salix purpurea</i>	E3a																					5	
	<i>Salix viminalis</i>	E2a		+																			2	
AG	<i>Alnetea glutinosae</i>																						1	
	<i>Alnus glutinosa</i>	E3b	1	+				+	+	+			1	1		2		1			+		10	
	<i>Alnus glutinosa</i>	E3a						+								+							45	
	<i>Alnus glutinosa</i>	E2b																					3	
	<i>Alnus glutinosa</i>	E2a		+				+															1	
	<i>Ribes nigrum</i>																						3	
AQR	<i>Alno-Quercion roboris</i>																						14	
	<i>Fraxinus angustifolia</i>	E3b						+				r		+									4	
	<i>Fraxinus angustifolia</i>	E3a						+															18	
	<i>Fraxinus angustifolia</i>	E2b						+															2	
	<i>Fraxinus angustifolia</i>	E2a						+															9	
	<i>Fraxinus angustifolia</i>	E1						+															5	
	<i>Fraxinus angustifolia</i>	E3b	+								1			+									23	
	<i>Ulmus laevis</i>	E3a																					3	
	<i>Ulmus laevis</i>	E2b																					14	
	<i>Ulmus laevis</i>	E2a																					4	
	<i>Ulmus laevis</i>	E1																					18	
	<i>Ulmus laevis</i>	E3b																					14	
	<i>Ulmus laevis</i>	E2a																					9	
	<i>Quercus robur</i>	E1																					2	
	<i>Quercus robur</i>	E3b															r						9	
	<i>Quercus robur</i>	E2a																					1	
	<i>Quercus robur</i>	E1																					5	
AI	<i>Alnion incanae</i>																						14	
	<i>Rubus caesius</i>	E1	4	4	3	3	3	4	2	2	+	1		+		1	3	4	1	3	3	3	19	
	<i>Humulus lupulus</i>	E2	1	+				+	+	+													86	
	<i>Equisetum arvense</i>	E1						+															12	
	<i>Aesculus hippocastanum</i>	E3a						+															55	
	<i>Aesculus hippocastanum</i>	E2b						+															7	
	<i>Festuca gigantea</i>	E1																					32	
	<i>Carex remota</i>	E1																					14	
	<i>Carex remota</i>	E1																					3	
	<i>Carex remota</i>	E1																					1	
	<i>Carex remota</i>	E1																					5	
EC	<i>Erythronio-Carpinion</i>																						1	
	<i>Helleborus odorus</i>	E1							r	1	+						1						7	
	<i>Crocus vernus subsp. vernus</i>	E1	+														2						32	
	<i>Primula vulgaris</i>	E1																					5	
	<i>Lonicera caprifolium</i>	E2a																					23	
AF	<i>Aremorio-Fagion</i>																						1	
	<i>Hacquetia epipactis</i>	E1																					5	

TA	Number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Pr.	Fr.		
TA	Tilio-Acerion																										
	<i>Acer pseudoplatanus</i>																										
	<i>Acer pseudoplatanus</i>	E3a																								9	
	<i>Acer pseudoplatanus</i>	E2b																								14	
	<i>Acer pseudoplatanus</i>	E1	r																							3	
	<i>Juglans regia</i>	E3b																									14
	<i>Juglans regia</i>	E3a																									4
	<i>Juglans regia</i>	E2b																									14
	<i>Juglans regia</i>	E2a																									5
	<i>Juglans regia</i>	E2a																									23
	<i>Juglans regia</i>	E1																									5
	<i>Acer platanoides</i>	E2a																									4
	<i>Acer platanoides</i>	E1																									9
	<i>Tilia platyphyllos</i>	E1																									1
	<i>Dryopteris affinis</i>	E1																									5
	FS	Fagetalia sylvatica																									
		<i>Brachypodium sylvaticum</i>	E1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	21
		<i>Sambucus nigra</i>	E3a	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	95
		<i>Sambucus nigra</i>	E2b	2	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	4
		<i>Sambucus nigra</i>	E2a																								18
<i>Sambucus nigra</i>		E1																								16	
<i>Circaea lutetiana</i>		E1																								7	
<i>Symphytum tuberosum</i>		E1	2	2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	9	
<i>Viola reichenbachiana</i>		E1	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		41
<i>Polygonatum multiflorum</i>		E1	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		32
<i>Heracleum sphondylium</i>		E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		7
<i>Galeobdolon montanum</i>		E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		32
<i>Allium ursinum</i>		E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		6
<i>Carex sylvatica</i>		E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		27
<i>Scrophularia nodosa</i>		E1																									5
<i>Cardamine bulbifera</i>		E1																									23
<i>Fraxinus excelsior</i>		E3b	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		5
<i>Fraxinus excelsior</i>		E2b	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		23
<i>Fraxinus excelsior</i>		E2a	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		23
<i>Fraxinus excelsior</i>		E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		5
<i>Carpinus betulus</i>	E3a	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		9	
<i>Carpinus betulus</i>	E2b	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		5	
<i>Corydalis cava</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		5	
<i>Salvia glutinosa</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		9	
<i>Prunus avium</i>	E3a																									2	
<i>Asarum europaeum subsp. caucasicum</i>	E1																									5	
<i>Mercurialis perennis</i>	E1																									1	
<i>Parris quadrifolia</i>	E1																									5	
<i>Campanula trachelium</i>	E1																									1	
QP	Quercetalia pubescenti-petraeae																										
	<i>Fraxinus ornus</i>	E2b																								1	
QF	<i>Carex flacca</i>	E1																								5	
	Quercio-Fagetea																										
QF	<i>Hedera helix</i>	E3a	2	1	2	2	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18	
	<i>Hedera helix</i>	E1	1	1	2	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	82	
	<i>Anemone nemorosa</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	19	
	<i>Corylus avellana</i>	E3a																								41	
	<i>Corylus avellana</i>	E2b	1	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	6	
	<i>Corylus avellana</i>	E2a	1	1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
	<i>Corylus avellana</i>	E1																								68	
	<i>Acer campestre</i>	E3b																									11
	<i>Acer campestre</i>	E3a																									5
	<i>Acer campestre</i>	E2b	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		3
	<i>Acer campestre</i>	E2a	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		14
	<i>Anemone ranunculoides</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		55
<i>Acer campestre</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		64	
<i>Acer campestre</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		15	
<i>Acer campestre</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		68	
<i>Acer campestre</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		4	
<i>Acer campestre</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		18	
<i>Acer campestre</i>	E1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		27	

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Pr.	Fr.
<i>Lathraea squamaria</i>	E1	1	1	+			+									+							6	27
<i>Gagea lutea</i>	E1															+							1	5
<i>Ulmus minor</i>	E3a															+							1	5
<i>Ulmus minor</i>	E2b						+									+							2	9
<i>Ulmus minor</i>	E2a						+									1							3	14
<i>Scilla bifolia</i>	E1															1							3	14
<i>Clematis vitalba</i>	E3a															+							3	14
<i>Clematis vitalba</i>	E2b															1							1	5
<i>Clematis vitalba</i>	E2a																						1	5
<i>Malus sylvestris</i>	E3a		+													r							2	9
<i>Malus sylvestris</i>	E2b																						1	5
<i>Malus sylvestris</i>	E2a						+																2	9
<i>Viola alba subsp. alba</i>	E1							+															1	5
<i>Cerastium sylvaticum</i>	E1																						1	5
<i>Orobanchae hederacae</i>	E1															+							1	5
RP																								
Rhamno-Prunetea																								
<i>Euonymus europaea</i>	E2b	2	1	1	+	+	+									+							10	45
<i>Euonymus europaea</i>	E2a	1	1	1	+	+										+							16	73
<i>Euonymus europaea</i>	E1		+													+							1	5
<i>Viburnum opulus</i>	E2															+							14	64
<i>Cornus sanguinea</i>	E3a															+							1	5
<i>Cornus sanguinea</i>	E2b	+	1	2	+	+	2	1								1							13	59
<i>Cornus sanguinea</i>	E2a	1			+	+	2	2								1							13	59
<i>Crataegus monogyna</i>	E3a																						7	32
<i>Crataegus monogyna</i>	E2b																						12	55
<i>Crataegus monogyna</i>	E2a																						4	18
<i>Ligustrum vulgare</i>	E2a	+														1							8	36
<i>Rhamnus catharticus</i>	E2b		+	+																			2	9
<i>Prunus spinosa</i>	E2b																						1	5
EA																								
Epilobetea angustifolii																								
<i>Arctium minus</i>	E1	+	+													+							3	14
<i>Stachys sylvatica</i>	E1	+	+																				2	9
<i>Eupatorium cannabinum</i>	E1																+						2	9
<i>Arctium nemorosum</i>	E1																						1	5
<i>Galeopsis speciosa</i>	E1																						1	5
<i>Physalis alkekengi</i>	E1																						1	5
Festuco-Brometea																								
<i>Euphorbia verrucosa</i>	E1																r						1	5
<i>Hippocrepis comosa</i>	E1																r						1	5
CA																								
Callitron																								
<i>Angelica sylvestris</i>	E1															+							3	14
Filipendulo-Petasion																								
<i>Lysimachia vulgaris</i>	E1																						3	14
<i>Myosoton aquaticum</i>	E1																+						1	5
Molinietalia caeruleae																								
<i>Colchicum autumnale</i>	E1																						2	9
Potentillo-Polygonetalia																								
<i>Barbarea vulgaris</i>	E1		+													1							5	23
<i>Rumex crispus</i>	E1															1							6	27
<i>Ranunculus repens</i>	E1															+							3	14
<i>Agrostis stolonifera</i>	E1																						1	5
<i>Duchesnea indica</i>	E1																						1	5
MA																								
Molinio-Arrhenatheretea																								
<i>Poa trivialis</i>	E1	+	1																				14	64
<i>Dactylis glomerata</i>	E1	1	1	1	+	+	+	+															9	41
<i>Deschampsia cespitosa</i>	E1															+							6	27
<i>Ajuga reptans</i>	E1																						2	9
<i>Galium mollugo</i>	E1																						2	9
<i>Veronica serpyllifolia</i>	E1																						2	9

Table 3 (Preglednica 3): *Lamio orvalae-Salicetum albae ranunculetosum lanuginosae*

Number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Database number of relevé (Delovna številka popisa)	230844	230845	230847	260792	260793	260794	230848	230849	230850	230851	230846	230853	230854	230855	230856	230852	245889	259275	259306	246100	234869	235073	235072	259484	
Elevation in m (Nadmorska višina v m)	150	160	160	144	145	145	160	160	160	160	158	160	160	160	160	155	480	420	420	180	226	225	225	500	
Aspect (Lega)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Slope in degrees (Nagib v stopinjah)	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	
Parent material (Matična podlaga)	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	Fl	
Soil (Tla)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stoniness in % (Kamnitost v %)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Cover in % (Zastiranje v %):	80	69	80	80	80	80	70	60	80	70	80	70	70	70	80	70	80	70	80	70	80	70	80	70	
Upper tree layer (Zgornja drevesna plast)	E3b	5	10	5	10	10	20	20	10	10	10	20	20	20	10	10	10	10	10	10	10	10	10	10	
Lower tree layer (Spodnja drevesna plast)	E2	10	20	30	20	20	20	40	30	5	10	40	30	30	30	20	20	20	30	20	10	30	40	40	
Shrub layer (Grmovna plast)	E1	60	100	60	80	90	90	60	70	90	90	60	80	80	70	70	90	90	80	90	80	90	90	90	
Herb layer (Zeliščna plast)	E0	5	0	5	80	90	10	10	10	10	50	5	30	30	5	0	0	0	0	5	0	0	0	0	
Moss layer (Mahovna plast)	cm	40	40	45	40	40	50	50	50	50	70	40	40	35	50	35	50	120	40	25	50	40	50	35	
Maximum diameter of trees (Največji prsni premer dreves)	m	25	0	25	20	22	25	24	28	24	26	24	28	25	26	25	22	24	24	17	28	24	30	18	
Maximum height of trees (Največja drevesna višina)	m	34	34	44	51	55	66	54	64	42	33	49	56	58	50	72	38	65	48	56	32	53	25	41	68
Relevé area (Velikost popisne ploskve)	m2	400	100	400	200	200	400	400	400	200	300	400	300	400	400	400	200	200	200	200	200	400	900	400	
Date of taking relevé (Datum popisa)	4/11/2011	4/11/2011	4/18/2011	3/28/2016	3/28/2016	3/28/2016	4/18/2011	4/17/2011	4/11/2011	3/27/2003	4/3/2001	4/5/2001	4/11/2001	4/6/2001	4/3/2001	4/11/2001	5/15/2012	5/25/2015	4/51/4	5/17/2012	4/14/2010	4/20/2010	4/20/2010	5/5/2015	
Locality (Nahajališče)	Tolmin	Vošče	Tolmin	Bucenica-Soča	Bucenica-Soča	Bucenica-Soča	9848/1	9848/1	9848/1	9848/1	9848/1	9848/1	9848/1	9848/1	9848/1	9848/1	9848/1	9848/1	9848/1	9848/1	9848/1	9848/1	9848/1	9848/1	
Quadrant (Kvadrant)	402377	40158	402316	402514	402434	402367	402219	401596	401691	400930	401367	400925	401093	401743	401332	402151	426071	446244	446180	401829	489285	489522	489479	0153/4	
Coordinate GK Y (D-48)	5115464	5117150	5115444	5115190	5115246	5115272	5115486	5115944	5115795	5117103	5116375	5117220	5116373	5115863	5116452	5115566	5127818	5043200	5043191	5115594	489285	5102713	5102653	5077475	
Coordinate GK X (D-48)	5115464	5117150	5115444	402514	402434	402367	402219	401596	401691	400930	401367	400925	401093	401743	401332	402151	426071	446244	446180	401829	489285	5102713	5102653	5077475	
Diagnostic species of the association (Diagnostične vrste asociacije)	SA	SA	E3b	E3a	E2b	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	Pr.	
<i>Salix alba</i>	5	4	5	5	5	4	4	4	5	4	4	4	4	5	4	5	4	4	4	4	3	4	4	4	Fr.
<i>Salix alba</i>	5	4	5	5	5	4	4	4	5	4	4	4	4	5	4	5	4	4	4	4	3	4	4	4	24
<i>Salix alba</i>	5	4	5	5	5	4	4	4	5	4	4	4	4	5	4	5	4	4	4	4	3	4	4	4	100
<i>Ranunculus ficaria</i>	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	12
<i>Galanthus rivalis</i>	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	50
<i>Lamium orvala</i>	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	22
<i>Lunaria rediviva</i>	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	92
<i>Arum maculatum</i>	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	17
Differential species of the subassociation (Razlikovalne vrste subasociacije)	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	71
<i>Ranunculus lanuginosus</i>	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	14
<i>Leucoujum vernum</i>	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	58
	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	12
	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	50
	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	83
	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	15
	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	63

