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STATISTICAL DETERMINATION OF DIAGNOSTIC, CONSTANT AND DOMINANT SPECIES OF THE HIGHER VEGETATION UNITS OF POLAND

ZYGMUNT KĄCKI, MARTA CZARNIECKA and GRZEGORZ SWACHA

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Łódź

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This work is dedicated to the memory of
Professor Władysław Matuszkiewicz
scientist extraordinaire
who contributed greatly
to the knowledge of vegetation diversity of Poland

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ABSTRACT

Zygmunt Kącki, Marta Czarniecka & Grzegorz Swacha. *Statistical determination of diagnostic, constant and dominant species of the higher vegetation units of Poland*. Monogr. Bot., Vol. 103, pp. 267, 2013.
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This paper presents a syntaxonomical revision and statistical determination of diagnostic, constant and dominant species of higher syntaxa of Poland based on relevés stored in the *Polish Vegetation Database.* All the analyses were performed on a data set consisting of 43,686 relevés containing 2,853 species of vascular plants, bryophytes, algae and lichenized fungi. The data set was subjected to formalized and hierarchical classification, which revealed 44 classes and 153 alliances. The vegetation of Poland is divided into the classes: *Zosteretea marinae*, *Charetea*, *Elyno-Seslerietea*, *Violetea calaminariae*, *Stellarietea mediae*, *Cakiletea maritimae*, *Salicetea herbaceae*, *Isoëto-Nano-Juncetea*, *Oxycocco-Sphagnetea*, *Ammophiletea arenariae*, *Potametea*, *Thero-Salicornietea*, *Carici-Kobresietea*, *Festuco-Puccinellietea*, *Erico-Pinetea*, *Juncetea trifidi*, *Loiseleurio-Vaccinietea*, *Lemnetea*, *Quercetea pubescentis*, *Littorelletea uniflorae*, *Koelerio-Corynephoretea*, *Roso pendulinae-Pinetea mugo*, *Cymbalario-Parietarietea*, *Bidentetea tripartitae*, *Alnetea glutinosae*, *Scheuchzerio-Caricetea*, *Robinietea*, *Montio-Cardaminetea*, *Thlaspietea rotundifolii*, *Festuco-Brometea*, *Salicetea purpureae*, *Molinio-Arrhenatheretea*, *Mulgedio-Aconitetea*, *Carpino-Fagetea*, *Calluno-Ulicetea*, *Quercetea robori-petraeae*, *Vaccinio-Piceetea*, *Polygono arenastri-Poëtea*, *Asplenietea trichomanis*, *Phragmito-Magno-Caricetea*, *Artemisietea vulgaris*, *Epilobietea angustifolii*, *Galio-Urticetea*, *Rhamno-Prunetea*. In order to determine a diagnostic species for alliances and classes, statistical measures of fidelity were used. A revised list of vegetation units of Poland is presented.

Key words: Braun-Blanquet approach, JUICE, plant communities, syntaxonomy, TURBOVEG, Polish Vegetation Database, vegetation survey, expert system, Cocktail method.

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1. INTRODUCTION

A unique floristic composition which is formed under a certain environmental conditions is fundamental element of determination and identification of plant communities. Classification of vegetation is based on species occurrence in particular plant communities (phytocoenoses). The beginnings of phytosociology and some of the concepts explaining the phenomenon of species association into plant communities have partially originated in Poland (Paczoski 1896, 1925). However, principles of classification and phytosociological methods have been developed according to the Central European School (Braun-Blanquet 1925). Furthermore, they have hardly changed over the last century. Presence of particular species in a plant community strongly determines the community's position in the classification system. This refers especially to character species, defined as species appearing only in a particular type of vegetation (Brockmann-Jerosch 1907). Determination of indicative value of some species in classification of vegetation has been the subject of discussions since the first phytosociological papers appeared. Koch (1926) proposes the term "differential species" for a species that is used to distinguish one type of vegetation from another, although this species occurs in numerous vegetation units. The term combining functions of both differential and character species is a diagnostic species, i.e. a species which prefers a single or a few vegetation units and allows for delimitation of plant communities (Whittaker 1962). According to this approach, a diagnostic species creates specific and repeatable co-occurring species composition associated with historical background, as well as with environmental and geographical conditions under which plant communities develop. A significant contribution to the development of the principles of classification of vegetation was made by many Polish phytosociologists (Szafer *et al.* 1923, 1927; Pawłowski 1926, 1935; Pawłowski & Stecki 1927; Pawłowski *et al.* 1928). The repeatability of species combinations and the diagnostic role of some species are related to species fidelity. Initially, species fidelity was determined intuitively using a five-point scale (Szafer & Pawłowski 1927; Braun-Blanquet 1964; Pawłowski 1972). Over time, the significance of character species and their subjective fidelity, based on data from relatively small geobotanical units, became less important (Ellenberg 1954). The concept of diagnostic species became more favoured in geobotanical literature when statistical methods with objective measures of fidelity were implemented (Goodall 1953; Botta-Dukát & Borhidi 1999; Bruelheide 2000; Chytrý *et al.* 2002, De Cáceres & Legendre 2009). Currently, vegetation units are identified according to diagnostic species which include both character and differential species. In order to determine diagnostic species, the Phi coefficient is often used, which measures statistical concentration of occurrences of given species in particular vegetation unit (Chytrý & Tichý 2003; Jarolímek & Šibík 2008).

