ON-LINE SUPPLEMENTARY MATERIAL

Koljanin, D., Čarni, A., Škvorc, Ž., Milanović, Đ., Šikuljak, T., Ćuk, M., Stupar, V.: Classification and ecology of pedunculate oak–hornbeam forests at the southern margin of the Pannonian Basin. Acta Botanica Croatica, DOI: 10.37427/botcro-2027-009.

On-line Suppl. Tab. 1. Full synoptic table of the analyzed orders (clusters). Cluster 1 – *Alno-Fraxinetalia excelsioris*, cluster 2 – *Carpinetalia betuli*. Diagnostic species ($\varphi \geq 0.25$) are highlighted in blue. Species frequency values are shown in full-sized numbers, whereas phi coefficients are given as superscript values.

Cluster number	1		2	
Number of relevés	173		435	
Common species in both clusters				
Quercus robur	98	---	95	---
Acer campestre	61	---	66	---
Hedera helix	32	---	42	---
Carex sylvatica	40	---	43	---
Viola reichenbachiana	42	---	49	---
Ligustrum vulgare	25	---	40	15,9
Alno-Fraxinetalia excelsioris Passarge 1968				
Carex remota	69	62,7	8	---
Lysimachia nummularia	64	54,6	11	---
Glechoma hederacea	68	50,3	18	---
Galium palustre	34	42,4	2	---
Rubus caesius	54	41,7	14	---
Fraxinus angustifolia s. lat.	49	36,4	15	---
Lycopus europaeus	26	34,9	2	---
Ranunculus repens	23	33,6	1	---
Iris pseudacorus	20	32,5	1	---
Rumex sanguineus	36	31,8	10	---
Circaea lutetiana	61	31,5	30	---
Cardamine pratensis agg.	26	31,4	4	---
Persicaria hydropiper	24	30,5	3	---
Myosotis palustris agg.	20	30,4	1	---
Urtica dioica	34	29,9	9	---
Ulmus minor	49	28,2	22	---
Juncus effusus	21	28,1	3	---
Dryopteris carthusiana	24	27,4	5	---
Bidens tripartitus	13	26,7	.	---
Solanum dulcamara	16	26,7	1	---

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On-line Suppl. Tab. 1 continued

Carpinetalia betuli P. Fukarek 1968				
Stellaria holostea	9	---	46	40,7
Prunus avium	10	---	44	38,9
Fagus sylvatica	6	---	35	35,5
Polygonatum multiflorum	13	---	43	33,4
Asarum europaeum	5	---	30	32,7
Cardamine bulbifera	1	---	20	32
Rubus hirtus s. lat.	8	---	34	31,6
Anemone nemorosa	9	---	34	31,2
Carex pilosa	.	---	16	29,8
Carpinus betulus	79	---	97	28,6
Lamium galeobdolon s. lat.	21	---	48	27,8
Quercus petraea agg.	.	---	14	27,7
Galium odoratum	12	---	35	27,7
Pulmonaria officinalis agg.	27	---	36	26,8
Symphytum tuberosum agg.	3	---	20	26,4
Other species				
Lonicera caprifolium	3	---	18	24,6
Helleborus odorus	.	---	11	24,4
Epimedium alpinum	.	---	11	23,6
Corydalis cava	1	---	11	21,8
Adoxa moschatellina	1	---	12	21,5
Melica uniflora	1	---	10	21,5
Geranium phaeum	1	---	10	20,9
Vinca minor	2	---	12	20,8
Quercus cerris	4	---	17	20,6
Euphorbia amygdaloides	5	---	18	20,4
Sambucus nigra	10	---	25	20,3
Tilia platyphyllos	2	---	12	19
Crocus heuffelianus agg.	1	---	8	18,7
Milium effusum	2	---	11	18,7
Heracleum sphondylium	.	---	7	18,6
Knautia drymeia	.	---	6	18,2
Scilla bifolia	1	---	9	18,1
Cruciata glabra	6	---	17	17,1
Dioscorea communis	8	---	19	17
Veronica hederifolia	4	---	14	16,8
Aposeris foetida	.	---	5	16,5
Lamium maculatum	1	---	8	16,4
Mercurialis perennis	2	---	9	16,4

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On-line Suppl. Tab. 1 continued

Galanthus nivalis	2	---	9	16,4
Euphorbia dulcis	1	---	7	16,3
Anemone ranunculoides	3	---	11	16
Lathyrus vernus	2	---	10	15,8
Aegopodium podagraria	10	---	21	15,6
Ficaria verna	23	---	36	15,1
Juniperus communis	.	---	1	---
Populus nigra	1	---	1	---
Aesculus hippocastanum	.	---	1	---
Cytisus hirsutus	1	---	2	---
Veronica officinalis	2	---	2	---
Arum maculatum agg.	16	---	22	---
Fraxinus ornus	.	---	3	---
Ulmus glabra	3	---	3	---
Sorbus torminalis	1	---	5	---
Tilia cordata	17	---	18	---
Salix cinerea	1	---	.	---
Salix euxina	.	---	1	---
Betula pendula	.	---	1	---
Platanus hispanica	.	---	1	---
Morus alba	1	---	.	---
Prunus mahaleb	3	---	1	---
Cotinus coggygria	2	---	.	---
Sambucus racemosa	.	---	1	---
Acer tataricum	36	---	33	---
Humulus lupulus	2	---	1	---
Quercus frainetto	1	---	2	---
Daphne mezereum	1	---	5	---
Acer pseudoplatanus	.	---	4	---
Populus tremula	2	---	1	---
Acer platanoides	.	---	2	---
Berberis vulgaris	5	---	2	---
Rosa spinosissima	1	---	.	---
Parthenocissus inserta	.	---	1	---
Ulmus procera	5	---	1	---
Carpinus orientalis	.	---	1	---
Campanula patula	3	---	1	---
Alnus incana	.	---	1	---
Clematis vitalba	4	---	6	---

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On-line Suppl. Tab. 1 continued

Calluna vulgaris	.	---	1	---
Ruscus hypoglossum	1	---	2	---
Euonymus europaeus	36	---	40	---
Euonymus verrucosus	2	---	1	---
Rubus canescens	.	---	1	---
Ruscus aculeatus	12	---	20	---
Prunus padus	2	---	3	---
Pinus sylvestris	.	---	1	---
Rosa arvensis	10	---	10	---
Oplismenus hirtellus subsp. u*ndulatifoli*	.	---	1	---
Vincetoxicum hirundinaria	4	---	2	---
Origanum vulgare	1	---	1	---
Oenanthe banatica	2	---	1	---
Staphylea pinnata	.	---	2	---
Ranunculus acris	1	---	1	---
Ornithogalum pyramidale	1	---	.	---
Orchis pallens	.	---	1	---
Paris quadrifolia	6	---	10	---
Myosotis ramosissima	.	---	1	---
Myosotis arvensis	1	---	.	---
Myosotis sparsiflora	1	---	1	---
Geum urbanum	39	---	30	---
Oenanthe silaifolia	1	---	.	---
Ornithogalum pyrenaicum	.	---	1	---
Euonymus latifolius	.	---	1	---
Corydalis solida	2	---	3	---
Dryopteris filix-mas	16	---	19	---
Prunus serotina	.	---	1	---
Lonicera xylosteum	3	---	2	---
Carex digitata	.	---	3	---
Rubus fruticosus agg.	12	---	7	---
Hacquetia epipactis	.	---	1	---
Quercus pubescens	1	---	.	---
Acer negundo	2	---	.	---
Carex brizoides	39	---	31	---
Rhamnus cathartica	8	---	2	---
Centaurium pulchellum	1	---	.	---
Erythronium dens-canis	.	---	2	---
Rosa gallica	.	---	1	---