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Pr.	Fr.	
<i>Helleborus niger subsp. niger</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Cardamine trifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Cyclamen purpurascens</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Hacquetia epipactis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Scopolia carniolica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Cardamine enneaphyllos</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Tilio-Acerion																											
<i>Adoxa moschatellina</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Acer pseudoplatanus</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Acer pseudoplatanus</i>	E2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Acer pseudoplatanus</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Acer pseudoplatanus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Stellaria montana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Corydalis solida</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Ulmus glabra</i>	E3b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Ulmus glabra</i>	E2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Ulmus glabra</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Phyllitis scolopendrium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Juglans regia</i>	E2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Juglans regia</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Dryopteris affinis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Geranium robertianum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Aruncus dioicus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fagetalia sylvaticae																											
<i>Sambucus nigra</i>	E2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Sambucus nigra</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Brachypodium sylvaticum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Allium ursinum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Salvia glutinosa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Asarum europaeum subsp. caucasicum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Corydalis cava</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Paris quadrifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Cardamine bulbifera</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Symphytum tuberosum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Circaea lutetiana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Heracleum sphondylium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Tilia cordata</i>	E3b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Tilia cordata</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Carpinus betulus</i>	E3b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Carpinus betulus</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Carpinus betulus</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Pulmonaria officinalis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Galeobdolon flavidum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Mercurialis perennis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Cardamine pentaphyllos</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Viola reichenbachiana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Scrophularia nodosa</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Galeobdolon montanum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Gallium laevigatum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Fagus sylvatica</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Fagus sylvatica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Campanula trachelium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Polygonatum multiflorum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Daphne mezereum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Lilium martagon</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Dryopteris filix-mas</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Myosotis sylvatica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Pr.	Fr.
<i>Asarum europaeum</i> subsp. <i>europaeum</i>																										
<i>Euphorbia amygdaloides</i>																										
<i>Melica nutans</i>																										
QF																										
<i>Quercus-Fagetum</i>																										
<i>Cerastium sylvaticum</i>																										
<i>Hedera helix</i>																										
<i>Hedera helix</i>																										
<i>Anemone ranunculoides</i>																										
<i>Anemone nemorosa</i>																										
<i>Listera ovata</i>																										
<i>Corylus avellana</i>																										
<i>Corylus avellana</i>																										
<i>Corylus avellana</i>																										
<i>Veratrum nigrum</i>																										
<i>Clematis vitalba</i>																										
<i>Clematis vitalba</i>																										
<i>Clematis vitalba</i>																										
<i>Acer campestre</i>																										
<i>Acer campestre</i>																										
<i>Acer campestre</i>																										
<i>Acer campestre</i>																										
<i>Acer campestre</i>																										
<i>Lonicera xylosteum</i>																										
<i>Malus sylvestris</i>																										
<i>Malus sylvestris</i>																										
<i>Malus sylvestris</i>																										
<i>Carex flacca</i>																										
<i>Carex flacca</i>																										
<i>Viscum album</i> subsp. <i>album</i>																										
<i>Dactylorhiza fuchsii</i>																										
<i>Gagea lutea</i>																										
<i>Gagea lutea</i>																										
<i>Carex digitata</i>																										
<i>Hepatica nobilis</i>																										
<i>Viola alba</i> subsp. <i>alba</i>																										
<i>Viola alba</i> subsp. <i>alba</i>																										
<i>Vinca minor</i>																										
<i>Vinca minor</i>																										
<i>Moechringia trinervia</i>																										
VP																										
<i>Vaccinio-Piceetum</i>																										
<i>Oxalis acetosella</i>																										
<i>Oxalis acetosella</i>																										
<i>Picea abies</i>																										
<i>Picea abies</i>																										
<i>Veronica urticifolia</i>																										
RP																										
<i>Rhamno-Prunetea</i>																										
<i>Cornus sanguinea</i>																										
<i>Cornus sanguinea</i>																										
<i>Cornus sanguinea</i>																										
<i>Euonymus europaea</i>																										
<i>Euonymus europaea</i>																										
<i>Euonymus europaea</i>																										
<i>Euonymus europaea</i>																										
<i>Viburnum opulus</i>																										
<i>Viburnum opulus</i>																										
<i>Ligustrum vulgare</i>																										
<i>Ligustrum vulgare</i>																										
<i>Lonicera nitida</i>																										
<i>Lonicera nitida</i>																										
<i>Crataegus monogyna</i>																										
<i>Crataegus monogyna</i>																										
<i>Crataegus monogyna</i>																										
<i>Crataegus monogyna</i>																										
<i>Prunus spinosa</i>																										
<i>Prunus spinosa</i>																										
<i>Rhamnus catharticus</i>																										
<i>Rhamnus catharticus</i>																										
EA																										
<i>Epilobietea angustifolii</i>																										
<i>Galeopsis speciosa</i>																										

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Pr.	Fr.
FC																										
Filipendulo-Convuletea																										
<i>Cabystegia sepium</i>	E1	.	+	.	.	.	+	.	.	.	+	.	+	.	.	.	.	.	1	+	.	.	.	.	.	8
<i>Fallopia japonica</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	4	2	.	.	5
<i>Echinocystis lobata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1	1	.	.	3
<i>Rudbeckia laciniata</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
<i>Mentha longifolia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
<i>Mentha sp.</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
AV																										
Artemisieta vulgaris	E1	+	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Rumex obtusifolius</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	17
<i>Artemisia verlotiorum</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2
<i>Artemisia vulgaris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Melilotus albus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
<i>Silene latifolia subsp. alba</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
GU																										
Gallio-Urticetea	E1	+	1	3	3	2	1	1	1	1	1	1	1	1	1	1	4	3	3	1	+	1	1	3	24	
<i>Aegopodium podagraria</i>	E1	+	+	1	.	+	+	+	+	+	+	.	+	.	+	.	.	.	.	.	.	.	.	.	100	
<i>Urtica dioica</i>	E1	3	+	1	3	2	2	1	+	+	+	+	+	1	1	2	1	1	2	1	+	3	1	21		
<i>Petasites hybridus</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	88
<i>Alharia petiolata</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	18	
<i>Galium aparine</i>	E1	+	+	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	71	
<i>Solidago gigantea</i>	E1	1	2	1	4	3	2	2	4	1	4	2	1	.	.	.	1	2	3	.	.	.	.	16		
<i>Glechoma hederacea</i>	E1	.	+	1	2	1	+	1	1	1	1	1	1	.	.	.	.	.	.	.	.	.	.	.	67	
<i>Helianthus tuberosus</i>	E1	5	5	1	.	.	.	.	.	.	.	2	.	.	.	.	2	2	.	.	.	.	.	.	15	
<i>Parietaria officinalis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	50	
<i>Lamium maculatum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	46	
<i>Impatiens glandulifera</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	33	
<i>Geum urbanum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	25	
<i>Chaerophyllum aureum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	21	
<i>Impatiens parviflora</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8	
<i>Stellaria neglecta</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	
<i>Viola odorata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	
SM																										
Stellarietea mediae	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
<i>Stellaria media</i>	E1	.	.	.	.	.	.	.	1	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	21
<i>Erigeron annuus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5
<i>Chelidonium majus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	17
<i>Cardamine hirsuta</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
<i>Plantago major</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Bromus sterilis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
Other species (Druge vrste)																										
<i>Ailanthus altissima</i>	E3a	.	.	.	.	.	.	.	.	.	.	r	.	r	.	.	.	.	.	.	.	.	.	.	.	2
<i>Robinia pseudoacacia</i>	E3b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
<i>Robinia pseudoacacia</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Robinia pseudoacacia</i>	E2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Robinia pseudoacacia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Robinia pseudoacacia</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Hydrangea macrophylla</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Narcissus pseudonarcissus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Veronica sp.</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Forsythia viridissima</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Aquilegia vulgaris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Prunus inositia</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Prunus inositia</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
ML																										
Mosses (Mahovi)	E0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	9
<i>Plagiommium undulatum</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	38
<i>Mnium sp.</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Anomodon viticulosus</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Brachythecium sp.</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4
<i>Neckera complanata</i>	E0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4

Table 4: Synoptic table communities of syntaxon *Salicetum albae* s. lat. in Slovenia, Austria and N-Italy

Preglednica 4: Sinteza tabela združb makroasociacije *Salicetum albae* s. lat. v Sloveniji, Avstriji in severni Italiji

Successive number (Zaporedna številka)		1	2	3	4	5	6	7	8	9	10
Number of relevés (Število popisov)		21	22	8	33	33	87	141	19	41	24
Sign for syntaxa (Oznaka sintaksona)		LoSa -Sj	LoSa -Vd	Sa-Drava	Sa-Mura	Sa-Krka	Sap-A	Sac-A	AfSapn	AfSabf	AfSahl
SA	<i>Salicion albae</i>										
	<i>Salix alba</i>	E3b	100	95	100	40	94	97	97	100	100
	<i>Salix alba</i>	E2b	5	0	25	6	24	2	8	.	.
	<i>Acer negundo</i>	E3a	14	95	13	12	.	.	11	12	8
	<i>Acer negundo</i>	E2b	24	95	50	9	3	.	.	.	.
	<i>Acer negundo</i>	E1	.	50	13	9	.	.	.	.	.
	<i>Solanum dulcamara</i>	E1	10	5	.	3	52	26	18	16	2
	<i>Populus nigra</i>	E3b	10	100	.	61	.	23	41	47	5
	<i>Populus nigra</i>	E2a	.	14	.	.	.	7	3	.	.
	<i>Salix fragilis</i>	E3b	.	27	63	12	.	17	26	.	.
	<i>Salix fragilis</i>	E2b	5	.	.	3	.	.	.	.	.
	<i>Vitis sylvestris</i>	E3a	.	32	.	.	.	.	.	.	.
	<i>Salix x rubens</i>	E3	.	.	.	.	3	.	.	.	.
	<i>Populus x canadensis</i>	E3	.	.	.	.	.	14	16	.	.
SP	<i>Salicetea purpureae</i>										
	<i>Salix eleagnos</i>	E3a	38	23	13	.	33	3	8	.	21
	<i>Salix purpurea</i>	E3a	5	5	25	.	.	.	.	.	.
	<i>Salix purpurea</i>	E2b	19	9	25	.	24	.	.	11	29
	<i>Salix viminalis</i>	E3a	.	5	.	.	3	.	.	.	.
	<i>Salix sp.</i>	E2	.	.	.	.	3	.	.	.	.
	<i>Salix triandra</i>	E2	.	.	.	.	30	16	14	.	5
	<i>Salix myrsinifolia</i>	E2	.	.	.	.	.	3	1	.	.
	<i>Salix viminalis</i>	E2	.	.	.	.	.	10	9	.	.
	<i>Salix daphnoides</i>	E2	.	.	.	.	.	.	4	.	.
	<i>Amorpha fruticosa</i>	E2	.	.	.	.	.	.	.	47	83
AI	<i>Alnion incanae</i>										
	<i>Rubus caesius</i>	E1	95	86	100	84	67	71	81	84	83
	<i>Equisetum arvense</i>	E1	62	32	13	9	6	24	21	26	17
	<i>Impatiens noli-tangere</i>	E1	52	.	.	6	9	13	52	.	.
	<i>Alnus incana</i>	E3a	52	.	38	.	3	8	26	.	.
	<i>Alnus incana</i>	E2a	24	.	.	.	5	21	.	.	.
	<i>Humulus lupulus</i>	E3a	14	.	50	.	.	.	.	.	.
	<i>Humulus lupulus</i>	E2b	57	55	25	9	48	25	45	89	24
	<i>Humulus lupulus</i>	E1	.	18	25	12	15	.	.	.	.
	<i>Chrysosplenium alternifolium</i>	E1	33	.	.	18	.	9	.	.	.
	<i>Cardamine impatiens</i>	E1	24	5	25	15	6	2	15	.	.
	<i>Festuca gigantea</i>	E1	24	5	.	27	9	3	36	5	.
	<i>Frangula alnus</i>	E2b	24	.	.	.	.	.	.	.	.
	<i>Hemerocallis fulva</i>	E1	19	.	.	.	.	.	.	.	.
	<i>Carex pendula</i>	E1	5	100	.	.	.	.	.	11	.
	<i>Equisetum telmateia</i>	E1	5	.	.	.	3	.	.	11	.
	<i>Circaea intermedia</i>	E1	5	.	.	.	.	.	.	.	.
	<i>Carex remota</i>	E1	.	5	25	27	.	.	.	.	.
	<i>Aesculus hippocastanum</i>	E3a	.	14	.	.	.	.	.	.	.
	<i>Aesculus hippocastanum</i>	E2b	.	5	.	.	.	.	.	.	.
	<i>Equisetum hyemale</i>	E1	.	.	13	.	.	.	.	.	.
	<i>Agropyron caninum</i>	E1	.	.	.	21	3	2	18	.	.
	<i>Populus alba</i>	E3b	.	.	.	6	.	6	8	11	4
	<i>Dryopteris carthusiana</i>	E1	.	.	.	3	.	.	.	.	.
	<i>Equisetum sylvaticum</i>	E1	.	.	.	.	24	.	.	.	10
AQR	<i>Alno-Quercion roboris</i>										
AG	<i>Alnus glutinosa</i>	E3b	29	50	38	55	.	1	8	5	17
AG	<i>Alnus glutinosa</i>	E2b	10	18	13	9	.	.	2	.	.
	<i>Ulmus laevis</i>	E3b	10	23	.	51	3	.	.	.	.
	<i>Ulmus laevis</i>	E2b	.	18	.	12	.	.	.	.	.
	<i>Ulmus laevis</i>	E1	.	9	.	12	.	.	.	.	.
	<i>Fraxinus angustifolia</i>	E3a	.	23	.	45	3	.	.	.	.
	<i>Fraxinus angustifolia</i>	E2a	.	23	.	9	.	.	.	.	.
	<i>Fraxinus angustifolia</i>	E1	.	14	38	18	.	.	.	.	.
	<i>Quercus robur</i>	E3b	.	9	.	.	.	.	.	.	.
	<i>Quercus robur</i>	E2a	.	5	.	.	.	.	.	.	.
	<i>Quercus robur</i>	E1	.	14	25	3	.	.	.	.	.
AG	<i>Ribes nigrum</i>	E2a	.	14	.	.	.	.	.	.	.
	<i>Prunus padus</i>	E3	.	.	13	36	.	.	.	.	.
	<i>Prunus padus</i>	E2	.	.	63	48	.	13	48	.	5
	<i>Prunus padus</i>	E1	.	.	25	24	.	.	.	.	.
	<i>Omphalodes scorpioides</i>	E1	.	.	.	30	.	.	.	.	.
	<i>Rumex sanguineus</i>	E1	.	.	.	15	.	.	.	.	.
	<i>Glechoma hirsuta</i>	E1	.	.	.	3	.	.	.	.	.
	<i>Carex brizoides</i>	E1	.	.	.	9	.	1	1	.	.
	<i>Myosotis sparsiflora</i>	E1	.	.	.	3	.	.	.	.	.