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 1 continued

Viburnum opulus	18	---	15	---
Prunella grandiflora	2	---	.	---
Primula acaulis	6	---	14	---
Juglans regia	.	---	1	---
Potentilla erecta	3	---	2	---
Hippocrepis emerus subsp. *emerus*	.	---	1	---
Prenanthes purpurea	.	---	1	---
Vicia oroboides	1	---	5	---
Tilia tomentosa	13	---	16	---
Sorbus aucuparia	1	---	1	---
Robinia pseudoacacia	1	---	6	---
Fraxinus excelsior	3	---	5	---
Clematis viticella	1	---	.	---
Castanea sativa	.	---	1	---
Veronica serpyllifolia	5	---	1	---
Salix alba	.	---	1	---
Vicia sativa	.	---	1	---
Omphalodes scorpioides	.	---	1	---
Orchis purpurea	.	---	1	---
Vicia hirsuta	1	---	.	---
Oxalis acetosella	20	---	21	---
Parietaria officinalis	1	---	1	---
Fraxinus pennsylvanica	.	---	1	---
Veronica spuria	.	---	1	---
Vicia cracca	1	---	1	---
Prunella laciniata	1	---	.	---
Potentilla argentea	1	---	1	---
Vicia serratifolia	1	---	.	---
Potentilla reptans	3	---	1	---
Potentilla micrantha	1	---	4	---
Vicia sepium	.	---	1	---
Populus alba	2	---	2	---
Viola suavis	1	---	1	---
Neottia nidus-avis	1	---	3	---
Viola uliginosa	1	---	.	---
Neottia ovata	4	---	4	---
Polygonum aviculare	.	---	1	---
Viola canina	.	---	1	---
Poa nemoralis	5	---	1	---

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 1 continued

Polystichum setiferum	.	---	1	---
Moehringia muscosa	.	---	1	---
Nardus stricta	1	---	.	---
Vitis vinifera	.	---	1	---
Myosotis sylvatica	1	---	.	---
Poa palustris	1	---	.	---
Muscari botryoides	.	---	1	---
Moehringia trinervia	9	---	7	---
Poa pratensis	1	---	.	---
Viola hirta agg.	9	---	11	---
Viola elatior	1	---	.	---
Sedum album	.	---	1	---
Platanthera bifolia	5	---	8	---
Poa angustifolia	2	---	.	---
Succisella inflexa	2	---	.	---
Trigonella balansae	.	---	1	---
Tanacetum corymbosum	1	---	1	---
Tanacetum vulgare	.	---	1	---
Polystichum aculeatum	1	---	.	---
Peucedanum cervaria	.	---	1	---
Polygonatum odoratum	3	---	4	---
Persicaria dubia	2	---	1	---
Persicaria minor	2	---	.	---
Poa trivialis	10	---	3	---
Plantago media	.	---	1	---
Plantago major	1	---	.	---
Abies alba	.	---	1	---
Myosoton aquaticum	1	---	1	---
Peltaria alliacea	1	---	.	---
Peucedanum coriaceum	1	---	.	---
Physospermum cornubiense	.	---	1	---
Parthenocissus quinquefolia	.	---	1	---
Physalis alkekengi	1	---	1	---
Rumex conglomeratus	.	---	1	---
Ochlopoa annua	1	---	1	---
Viola odorata	5	---	4	---
Phytolacca americana	.	---	1	---
Phleum nodosum	1	---	.	---
Phegopteris connectilis	1	---	1	---

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 1 continued

Ornithogalum umbellatum	.	---	1	---
Rumex crispus	.	---	1	---
Rudbeckia laciniata	.	---	1	---
Rumex acetosa	.	---	1	---
Stachys officinalis	2	---	1	---
Rumex acetosella	.	---	1	---
Succisa pratensis	2	---	.	---
Stellaria media agg.	7	---	9	---
Salvia glutinosa	.	---	4	---
Stellaria nemorum	2	---	1	---
Viola riviniana	1	---	1	---
Polygonatum hirtum	3	---	6	---
Carex praecox	.	---	1	---
Pastinaca sativa	1	---	.	---
Rumex obtusifolius	1	---	1	---
Stachys sylvatica	6	---	11	---
Silene baccifera	1	---	.	---
Stellaria graminea	2	---	1	---
Seseli kochii	.	---	1	---
Sonchus asper	1	---	.	---
Solidago virgaurea	.	---	1	---
Saxifraga rotundifolia	.	---	1	---
Serratula tinctoria	6	---	3	---
Sanicula europaea	10	---	16	---
Silene dioica	3	---	.	---
Pteridium aquilinum	2	---	8	---
Crepis paludosa	3	---	1	---
Pulmonaria angustifolia	.	---	1	---
Veronica persica	1	---	.	---
Pseudostellaria europaea	7	---	3	---
Taraxacum palustre	1	---	.	---
Silene coronaria	1	---	1	---
Scrophularia umbrosa	1	---	.	---
Senecio nemorensis	.	---	1	---
Scutellaria columnae	.	---	1	---
Stachys recta	1	---	.	---
Securigera elegans	.	---	1	---
Securigera varia	1	---	.	---
Sedum maximum	2	---	1	---

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 1 continued

Sambucus ebulus	1	---	.	---
Betula pubescens	.	---	1	---
Viburnum lantana	5	---	6	---
Prunus cerasifera	1	---	1	---
Acer obtusatum	.	---	1	---
Prunus spinosa s. lat.	17	---	10	---
Picea abies	.	---	1	---
Rosa canina	2	---	6	---
Cornus mas	3	---	10	---
Corylus avellana	32	---	40	---
Silene latifolia	2	---	1	---
Veratrum album	10	---	8	---
Valeriana officinalis	2	---	1	---
Silene nemoralis	.	---	1	---
Verbena officinalis	1	---	1	---
Veronica austriaca	.	---	1	---
Veronica chamaedrys	27	---	17	---
Verbascum nigrum	.	---	1	---
Solanum nigrum	.	---	1	---
Cichorium intybus	1	---	.	---
Conopodium majus	.	---	1	---
Thelypteris palustris	.	---	1	---
Torilis arvensis	2	---	1	---
Crataegus nigra	1	---	1	---
Convolvulus arvensis	.	---	1	---
Ranunculus arvensis	2	---	1	---
Clematis recta	1	---	.	---
Thalictrum aquilegiifolium	2	---	1	---
Trifolium medium	1	---	1	---
Pulmonaria mollis agg.	---	[4]	---	
Torilis japonica	8	---	3	---
Chrysosplenium alternifolium	4	---	1	---
Taraxacum sect. Taraxacum	3	---	2	---
Pulmonaria stiriaca	1	---	.	---
Ranunculus polyanthemos s. lat.	1	---	1	---
Ranunculus sardous	1	---	.	---
Solidago gigantea	6	---	2	---
Tussilago farfara	.	---	1	---
Ranunculus bulbosus	.	---	1	---