Successive number (Zaporedna številka)		1	2	3	4	5	6	7	8	9	10
AG	<i>Salix cinerea</i>	E2b	.	.	.	9	1	1	.	.	.
	<i>Leucojum aestivum</i>	E1	.	.	.	3	.	.	.	.	.
TA	Tilio-Acerion										
	<i>Arum maculatum</i>	E1	52	9	.	79	.	.	.	.	.
	<i>Lunaria rediviva</i>	E1	52	14	.	.	3	.	.	.	.
	<i>Adoxa moschatellina</i>	E1	38	.	.	58	.	1	4	.	.
	<i>Acer pseudoplatanus</i>	E3a	10	9	.	.	.	.	1	.	.
	<i>Acer pseudoplatanus</i>	E2b	33	14	.	.	3	.	6	.	.
	<i>Acer pseudoplatanus</i>	E1	14	14	.	.	.	.	.	.	.
	<i>Juglans regia</i>	E3b	.	27	.	.	.	.	.	.	.
	<i>Juglans regia</i>	E2b	14	40	.	.	.	.	.	.	.
	<i>Juglans regia</i>	E1	.	18	.	.	.	.	.	.	.
	<i>Stellaria montana</i>	E1	14	.	25	.	.	.	.	.	.
	<i>Corydalis solida</i>	E1	10	.	.	30	.	.	.	.	.
	<i>Ulmus glabra</i>	E3b	5	.	.	.	.	.	.	.	.
	<i>Ulmus glabra</i>	E2b	10	.	.	.	.	.	.	.	.
	<i>Aruncus dioicus</i>	E1	5	.	.	.	.	.	.	.	.
	<i>Geranium robertianum</i>	E1	5	.	.	.	.	7	.	.	.
	<i>Acer platanoides</i>	E2a	.	5	.	.	.	.	.	.	.
	<i>Acer platanoides</i>	E1	.	5	.	.	.	.	.	.	.
	<i>Dryopteris affinis</i>	E1	.	5	.	.	.	.	.	.	.
	<i>Tilia platyphyllos</i>	E1	.	5	.	.	.	.	.	.	.
EC	Erythronio-Carpinion										
	<i>Galanthus nivalis</i>	E1	67	64	.	33	.	.	.	.	.
	<i>Crocus vernus subsp. vernus</i>	E1	33	23	.	.	.	.	.	.	.
	<i>Ranunculus aesculentus</i>	E1	24	.	.	.	.	.	.	.	.
	<i>Primula vulgaris</i>	E1	14	14	.	.	.	.	.	.	.
	<i>Helleborus odoratus</i>	E1	10	32	.	.	.	.	.	.	.
	<i>Ornithogalum pyrenaicum</i>	E1	5	50	.	.	.	.	.	.	.
	<i>Lonicera caprifolium</i>	E2a	.	9	.	.	.	2	.	.	.
AF	Aremonio-Fagion										
	<i>Lamium orvala</i>	E1	71	100	.	.	3	.	.	.	.
	<i>Anemone trifolia</i>	E1	24	.	.	.	.	.	.	.	.
	<i>Isopyrum thalictroides</i>	E1	10	.	25	.	.	.	.	.	.
	<i>Knautia drymeia subsp. drymeia</i>	E1	10	.	.	.	.	.	.	.	.
	<i>Cardamine trifolia</i>	E1	5	.	.	.	.	.	.	.	.
	<i>Cyclamen purpurascens</i>	E1	5	.	.	.	.	.	.	.	.
	<i>Hacquetia epipactis</i>	E1	5	5	.	.	.	.	.	.	.
	<i>Helleborus niger subsp. niger</i>	E1	5	.	.	.	.	.	.	.	.
	<i>Scopolia carniolica</i>	E1	5	.	.	.	.	.	.	.	.
FS	Fagetalia sylvaticae										
	<i>Sambucus nigra</i>	E3a	.	18	13	33	.	.	.	.	.
	<i>Sambucus nigra</i>	E2b	90	82	38	79	36	2	57	37	2
	<i>Sambucus nigra</i>	E1	.	5	13	15	24	.	.	.	.
	<i>Ranunculus lanuginosus</i>	E1	81	.	.	3	6	.	4	.	.
	<i>Brachypodium sylvaticum</i>	E1	67	95	88	18	9	1	20	32	2
	<i>Fraxinus excelsior</i>	E3a	57	9	.	.	.	5	18	.	.
	<i>Fraxinus excelsior</i>	E2a	29	18	.	.	.	7	24	.	.
	<i>Fraxinus excelsior</i>	E1	5	5	.	.	.	.	.	.	.
	<i>Allium ursinum</i>	E1	57	23	50	42	3	.	5	.	.
	<i>Leucojum vernum</i>	E1	57	.	.	48	.	.	.	.	.
	<i>Corydalis cava</i>	E1	33	9	.	24	.	.	.	.	.
	<i>Salvia glutinosa</i>	E1	33	9	.	.	.	1	8	.	.
	<i>Circaea lutetiana</i>	E1	29	73	100	36	42	8	21	.	.
	<i>Asarum europaeum subsp. caucasicum</i>	E1	29	5	.	.	.	.	.	.	.
	<i>Heracleum sphondylium</i>	E1	29	32	13	9	12	.	12	5	.
	<i>Paris quadrifolia</i>	E1	29	5	13	21	3	.	4	.	.
	<i>Symphytum tuberosum</i>	E1	29	55	38	15	.	.	4	.	.
	<i>Cardamine bulbifera</i>	E1	24	18	.	.	.	.	.	.	.
	<i>Galeobdolon montanum</i>	E1	14	27	13	58	.	.	12	.	.
	<i>Scrophularia nodosa</i>	E1	14	23	25	.	21	6	25	5	.
	<i>Campanula trachelium</i>	E1	10	5	.	.	3	.	.	.	.
	<i>Carpinus betulus</i>	E3a	10	9	.	.	.	.	.	.	.
	<i>Carpinus betulus</i>	E2b	10	5	.	.	3	.	.	.	.
	<i>Carpinus betulus</i>	E1	.	.	13	.	.	.	.	.	.
	<i>Galeobdolon flavidum</i>	E1	10	.	.	.	.	.	.	.	.
	<i>Polygonatum multiflorum</i>	E1	10	32	.	3	.	.	.	.	.
	<i>Tilia cordata</i>	E3b	10	.	.	.	.	.	.	.	.
	<i>Tilia cordata</i>	E2a	10	.	.	.	.	.	.	.	.
	<i>Viola reichenbachiana</i>	E1	10	41	.	15	.	.	.	.	.
	<i>Asarum europaeum subsp. europaeum</i>	E1	5	.	.	9	.	.	2	.	.
	<i>Dryopteris filix-mas</i>	E1	5	.	.	.	3	.	.	.	.
	<i>Euphorbia amygdaloides</i>	E1	5	.	.	.	.	.	.	.	.
	<i>Fagus sylvatica</i>	E2a	5	.	.	.	.	.	.	.	.
	<i>Fagus sylvatica</i>	E1	5	.	13	.	.	.	.	.	.
	<i>Galium laevigatum</i>	E1	5	.	.	.	.	.	.	.	.
	<i>Melica nutans</i>	E1	5	.	.	.	.	1	.	.	.
	<i>Mercurialis perennis</i>	E1	5	5	.	.	.	.	1	.	.

Successive number (Zaporedna številka)		1	2	3	4	5	6	7	8	9	10
<i>Pulmonaria officinalis</i>	E1	5	.	.	61	.	.	3	.	.	.
<i>Myosotis sylvatica</i>	E1	5	.	.	.	.	.	.	.	.	.
<i>Carex sylvatica</i>	E1	.	23	.	24	.	.	.	.	.	.
<i>Prunus avium</i>	E3a	.	5	.	.	.	.	.	.	.	.
<i>Prunus avium</i>	E2b	.	.	.	.	3	.	.	.	.	.
<i>Poa nemoralis</i>	E1	.	.	.	.	3	.	4	.	.	.
QP Quercetalia pubescenti-petraeae											
<i>Carex flacca</i>	E1	5	5	.	.	.	1	.	.	.	.
<i>Ruscus aculeatus</i>	E1	.	41	.	.	.	.	.	.	.	.
<i>Fraxinus ornus</i>	E2b	.	5	.	.	.	.	.	.	.	.
<i>Tamus communis</i>	E1	.	.	.	.	.	.	.	11	.	13
QF Quercio-Fagetea											
<i>Ranunculus ficaria</i>	E1	90	100	38	58	6	5	27	.	.	.
<i>Corylus avellana</i>	E3a	19	27	.	.	.	.	.	.	.	.
<i>Corylus avellana</i>	E2b	43	82	13	3	6	1	6	.	.	.
<i>Corylus avellana</i>	E1	5	5	25	.	.	.	.	.	.	.
<i>Hedera helix</i>	E3a	29	82	.	.	.	.	.	5	.	.
<i>Hedera helix</i>	E2a	57	.	.	.	.	.	.	.	.	.
<i>Hedera helix</i>	E1	.	86	38	6	9	.	.	.	.	.
<i>Cerastium sylvaticum</i>	E1	62	5	13	3	.	.	.	.	.	.
<i>Anemone nemorosa</i>	E1	43	41	.	9	.	.	.	.	.	.
<i>Anemone ranunculoides</i>	E1	43	27	.	55	.	.	.	.	.	.
<i>Listera ovata</i>	E1	38	.	.	3	.	.	1	.	.	.
<i>Veratrum nigrum</i>	E1	29	.	.	.	.	.	.	.	.	.
<i>Clematis vitalba</i>	E3a	5	14	13	.	.	2	21	21	.	13
<i>Clematis vitalba</i>	E2a	19	5	.	.	.	.	.	.	.	.
<i>Clematis vitalba</i>	E1	10	.	.	.	.	.	.	.	.	.
<i>Acer campestre</i>	E3	14	64	.	.	.	.	.	.	.	.
<i>Acer campestre</i>	E2b	29	86	13	3	.	.	.	.	.	.
<i>Acer campestre</i>	E1	5	18	13	3	.	.	.	.	.	.
<i>Malus sylvestris</i>	E3a	14	9	.	.	.	.	.	.	.	.
<i>Malus sylvestris</i>	E2b	10	9	.	.	.	.	.	.	.	.
<i>Dactylorhiza fuchsii</i>	E1	5	.	.	.	.	.	.	.	.	.
<i>Lonicera xylosteum</i>	E2a	5	.	.	.	.	.	12	.	.	.
<i>Moehringia trinervia</i>	E1	5	.	.	.	.	.	.	.	.	.
<i>Viscum album subsp. album</i>	E3a	5	.	.	.	.	.	.	.	.	.
<i>Lathraea squamaria</i>	E1	.	27	.	.	.	.	.	.	.	.
<i>Scilla bifolia</i>	E1	.	14	.	15	.	.	.	.	.	.
<i>Ulmus minor</i>	E3a	.	5	13	6	.	.	.	5	5	.
<i>Ulmus minor</i>	E2a	.	14	.	3	.	.	.	.	.	.
<i>Viola alba subsp. alba</i>	E1	.	9	.	.	.	.	.	.	.	.
<i>Orobanche hederaceae</i>	E1	.	5	.	.	.	.	.	.	.	.
<i>Gagea lutea</i>	E1	.	4	.	3	.	.	.	.	.	.
<i>Stellaria holostea</i>	E1	.	.	13	.	.	.	.	.	.	.
VP Vaccinio-Piceetea, Erico-Pinetea											
<i>Oxalis acetosella</i>	E1	10	.	.	.	3	.	.	.	.	.
<i>Veronica urticifolia</i>	E1	5	.	.	.	.	.	.	.	.	.
<i>Picea abies</i>	E2	.	.	.	.	.	.	9	.	.	.
<i>Carex alba</i>	E1	.	.	.	.	.	1	.	.	.	.
EA Epilobietea angustifolii											
<i>Galeopsis speciosa</i>	E1	29	5	.	9	55	.	.	.	2	.
<i>Stachys sylvatica</i>	E1	19	9	.	48	.	2	31	.	.	.
<i>Arctium nemorosum</i>	E1	10	5	.	.	.	.	.	.	.	.
<i>Eupatorium cannabinum</i>	E1	10	9	.	.	12	1	11	32	.	17
<i>Galeopsis pubescens</i>	E1	5	.	13	12	12	.	.	.	.	.
<i>Sambucus racemosa</i>	E3a	10	.	.	.	.	.	.	.	.	.
<i>Tussilago farfara</i>	E1	10	.	.	.	.	.	2	.	.	.
<i>Arctium minus</i>	E1	.	14	.	.	.	.	.	.	.	.
<i>Physalis alkekengi</i>	E1	.	5	.	.	.	.	.	.	.	.
<i>Rubus idaeus</i>	E2	.	.	.	.	.	.	2	.	.	.
<i>Fragaria vesca</i>	E1	.	.	.	.	.	.	1	.	.	.
<i>Calamagrostis epigejos</i>	E1	.	.	.	.	.	.	3	.	.	.
RP Rhamno-Prunetea											
<i>Cornus sanguinea</i>	E2b	90	73	63	42	33	17	73	32	2	13
<i>Cornus sanguinea</i>	E1	.	.	38	12	6	.	.	.	.	.
<i>Euonymus europaea</i>	E2b	76	86	25	30	55	.	.	.	.	.
<i>Euonymus europaea</i>	E1	10	5	13	21	36	3	18	.	.	.
<i>Viburnum opulus</i>	E2b	33	64	13	12	12	15	12	11	.	.
<i>Ligustrum vulgare</i>	E2a	33	36	.	.	6	.	.	.	.	.
<i>Crataegus monogyna</i>	E3a	5	32	.	.	.	.	.	.	.	.
<i>Crataegus monogyna</i>	E2b	19	55	.	6	.	.	.	11	.	.
<i>Crataegus monogyna</i>	E1	5	.	.	.	9	.	.	.	.	.
<i>Prunus spinosa</i>	E2b	10	5	.	.	6	.	.	.	.	.
<i>Rhamnus catharticus</i>	E2b	5	9	.	.	21	.	.	.	.	.
<i>Parthenocissus inserta</i>	E1	.	.	25	.	.	.	.	.	.	.
<i>Crataegus leavigata</i>	E2	.	.	.	3	.	.	.	.	.	.
<i>Rubus ulmifolius</i>	E2	.	.	.	.	.	.	.	11	.	13
<i>Viburnum lantana</i>	E2	.	.	.	.	.	.	3	.	.	.

Successive number (Zaporedna številka)		1	2	3	4	5	6	7	8	9	10
MuA	Mulgedio-Aconitetea										
	<i>Chaerophyllum hirsutum</i>	E1	81	.	13	.	12	.	14	.	.
	<i>Veratrum album</i>	E1	38	.	13	.	.	.	.	.	.
	<i>Senecio ovatus</i>	E1	21	.	.	.	.	6	.	.	.
	<i>Stellaria nemorum</i>	E1	24	.	.	9	.	23	.	.	.
	<i>Aconitum lycoctonum</i>	E1	10	.	.	.	.	.	.	.	.
	<i>Silene dioica</i>	E1	.	5	.	.	.	10	.	.	.
	<i>Athyrium filix-femina</i>	E1	.	.	.	3	.	.	.	.	.
	<i>Primula elatior</i>	E1	.	.	.	.	3	4	.	.	.
FB	Festuco-Brometea, Trifolio-Geranietea										
	<i>Holcus mollis</i>	E1	10	.	.	.	.	.	.	.	.
	<i>Brachypodium rupestre</i>	E1	5	.	13	.	.	.	.	.	.
	<i>Euphorbia verrucosa</i>	E1	.	5	.	.	.	.	.	.	.
	<i>Hippocrepis comosa</i>	E1	.	5	.	.	.	.	.	.	.
	<i>Silene vulgaris</i>	E1	.	.	.	.	.	1	.	.	.
Ca	Calthion										
	<i>Angelica sylvestris</i>	E1	67	14	25	3	52	31	53	5	.
MC	<i>Cardamine amara</i>	E1	52	.	25	3	9	20	11	.	.
	<i>Caltha palustris</i>	E1	33	.	13	12	.	15	6	.	.
	<i>Scirpus sylvaticus</i>	E1	.	.	13	.	.	.	.	.	.
	<i>Myosotis scorpioides</i>	E1	.	.	13	.	3	46	14	.	4
Mo	Molinietalia caeruleae										
	<i>Cirsium oleraceum</i>	E1	71	.	25	3	.	5	35	.	.
	<i>Colchicum autumnale</i>	E1	14	9	.	9	.	.	.	.	.
	<i>Valeriana dioica</i>	E1	5	.	.	3	.	.	.	.	.
	<i>Euphorbia villosa</i>	E1	5	.	.	.	.	.	.	.	.
	<i>Cardamine pratensis</i> L.	E1	.	.	.	12	3	.	.	.	.
	<i>Cirsium palustre</i>	E1	.	.	.	.	3	.	.	.	.
	<i>Juncus effusus</i>	E1	.	.	.	.	3	.	.	.	.
	<i>Selinum carvifolia</i>	E1	.	.	.	.	6	.	.	.	.
	<i>Succisella infelxa</i>	E1	.	.	.	.	3	.	.	.	.
	<i>Equisetum palustre</i>	E1	.	.	.	.	.	5	3	.	.
FP	Filipendulo-Petasion										
	<i>Filipendula ulmaria</i>	E1	67	.	.	12	30	17	13	.	.
	<i>Myosoton aquaticum</i>	E1	19	5	.	.	18	10	20	5	5
	<i>Valeriana officinalis</i>	E1	5	.	50	.	.	8	12	.	.
	<i>Lysimachia vulgaris</i>	E1	.	14	38	.	27	25	4	16	8
	<i>Hypericum tetrapterum</i>	E1	.	.	25	.	.	.	.	.	.
	<i>Symphytum officinale</i>	E1	.	.	.	12	27	56	36	11	2
	<i>Stachys palustris</i>	E1	.	.	.	3	.	22	1	11	12
	<i>Lythrum salicaria</i>	E1	.	.	.	.	39	21	1	32	7
	<i>Mentha aquatica</i>	E1	.	.	.	.	12	13	3	.	15
PP	Potentillo-Polygonetalia										
	<i>Ranunculus repens</i>	E1	52	14	50	3	27	38	21	.	20
	<i>Barbarea vulgaris</i>	E1	10	23	63	.	6	5	1	.	.
	<i>Rumex crispus</i>	E1	.	27	25	.	3	.	.	.	.
	<i>Agrostis stolonifera</i>	E1	.	5	.	52	21	16	5	11	22
	<i>Duchesnea indica</i>	E1	.	5	.	24	.	.	.	.	.
	<i>Agropyron repens</i>	E1	.	.	.	.	3	.	.	.	.
MA	Molinio-Arrhenatheretea										
	<i>Deschampsia cespitosa</i>	E1	67	27	63	3	3	14	23	5	8
	<i>Dactylis glomerata s.str.</i>	E1	19	41	88	21	6	2	22	5	8
	<i>Taraxacum officinale</i>	E1	14	5	.	6	12	7	7	.	.
	<i>Anthriscus sylvestris</i>	E1	5	.	38	6	30	1	16	.	.
	<i>Poa trivialis</i>	E1	10	64	100	48	39	28	48	32	27
	<i>Galium mollugo</i>	E1	10	9	.	.	9	2	10	5	4
	<i>Ajuga reptans</i>	E1	5	9	.	3	3	.	3	.	.
	<i>Daucus carota</i>	E1	5	.	13	.	.	.	.	.	.
	<i>Lysimachia nummularia</i>	E1	5	.	38	15	18	40	11	.	5
	<i>Pastinaca sativa</i>	E1	5	.	.	.	.	.	.	.	.
	<i>Poa pratensis</i>	E1	5	.	.	.	.	.	.	.	.
	<i>Rumex acetosa</i>	E1	5	.	.	.	.	.	.	.	.
	<i>Veronica serpyllifolia</i>	E1	.	9	.	.	.	.	.	.	.
	<i>Plantago lanceolata</i>	E1	.	5	.	.	3	.	.	.	.
	<i>Alopecurus pratensis</i>	E1	.	.	13	.	.	1	1	.	.
	<i>Festuca rubra</i>	E1	.	.	13	.	.	.	1	.	13
	<i>Veronica chamaedrys</i>	E1	.	.	13	3	9	.	.	.	.
	<i>Geranium phaeum</i>	E1	.	.	.	12	.	.	.	.	.
	<i>Achillea millefolium</i>	E1	.	.	.	.	6	1	1	.	.
	<i>Holcus lanatus</i>	E1	.	.	.	.	3	.	.	11	2
	<i>Phleum pratense</i>	E1	.	.	.	.	3	.	.	.	.
	<i>Pimpinella major</i>	E1	.	.	.	.	3	.	.	.	.
	<i>Prunella vulgaris</i>	E1	.	.	.	.	.	1	1	.	.
	<i>Festuca arundinacea</i>	E1	.	.	.	.	.	1	2	.	.
	<i>Trifolium repens</i>	E1	.	.	.	.	.	.	1	.	.
	<i>Trifolium pratense</i>	E1	.	.	.	.	.	.	1	.	.

Successive number (Zaporedna številka)		1	2	3	4	5	6	7	8	9	10
PM	Phragmiti-Magnocaricetea										
	<i>Carex elata</i>	E1	19	.	25	9	.	.	.	.	.
	<i>Lycopus europaeus</i>	E1	19	5	.	.	6	18	11	11	49
	<i>Phalaris arundinacea</i>	E1	19	5	100	30	76	82	73	53	90
	<i>Galium palustre</i>	E1	5	.	.	.	21	37	4	16	12
	<i>Phragmites australis</i>	E1	5	.	.	6	3	32	16	16	5
	<i>Carex acuta</i>	E1	5	5	.	.	24	23	3	.	.
	<i>Carex randalpina</i>	E1	5	.	.	.	.	.	.	.	.
	<i>Glyceria notata</i>	E1	5	.	.	.	.	.	.	.	.
	<i>Iris pseudacorus</i>	E1	.	9	50	24	30	53	5	11	22
	<i>Carex acutiformis</i>	E1	.	.	25	9	.	18	6	21	20
	<i>Carex vesicaria</i>	E1	.	.	.	6	.	.	.	.	.
	<i>Rorippa amphibia</i>	E1	.	.	.	.	15	10	.	.	7
	<i>Veronica anagallis-aquatica</i>	E1	.	.	.	.	9	.	.	.	.
	<i>Carex appropinquata</i>	E1	.	.	.	.	3	.	.	.	.
	<i>Carex vulpina</i>	E1	.	.	.	.	3	.	.	.	.
	<i>Leersia oryzoides</i>	E1	.	.	.	.	3	.	.	.	.
	<i>Scutellaria garelliculata</i>	E1	.	.	.	.	3	8	.	.	.
	<i>Veronica beccabunga</i>	E1	.	.	.	.	3	6	1	.	.
	<i>Poa palustris</i>	E1	.	.	.	.	.	24	18	32	15
	<i>Scrophularia umbrosa</i>	E1	.	.	.	.	.	2	8	.	.
FC	Filipendulo-Convolutetea										
	<i>Calystegia sepium</i>	E1	38	.	13	6	67	28	26	32	20
	<i>Fallopia japonica</i>	E1	19	.	38	.	.	.	.	.	.
	<i>Echinocystis lobata</i>	E1	14	.	25	.	61	.	.	.	.
	<i>Rudbeckia laciniata</i>	E1	14	.	13	15	27	.	.	.	.
	<i>Mentha longifolia</i>	E1	5	.	.	.	9	2	5	.	.
	<i>Saponaria officinalis</i>	E1	.	.	25	.	3	.	.	5	5
	<i>Epilobium hirsutum</i>	E1	.	.	.	.	9	.	.	.	.
	<i>Sicyos angulosus</i>	E1	.	.	.	.	.	.	5	93	.
BT	Bidentetea tripartitetae										
	<i>Polygonum sp.</i>	E1	.	.	13	.	6	.	.	.	.
	<i>Polygonum hydropiper</i>	E1	.	.	.	.	27	17	.	37	34
	<i>Polygonum mite</i>	E1	.	.	.	.	30	.	.	.	.
	<i>Bidens tripartita</i>	E1	.	.	.	.	18	.	.	.	.
	<i>Bidens frondosa</i>	E1	.	.	.	.	.	3	1	11	76
	<i>Polygonum dubia</i>	E1	.	.	.	.	.	.	.	.	46
	<i>Polygonum lapathifolia</i>	E1	.	.	.	.	.	.	.	.	10
	<i>Polygonum maculosa</i>	E1	.	.	.	.	.	.	.	.	12
	<i>Polygonum minus</i>	E1	.	.	.	.	.	.	.	2	8
AV	Artemisietea vulgaris										
	<i>Rumex obtusifolius</i>	E1	19	32	63	.	18	28	11	5	.
	<i>Artemisia vulgaris</i>	E1	10	18	.	.	33	2	14	5	29
	<i>Melilotus albus</i>	E1	5	.	.	.	.	.	1	.	17
	<i>Silene latifolia subsp. alba</i>	E1	5	.	.	3	9	.	.	.	.
	<i>Artemisia verlotiorum</i>	E1	.	5	.	.	.	.	.	21	17
	<i>Conium maculatum</i>	E1	.	.	25	.	.	.	.	.	.
GU	Galio-Urticetea										
	<i>Aegopodium podagraria</i>	E1	100	100	50	61	48	.	36	5	.
	<i>Urtica dioica</i>	E1	90	68	75	97	97	76	89	89	85
	<i>Alliaria petiolata</i>	E1	81	77	100	33	58	6	35	.	.
	<i>Galium aparine</i>	E1	76	32	75	94	70	33	63	53	7
	<i>Petasites hybridus</i>	E1	71	9	.	.	3	1	16	.	4
	<i>Solidago gigantea</i>	E1	62	9	50	24	9	8	25	79	41
	<i>Glechoma hederacea</i>	E1	57	36	13	45	79	15	46	5	2
	<i>Helianthus tuberosus</i>	E1	57	18	.	.	.	.	.	16	12
	<i>Parietaria officinalis</i>	E1	48	45	.	.	12	.	.	.	.
	<i>Impatiens glandulifera</i>	E1	29	14	100	91	24	6	28	.	.
	<i>Lamium maculatum</i>	E1	29	18	.	61	73	.	45	.	.
	<i>Geum urbanum</i>	E1	24	64	50	24	.	.	11	.	.
	<i>Chaerophyllum aureum</i>	E1	10	.	.	.	.	.	1	.	.
	<i>Impatiens parviflora</i>	E1	5	.	25	.	3	13	43	.	.
	<i>Stellaria neglecta</i>	E1	5	.	.	67	.	.	.	.	.
	<i>Viola odorata</i>	E1	.	5	.	.	.	.	.	.	.
	<i>Cuscuta europaea</i>	E1	.	.	.	.	12	.	.	.	.
	<i>Chaerophyllum temulum</i>	E1	.	.	.	.	9	.	.	.	.
	<i>Cruciata laevipes</i>	E1	.	.	.	.	6	.	.	.	.
	<i>Chaerophyllum bulbosum</i>	E1	.	.	.	.	3	.	.	.	.
	<i>Solidago canadensis</i>	E1	.	.	.	.	.	6	16	.	.
SM	Stellarietea mediae										
	<i>Stellaria media</i>	E1	24	.	13	.	9	.	.	.	.
	<i>Erigeron annuus</i>	E1	19	5	13	.	24	.	.	.	20
	<i>Chelidonium majus</i>	E1	14	18	.	6	.	.	.	.	.
	<i>Cardamine hirsuta</i>	E1	10	14	.	.	.	.	.	.	.
	<i>Bromus sterilis</i>	E1	5	.	.	.	.	.	.	.	.
	<i>Plantago major</i>	E1	5	5	.	.	.	.	.	.	12
	<i>Veronica sublobata</i>	E1	.	18	.	.	.	.	.	.	.
	<i>Allium vineale</i>	E1	.	9	.	.	.	.	.	.	.

Successive number (Zaporedna številka)		1	2	3	4	5	6	7	8	9	10
<i>Poa annua</i>	E1	.	5	.	.	.	.	.	.	.	.
<i>Urtica urens</i>	E1	.	5	.	.	.	.	.	.	.	.
<i>Veronica persica</i>	E1	.	5	38	.	.	.	.	.	.	.
<i>Oxalis fontana</i>	E1	.	.	25	.	.	.	.	.	.	.
<i>Polygonum persicaria</i>	E1	.	.	13	.	.	.	.	.	.	.
<i>Veronica hederifolia</i>	E1	.	.	.	88	.	.	.	.	.	.
<i>Rorippa sylvestris</i>	E1	.	.	.	.	15	5	1	.	12	.
<i>Aristolochia clematitis</i>	E1	.	.	.	.	9	.	.	5	2	.
<i>Echinochloa crus-galli</i>	E1	.	.	.	.	6	.	.	.	.	.
<i>Cirsium arvense</i>	E1	.	.	.	.	3	6	10	.	.	.
<i>Convolvulus arvensis</i>	E1	.	.	.	.	3	.	.	.	.	.
<i>Conyza canadensis</i>	E1	.	.	.	.	3	.	.	.	.	.
<i>Sonchus oleraceus</i>	E1	.	.	.	.	3	.	.	.	2	.
<i>Galeopsis tetrahit</i>	E1	.	.	.	.	.	5	4	11	2	.
<i>Xanthium orientale</i>	E1	.	.	.	.	.	.	.	5	22	50
<i>Erigeron canadensis</i>	E1	.	.	.	.	.	.	.	.	32	8
AT Asplenietea trichomanis, Thlaspietea rotundifolii											
<i>Asplenium ruta-muraria</i>	E1	5	.	.	.	.	.	.	.	.	.
<i>Asplenium trichomanes</i>	E1	10	.	.	.	3	.	.	.	.	.
TR <i>Equisetum ramosissimum</i>	E1	.	.	.	.	.	.	.	.	.	13
O Other species (Druge vrste)											
<i>Ailanthus glandulosa</i>	E3a	10	.	.	.	.	.	.	.	.	.
<i>Robinia pseudoacacia</i>	E3b	10	50	.	33	3	.	.	11	5	8
<i>Robinia pseudoacacia</i>	E2b	5	9	.	6	6	.	.	.	.	.
<i>Robinia pseudoacacia</i>	E1	5	5	.	9	.	.	.	.	.	.
<i>Aquilegia vulgaris</i>	E1	5	.	.	.	.	.	.	.	.	.
<i>Forsythia viridissima</i>	E2a	5	.	.	.	.	.	.	.	.	.
<i>Prunus insititia</i>	E3a	5	5	.	.	.	.	.	.	.	.
<i>Prunus insititia</i>	E2a	.	32	.	.	.	.	.	.	.	.
<i>Viola sororia</i>	E1	.	9	.	.	.	.	.	.	.	.
<i>Vitis vinifera</i>	E3a	.	9	.	.	.	.	.	.	.	8
<i>Iris foetidissima</i>	E1	.	5	.	.	.	.	.	.	.	.
<i>Gleditsia triacanthos</i>	E3a	.	5	.	.	.	.	.	.	.	.
<i>Iris germanica</i>	E1	.	5	.	.	.	.	.	.	.	.
<i>Malus domestica</i>	E3a	.	5	.	.	.	.	.	.	.	.
<i>Morus alba</i>	E3a	.	5	.	.	.	.	.	.	.	.
<i>Platanus x hispanica</i>	E3b	.	5	.	.	.	.	.	.	.	.
<i>Platanus x hispanica</i>	E2b	.	5	.	.	.	.	.	.	.	.
<i>Bromus sp.</i>	E1	.	.	88	.	.	.	.	.	.	.
<i>Hypericum sp.</i>	E1	.	.	25	.	.	.	.	.	.	.
<i>Carex sp.</i>	E1	.	.	.	.	9	.	.	.	.	.
<i>Mentha sp.</i>	E1	.	.	.	.	6	.	.	.	.	.
<i>Mentha x verticillata</i>	E1	.	.	.	.	3	.	.	.	.	.
<i>Ranunculus aquatilis</i>	E1	.	.	.	.	3	.	.	.	.	.
<i>Aster novi-belgii</i> agg.	E1	.	.	.	.	.	25	3	.	.	.
<i>Apios americana</i>	E1	.	.	.	.	.	.	.	11	32	.
<i>Humulus japonicus</i>	E1	.	.	.	.	.	.	.	.	34	.
<i>Ditrichia viscosa</i>	E1	.	.	.	.	.	.	.	.	.	8
ML Mosses and Fungi (Mahovi in lesne glive)											
<i>Plagiomnium undulatum</i>	E0	29	18	25	3	.	3	7	.	.	.
<i>Brachythecium sp.</i>	E0	5	.	.	.	.	.	.	.	.	.
<i>Anomodon viticulosus</i>	E0	5	.	.	.	.	.	.	.	.	.
<i>Mnium sp.</i>	E0	5	.	.	.	.	.	.	.	.	.
<i>Neckera complanata</i>	E0	5	.	.	.	.	.	.	.	.	.
<i>Laetiporus sulphureus</i>	E3a	.	5	.	.	.	.	.	.	.	.
<i>Eurhynchium sp.</i>	E0	.	.	.	6	.	.	.	.	.	.