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 1 continued

Solidago canadensis	.	---	1	---
Silene flos-cuculi	8	---	2	---
Silene viridiflora	1	---	1	---
Silene vulgaris	2	---	1	---
Smyrnium perfoliatum	.	---	1	---
Ranunculus lanuginosus	5	---	4	---
Clinopodium vulgare	5	---	1	---
Clinopodium nepeta subsp. glandulosum	.	---	1	---
Clematis integrifolia	.	---	1	---
Centaurium erythraea subsp. erythraea	1	---	.	---
Colchicum autumnale	.	---	1	---
Clinopodium menthifolium	1	---	2	---
Ranunculus flammula	1	---	.	---
Ranunculus auricomus coll.	13	---	9	---
Campanula sibirica	.	---	1	---
Alisma plantago-aquatica	3	---	.	---
Genista germanica	.	---	1	---
Carex flacca	.	---	1	---
Galium verum	.	---	1	---
Cardamine flexuosa	2	---	.	---
Campanula rapunculoides	1	---	.	---
Ajuga genevensis	2	---	1	---
Dipsacus pilosus	.	---	.	---
Cephalanthera rubra	.	---	.	---
Cephalanthera longifolia	.	---	1	---
Echinocystis lobata	2	---	1	---
Campanula trachelium	1	---	5	---
Cardamine impatiens	8	---	3	---
Cephalanthera damasonium	.	---	1	---
Campanula persicifolia	.	---	1	---
Galium sylvaticum	2	---	8	---
Carex pendula	3	---	3	---
Bellis perennis	.	---	1	---
Carex acutiformis	.	---	1	---
Asplenium ruta-muraria	.	---	1	---
Gentiana asclepiadea	2	---	3	---
Carex pallescens	2	---	.	---
Carex hirta	.	---	1	---
Helleborus atrorubens agg.	1	---	2	---

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 1 continued

Astragalus glycyphyllos	2	---	2	---
Carex alba	.	---	1	---
Campanula rapunculus	1	---	.	---
Cardamine trifolia	.	---	2	---
Asplenium trichomanes	.	---	1	---
Ballota nigra	1	---	1	---
Carex distans	.	---	1	---
Asplenium viride	1	---	.	---
Cerastium glomeratum	1	---	.	---
Chelidonium majus	1	---	1	---
Epipactis helleborine	.	---	2	---
Dichoropetalum carvifolia	.	---	1	---
Daucus carota	.	---	1	---
Chenopodium album	1	---	.	---
Dryopteris expansa	.	---	1	---
Asclepias syriaca	.	---	.	---
Chaerophyllum temulum	2	---	1	---
Viola mirabilis	.	---	.	---
Doronicum hungaricum	1	---	.	---
Alopecurus pratensis	1	---	.	---
Anthriscus sylvestris	.	---	1	---
Digitalis lanata	.	---	1	---
Pimpinella major	.	---	.	---
Dianthus armeria	1	---	.	---
Scutellaria altissima	.	---	.	---
Chaerophyllum hirsutum	1	---	.	---
Epilobium montanum	.	---	1	---
Drymochloa drymeja	.	---	3	---
Dryopteris dilatata	1	---	.	---
Drymochloa sylvatica	.	---	1	---
Dryopteris cristata	.	---	1	---
Echinochloa crus-galli	1	---	.	---
Dactylis glomerata s. lat.	7	---	9	---
Galeopsis tetrahit	16	17,1	6	---
Galium uliginosum	6	17,2	1	---
Impatiens noli-tangere	12	16,5	3	---
Convallaria majalis	18	17,1	7	---
Scrophularia nodosa	26	17,9	12	---
Malus sylvestris agg.	16	18,3	5	---

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 1 continued

Prunella vulgaris	16	17,6	5	---
Genista tinctoria	13	17,8	3	---
Carex riparia	5	16,3	.	---
Pyrus communis s. lat.	32	15,8	19	---
Veronica montana	28	15,9	15	---
Symphytum officinale	5	15,3	1	---
Deschampsia cespitosa	18	15,5	8	---
Persicaria maculosa	6	16,3	1	---
Caltha palustris	5	16,3	.	---
Ulmus laevis	13	16	4	---
Athyrium filix-femina	35	16,2	20	---
Carex elongata	8	18,9	1	---
Crataegus monogyna	68	22,5	46	---
Agrostis stolonifera	12	22,7	1	---
Alnus glutinosa	21	22,2	6	---
Cornus sanguinea	55	22,2	33	---
Frangula alnus	27	24,7	8	---
Stachys palustris	12	24,8	.	---
Cerastium sylvaticum	16	24	2	---
Leucojum aestivum	12	24,1	1	---
Carex strigosa	13	22,1	1	---
Carex muricata agg.	16	19,5	4	---
Valeriana dioica	9	19,7	1	---
Aristolochia clematitis	7	19	.	---
Lysimachia vulgaris	10	19,1	1	---
Amorpha fruticosa	9	20,5	1	---
Crataegus laevigata	47	21	27	---
Peucedanum palustre	9	20,4	1	---
Lythrum salicaria	9	20,5	1	---
Arabis glabra	1	---	.	---
Cardamine amara	2	---	1	---
Achillea millefolium	1	---	.	---
Cardamine waldsteinii	.	---	3	---
Arctium lappa	2	---	1	---
Carex cuprina	1	---	.	---
Cardamine hirsuta	.	---	1	---
Actaea spicata	.	---	1	---
Aremonia agrimonoides	.	---	4	---
Aristolochia pallida	.	---	1	---

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 1 continued

Alliaria petiolata	10	---	11	---
Anagallis arvensis	1	---	.	---
Allium ursinum	1	---	3	---
Anthriscus cerefolium	1	---	1	---
Althaea officinalis	1	---	.	---
Agrostis capillaris	1	---	.	---
Juglans nigra	.	---	.	---
Aconitum lycoctonum s.lat	.	---	1	---
Molinia caerulea	4	13,2	1	---
Juncus tenuis	3	13,3	.	---
Carpesium cernuum	1	---	.	---
Mentha aquatica	4	13,2	1	---
Selinum carvifolia	4	14,4	.	---
Oxalis corniculata agg.	7	14,7	1	---
Schedonorus giganteus	11	14	4	---
Salix caprea	5	14,3	1	---
Cerastium arvense	.	---	1	---
Fallopia dumetorum	.	---	.	---
Bromopsis ramosa	.	---	.	---
Aristolochia lutea	1	---	2	---
Veronica praecox	.	---	1	---
Carex vulpina	3	---	1	---
Chaerophyllum aureum	2	---	1	---
Juncus filiformis	.	---	.	---
Loranthus europaeus	.	---	.	---
Allium vineale	1	---	.	---
Agrimonia eupatoria	1	---	1	---
Aegonychon purpurocaeruleum	1	---	2	---
Allium carinatum	.	---	1	---
Ajuga reptans	43	---	41	---
Galium rotundifolium	.	---	1	---
Calla palustris	3	---	1	---
Jacobaea erratica	1	---	.	---
Campanula glomerata	.	---	1	---
Hepatica nobilis	.	---	1	---
Jacobaea aquatica	1	---	.	---
Geum rivale	.	---	1	---
Melampyrum sylvaticum	1	---	2	---
Knautia arvensis	.	---	1	---

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 1 continued

Bupleurum praealtum	.	---	1	---
Calamagrostis epigejos	.	---	1	---
Jacobaea vulgaris	.	---	1	---
Brachypodium sylvaticum	28	---	22	---
Asparagus officinalis	1	---	.	---
Asparagus tenuifolius	1	---	1	---
Carex divisa	.	---	1	---
Asperula taurina	1	---	5	---
Melampyrum pratense	3	---	3	---
Euphorbia salicifolia	.	---	1	---
Euphorbia palustris	1	---	.	---
Gagea villosa	.	---	1	---
Gagea minima	.	---	1	---
Gagea pratensis	1	---	.	---
Fragaria moschata	.	---	2	---
Euphorbia illirica	.	---	1	---
Lamium purpureum	2	---	3	---
Melittis melissophyllum s. lat.	2	---	3	---
Iris graminea	.	---	1	---
Knautia dipsacifolia	.	---	1	---
Luzula sylvatica	.	---	1	---
Iris reichenbachii	.	---	1	---
Lembotropis nigricans	1	---	.	---
Isopyrum thalictroides	1	---	3	---
Mentha arvensis	3	---	.	---
Bidens frondosus	3	---	.	---
Juncus conglomeratus	1	---	.	---
Melica nutans	1	---	5	---
Hypericum androsaemum	1	---	.	---
Hemerocallis fulva	1	---	.	---
Hottonia palustris	1	---	.	---
Holcus lanatus	3	---	1	---
Mentha pulegium	3	---	1	---
Hylotelephium telephium	.	---	1	---
Hieracium murorum	.	---	1	---
Euphorbia cyparissias	1	---	1	---
Rubus ulmifolius	1	---	.	---
Galeopsis speciosa	8	---	12	---
Hieracium umbellatum	2	---	1	---

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 1 continued

Hieracium racemosum	1	---	3	---
Hieracium sabaudum	1	---	.	---
Hypochaeris radicata	1	---	.	---
Mentha longifolia	1	---	.	---
Hypericum montanum	.	---	1	---
Lilium martagon	.	---	1	---
Impatiens parviflora	.	---	1	---
Impatiens glandulifera	.	---	1	---
Calystegia sepium	2	---	2	---
Brachypodium pinnatum	1	---	1	---
Hypericum maculatum	1	---	.	---
Aruncus dioicus	.	---	1	---
Glyceria fluitans	2	---	.	---
Hypericum hirsutum	2	---	3	---
Geranium robertianum	18	---	13	---
Leucojum vernum	4	---	5	---
Hypericum perforatum	3	---	1	---
Hemerocallis lilioasphodelus	1	---	.	---
Leersia oryzoides	.	---	1	---
Hypericum tetrapterum	3	---	.	---
Lactuca muralis	8	---	13	---
Festuca heterophylla	4	---	4	---
Maianthemum bifolium	2	---	8	---
Lactuca quercina	1	---	.	---
Cynoglossum officinale	.	---	1	---
Erigeron annuus	6	---	3	---
Euphorbia carniolica	.	---	1	---
Cruciata laevipes	5	---	3	---
Lapsana communis	9	---	3	---
Lathyrus niger	1	---	2	---
Lamium album	1	---	.	---
Lathyrus venetus	.	---	2	---
Melampyrum nemorosum	5	---	6	---
Luzula campestris	1	---	1	---
Lathyrus pratensis	2	---	.	---
Lathyrus linifolius	.	---	1	---
Doronicum austriacum	.	---	1	---
Quercus rubra	.	---	.	---
Anisantha sterilis	1	---	.	---

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 1 continued

Eupatorium cannabinum	2	---	1	---
Cyclamen purpurascens	1	---	6	---
Anemone trifolia	.	---	1	---
Ambrosia artemisiifolia	1	---	1	---
Dianthus barbatus	.	---	1	---
Angelica sylvestris	6	---	6	---
Equisetum hyemale	.	---	1	---
Carpesium abrotanoides	.	---	.	---
Draba verna	.	---	1	---
Erodium cicutarium	1	---	1	---
Erigeron canadensis	.	---	1	---
Equisetum arvense	.	---	1	---
Erysimum odoratum	.	---	1	---
Equisetum telmateia	.	---	1	---
Lathraea squamaria	1	---	1	---
Fallopia convolvulus	1	---	.	---
Festuca filiformis	1	---	.	---
Euphorbia epithymoides	1	---	1	---
Euphorbia stricta	.	---	1	---
Fritillaria meleagris	1	---	2	---
Galium aristatum	.	---	1	---
Galium intermedium	1	---	1	---
Gagea lutea	1	---	4	---
Galega officinalis	1	---	.	---
Gagea spathacea	1	---	5	---
Filipendula ulmaria	4	---	1	---
Fragaria vesca	16	---	18	---
Galeopsis pubescens	3	---	4	---
Galium aparine	23	---	26	---
Lamium orvala	1	---	3	---
Lysimachia punctata	1	---	1	---
Galium mollugo	2	---	1	---
Lemna trisulca	1	---	.	---
Luzula luzuloides	.	---	1	---
Leopoldia comosa	1	---	1	---
Lemna minor	1	---	.	---
Luzula forsteri	1	---	1	---
Lycopus exaltatus	1	---	1	---
Luzula multiflora	1	---	1	---

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 1 continued

Glechoma hirsuta	3	---	6	---
Luzula pilosa	2	---	8	---
Inula conyzae	.	---	1	---
Galium lucidum	1	---	.	---
Festuca rubra	1	---	.	---
Lolium perenne	1	---	.	---
Festuca stricta subsp. sulcata	1	---	.	---
Festuca heteropachys	.	---	1	---
Linaria vulgaris	1	---	1	---

On-line Suppl. Tab. 2. Full synoptic table of the analysed associations (clusters). Cluster 1 – *Festuco drymeiae-Carpinetum betuli*, cluster 2 – *Pseudostellario-Carpinetum*, cluster 3 – *Alno glutinosae-Carpinetum betuli* (*Stellario-Carpinetum*), cluster 4 – *Lonicero caprifolii-Quercetum roboris*, and cluster 5 – *Convallario majalis-Carpinetum betuli*. Diagnostic species are highlighted in blue. Species frequency values are shown in full-sized numbers, whereas phi coefficients are given as superscript values. Only diagnostic species ($\varphi \geq 0.25$) with a frequency higher than 20% in one of the clusters were shown.

Cluster number	1		2		3		4		5	
Number of relevés	73		25		71		22		104	
Carpinetalia betuli P. Fukarek 1968										
Quercus robur	96	---	100	---	100	---	100	---	95	---
Carpinus betulus	100	---	100	---	100	---	95	---	91	---
Acer campestre	75	---	68	---	49	---	86	---	95	^{23,5}
Quercus petraea agg.	42	^{24,3}	36	---	.	---	32	---	1	---
Prunus avium	59	---	60	---	45	---	41	---	50	---
Fraxinus angustifolia s. lat.	.	---	4	---	18	---	18	---	32	^{24,6}
Tilia tomentosa	22	---	.	---	6	---	36	---	12	---
Tilia platyphyllos	8	---	16	---	18	---	9	---	24	---
Tilia cordata	22	---	8	---	32	---	.	---	15	---
Hedera helix	67	^{23,8}	20	---	24	---	50	---	57	---
Lonicera caprifolium	7	---	32	---	3	---	36	---	26	---
Cornus sanguinea	36	---	44	---	18	---	50	---	54	^{13,7}
Rubus hirtus s. lat.	52	---	28	---	58	^{18,4}	41	---	20	---
Lamium galeobdolon s. lat.	66	---	64	---	68	---	23	---	40	---
Carex sylvatica	71	^{17,9}	72	---	32	---	55	---	37	---
Viola reichenbachiana	75	^{16,4}	44	---	55	---	73	---	49	---
Circaea lutetiana	34	---	24	---	39	---	18	---	25	---
Epimedium alpinum	12	---	16	---	10	---	14	---	12	---