1 LoSa-Si *Lamio orvalae-Salicetum albae ranunculetosum lanuginosae*, Slovenia, this article

2 LoSa-Vd *Lamio orvalae-Salicetum albae caricetosum pendulae*, Slovenia, Vipava Valley, this article

3 Sa-Drava *Salicetum albae*, Slovenia, Drava Valley (Podravje), Javornik (2013, Appendix A, Phytosociological table, relevés 1-8)

4 Sa-Mura, *Salicetum albae* Sloveni, Mura Valley, Čarni et al. (2008, Synoptic table of forest communities, column 2, compare also P.

Košir et al. 2013, Table 1, relevés 1-30)

5 Sa-Krka, *Salicetum albae*, Slovenia, Dolenjska, Šilc (2003, Table 4)

6 Sap-A *Salicetum albae phalaridetosum*, Austria, Karner (2007, Table 2, column 3)

7 Sac-A *Salicetum albae cornetosum*, Austria, Karner (2007, Table 2, column 4)

8 *Amorpha fruticosa*-*Salicetum albae* var. *Populus nigra*, N-Italy, Poldini, Vidali & Ganis, (2011, Table 3, column 9)

9 *Amorpha fruticosa*-*Salicetum albae* var. *Bidens frondosa*, N-Italy, Poldini, Vidali & Ganis, (2011, Table 3, column 11)

10 *Amorpha fruticosa*-*Salicetum albae* var. *Humulus lupulus*, N-Italy, Poldini, Vidali & Ganis, (2011, Table 3, column 10)

Table 5: Groups of diagnostic species in communities of the syntaxon *Salicetum albae* s. lat.
Preglednica 5: Skupine diagnostičnih vrst v združbah makrosociacije *Salicetum albae* s. lat.

Successive number (Zaporedna številka)	1	2	3	4	5	6	7	8	9	10
Number of relevés (Število popisov)	21	22	8	33	33	87	141	19	41	24
Sign for syntaxa (Oznaka sintaksona)	LoSa -SI	LoSa -Vd	Sa-Drava	Sa-Mura	Sa-Krka	Sap-A	Sac-A	AfSapn	AfSabf	AfSahl
<i>Salicion albae</i>	3	11	7	6	7	12	9	12	9	17
<i>Salicetea purpureae</i>	1	0	2	0	4	2	2	4	6	15
<i>Alnion incanae</i>	10	7	9	8	8	10	15	17	10	9
<i>Alno-Quercion roboris</i>	0	5	6	13	0	1	3	0	0	2
<i>Tilio-Acerion</i>	5	4	0	6	0	0	0	0	0	0
<i>Erythronio-Carpinion</i>	3	4	0	1	0	0	0	0	0	0
<i>Aremonio-Fagion</i>	3	2	0	0	0	0	0	0	0	0
<i>Fagetalia sylvaticae</i>	17	14	12	17	7	2	10	6	0	1
<i>Quercetalia pubescenti-petraeae</i>	0	1	0	0	0	0	0	0	0	1
<i>Quercio-Fagetalia</i>	12	16	5	6	0	0	3	2	0	1
<i>Vaccinio-Piceetea</i>	0	0	0	0	0	0	0	0	0	0
<i>Epilobietea angustifolii</i>	2	1	0	2	3	0	2	2	0	1
<i>Rhamno-Prunetea</i>	6	8	5	4	7	2	5	5	0	2
<i>Mulgedio-Aconitetea</i>	3	0	0	0	0	0	3	0	0	0
<i>Festuco-Brometea, Trifolio-Geranietea</i>	0	0	0	0	0	0	0	0	0	5
<i>Calthion</i>	4	0	2	0	3	7	4	0	0	0
<i>Molinietalia caeruleae</i>	2	0	0	0	0	0	2	0	0	0
<i>Filipendulo-Petasition</i>	2	0	3	0	6	11	4	5	3	3
<i>Potentillo-Polygonetalia</i>	1	2	4	3	2	4	1	0	3	2
<i>Molinio-Arrhenatheretea</i>	3	4	10	4	6	6	7	4	3	2
<i>Phragmiti-Magnocaricetea</i>	2	0	5	3	8	20	6	11	16	5
<i>Filipendulo-Convulvetea</i>	2	0	3	0	7	2	1	3	9	2
<i>Bidentetea tripartitetae</i>	0	0	0	0	3	1	0	3	13	4
<i>Artemisietea vulgaris</i>	0	1	2	0	2	2	1	2	3	6
<i>Galio-Urticetea</i>	14	11	15	20	20	11	20	18	11	11
<i>Stellarietea mediae</i>	2	2	3	3	3	1	0	1	8	7
<i>Asplenetea tritichomanis, Thlaspietea rotundifolii</i>	0	0	0	0	0	0	0	0	0	1
Other species (Druge vrste)	0	3	3	2	1	2	0	2	5	2
Mosses (Mahovi)	0	0	0	0	0	0	0	0	0	0
Total (Skupaj)	100	100	100	100	100	100	100	100	100	100

Table 6 (Preglednica 6): *Ornithogalo pyrenaici-Aceretum negundi* nom. prov.

Successive number (Zaporedna številka)			Successive number (Zaporedna številka)			1	2	Pr.
Database number of relevé (Delovna številka popisa)	254575	259160						
Elevation in m (Nadmorska višina v m)	56	56						
Aspect (Lega)	0	0						
Slope in degrees (Nagib v stopinjah)	0	0						
Parent material (Matična podlaga)	Al	Al						
Soil (Tla)	Fl	Fl						
Stoniness in % (Kamnitost v %)	0	0						
Cover in % (Zastiranje v %):								
Upper tree layer (Zgornja drevesna plast)	E3b	90	80					
Lower tree layer (Spodnja drevesna plast)	E3a	.	10					
Shrub layer (Grmovna plast)	E2	10	30					
Herb layer (Zeliščna plast)	E1	50	60					
Moss layer (Mahovna plast)	E0		1					
Maximum diameter of trees (Največji prsni premer dreves)	cm	20	30					
Maximum height of trees (Največja drevesna višina)	m	16	18					
Number of species (Število vrst)		43	32					
Relevé area (Velikost popisne ploskve)	m ²	400	400					
Date of taking relevé (Datum popisa)		10/2/2014	4/13/2015					
Locality (Nahajališče)		Lijak	Lijak					
Quadrant (Kvadrant)		0048/3	0048/3					
Coordinate GK Y (D-48)	m	399685	399614					
Coordinate GK X (D-48)	m	5087065	5087193					
Diagnostic species of the association (Dijagnostične vrste asociacije)								Pr.
SP	<i>Acer negundo</i>	E3b	5	4	2			
SP	<i>Acer negundo</i>	E3a	.	2	1			
SP	<i>Acer negundo</i>	E2b	1	1	1			
QP	<i>Ruscus aculeatus</i>	E1	+	+				
EC	<i>Ornithogalum pyrenaicum</i>	E1	1	.				
SA	<i>Salicion albae</i>							
	<i>Populus nigra</i>	E3b	r	1	1			
	<i>Salix alba</i>	E3b	+	.	1			
AQr	<i>Alno-Quercion roboris</i>							
	<i>Leucocjum aestivum</i>	E1	+	.	1			
	<i>Quercus robur</i>	E3b	.	2	1			
	<i>Quercus robur</i>	E2b	.	+	1			
AI	<i>Alnion incanae</i>							
	<i>Equisetum arvense</i>	E1	1	1	2			
	<i>Rubus caesius</i>	E1	+	+	2			
	<i>Carex pendula</i>	E1	+	.	1			
	<i>Carex remota</i>	E1	+	.	1			
AG	<i>Alnus glutinosa</i>	E3b	+	.	1			
	<i>Frangula alnus</i>	E2b	.	+	1			
EC	<i>Erythronio-Carpinion</i>							
	<i>Galanthus nivalis</i>	E1	+	.	1			
	<i>Ranunculus aescotinus</i>	E1	.	+	1			
TA	<i>Tilio-Acerion</i>							
	<i>Acer pseudoplatanus</i>	E3a	+	.	1			
FS	<i>Fagetalia sylvaticae</i>							
	<i>Viola reichenbachiana</i>	E1	+	1	2			
	<i>Brachypodium sylvaticum</i>	E1	+	+	2			
	<i>Allium ursinum</i>	E1	+	+	2			
	<i>Paris quadrifolia</i>	E1	+	.	1			
	<i>Prunus avium</i>	E3b	r	.	1			
	<i>Carpinus betulus</i>	E3a	.	1	1			
	<i>Carpinus betulus</i>	E2b	.	+	1			
	<i>Carpinus betulus</i>	E1	.	+	1			
QF	<i>Quercio-Fagetea</i>							
	<i>Hedera helix</i>	E1	1	1	2			
	<i>Corylus avellana</i>	E2a	+	.	1			
	<i>Acer campestre</i>	E3b	+	.	1			
	<i>Acer campestre</i>	E2b	1	1	2			
	<i>Acer campestre</i>	E1	+	1	2			
	<i>Clematis vitalba</i>	E3a	1	+	2			
	<i>Clematis vitalba</i>	E1	+	.	1			
	<i>Malus sylvestris</i>	E2b	.	+	1			
	<i>Malus sylvestris</i>	E2a	+	.	1			
	<i>Scilla bifolia</i>	E1	1	.	1			
	<i>Anemone ranunculoides</i>	E1	+	.	1			
	<i>Ulmus minor</i>	E2a	.	+	1			
	<i>Ranunculus ficaria</i>	E1	.	+	1			
	<i>Malus sylvestris</i>	E3a	.	+	1			
	<i>Listera ovata</i>	E1	.	+	1			
RP	<i>Rhamno-Prunetea</i>							
	<i>Crataegus monogyna</i>	E2a	+	+	2			
	<i>Euonymus europaea</i>	E3a	.	+	1			
	<i>Euonymus europaea</i>	E2a	+	.	1			
	<i>Ligustrum vulgare</i>	E2a	+	.	1			
	<i>Cornus sanguinea</i>	E2b	.	1	1			
CA	<i>Calthion</i>							
	<i>Angelica sylvestris</i>	E1	+	.	1			
FP	<i>Filipendulo-Petasion</i>							
	<i>Myosoton aquaticum</i>	E1	.	+	1			
Mo	<i>Molinietalia caeruleae</i>							
	<i>Colchicum autumnale</i>	E1	+	+	2			
	<i>Iris sibirica</i>	E1	.	+	1			
PP	<i>Potentillo-Polygonetalia</i>							
	<i>Barbarea vulgaris</i>	E1	+	.	1			
MA	<i>Molinio-Arrhenatheretea</i>							
	<i>Poa trivialis</i>	E1	2	1	2			
	<i>Ajuga reptans</i>	E1	+	.	1			
	<i>Lysimachia nummularia</i>	E1	.	+	1			
MuA	<i>Mulgedio-Aconitetea</i>							
	<i>Silene dioica</i>	E1	.	+	1			
GU	<i>Galio-Urticetea</i>							
	<i>Aegopodium podagraria</i>	E1	3	3	2			
	<i>Urtica dioica</i>	E1	+	.	1			
	<i>Parietaria officinalis</i>	E1	+	.	1			
	<i>Galium aparine</i>	E1	+	.	1			
	<i>Geum urbanum</i>	E1	.	+	1			
	<i>Glechoma hederacea</i>	E1	.	1	1			
BT	<i>Bidentetea tripartitetae</i>							
	<i>Bidens frondosa</i>	E1	+	.	1			
SM	<i>Stellarietea mediae</i>							
	<i>Allium vineale</i>	E1	+	.	1			
	<i>Stellaria media</i>	E1	+	.	1			
O	Other species (Druge vrste)							
	<i>Robinia pseudoacacia</i>	E3b	.	+	1			
	<i>Robinia pseudoacacia</i>	E1	+	.	1			
	<i>Ficus carica</i>	E1	1	.	1			
ML	Mosses (Mahovi)							
	<i>Plagiommium undulatum</i>	E0	+	.	1			

Table 8 (Preglednica 8) : *Lamio orvalae-Alnetum glutinosae* - the Reka Valley (dolina Reke)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Database number of relevé (Delovna številka popisa)	259307	259382	259383	259381	259304	256072	259417	259418	259457	259425	259433	259434	259450	259438	259443	259452	259458	259451	259305
Elevation in m (Nadmorska višina v m)	420	400	400	400	420	380	400	400	400	425	435	435	420	435	420	415	417	420	420
Aspect (Lega)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Slope in degrees (Nagib v stopinjah)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Parent material (Matična podlaga)	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al	Al
Soil (Tla)	Fl	Fl	Fl	Pg	Eu	Fl	Fl	Fl	Fl	Eu	Eu	Eu	Eu	Eu	Fl	Eu	Pg	Fl	Fl
Stoniness in % (Kamnitost v %)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cover in % (Zastiranje v %):																			
Upper tree layer (Zgornja drevesna plast)	E3b	70	70	70	80	80	80	70	80	80	70	80	80	80	80	80	70	70	80
Lower tree layer (Spodnja drevesna plast)	E3a	20	20	20	10	10	10	20	10	10	20	10	10	10	10	10	10	20	10
Shrub layer (Grmovna plast)	E2	20	20	20	30	40	40	20	40	30	35	30	30	50	40	20	40	30	20
Herb layer (Zeliščna plast)	E1	95	100	100	95	70	100	95	100	100	95	95	80	90	80	95	80	60	90
Moss layer (Mahovna plast)	E0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum diameter of trees (Največji prsni premer dreves)	cm	50	40	40	40	40	35	50	40	40	30	40	45	25	40	40	40	40	30
Maximum height of trees (Največja drevesna višina)	m	24	28	30	25	22	25	30	28	27	20	26	28	17	25	24	25	26	24
Number of species (Število vrst)		53	61	58	50	24	56	49	46	39	65	54	45	66	59	58	52	53	40
Relevé area (Velikost popisne ploskve)	m ²	200	400	400	400	200	400	400	400	400	400	400	400	400	400	400	400	400	200
Date of taking relevé (Datum popisa)		5/25/2015	5/11/2015	5/11/2015	5/11/2015	5/25/2015	11.5.2015	5/6/2015	5/6/2015	5/6/2015	5/6/2015	5/6/2015	5/6/2015	5/6/2015	5/6/2015	5/6/2015	5/6/2015	5/6/2015	5/25/2015
Locality (Nahajališče)		Trpčane	Prem	Prem	Topolc	Trpčane	Ribnica	Marče	Marče	Marče	Kobljak	Kobljak	Kobljak	Kobljak	Kobljak	Kobljak	Kobljak	Kobljak	Trpčane
Quadrant (Kvadrant)		0451/4	0351/3	0351/3	0451/1	0451/4	0350/4	0451/1	0451/1	0451/1	0451/4	0451/4	0451/4	0451/4	0451/4	0451/4	0451/4	0451/4	0451/4
Coordinate GK Y (D-48)	m	446240	436564	436610	438651	446081	434628	438298	438238	438351	443660	443921	443963	442687	443460	442754	442403	442441	442250
Coordinate GK X (D-48)	m	5043156	5051852	5051828	5049158	5043366	5054641	5050130	5050144	5050148	5042981	5042987	5042931	5043296	5042993	5043259	5043482	5043436	5043573
Diagnostic species of the association (Diagnostične vrste asociacije)																			
AG <i>Alnus glutinosa</i>	E3b	+	1	+	4	4	3	3	4	4	3	5	4	5	4	4	4	3	4
AG <i>Alnus glutinosa</i>	E3a	.	.	+	+	.	.	.	.	.	.	+	+	.	.	.	.	.	+
AG <i>Alnus glutinosa</i>	E2b	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.
AG <i>Alnus glutinosa</i>	E2a	.	.	.	+	.	.	.	.	.	.	+	.	.	.	.	.	.	.
AF <i>Lamium orvala</i>	E1	1	2	+	+	.	3	3	3	3	2	1	2	2	3	3	1	2	1
EC <i>Ornithogalum pyrenaicum</i>	E1	.	+	.	+	1	+	1	1	+	1	1	1	+	1	1	+	+	1
EC <i>Galanthus nivalis</i>	E1	.	1	1	.	.	3	2	1	1	.	.	+	.	.	.	.	.	.
Differential species of the variants (Razlikovalne vrste variant)																			
QF <i>Scilla bifolia</i>	E1	.	1	+	+	.	2	1	1	2	.	.	.	.	.	.	.	.	.
FS <i>Allium ursinum</i>	E1	+	4	4	.	.	.	4	4	5	.	.	.	.	.	.	.	.	+
FS <i>Cardamine bulbifera</i>	E1	1	.	.	.	.	.	.	.	.	1	2	2	1	1	1	.	+	1
EC <i>Crocus vernus subsp. vernus</i>	E1	.	.	.	.	.	.	.	.	.	1	1	1	1	1	1	1	1	1
AI <i>Alnion incanae, Alno-Quercion</i>																			
<i>Rubus caesius</i>	E1	4	1	+	3	4	+	.	.	+	1	+	1	1	.	+	.	1	+
<i>Equisetum arvense</i>	E1	.	.	.	.	1	.	+	+	+	1	+	.	+	+	.	.	+	1
<i>Humulus lupulus</i>	E2a	.	1	+	1	.	.	.	.	.	.	.	.	.	.	.	.	.	+
<i>Cardamine impatiens</i>	E1	+	+	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Carex remota</i>	E1	.	.	.	1	.	.	.	.	.	.	+	.	.	.	.	+	1	.
<i>Aesculus hippocastanum</i>	E3b	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Aesculus hippocastanum</i>	E3a	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.
<i>Aesculus hippocastanum</i>	E2b	.	.	.	+	.	.	r	.	.	.	.	.	.	.	.	.	.	r
<i>Aesculus hippocastanum</i>	E2a	.	.	.	+	.	.	+	.	.	.	.	.	.	.	.	.	.	+
<i>Festuca gigantea</i>	E1	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+
<i>Equisetum telmateia</i>	E1	.	.	.	.	1	.	.	.	.	.	+	.	.	.	.	.	.	.
<i>Frangula alnus</i>	E2	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.
<i>Hemerocallis fulva</i>	E1	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
AG <i>Salix cinerea</i>	E3a	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Knautia drymeia subsp. intermedia</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.
AQr <i>Quercus robur</i>	E1	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.
AQr <i>Ulmus laevis</i>	E3b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
AQr <i>Ulmus laevis</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
AQr <i>Ulmus laevis</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2