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 2 continued

1- *Festuco drymeiae-Carpinetum betuli* Vukelić 1991 Marinček 1994												
Euphorbia amygdaloides	66	54	4	---	10	---	23	---	5	---		
Carex pilosa	58	52,4	4	---	7	---	14	---	6	---		
Fagus sylvatica	81	48,6	28	---	34	---	27	---	3	---		
Cardamine bulbifera	62	46,6	28	---	4	---	14	---	6	---		
Platanthera bifolia	36	43,3	8	---	.	---	5	---	1	---		
Galium odoratum	71	38,6	28	---	37	---	27	---	10	---		
Drymochloa drymeja	18	32,3	.	---	.	---	5	---	.	---		
Melica uniflora	34	31,4	.	---	3	---	27	---	1	---		
Dryopteris filix-mas	47	31,2	24	---	28	---	.	---	7	---		
Asarum europaeum	66	30,5	36	---	25	---	32	---	23	---		
Stellaria holostea	75	26	36	---	54	---	50	---	32	---		
2 - *Pseudostellario-Carpinetum* Accetto Novák et al. 2020												
Pseudostellaria europaea	.	---	52	68,1	.	---	.	---	.	---		
Gentiana asclepiadea	.	---	40	59	.	---	.	---	.	---		
Euphorbia dulcis	14	---	52	56	1	---	.	---	1	---		
Paris quadrifolia	7	---	56	52,5	8	---	.	---	12	---		
Crocus heuffelianus agg.	.	---	48	46,4	14	---	.	---	12	---		
Anemone nemorosa	23	---	92	44,8	51	---	32	---	38	---		
Viburnum opulus	4	---	56	44,3	10	---	.	---	32	14,1		
Athyrium filix-femina	34	---	64	42,3	34	---	.	---	1	---		
Gagea spathacea	.	---	36	42,1	7	---	.	---	9	---		
Luzula luzuloides	.	---	20	40,8	.	---	.	---	.	---		
Solidago virgaurea	.	---	20	40,8	.	---	.	---	.	---		
Ranunculus arvensis	.	---	20	40,8	.	---	.	---	.	---		
Luzula pilosa	18	---	40	39,5	3	---	5	---	1	---		
Cardamine pratensis agg.	.	---	28	38,9	6	---	.	---	4	---		
Corylus avellana	11	---	88	37,7	56	---	45	---	51	---		
Serratula tinctoria	.	---	20	37,6	1	---	.	---	1	---		
Prunus padus	.	---	24	37,2	.	---	.	---	7	---		
Oxalis acetosella	27	---	60	36,8	39	13,7	5	---	5	---		
Geum rivale	.	---	16	36,4	.	---	.	---	.	---		
Polygonatum multiflorum	63	---	92	36,3	52	---	41	---	32	---		
Symphytum tuberosum agg.	15	---	60	35,3	24	---	18	---	24	---		
Hieracium murorum	.	---	20	34,9	.	---	5	---	.	---		
Daphne mezereum	11	---	28	34,8	3	---	.	---	1	---		
Deschampsia cespitosa	3	---	32	34,6	13	---	.	---	6	---		
Leucojum vernum	3	---	28	34,2	4	---	.	---	9	---		
Milium effusum	10	---	40	33,9	10	---	5	---	13	---		
Heracleum sphondylium	7	---	36	33,8	.	---	18	---	5	---		

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 2 continued

Aegopodium podagraria	37	---	64	33,3	20	---	23	---	20	---		
Impatiens noli-tangere	1	---	20	32,3	6	---	.	---	.	---		
Pteridium aquilinum	12	---	28	32,2	4	---	.	---	2	---		
Alnus glutinosa	3	---	24	32	7	---	.	---	3	---		
Melampyrum pratense	.	---	20	31,9	.	---	5	---	3	---		
Cerastium arvense	.	---	12	31,4	.	---	.	---	.	---		
Knautia drymeia	10	---	28	30,1	3	---	5	---	5	---		
Alno glutinosae-Carpinetum betuli Issler 1926												
Veronica montana	10	---	.	---	39	44,3	.	---	8	---		
Carex brizoides	22	---	48	---	72	41,3	.	---	23	---		
Galeopsis speciosa	12	---	.	---	34	33,8	.	---	13	---		
Frangula alnus	.	---	12	---	23	26	.	---	7	---		
4 - *Lonicero caprifoliae-Quercetum roboris* (Rauš 1971) Marinček 1994												
Quercus cerris	15	---	.	---	1	---	73	66	11	---		
Fraxinus ornus	.	---	.	---	.	---	45	62,3	1	---		
Clematis vitalba	1	---	.	---	.	---	50	62,1	4	---		
Viola hirta agg.	7	---	.	---	6	---	64	59,1	14	---		
Dactylis glomerata s. lat.	3	---	8	---	4	---	59	56,7	10	---		
Cruciata laevipes	3	---	.	---	.	---	41	55,2	2	---		
Helleborus odorus	14	---	.	---	4	---	59	54,7	11	---		
Aremonia agrimonoides	3	---	.	---	1	---	41	54	2	---		
Asperula taurina	1	---	.	---	1	---	41	50,4	8	---		
Lapsana communis	4	---	.	---	1	---	36	48,8	2	---		
Cornus mas	3	---	.	---	1	---	41	46,7	12	---		
Glechoma hirsuta	4	---	.	---	3	---	36	46,1	4	---		
Quercus frainetto	1	---	.	---	.	---	27	44,2	2	---		
Geum urbanum	37	---	24	---	10	---	82	44,1	41	---		
Rosa arvensis	4	---	12	---	7	---	50	42,7	14	---		
Potentilla micrantha	10	---	.	---	.	---	32	42,7	.	---		
Brachypodium sylvaticum	37	---	24	---	17	---	73	42	15	---		
Prunella vulgaris	8	---	4	---	3	---	36	41,6	2	---		
Primula acaulis	8	---	16	---	3	---	50	41,4	13	---		
Campanula trachelium	3	---	12	---	1	---	36	40,3	3	---		
Poa trivialis	.	---	.	---	3	---	27	39	6	---		
Chaerophyllum temulum	.	---	.	---	.	---	18	38,9	.	---		
Festuca heterophylla	1	---	4	---	3	---	27	37,6	2	---		
Hypericum hirsutum	.	---	.	---	.	---	18	37,4	1	---		
Taraxacum sect. *Taraxacum*	.	---	4	---	.	---	23	36,6	2	---		
Campanula patula	1	---	.	---	.	---	18	35,5	1	---		