Pr. Fr.
19 100
5 26
1 5
3 16
18 95
17 89
7 37
7 37
7 37
9 47
9 47
14 74
11 58
7 37
4 21
4 21
1 5
1 5
3 16
3 16
3 16
2 11
2 11
1 5
1 5
1 5
1 5
1 5

	Number of relevé (Zaporedna številka popisa)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Pr.	Fr.		
SA	Salicion albae																							
	<i>Populus nigra</i>	E3b	+	1	.	.	.	.	.	+	.	+	+	.	.	.	.	.	.	.	.	6	32
	<i>Salix alba</i>	E3b	1	.	.	1	1	.	+	.	.	.	.	.	.	.	.	+	.	+	+	7	37
	<i>Salix fragilis</i>	E3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	16
	<i>Salix purpurea</i>	E2b	r	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Solanum dulcamara</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
TA	Tilio-Acerion																							
	<i>Acer pseudoplatanus</i>	E3b	1	+	.	.	.	.	.	+	.	+	.	.	.	.	.	.	.	.	.	5	26
	<i>Acer pseudoplatanus</i>	E3a	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Acer pseudoplatanus</i>	E2b	1	.	+	.	.	.	.	2	.	+	+	+	+	.	.	.	.	.	.	8	42
	<i>Acer pseudoplatanus</i>	E2a	.	.	+	+	.	.	.	2	+	1	1	+	1	.	+	+	+	.	+	12	63	
	<i>Acer pseudoplatanus</i>	E1	.	.	.	.	.	.	.	1	+	.	+	.	.	.	.	.	.	.	.	6	32
	<i>Arum maculatum</i>	E1	.	.	.	.	.	.	.	.	.	1	+	1	+	1	+	+	.	.	.	10	53
	<i>Stellaria montana</i>	E1	1	+	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	26
	<i>Acer platanoides</i>	E3b	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Acer platanoides</i>	E2a	.	+	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Thalictrum aquilegifolium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Juglans regia</i>	E2b	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Juglans regia</i>	E2a	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Ulmus glabra</i>	E2a	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Adoxa moschatellina</i>	E1	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Geranium robertianum</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Hesperis candida</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Tilia platyphyllos</i>	E2b	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Aruncus dioicus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
EC	Erythronio-Carpinion																							
	<i>Primula vulgaris</i>	E1	.	.	.	+	+	.	.	.	.	+	+	.	.	.	.	.	.	.	.	7	37
AF	Aremonio-Fagion																							
	<i>Geranium nodosum</i>	E1	.	.	.	.	.	.	.	+	1	.	.	.	.	.	.	.	.	.	.	8	42
	<i>Knautia drymeia</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	26
	<i>Euphorbia carniolica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Cyclamen purpurascens</i>	E1	.	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	1	5
FS	Fagetalia sylvaticae																							
	<i>Brachypodium sylvaticum</i>	E1	1	1	1	1	+	1	.	.	+	+	2	+	+	1	+	1	1	1	+	1	18	95
	<i>Ranunculus lanuginosus</i>	E1	1	1	1	+	+	+	+	1	+	1	1	1	+	1	+	+	17	89
	<i>Pulmonaria officinalis</i>	E1	.	+	+	1	1	+	1	2	+	1	1	1	1	1	1	+	16	84
	<i>Carpinus betulus</i>	E3b	3	5	26
	<i>Carpinus betulus</i>	E3a	+	.	r	.	.	.	.	+	1	+	1	+	+	.	.	.	.	.	.	13	68
	<i>Carpinus betulus</i>	E2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Carpinus betulus</i>	E2a	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6	32
	<i>Fraxinus excelsior</i>	E3b	3	4	4	+	+	3	.	.	.	.	3	1	2	+	.	.	1	3	+	13	68
	<i>Fraxinus excelsior</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	26
	<i>Fraxinus excelsior</i>	E2b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	7	37
	<i>Fraxinus excelsior</i>	E2a	.	.	.	1	+	.	.	.	.	.	1	1	+	1	1	1	.	.	+	11	58
	<i>Fraxinus excelsior</i>	E1	1	.	.	1	.	1	.	.	.	.	1	1	+	.	.	.	.	.	+	9	47
	<i>Galeobdolon montanum</i>	E1	+	1	1	.	.	1	3	1	2	2	1	2	1	1	2	.	13	68
	<i>Salvia glutinosa</i>	E1	+	.	+	.	.	.	.	.	.	.	+	+	+	+	+	+	+	+	+	13	68
	<i>Symphytum tuberosum</i>	E1	.	.	.	.	.	.	.	1	1	.	1	1	1	1	2	2	1	2	+	13	68
	<i>Sambucus nigra</i>	E3a	.	+	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Sambucus nigra</i>	E2b	+	1	1	1	.	.	.	1	+	.	.	.	.	.	.	.	.	.	.	10	53
	<i>Sambucus nigra</i>	E2a	.	1	.	1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	11	58
	<i>Polygonatum multiflorum</i>	E1	.	+	+	+	.	.	.	+	1	+	.	.	.	.	.	.	.	.	.	9	47
	<i>Paris quadrifolia</i>	E1	.	.	.	.	.	.	.	1	+	+	+	+	1	.	.	.	.	.	.	8	42
	<i>Asarum europaeum subsp. caucasicum</i>	E1	.	.	.	.	.	2	2	1	+	.	.	.	1	1	.	.	.	.	.	7	37
	<i>Euphorbia dulcis</i>	E1	.	.	.	.	.	1	+	+	+	.	.	.	.	.	.	.	.	.	.	7	37
	<i>Carex sylvatica</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	+	6	32
	<i>Heracleum sphondylium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6	32
	<i>Scrophularia nodosa</i>	E1	+	1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	21
	<i>Circaea lutetiana</i>	E1	.	.	.	.	.	.	.	.	.	.	.	1	1	.	.	.	.	.	.	3	16
	<i>Petasites albus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	16
	<i>Tilia cordata</i>	E3a	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Tilia cordata</i>	E2b	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Tilia cordata</i>	E2a	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Fagus sylvatica</i>	E3a	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Fagus sylvatica</i>	E1	+	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Corydalis cava</i>	E1	.	1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Mercurialis perennis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Prunus avium</i>	E3b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Prunus avium</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Prunus avium</i>	E2a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Prunus avium</i>	E1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Galium laevigatum</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Neottia nidus-avis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Campanula trachelium</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Actaea spicata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Phyteuma spicatum subsp. coeruleum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
QP	Quercetalia pubescenti-petraeae																							
	<i>Quercus cerris</i>	E3b	.	.	.	.	.	.	.	+	1	.	.	.	.	.	.	.	.	.	.	3	16

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Pr.	Fr.		
	Number of relevé (Zaporedna številka popisa)																							
	<i>Quercus cerris</i>	E2a	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Quercus cerris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	1	5
	<i>Helleborus odoratus subsp. istriacus</i>	E1	.	.	1	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Convallaria majalis</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
QF	Querco-Fagetea																							
	<i>Ranunculus ficaria</i>	E1	.	2	1	3	.	1	1	1	1	1	2	2	1	1	+	2	1	1	+	17	89	
	<i>Anemone nemorosa</i>	E1	+	1	.	+	.	1	2	2	1	1	2	2	1	2	1	+	2	1	.	16	84	
	<i>Acer campestre</i>	E3b	.	.	.	.	.	.	1	.	+	2	.	+	.	.	+	+	+	.	.	7	37
	<i>Acer campestre</i>	E3a	1	.	+	.	1	1	.	+	1	+	+	.	.	+	.	.	.	.	+	10	53
	<i>Acer campestre</i>	E2b	+	.	.	+	1	1	1	+	+	1	1	1	.	.	+	.	.	.	.	12	63
	<i>Acer campestre</i>	E2a	1	+	+	.	+	.	1	1	1	1	1	1	1	.	+	.	+	1	.	15	79	
	<i>Acer campestre</i>	E1	.	.	.	+	+	1	.	+	+	+	+	.	.	+	.	.	.	.	.	8	42
	<i>Corylus avellana</i>	E3a	1	.	2	+	.	1	.	+	2	1	1	+	.	1	+	.	3	.	.	12	63	
	<i>Corylus avellana</i>	E2b	1	1	1	1	1	1	1	1	1	.	1	1	+	2	1	+	2	.	.	15	79	
	<i>Corylus avellana</i>	E2a	.	.	.	.	.	.	.	+	.	1	.	.	.	+	.	+	.	+	.	5	26
	<i>Gagea lutea</i>	E1	.	+	+	.	.	1	+	+	+	.	+	1	+	+	1	+	1	+	.	14	74	
	<i>Cerastium sylvaticum</i>	E1	1	+	+	.	.	+	.	+	.	.	+	+	.	+	.	.	+	+	+	10	53	
	<i>Hedera helix</i>	E3a	.	+	+	.	+	.	1	+	1	.	+	.	.	.	.	.	.	.	.	7	37
	<i>Hedera helix</i>	E1	.	+	+	+	1	.	1	+	1	+	+	.	.	.	.	.	.	.	.	9	47
	<i>Anemone ranunculoides</i>	E1	.	+	.	.	.	.	.	.	.	.	.	+	+	1	+	+	+	.	.	7	37
	<i>Rosa arvensis</i>	E2a	.	.	.	.	.	.	+	.	+	.	.	.	.	+	+	+	.	.	.	5	26
	<i>Lathraea squamaria</i>	E1	.	.	.	.	.	+	1	.	.	.	.	.	.	+	+	.	.	.	.	4	21
	<i>Listera ovata</i>	E1	.	.	.	.	.	1	1	+	.	+	.	.	.	.	.	.	.	.	.	4	21
	<i>Malus sylvestris</i>	E3b	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	1	5
	<i>Malus sylvestris</i>	E3a	.	.	.	.	.	.	.	.	.	+	+	.	.	+	+	.	.	.	.	4	21
	<i>Malus sylvestris</i>	E2a	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	1	5
	<i>Malus sylvestris</i>	E1	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	1	5
	<i>Clematis vitalba</i>	E3a	.	1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Clematis vitalba</i>	E2b	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	1	5
	<i>Pyrus pyraster</i>	E3b	.	.	.	.	.	.	.	.	.	+	.	.	.	+	.	.	.	.	.	2	11
	<i>Pyrus pyraster</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	1	5
	<i>Pyrus pyraster</i>	E2b	.	.	.	.	.	.	.	.	.	.	.	+	.	.	+	.	.	.	.	2	11
	<i>Pyrus pyraster</i>	E2a	.	.	.	.	.	.	.	+	.	.	.	.	.	+	.	.	.	.	.	2	11
	<i>Ulmus minor</i>	E3b	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	1	5
	<i>Ulmus minor</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Ulmus minor</i>	E2b	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	+	.	2	11
	<i>Ulmus minor</i>	E2a	2	.	1	5
	<i>Ulmus minor</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	1	5
	<i>Hepatica nobilis</i>	E1	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Carex digitata</i>	E1	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Stellaria holostea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	1	5
	<i>Betonica officinalis</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	1	5
VP	Vaccinio-Piceetea																							
	<i>Aposeris foetida</i>	E1	.	.	.	.	.	.	+	+	.	+	+	.	+	+	.	+	+	.	.	9	47
	<i>Gentiana asclepiadea</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	+	+	.	.	.	.	.	3	16
	<i>Oxalis acetosella</i>	E1	.	.	.	.	.	.	+	1	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Abies alba</i>	E3b	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Abies alba</i>	E2a	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Abies alba</i>	E1	.	.	.	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Carex ornithopoda</i>	E1	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Picea abies</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	1	5
RP	Rhamno-Prunetea																							
	<i>Cornus sanguinea</i>	E3a	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Cornus sanguinea</i>	E2b	.	1	1	1	2	.	.	1	1	+	+	1	1	.	1	.	.	.	+	12	63	
	<i>Cornus sanguinea</i>	E2a	1	1	+	1	.	.	+	1	1	1	1	1	1	+	1	.	+	+	+	16	84	
	<i>Euonymus europaea</i>	E2b	1	1	.	1	1	.	.	+	.	.	.	.	.	.	.	.	.	.	.	7	37
	<i>Euonymus europaea</i>	E2a	+	1	+	+	.	1	+	+	1	1	+	+	+	+	+	.	.	.	.	14	74
	<i>Euonymus europaea</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Crataegus monogyna</i>	E3a	.	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	+	4	21
	<i>Crataegus monogyna</i>	E2b	.	.	+	1	.	.	+	1	1	.	.	+	+	2	+	.	1	+	.	+	12	63
	<i>Crataegus monogyna</i>	E2a	.	.	+	.	1	+	.	.	1	1	1	+	1	+	1	+	.	+	+	13	68	
	<i>Viburnum opulus</i>	E2b	+	.	.	+	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3	16
	<i>Viburnum opulus</i>	E2a	.	.	.	+	2	.	+	+	+	1	.	+	1	+	+	1	+	.	1	13	68	
	<i>Prunus spinosa</i>	E2b	.	.	.	+	.	.	.	.	.	.	+	.	.	.	+	.	+	.	.	4	21
	<i>Prunus spinosa</i>	E2a	.	.	.	.	2	.	.	+	1	+	1	+	+	+	.	+	+	.	1	11	58
	<i>Ligustrum vulgare</i>	E2b	.	.	.	.	1	1	.	.	.	.	+	.	.	1	.	.	.	.	.	4	21
	<i>Ligustrum vulgare</i>	E2a	.	.	+	+	.	.	.	+	+	.	+	1	1	+	.	1	.	.	+	10	53	
	<i>Rubus fruticosus agg.</i>	E2b	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	1	5
MuA	Mulgedio-Aconitetea																							
	<i>Veratrum album subsp. album</i>	E1	.	.	+	.	.	.	2	1	3	2	1	2	1	2	3	1	2	2	.	13	68	
	<i>Aconitum lycoctonum</i>	E1	+	.	.	.	.	.	.	.	.	1	.	.	2	2	2	+	+	1	+	9	47
	<i>Senecio nemorensis</i>	E1	.	.	.	.	.	.	.	.	.	.	+	+	+	.	+	.	.	.	.	5	26
	<i>Senecio ovatus</i>	E1	.	.	.	.	.	.	.	.	.	.	+	+	.	.	.	.	.	.	.	3	16
	<i>Athyrium filix-femina</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	2	11
	<i>Silene dioica</i>	E1	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Aconitum variegatum</i>	E1	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Doronicum austriacum</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
EA	Epilobietea angustifolii																							
	<i>Stachys sylvatica</i>	E1	1	1	1	.	.	.	.	.	.	1	1	+	2	+	.	.	.	.	+	9	47