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 2 continued

Polygonatum odoratum	.	---	.	---	1	---	23	35,3	6	---		
Crataegus monogyna	14	---	28	---	44	---	82	34	72	24,3		
Tanacetum corymbosum	.	---	.	---	.	---	14	33,5	.	---		
Astragalus glycyphyllos	.	---	.	---	.	---	14	33,5	.	---		
Campanula persicifolia	.	---	.	---	.	---	14	33,5	.	---		
Brachypodium pinnatum	.	---	.	---	.	---	14	33,5	.	---		
Erigeron canadensis	.	---	.	---	.	---	14	33,5	.	---		
Asparagus tenuifolius	.	---	.	---	.	---	14	33,5	.	---		
Ulmus glabra	8	---	.	---	.	---	23	33,4	1	---		
Isopyrum thalictroides	.	---	4	---	.	---	23	32,9	6	---		
Veronica chamaedrys	11	---	32	---	14	---	55	32,9	17	---		
Pulmonaria mollis agg.	.	---	16	---	1	---	27	29,7	4	---		
Sanicula europaea	32	12,4	16	---	13	---	45	29,5	1	---		
Fraxinus excelsior	.	---	20	---	.	---	27	26,5	7	---		
5 - *Convallario-Carpinetum* Kevey 2008.												
Ulmus minor	7	---	4	---	20	---	14	---	52	41,5		
Ligustrum vulgare	18	---	36	---	11	---	68	---	78	36,1		
Sambucus nigra	34	---	4	---	21	---	5	---	50	32,4		
Acer tataricum	7	---	.	---	37	---	55	---	62	31,8		
Galium aparine	18	---	16	---	14	---	41	---	57	30,4		
Arum maculatum agg.	8	---	20	---	15	---	45	---	56	29,5		
Ficaria verna	14	---	52	---	28	---	50	---	69	26,9		
Polygonatum hirtum	.	---	.	---	.	---	9	---	17	26,9		
Other species												
Berberis vulgaris	.	---	.	---	.	---	.	---	7	23,4		
Veronica hederifolia	11	---	.	---	.	---	36	---	30	19,9		
Scilla bifolia	3	---	4	---	1	---	27	---	25	19,8		
Stellaria media agg.	3	---	.	---	7	---	18	---	21	19		
Euonymus europaeus	18	---	60	---	37	---	50	---	64	18,7		
Adoxa moschatellina	5	---	16	---	8	---	18	---	28	17,7		
Alliaria petiolata	11	---	4	---	1	---	27	---	26	17,4		
Gagea lutea	.	---	4	---	1	---	9	---	12	15,7		
Anemone ranunculoides	4	---	8	---	6	---	32	---	26	15,2		
Ranunculus auricomus coll.	.	---	12	---	7	---	27	---	23	13,3		
Daucus carota	.	---	.	---	.	---	.	---	1	---		
Abies alba	.	---	4	---	.	---	.	---	.	---		
Ruscus hypoglossum	4	---	.	---	.	---	.	---	4	---		
Digitalis lanata	.	---	.	---	.	---	9	---	.	---		
Equisetum arvense	1	---	4	---	.	---	.	---	2	---		

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 2 continued

Campanula sibirica	.	.	.	5	.
Vicia oroboides	11	8	4	.	6
Salvia glutinosa	5	8	.	5	6
Aristolochia lutea	.	.	6	.	2
Verbena officinalis	1	.	.	14	1
Lamium orvala	.	8	4	.	4
Ballota nigra	.	.	.	5	.
Sedum album	.	.	.	5	.
Allium ursinum	1	.	1	14	6
Populus nigra	.	.	.	.	1
Ruscus aculeatus	18	.	20	36	14
Moehringia muscosa	.	.	.	5	.
Lathyrus niger	8	.	.	14	.
Euonymus latifolius	.	.	.	5	.
Euphorbia illirica	.	4	.	.	.
Epipactis helleborine	7	.	1	5	1
Galanthus nivalis	12	8	3	9	20
Gagea villosa	.	.	1	.	1
Veronica praecox	.	.	.	5	.
Veronica officinalis	5	.	1	.	.
Platanus hispanica	.	.	1	.	.
Carex praecox	.	.	.	5	.
Carex digitata	8	16	.	5	1
Muscari botryoides	.	.	.	.	1
Lycopus europaeus	5	.	.	5	.
Pinus sylvestris	.	.	.	.	1
Ornithogalum umbellatum	.	.	.	.	2
Rhamnus cathartica	.	.	4	5	.
Luzula forsteri	.	.	1	9	.
Cardamine impatiens	3	8	3	.	6
Convolvulus arvensis	.	4	.	.	.
Tussilago farfara	.	.	.	5	.
Silene vulgaris	.	.	.	9	.
Rosa gallica	.	.	.	.	3
Carex distans	.	.	.	.	1
Doronicum austriacum	.	8	1	.	1
Cardamine waldsteinii	.	.	1	.	4
Calystegia sepium	3	.	.	.	2
Orchis purpurea	.	.	.	5	2

ACCEPTED MANUSCRIPT

On-line Suppl. Tab. 2 continued

Ajuga genevensis	.	---	.	---	.	---	9	---	1	---				
Maianthemum bifolium	25	20,8	28	---	.	---	5	---	.	---				
Neottia nidus-avis	5	---	12	---	1	---	5	---	2	---				
Anthriscus sylvestris	1	---	.	---	.	---	.	---	1	---				
Carex muricata agg.	.	---	.	---	1	---	23	---	11	---				
Aristolochia pallida	.	---	.	---	.	---	.	---	1	---				
Sorbus torminalis	8	---	.	---	6	---	23	---	2	---				
Cerastium sylvaticum	1	---	.	---	3	---	5	---	4	---				
Cyclamen purpurascens	22	21,2	20	---	.	---	5	---	1	---				
Galium rotundifolium	.	---	4	---	.	---	.	---	.	---				
Oxalis corniculata agg.	7	23,6	.	---	.	---	.	---	.	---				
Rumex obtusifolius	.	---	.	---	.	---	.	---	1	---				
Salix alba	.	---	.	---	.	---	9	---	.	---				
Cardamine trifolia	.	---	8	---	3	---	.	---	.	---				
Galium uliginosum	.	---	4	---	.	---	.	---	.	---				
Populus alba	.	---	.	---	1	---	5	---	5	---				
Ulmus procera	.	---	.	---	.	---	9	---	1	---				
Physospermum cornubiense	.	---	.	---	.	---	5	---	.	---				
Lactuca muralis	30	20,6	16	---	11	---	18	---	1	---				
Jacobaea vulgaris	1	---	4	---	.	---	.	---	1	---				
Euphorbia carniolica	.	---	.	---	1	---	.	---	1	---				
Aconitum lycoctonum s.lat	1	---	4	---	.	---	.	---	1	---				
Lathyrus vernus	23	14	4	---	10	---	27	---	4	---				
Pulmonaria officinalis agg.	71	23,6	68	---	15	---	50	---	34	---				
Helleborus atrorubens agg.	.	---	.	---	3	---	.	---	8	---				
Viola odorata	.	---	.	---	1	---	23	---	9	---				
Rubus caesius	3	---	20	---	14	---	14	---	23	---				
Dianthus barbatus	1	---	.	---	.	---	9	---	.	---				
Vinca minor	25	18,7	16	---	6	---	14	---	2	---				
Aegonychon purpurocaeruleum	.	---	.	---	.	---	14	---	2	---				
Melampyrum nemorosum	10	---	12	---	3	---	14	---	4	---				
Cephalanthera longifolia	1	---	.	---	.	---	5	---	.	---				
Persicaria dubia	.	---	.	---	3	---	.	---	1	---				
Plantago media	.	---	.	---	.	---	5	---	.	---				
Echinocystis lobata	.	---	.	---	.	---	.	---	4	---				
Veronica serpyllifolia	.	---	.	---	.	---	5	---	3	---				
Lamium maculatum	5	---	12	---	3	---	14	---	14	---				
Inula conyzae	.	---	.	---	.	---	5	---	.	---				
Carex acutiformis	.	---	.	---	.	---	.	---	1	---				

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On-line Suppl. Tab. 2 continued