Number of relevé (Zaporedna številka popisa)		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Pr.	Fr.	
	<i>Arctium nemorosum</i>	E1	.	.	.	.	+	.	.	.	+	+	+	.	+	+	+	+	.	.	8	42	
	<i>Arctium minus</i>	E1	+	.	.	.	.	.	.	.	.	.	.	+	+	.	.	.	.	.	.	4	21
	<i>Eupatorium cannabinum</i>	E1	+	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Galeopsis speciosa</i>	E1	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Fragaria vesca</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	1	5
TG	Trifolio-Geranietea																						
	<i>Campanula rapunculoides</i>	E1	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Lilium bulbiferum</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	1	5
Ca	Calthion																						
	<i>Angelica sylvestris</i>	E1	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	+	+	.	.	3	16
	<i>Caltha palustris</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Scirpus sylvaticus</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	1	5
Mo	Molinietalia caeruleae																						
	<i>Cirsium oleraceum</i>	E1	.	+	+	.	.	.	.	.	1	+	.	+	.	+	+	+	.	1	.	9	47
	<i>Colchicum autumnale</i>	E1	.	.	.	.	.	1	+	+	.	.	+	+	.	+	1	1	.	.	.	8	42
	<i>Equisetum palustre</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	+	.	.	.	2	11
	<i>Cardamine pratensis</i> agg.	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Valeriana dioica</i>	E1	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	1	5
	<i>Cirsium palustre</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	1	5
FP	Filipendulo-Petasition																						
	<i>Filipendula ulmaria</i>	E1	.	.	.	3	.	.	.	.	.	.	.	+	.	.	+	.	.	.	.	4	21
	<i>Valeriana officinalis</i>	E1	.	.	.	+	.	.	.	.	.	.	1	.	.	.	.	+	.	.	.	3	16
PP	Potentillo-Polygonetalia																						
	<i>Ranunculus repens</i>	E1	+	+	.	.	.	.	.	.	1	+	.	+	.	.	.	.	1	.	.	6	32
	<i>Barbarea vulgaris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	+	.	.	+	.	.	.	.	2	11
MA	Molinio-Arrhenatheretea																						
	<i>Deschampsia cespitosa</i>	E1	+	+	+	.	.	+	+	.	2	+	+	.	+	2	+	.	.	.	13	68	
	<i>Anthriscus sylvestris</i>	E1	.	1	1	.	.	+	.	.	+	+	+	.	.	.	.	.	.	.	.	6	32
	<i>Veronica chamaedrys</i>	E1	.	.	.	+	.	.	.	.	+	.	.	+	.	+	+	+	.	.	.	6	32
	<i>Ajuga reptans</i>	E1	.	.	.	+	.	.	.	.	+	.	.	+	.	+	+	.	.	.	.	5	26
	<i>Muscari botryoides</i>	E1	.	.	.	.	.	.	.	+	.	.	.	+	.	+	+	1	.	.	.	5	26
	<i>Poa trivialis</i>	E1	.	2	2	1	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	4	21
	<i>Taraxacum officinale</i> agg.	E1	.	.	.	+	+	.	.	.	+	.	.	.	.	.	.	.	.	.	.	3	16
	<i>Crocus albiflorus</i>	E1	.	.	.	.	.	.	.	+	.	.	.	+	.	.	+	.	.	.	.	3	16
	<i>Dactylis glomerata</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	2	11
	<i>Vicia sepium</i>	E1	.	+	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Allium scorodoprasum</i>	E1	.	.	.	1	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Veronica serpyllifolia</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Lysimachia nummularia</i>	E1	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Astrantia major</i>	E1	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Galium mollugo</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.	.	1	5
	<i>Prunella vulgaris</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	1	5
PM	Phragmiti-Magnocaricetea																						
	<i>Lycopus europaeus</i> s. lat.	E1	.	.	.	+	.	.	.	.	+	.	.	+	.	.	+	+	.	1	.	6	32
	<i>Galium palustre</i>	E1	.	.	.	.	.	.	+	+	.	.	.	+	.	.	.	.	.	.	.	3	16
	<i>Phalaris arundinacea</i>	E1	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Glyceria notata</i>	E1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	+	1	5
AV	Artemisietea vulgaris																						
	<i>Artemisia vulgaris</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Echinops sphaerocephalus</i>	E1	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Silene latifolia</i> subsp. alba	E1	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
GU	Galio-Urticetea																						
	<i>Aegopodium podagraria</i>	E1	3	3	3	4	.	3	2	3	3	3	3	2	3	3	2	3	.	.	.	17	89
	<i>Geum urbanum</i>	E1	1	2	2	.	2	1	.	+	.	+	+	+	+	1	+	.	.	.	.	14	74
	<i>Glechoma hederacea</i>	E1	2	1	1	.	.	2	.	+	+	.	.	+	.	+	.	+	1	.	.	10	53
	<i>Alliaria petiolata</i>	E1	1	1	1	1	+	.	+	.	.	.	+	.	.	.	.	.	.	.	.	7	37
	<i>Chaerophyllum aureum</i>	E1	+	.	.	.	.	+	.	.	.	.	.	+	.	.	+	.	.	+	.	5	26
	<i>Galium aparine</i>	E1	.	1	2	1	.	+	.	+	.	.	.	.	.	.	.	.	.	.	.	5	26
	<i>Solidago gigantea</i>	E1	1	1	+	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	21
	<i>Urtica dioica</i>	E1	1	1	2	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4	21
	<i>Petasites hybridus</i>	E1	+	.	.	.	.	.	.	.	+	.	.	.	+	+	.	.	.	.	.	4	21
	<i>Impatiens glandulifera</i>	E1	.	1	2	+	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	4	21
	<i>Lamium maculatum</i>	E1	.	1	2	.	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	3	16
	<i>Impatiens parviflora</i>	E1	+	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Helianthus tuberosus</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Parietaria officinalis</i>	E1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Viola odorata</i>	E1	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
SM	Stellarietea mediae																						
	<i>Bromus sterilis</i>	E1	.	1	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Chelidonium majus</i>	E1	.	+	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Stellaria media</i> agg.	E1	.	.	+	.	.	.	r	.	.	.	.	.	.	.	.	.	.	.	.	2	11
	<i>Erigeron annuus</i>	E1	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Lapsana communis</i>	E1	.	.	.	.	.	+	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
O	Other species (Druge vrste)																						
	<i>Robinia pseudoacacia</i>	E3b	.	r	.	.	.	.	.	.	.	.	.	.	.	.	.	r	.	.	.	2	11
	<i>Robinia pseudoacacia</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	1	5
	<i>Prunus insititia</i>	E3a	.	.	.	.	.	.	.	.	+	.	.	.	.	.	.	.	+	.	.	2	11
	<i>Hesperis matronalis</i>	E1	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	5
	<i>Malus domestica</i>	E3a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	r	1	5

Table 9: Synoptic table of syntaxa *Pseudostallario-Carpinetum*, *Pseudostellario-Quercetum roboris* and *Fraxino-Ulmetum effusae quercetosum roboris*
Preglednica 9: Sintezna tabela sintaksonov *Pseudostallario-Carpinetum*, *Pseudostellario-Quercetum roboris* in *Fraxino-Ulmetum effusae quercetosum roboris*

Successive number (Zaporedna številka)		1	2	3	4
Number of relevés (Število popisov)		9	14	11	20
Sign for syntaxa (Oznaka sintaksona)		PsCbla	PsCb	PeQrla	FUEqr
FpC	<i>Fraxino pannonicae-Carpinion</i>				
	<i>Fraxinus angustifolia</i>	E3b	78	.	9
	<i>Fraxinus angustifolia</i>	E3a	11	.	45
	<i>Fraxinus angustifolia</i>	E2a	56	7	18
	<i>Fraxinus angustifolia</i>	E1	33	.	45
	<i>Pseudostellaria europaea</i>	E1	44	93	36
	<i>Pulmonaria dacica</i>	E1	.	71	64
	<i>Gagea spathacea</i>	E1	.	57	.
AQr	<i>Alno-Quercion roboris</i>				
	<i>Leucojum aestivum</i>	E1	100	.	64
AG	<i>Alnus glutinosa</i>	E3b	89	36	100
AG	<i>Alnus glutinosa</i>	E3a	11	.	.
AG	<i>Alnus glutinosa</i>	E2b	22	7	100
AG	<i>Alnus glutinosa</i>	E2a	11	.	.
	<i>Quercus robur</i>	E3b	78	100	100
	<i>Quercus robur</i>	E2b	.	.	5
	<i>Quercus robur</i>	E1	22	79	64
	<i>Rumex sanguineus</i>	E1	11	7	.
AG	<i>Salix cinerea</i>	E2b	11	.	9
	<i>Clematis viticella</i>	E1	11	.	.
	<i>Carex brizoides</i>	E1	.	36	73
	<i>Ulmus laevis</i>	E3b	.	4	.
	<i>Ulmus laevis</i>	E3a	.	.	80
	<i>Ulmus laevis</i>	E2	.	29	.
	<i>Ulmus laevis</i>	E1	.	.	45
AG	<i>Carex elongata</i>	E1	.	.	100
	<i>Prunus padus</i>	E3	.	.	.
	<i>Prunus padus</i>	E2	.	.	55
	<i>Prunus padus</i>	E1	.	.	35
	<i>Omphalodes scorpioides</i>	E1	.	.	50
	<i>Myosotis sparsiflora</i>	E1	.	.	25
AI	<i>Alnion incanae</i>				
	<i>Carex remota</i>	E1	100	57	82
	<i>Carex pendula</i>	E1	78	21	9
	<i>Rubus caesius</i>	E1	22	14	82
	<i>Dryopteris carthusiana</i>	E1	11	29	100
	<i>Equisetum arvense</i>	E1	11	7	.
	<i>Impatiens noli-tangere</i>	E1	.	43	27
	<i>Equisetum telmateia</i>	E1	.	21	.
	<i>Chrysosplenium alternifolium</i>	E1	.	14	9
	<i>Knautia drymeia subsp. intermedia</i>	E1	.	14	.
	<i>Frangula alnus</i>	E2	.	7	55
	<i>Cardamine impatiens</i>	E1	.	.	9
	<i>Festuca gigantea</i>	E1	.	.	9
	<i>Humulus lupulus</i>	E2a	.	.	.
	<i>Populus alba</i>	E3b	.	.	.
	<i>Populus alba</i>	E1	.	.	5
SP	<i>Salicetea purpureae</i>				
	<i>Salix alba</i>	E3b	33	.	.
	<i>Salix fragilis</i>	E3b	11	.	.
	<i>Solanum dulcamara</i>	E1	.	.	55
	<i>Acer negundo</i>	E3a	.	.	.
	<i>Acer negundo</i>	E2b	.	.	.
	<i>Acer negundo</i>	E1	.	.	.
	<i>Populus nigra</i>	E3b	.	.	.
TA	<i>Tilio-Acerion</i>				
	<i>Arum maculatum</i>	E1	56	21	.
	<i>Staphylea pinnata</i>	E2b	11	.	.
	<i>Staphylea pinnata</i>	E2a	11	.	.
	<i>Adoxa moschatellina</i>	E1	.	.	.
	<i>Corydalis solida</i>	E1	.	.	.
	<i>Geranium robertianum</i>	E1	.	.	.
	<i>Ulmus glabra</i>	E3b	.	.	.
	<i>Acer platanoides</i>	E3b	.	.	.
	<i>Acer platanoides</i>	E2a	.	.	.
EC	<i>Erythronio-Carpinion</i>				
	<i>Ranunculus aesculentus</i>	E1	100	.	.
	<i>Erythronium dens-canis</i>	E1	56	.	.
	<i>Crocus vernus subsp. vernus</i>	E1	44	57	.
	<i>Ornithogalum pyrenaicum</i>	E1	33	.	.

Successive number (Zaporedna številka)		1	2	3	4	
	<i>Galanthus nivalis</i>	E1	22	.	.	5
	<i>Primula vulgaris</i>	E1	22	.	.	.
	<i>Helleborus odorus</i>	E1	11	.	.	5
	<i>Lonicera caprifolium</i>	E2a	11	.	9	10
	<i>Epimedium alpinum</i>	E1	.	7	.	.
AF	Aremonio-Fagion					
	<i>Lamium orvala</i>	E1	89	.	.	.
	<i>Cardamine trifolia</i>	E1	11	14	.	.
	<i>Hacquetia epipactis</i>	E1	.	14	.	.
	<i>Isopyrum thalictroides</i>	E1	.	7	.	.
	<i>Knautia drymeia</i>	E1	.	.	.	5
FS	Fagetalia sylvaticae					
	<i>Allium ursinum</i>	E1	100	.	.	30
	<i>Carpinus betulus</i>	E3b	56	86	64	25
	<i>Carpinus betulus</i>	E3a	100	86	.	70
	<i>Carpinus betulus</i>	E2b	44	64	55	30
	<i>Carpinus betulus</i>	E1	33	57	.	40
	<i>Galeobdolon montanum</i>	E1	67	71	18	70
	<i>Paris quadrifolia</i>	E1	67	80	27	.
	<i>Symphytum tuberosum</i>	E1	67	57	.	65
	<i>Viola reichenbachiana</i>	E1	67	7	.	25
	<i>Polygonatum multiflorum</i>	E1	56	100	18	10
	<i>Carex sylvatica</i>	E1	33	57	18	50
	<i>Lilium martagon</i>	E1	33	.	.	.
	<i>Mercurialis perennis</i>	E1	33	14	.	.
	<i>Pulmonaria officinalis</i>	E1	33	36	.	5
	<i>Cardamine bulbifera</i>	E1	11	50	.	.
	<i>Sambucus nigra</i>	E3a	.	.	.	5
	<i>Sambucus nigra</i>	E2a	11	7	.	75
	<i>Euphorbia dulcis</i>	E1	.	57	.	25
	<i>Leucosium vernum</i>	E1	.	36	45	85
	<i>Circaea lutetiana</i>	E1	.	29	55	.
	<i>Daphne mezereum</i>	E2a	.	29	.	95
	<i>Scrophularia nodosa</i>	E1	.	29	27	40
	<i>Galium odoratum</i>	E1	.	29	.	.
	<i>Asarum europaeum subsp. europaeum</i>	E1	.	21	.	25
	<i>Brachypodium sylvaticum</i>	E1	.	14	.	85
	<i>Fraxinus excelsior</i>	E3b	.	14	.	.
	<i>Dryopteris filix-mas</i>	E1	.	7	.	.
	<i>Prunus avium</i>	E2b	.	.	43	100
	<i>Tilia cordata</i>	E2b	.	.	9	10
	<i>Galeobdolon flavidum</i>	E1	.	.	.	65
	<i>Heracleum sphondylium</i>	E1	.	.	.	45
	<i>Corydalis cava</i>	E1	.	.	.	25
	<i>Salvia glutinosa</i>	E1	.	.	.	15
	<i>Melica nutans</i>	E1	.	.	.	5
	<i>Ranunculus lanuginosus</i>	E1	.	.	.	5
QF	Quercu-Fagetea					
	<i>Anemone nemorosa</i>	E1	89	86	36	25
	<i>Ranunculus ficaria</i>	E1	89	50	27	70
	<i>Hedera helix</i>	E3a	44	.	.	.
	<i>Hedera helix</i>	E1	67	14	.	10
	<i>Corylus avellana</i>	E3a	11	.	.	10
	<i>Corylus avellana</i>	E2b	66	93	91	10
	<i>Corylus avellana</i>	E1	.	.	.	5
	<i>Acer campestre</i>	E3	22	43	9	25
	<i>Acer campestre</i>	E2b	56	64	27	15
	<i>Acer campestre</i>	E1	56	7	9	30
	<i>Ruscus aculeatus</i>	E1	56	.	.	.
	<i>Ulmus minor</i>	E3b	44	.	.	.
	<i>Ulmus minor</i>	E3a	67	.	27	.
	<i>Ulmus minor</i>	E2b	67	.	.	.
	<i>Ulmus minor</i>	E2a	100	.	18	5
	<i>Ulmus minor</i>	E1	.	.	.	5
	<i>Vinca minor</i>	E1	44	.	.	.
	<i>Anemone ranunculoides</i>	E1	33	7	.	80
	<i>Carex pilosa</i>	E1	22	7	.	.
	<i>Listera ovata</i>	E1	22	.	.	35
	<i>Malus sylvestris</i>	E3a	11	.	.	.
	<i>Scilla bifolia</i>	E1	11	7	.	.
	<i>Cerastium sylvaticum</i>	E1	.	14	18	25
	<i>Clematis vitalba</i>	E2	.	.	.	10
	<i>Rubus hirtus</i>	E2a	.	36	.	.
	<i>Viola riviniana</i>	E1	.	21	.	.
	<i>Moehringia trinervia</i>	E1	.	14	.	70
	<i>Pyrus pyraster</i>	E3b	.	14	.	.
	<i>Pyrus pyraster</i>	E2b	.	.	18	.
	<i>Pteridium aquilinum</i>	E1	.	14	.	.

Successive number (Zaporedna številka)		1	2	3	4
	<i>Galium sylvaticum</i>	E1	.	7	.
	<i>Stellaria holostea</i>	E1	.	7	.
	<i>Campanula persicifolia</i>	E1	.	7	15
	<i>Ranunculus auricomus</i>	E1	.	.	36
	<i>Gagea lutea</i>	E1	.	.	40
	<i>Cruciata glabra</i>	E1	.	.	10
	<i>Veronica officinalis</i>	E1	.	.	5
VP	Vaccinio-Piceetea				
	<i>Oxalis acetosella</i>	E1	.	50	9
	<i>Gentiana asclepiadea</i>	E1	.	36	.
	<i>Luzula pilosa</i>	E1	.	36	.
	<i>Aposeris foetida</i>	E1	.	14	.
	<i>Maianthemum bifolium</i>	E1	.	7	5
	<i>Abies alba</i>	E2	.	7	.
RP	Rhamno-Prunetea				
	<i>Crataegus laevigata</i>	E2b	89	50	91
	<i>Euonymus europaea</i>	E2a	56	36	55
	<i>Viburnum opulus</i>	E2a	56	50	82
	<i>Ligustrum vulgare</i>	E2b	33	14	45
	<i>Crataegus monogyna</i>	E3a	.	.	5
	<i>Crataegus monogyna</i>	E2b	22	.	18
	<i>Cornus sanguinea</i>	E3a	.	.	5
	<i>Cornus sanguinea</i>	E2b	11	36	18
	<i>Viburnum lantana</i>	E2b	.	7	.
	<i>Prunus spinosa</i>	E2b	.	.	18
	<i>Berberis vulgaris</i>	E2a	.	.	9
EA	Epilobietea angustifolii				
	<i>Fragaria vesca</i>	E1	.	14	.
	<i>Stachys sylvatica</i>	E1	.	7	64
	<i>Galeopsis pubescens</i>	E1	.	.	30
	<i>Galeopsis speciosa</i>	E1	.	.	30
	<i>Carex divulsa</i>	E1	.	.	5
MuA	Mulgedio-Aconitetea				
	<i>Athyrium filix-femina</i>	E1	11	86	73
	<i>Milium effusum</i>	E1	.	29	.
	<i>Stellaria nemorum</i>	E1	.	14	.
	<i>Doronicum austriacum</i>	E1	.	7	9
	<i>Veratrum album s. lat.</i>	E1	.	.	36
	<i>Senecio nemorensis</i>	E1	.	.	5
Ca	Calthion				
	<i>Caltha palustris</i>	E1	56	21	91
MC	<i>Cardamine amara</i>	E1	22	.	9
	<i>Angelica sylvestris</i>	E1	11	21	27
	<i>Myosotis scorpioides</i>	E1	11	29	100
	<i>Crepis paludosa</i>	E1	.	21	73
	<i>Scirpus sylvaticus</i>	E1	.	7	.
Mo	Molinietalia caeruleae				
	<i>Colchicum autumnale</i>	E1	56	.	.
	<i>Valeriana dioica</i>	E1	33	29	91
	<i>Cardamine pratensis</i>	E1	11	50	18
	<i>Galium uliginosum</i>	E1	.	14	.
CD	<i>Orchis palustris</i>	E1	.	7	.
	<i>Equisetum palustre</i>	E1	.	7	.
	<i>Fritillaria meleagris</i>	E1	.	7	.
	<i>Juncus effusus</i>	E1	.	7	82
	<i>Viola uliginosa</i>	E1	.	.	27
CD	<i>Dactylorhiza maculata</i>	E1	.	.	9
	<i>Cirsium oleraceum</i>	E1	.	.	9
	<i>Juncus conglomeratus</i>	E1	.	.	9
	<i>Selinum carvifolia</i>	E1	.	.	10
FP	Filipendulo-Petasition				
	<i>Filipendula ulmaria</i>	E1	22	7	64
	<i>Mentha aquatica</i>	E1	11	.	.
	<i>Lysimachia vulgaris</i>	E1	.	.	45
	<i>Hypericum tetrapterum</i>	E1	.	.	9
	<i>Stachys palustris</i>	E1	.	.	9
PP	Potentillo-Polygonetalia				
	<i>Ranunculus repens</i>	E1	11	29	.
	<i>Rumex conglomeratus</i>	E1	.	.	18
	<i>Agrostis stolonifera</i>	E1	.	.	5
	<i>Duchesnea indica</i>	E1	.	.	5
MA	Molinio-Arrhenetheretea				
	<i>Ajuga reptans</i>	E1	56	71	36
	<i>Deschampsia cespitosa</i>	E1	33	29	9
	<i>Lysimachia nummularia</i>	E1	11	14	55
	<i>Veronica chamaedrys</i>	E1	.	29	.
	<i>Prunella vulgaris</i>	E1	.	7	.
	<i>Veronica serpyllifolia</i>	E1	.	7	.
	<i>Lychnis flos-cuculi</i>	E1	.	7	27
	<i>Anthriscus sylvestris</i>	E1	.	.	9

Successive number (Zaporedna številka)		1	2	3	4
<i>Poa trivialis</i>	E1	.	.	.	40
<i>Ornithogalum umbellatum</i>	E1	.	.	.	35
<i>Taraxacum officinale</i>	E1	.	.	.	15
<i>Dactylis glomerata</i>	E1	.	.	.	10
<i>Rumex acetosa</i>	E1	.	.	.	10
TG Trifolio-Geranietea					
<i>Vincetoxicum hirsutum</i>	E1	.	7	.	.
<i>Viola hirta</i>	E1	.	.	.	55
PM Phragmiti-Magnocaricetea					
<i>Carex elata</i>	E1	22	.	27	.
<i>Carex otrubae</i>	E1	11	.	.	.
<i>Galium palustre</i>	E1	11	.	27	.
<i>Iris pseudacorus</i>	E1	11	7	82	.
<i>Lycopus europaeus</i>	E1	11	7	73	.
<i>Carex riparia</i>	E1	.	14	9	.
<i>Peucedanum palustre</i>	E1	.	.	100	5
<i>Carex vesicaria</i>	E1	.	.	73	15
<i>Galium elongatum</i>	E1	.	.	36	.
<i>Allisma plantago-aquatica</i>	E1	.	.	18	.
<i>Carex acutiformis</i>	E1	.	.	18	15
<i>Phalaris arundinacea</i>	E1	.	.	9	.
<i>Leersia oryzoides</i>	E1	.	.	.	5
FC Filipendulo-Convulvetea					
<i>Rudbeckia laciniata</i>	E1	.	.	.	50
<i>Calystegia sepium</i>	E1	.	.	.	15
GU Galio-Ūrticetea					
<i>Aegopodium podagraria</i>	E1	33	57	9	85
<i>Glechoma hederacea</i>	E1	22	71	36	10
<i>Urtica dioica</i>	E1	11	7	.	70
<i>Geum urbanum</i>	E1	.	21	18	85
<i>Lamium maculatum</i>	E1	.	21	9	45
<i>Alliaria petiolata</i>	E1	.	7	.	45
<i>Impatiens parviflora</i>	E1	.	7	.	.
<i>Galium aparine</i>	E1	.	.	9	95
<i>Stellaria neglecta</i>	E1	.	.	.	80
<i>Solidago gigantea</i>	E1	.	.	.	60
<i>Impatiens glandulifera</i>	E1	.	.	.	45
<i>Silene latifolia</i> subsp. <i>alba</i>	E1	.	.	.	20
<i>Chaerophyllum aureum</i>	E1	.	.	.	10
SM Stellarietea mediae					
<i>Ranunculus arvensis</i>	E1	.	36	.	.
<i>Galeopsis tetrahit</i>	E1	.	14	.	.
<i>Polygonum persicaria</i>	E1	.	14	.	.
<i>Convolvulus arvensis</i>	E1	.	7	.	.
<i>Cardamine hirsuta</i>	E1	.	.	9	.
<i>Veronica hederifolia</i>	E1	.	.	.	80
<i>Erigeron annuus</i>	E1	.	.	.	35
<i>Aristolochia clematitis</i>	E1	.	.	.	15
<i>Chelidonium majus</i>	E1	.	.	.	5
<i>Lapsana communis</i>	E1	.	.	.	5
O Other species (Druge vrste)					
<i>Spiraea japonica</i>	E2a	33	.	.	.
<i>Prunus insititia</i>	E2a	33	.	.	.
<i>Quercus rubra</i>	E3b	11	.	.	.
<i>Robinia pseudoacacia</i>	E3b	11	.	.	75
<i>Robinia pseudoacacia</i>	E2b	.	.	.	15
<i>Robinia pseudoacacia</i>	E1	.	.	.	5
<i>Mentha</i> sp.	E1	.	.	18	.
<i>Polygonum amphybium</i>	E1	.	.	9	.
MI Mosses (Mahovi)					
<i>Plagiomnium undulatum</i>	E0	22	50	100	15
<i>Atrichum undulatum</i>	E0	.	7	.	.
<i>Eurhynchium striatum</i>	E0	.	7	18	.
<i>Polytrichum formosum</i>	E0	.	7	27	.
<i>Mnium seligeri</i>	E0	.	.	18	.
<i>Cirriphyllum piliferum</i>	E0	.	.	27	.
<i>Homalia trichomanoides</i>	E0	.	.	27	.
<i>Rhyzomnium punctatum</i>	E0	.	.	27	.
<i>Brachytecium rutabulum</i>	E0	.	.	36	.
<i>Plagiomnium affine</i>	E0	.	.	55	.
<i>Plagiothecium sylvaticum</i>	E0	.	.	55	.
<i>Hypnum cupressiforme</i>	E0	.	.	73	.
<i>Plagiomnium cuspidatum</i>	E0	.	.	73	.
<i>Calliergonella cuspidata</i>	E0	.	.	100	.

PsCbla *Pseudostellario-Carpinetum betuli leucojetosum aestivi*, Lijak, this article, Table 7, relevés 1–9

PsCb *Pseudostellario-Carpinetum betuli*, Krakovski gozd, Accetto (1973, 1974)

PsQrla *Pseudostellario-Quercetum roboris leucojetosum aestivi*, Southeastern Slovenia, Accetto (1995, Table 2)

FUeqr *Fraxino-Ulmetum effusae quercetosum roboris*, the Mura region (Pomurje), P. Košir et al. (2013, Table 1, relevés 39–58).

Table 10: Groups of diagnostic species in the syntaxa *Pseudostallario-Carpinetum*, *Pseudostellario-Quercetum roboris* and *Fraxino-Ulmetum effusae quercetosum roboris*
 Preglednica 10: Skupine diagnostičnih vrst v sintaksonih *Pseudostallario-Carpinetum*, *Pseudostellario-Quercetum roboris* in *Fraxino-Ulmetum effusae quercetosum roboris*

Successive number (Zaporedna številka)	1	2	3	4
Number of relevés (Število popisov)	9	14	11	20
Sign for syntaxa (Oznaka sintaksona)	PsCbla	PsCb	PeQrla	FUEqr
<i>Fraxino pannonicae-Carpinion</i>	5,6	6,3	3,3	3,8
<i>Alno-Quercion roboris</i>	9	8,2	17,2	11,5
<i>Alnion incanae</i>	5,6	6,2	9,9	5,8
<i>Salicetea purpureae</i>	1,1	0	1,4	0,7
<i>Tilo-Acerion</i>	2,0	0,6	0	5,5
<i>Erythronio-Carpinion</i>	7,6	1,8	0,2	0,6
<i>Aremonio-Fagion</i>	2,3	0,1	0	0,1
<i>Fagetalia sylvaticae</i>	20,6	28,5	9,8	23,3
<i>Quercu-Fagetea</i>	25	14,1	8,2	10,4
<i>Vaccinio-Piceetea</i>	0	4,1	0,2	0,3
<i>Rhamno-Prunetea</i>	6,8	5,3	8,7	5,3
<i>Epilobietea angustifolii</i>	0	0,6	1,7	2,8
<i>Mulgedio-Aconitetea</i>	0,3	3,7	3,0	0,6
<i>Calthion</i>	2,5	2,7	7,7	0,1
<i>Molinietalia caeruleae</i>	2,5	3,3	6,3	1,5
<i>Filipendulo-Petasition</i>	0,8	0,2	3,3	0,4
<i>Poltentillo-Polygonetalia</i>	0,6	0,8	0,5	0,2
<i>Molinio-Arrhenetheretea</i>	2,3	4,5	3,5	5,4
<i>Trifolio-Geranietea</i>	0	0,2	0	1,1
<i>Phragmiti-Magnocaricetea</i>	1,7	0,8	12,2	0,8
<i>Filipendulo-Convolvuletea</i>	0	0	0	1,3
<i>Galio-Urticetea</i>	1,7	5,2	2,1	13,5
<i>Stellarietea mediae</i>	0	2,0	0,2	2,9
Other species (Druge vrste)	2,2	0	0,7	2,0
Total (Skupaj)	100,0	100	100	100

PsCbla *Pseudostellario-Carpinetum betuli leucojetosum aestivi*, Lijak, this article, Table 7, relevés 1–9

PsCb *Pseudostellario-Carpinetum betuli*, Krakovski gozd, Accetto (1973, 1974)

PsQrla *Pseudostellario-Quercetum roboris leucojetosum aestivi*, Southeastern Slovenia, Accetto (1995, Table 2)

FUEqr *Fraxino-Ulmetum effusae quercetosum roboris*, the Mura region (Pomurje), P. Košir et al. (2013, Table 1, relevés 39–58).