Knautia arvensis	3	8	.	.	.
Symphytum officinale	.	.	.	.	1
Anemone trifolia	.	8	.	.	1
Potentilla erecta	.	.	.	5	2
Molinia caerulea	.	.	.	.	1
Hacquetia epipactis	1	8	.	.	1
Persicaria hydropiper	4	.	4	14	2
Neottia ovata	4	4	6	.	8
Iris pseudacorus	.	4	1	.	.
Leucojum aestivum	.	.	.	.	1
Persicaria maculosa	.	8	.	.	.
Staphylea pinnata	1	.	1	.	4
Carex strigosa	.	.	1	.	2
Actaea spicata	.	4	.	.	.
Lathraea squamaria	.	.	.	9	2
Trifolium medium	.	.	.	5	.
Ranunculus repens	.	4	1	5	1
Galium palustre	.	.	7	.	1
Viola canina	.	4	.	.	.
Acer platanoides	5	.	.	.	3
Ranunculus bulbosus	1	.	.	.	.
Mentha aquatica	1	.	.	.	.
Genista tinctoria	.	.	.	9	2
Lilium martagon	1	.	.	5	3
Schedonorus giganteus	3	4	4	9	5
Mercurialis perennis	15	8	7	32	6
Prunus spinosa s. lat.	1	4	6	32	15
Cardamine amara	.	.	1	.	.
Solanum dulcamara	.	.	4	.	.
Carpinus orientalis	.	.	.	9	.
Galeopsis tetrahit	8	8	11	.	1
Stellaria nemorum	.	12	.	.	2
Smyrnium perfoliatum	.	.	.	5	3
Rumex conglomeratus	.	.	.	.	1
Lysimachia vulgaris	.	.	.	14	1
Physalis alkekengi	.	.	.	.	1
Carex divisa	.	.	.	.	2
Lysimachia nummularia	3	4	15	36	11
Silene latifolia	3	.	.	.	2

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On-line Suppl. Tab. 2 continued

Viola riviniana	.	12	.	.	1			
Viburnum lantana	.	4	1	27	13			
Saxifraga rotundifolia	.	.	.	5	.			
Clinopodium menthifolium	.	.	1	5	.			
Euonymus verrucosus	.	.	.	9	.			
Galium aristatum	.	.	.	5	.			
Myosotis palustris agg.	.	12	3	.	1			
Valeriana officinalis	.	.	.	5	.			
Eupatorium cannabinum	1	.	1	5	.			
Veronica austriaca	.	.	.	5	.			
Carex pendula	.	.	6	.	.			
Clinopodium nepeta subsp. glandulosum	.	.	.	9	.			
Epilobium montanum	1	.	.	9	.			
Chelidonium majus	.	.	.	.	1			
Moehringia trinervia	7	12	14	9	8			
Arctium lappa	.	.	.	5	.			
Ranunculus lanuginosus	1	24	7	.	5			
Vincetoxicum hirundinaria	.	.	1	9	1			
Silene coronaria	.	.	.	.	1			
Parietaria officinalis	.	.	.	.	2			
Lonicera xylosteum	.	4	.	9	4			
Carex hirta	.	.	1	5	1			
Sorbus aucuparia	.	.	.	5	.			
Galium mollugo	.	.	.	5	.			
Geranium phaeum	16	8	7	23	12			
Carex remota	11	24	10	5	8			
Tanacetum vulgare	.	.	.	9	.			
Euphorbia cyparissias	1	.	.	5	1			
Crepis paludosa	.	8	.	.	.			
Humulus lupulus	.	.	.	5	2			
Dioscorea communis	19	.	18	36	28			
Lythrum salicaria	.	4	.	.	.			
Silene nemoralis	.	.	.	5	.			
Salix euxina	.	.	.	.	1			
Rumex acetosella	.	4	.	.	.			
Thelypteris palustris	1	.	.	.	.			
Allium carinatum	.	.	.	5	.			
Hypericum montanum	.	.	1	.	1			
Dryopteris expansa	.	4	.	.	.			

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On-line Suppl. Tab. 2 continued

Aruncus dioicus	.	4	.	.	.
Glechoma hederacea	15	32	13	36	26
Valeriana dioica	.	8	.	.	.
Clinopodium vulgare	.	.	.	14	2
Fraxinus pennsylvanica	.	.	.	.	1
Vitis vinifera	.	.	1	.	.
Prunus cerasifera	.	.	.	.	6
Impatiens parviflora	.	4	.	.	.
Potentilla argentea	.	.	.	5	.
Juniperus communis	1	4	.	5	.
Urtica dioica	14	8	8	18	8
Knautia dipsacifolia	.	8	.	14	.
Corydalis cava	5	12	.	32	19
Equisetum hyemale	.	.	.	.	1
Drymochloa sylvatica	.	4	.	.	.
Euphorbia stricta	.	.	.	.	1
Dryopteris carthusiana	3	20	11	.	2
Calla palustris	.	4	.	.	.
Ambrosia artemisiifolia	.	.	.	9	.
Picea abies	.	8	.	.	.
Cytisus hirsutus	.	4	.	9	1
Leersia oryzoides	.	.	.	.	1
Solidago gigantea	1	.	.	.	5
Ulmus laevis	.	20	1	5	8
Hieracium racemosum	4	12	1	5	1
Erodium cicutarium	.	.	.	5	.
Ajuga reptans	37	72	58	45	46
Carex elongata	3	.	.	.	.
Colchicum autumnale	.	.	.	.	3
Crataegus nigra	.	.	.	.	1
Corydalis solida	1	.	3	5	4
Gagea minima	.	.	1	.	.
Melampyrum sylvaticum	.	.	6	.	.
Luzula campestris	1	.	.	.	2
Fritillaria meleagris	.	4	.	.	6
Orchis pallens	.	4	.	.	.
Carex flacca	.	4	.	.	.
Peucedanum palustre	.	.	.	.	2
Galium verum	.	.	.	9	1

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On-line Suppl. Tab. 2 continued

Myosoton aquaticum	.	.	.	9	.
Fragaria moschata	.	8	.	14	2
Lathyrus linifolius	.	4	.	.	.
Omphalodes scorpioides	.	.	.	.	3
Betula pendula	.	4	3	.	.
Festuca heteropachys	.	.	.	.	1
Stachys sylvatica	8	4	4	27	12
Carex alba	.	8	.	.	1
Melittis melissophyllum s. lat.	7	8	.	18	2
Galeopsis pubescens	1	8	3	.	8
Vicia cracca	.	.	.	5	.
Erythronium dens-canis	1	12	.	18	.
Senecio nemorensis	1	.	.	.	1
Torilis arvensis	.	.	1	.	.
Rumex sanguineus	5	4	8	32	19
Erysimum odoratum	.	.	.	5	.
Scrophularia nodosa	15	32	15	18	3
Lycopus exaltatus	.	.	.	5	.
Erigeron annuus	4	.	1	14	4
Veratrum album	.	4	20	.	15
Poa nemoralis	.	.	1	5	.
Geranium robertianum	11	.	14	27	11
Asplenium ruta-muraria	.	.	.	5	.
Silene flos-cuculi	.	4	3	18	2
Crataegus laevigata	7	44	42	9	31
Hippocrepis emerus subsp. *emerus*	.	.	.	5	.
Rubus fruticosus agg.	7	.	10	9	7
Conopodium majus	.	.	.	.	1
Agrimonia eupatoria	.	.	.	9	.
Aesculus hippocastanum	.	4	1	.	.
Pulmonaria angustifolia	.	4	.	.	.
Viola suavis	.	.	.	5	.
Anthriscus cerefolium	.	.	.	5	.
Aposeris foetida	3	16	6	5	3
Melica nutans	8	20	3	.	4
Acer obtusatum	.	.	.	5	.
Hypericum perforatum	3	.	.	5	.
Securigera elegans	.	.	.	5	.
Parthenocissus quinquefolia	.	.	.	.	2

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On-line Suppl. Tab. 2 continued

Equisetum telmateia	.	---	.	---	.	---	5	---	.	---		
Draba verna	.	---	.	---	.	---	5	---	.	---		
Vicia sativa	.	---	.	---	.	---	5	---	.	---		
Juglans regia	.	---	8	---	1	---	.	---	2	---		
Lysimachia punctata	.	---	.	---	.	---	5	---	.	---		
Alnus incana	.	---	.	---	.	---	.	---	1	---		
Rumex acetosa	.	---	.	---	.	---	9	---	1	---		
Scutellaria columnae	.	---	.	---	.	---	5	---	.	---		
Potentilla reptans	.	---	4	---	.	---	.	---	.	---		
Rosa canina	5	---	.	---	3	---	9	---	15	---		
Rubus canescens	.	---	.	---	.	---	5	---	.	---		
Chaerophyllum aureum	.	---	.	---	1	---	.	---	2	---		
Castanea sativa	4	---	.	---	.	---	.	---	.	---		
Convallaria majalis	3	---	20	---	7	---	18	---	7	---		
Betula pubescens	.	---	4	---	.	---	.	---	.	---		
Euphorbia salicifolia	.	---	.	---	.	---	5	---	1	---		
Hepatica nobilis	1	---	.	---	.	---	.	---	1	---		
Agrostis stolonifera	.	---	.	---	.	---	5	---	2	---		
Chrysosplenium alternifolium	.	---	8	---	.	---	.	---	.	---		
Stachys officinalis	.	---	.	---	.	---	9	---	.	---		
Cephalanthera damasonium	3	---	.	---	.	---	.	---	1	---		
Lamium purpureum	.	---	.	---	.	---	18	---	9	---		
Solidago canadensis	.	---	.	---	.	---	5	---	.	---		
Polystichum setiferum	3	---	.	---	4	---	.	---	1	---		
Lathyrus venetus	.	---	.	---	1	---	14	---	1	---		
Juncus effusus	1	---	4	---	4	---	5	---	3	---		
Silene viridiflora	.	---	.	---	.	---	5	---	.	---		
Bupleurum praealtum	.	---	.	---	.	---	5	---	.	---		
Cruciata glabra	33	---	40	---	15	---	27	---	10	---		
Verbascum nigrum	.	---	.	---	.	---	5	---	.	---		
Parthenocissus inserta	.	---	.	---	.	---	.	---	1	---		
Ornithogalum pyrenaicum	.	---	.	---	1	---	9	---	.	---		
Impatiens glandulifera	.	---	.	---	.	---	.	---	1	---		
Dichoropetalum carvifolia	.	---	.	---	.	---	.	---	1	---		
Clematis integrifolia	.	---	.	---	.	---	.	---	1	---		
Bellis perennis	.	---	.	---	.	---	5	---	.	---		
Thalictrum aquilegiifolium	.	---	.	---	.	---	.	---	1	---		
Malus sylvestris agg.	1	---	.	---	4	---	18	---	6	---		
Torilis japonica	1	---	.	---	.	---	9	---	2	---		

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On-line Suppl. Tab. 2 continued

Ochlopoa annua	.	.	.	.	1
Prunus serotina	.	.	.	.	1
Hylotelephium telephium	.	.	.	5	.
Fragaria vesca	25	32	15	32	11
Ranunculus polyanthemos s. lat.	.	.	.	.	1
Acer pseudoplatanus	4	8	6	.	4
Galium sylvaticum	7	24	6	27	4
Pyrus communis s. lat.	4	20	20	41	28
Dryopteris cristata	.	4	.	.	.
Peucedanum cervaria	.	.	.	.	1
Luzula multiflora	.	.	1	.	.
Oenanthe banatica	.	.	1	.	1
Iris graminea	.	.	1	.	.
Euphorbia epithymoides	.	.	1	9	.
Asplenium trichomanes	.	.	.	5	.
Angelica sylvestris	.	4	7	.	6
Stellaria graminea	.	.	1	.	.
Rumex crispus	.	.	.	5	1
Vicia sepium	.	4	.	9	1
Cardamine hirsuta	.	.	1	5	.
Holcus lanatus	.	.	1	.	.
Phegopteris connectilis	.	.	1	.	.
Hieracium umbellatum	.	8	3	5	.
Iris reichenbachii	.	.	.	5	.
Filipendula ulmaria	.	4	.	.	2
Solanum nigrum	.	.	.	5	.
Myosotis sparsiflora	.	.	.	5	1
Populus tremula	.	.	6	.	1
Ranunculus acris	.	.	.	9	1
Trigonella balansae	.	.	.	5	.
Robinia pseudoacacia	7	12	3	14	12
Rudbeckia laciniata	.	.	.	.	2
Polygonum aviculare	.	.	.	5	.
Seseli kochii	.	.	.	5	.

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On-line Suppl. Tab. 3. Relationships between unweighted mean Ellenberg indicator values and the first four DCA axes. Spearman's correlation coefficients (rho), P-values from the standard permutation test (P.perm), and P-values from the modified permutation test (P.modif) are shown. Relationships that were statistically significant according to the modified permutation test are shown in bold.

Axis	Ellnberg indicator value	rho	P.perm	P.modif
DCA 1 axis	**Ellenberg light**	**0,709**	**< 0.01**	**< 0.01**
DCA 1 axis	**Ellenberg temperature**	**0,791**	**< 0.01**	**< 0.01**
DCA 1 axis	Ellenberg moisture	−0.152	< 0.05	0,540
DCA 1 axis	Ellenberg soil reaction	0,389	< 0.01	0,128
DCA 1 axis	Ellenberg nutrients	0,223	< 0.01	0,468
DCA 2 axis	**Ellenberg light**	**0,544**	**< 0.01**	**< 0.05**
DCA 2 axis	Ellenberg temperature	0,079	0,180	0,748
DCA 2 axis	**Ellenberg moisture**	**0,563**	**< 0.01**	**< 0.05**
DCA 2 axis	Ellenberg soil reaction	0,039	0,516	0,864
DCA 2 axis	Ellenberg nutrients	0,247	< 0.01	0,248
DCA 3 axis	Ellenberg light	−0.130	< 0.05	0,468
DCA 3 axis	Ellenberg temperature	−0.110	0,060	0,500
DCA 3 axis	Ellenberg moisture	0,146	< 0.01	0,524
DCA 3 axis	**Ellenberg soil reaction**	**0,357**	**< 0.01**	**< 0.05**
DCA 3 axis	Ellenberg nutrients	0,124	< 0.05	0,460
DCA 4 axis	Ellenberg light	0,135	< 0.05	0,436
DCA 4 axis	Ellenberg temperature	−0.035	0,548	0,832
DCA 4 axis	Ellenberg moisture	−0.014	0,800	0,908
DCA 4 axis	**Ellenberg soil reaction**	**−0.481**	**< 0.01**	**< 0.01**
DCA 4 axis	**Ellenberg nutrients**	**−0.615**	**< 0.01**	**< 0.01**

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