In Poland, as in many other European countries, phytosociological studies have a long tradition. This can be seen in subsequent editions of Polish phytosociological bibliography (Traczyk 1960; Matuszkiewicz A. & Faliński 1964; Matuszkiewicz A. 1967, 1972, 1981, 1990, 2004; Latowski & Jackowiak 2001, 2006). The papers listed above show the dynamic development of knowledge about diversity of vegetation in Poland, especially when compared with the first comprehensive surveys of plant communities (Medwecka-Kornaś *et al.*

1959; Matuszkiewicz W. 1967). For many years, plant communities have been identified and described mostly in accordance with the identification key to plant communities in Poland published by Professor W. Matuszkiewicz (1981). This handbook is recognized as one of the most important syntaxonomical syntheses and it is the main reference in Polish phytosociological surveys. Its hierarchical system shows character and differential species for vegetation units found in Poland. Subsequent editions of the handbook indicate new plant communities in which differential species occurring in several syntaxa gain increasing significance (Matuszkiewicz W. 2001, 2008). Despite many systematical revisions of plant associations and higher vegetation units, the list of Polish plant communities has never been critically assessed with respect to broad-scale vegetation surveys. By contrast, a large-scale syntaxonomic reviews have appeared in neighbouring countries, including the Czech Republic, Germany and Slovakia (Valachovič *et al.* 1995, 2001; Jarolímek *et al.* 1997; Berg *et al.* 2001, 2004; Chytrý 2007, 2009, 2011, 2012, 2013; Janišová *et al.* 2007; Kliment *et al.* 2007; Jarolímek & Šibík 2008). A critical look at the classification of Polish vegetation presented by Matuszkiewicz W. (1981, 2008) is emphasized in numerous papers where many different views on syntaxonomical affinities of some syntaxa and new combinations of indicator species are proposed (Brzeg & Wojterska 1996, 2001; Ratyńska *et al.* 2010). Furthermore, Polish vegetation scientists constantly discover formerly unknown plant communities or new species combinations (e.g., Fijałkowski & Chojnacka-Fijałkowska 1990; Pender 1997; Popiela 1997; Szczęśniak 1998; Kącki *et al.* 1999; Kucharski 1999; Kryszak 2001; Kwiatkowski 2001; Ratyńska 2001; Babczyńska-Sendek 2005; Nobis *et al.* 2006; Zarzycki 2008; Babczyńska-Sendek & Barć 2009; Spałek & Horska-Schwarz 2009; Towpasz & Stachurska-Swakoń 2009; Ratyńska *et al.* 2011). In addition, several comprehensive studies are devoted to large vegetation units, including the alliances *Corynephorion* (Czyżewska 1992), *Cnidion* (Załuski 1995) and *Tilio-Acerion* (Bodziarczyk 2002), or classes *Artemisietea*, *Trifolio-Geranietea* and *Asplenietea trichomanis* (Brzeg 1989, 2005; Świerkosz 2004; Brzeg & Wika 2011). All of these elaborations are consistent with traditional phytosociological classification, where character species are selected on the basis of expert knowledge. A different approach was adopted for the syntaxonomical revision of *Molinia* meadows, for which diagnostic species were determined using statistical methods applied to a large set of relevés from Poland (Kącki 2007, 2012). This approach is currently used in numerous syntaxonomical revisions in many European countries (Chytrý 2007, 2009, 2011; Roleček 2007; Simonová 2008; Janišová & Dúbravková 2010; Rozbrojová *et al.* 2012).

Analyses across broad environmental gradients, based on large sets of relevés, have been made possible by the dynamic development of vegetation databases in recent times (Ewald 2001; Schaminée *et al.* 2009; Dengler *et al.* 2011; Jansen *et al.* 2011). Poland is following this trend, and the idea of establishing of a database has been discussed (Załuski 2001; Dzwonko 2007). Until now, numerous relevés made in Poland have been collected and entered into the *Polish Vegetation Database*, which is a fundamental resource for the analysis of the present study (Kącki & Śliwiński 2012a, b). The authors of the present paper were inspired by a study on diagnostic, constant and dominant species of vegetation classes and alliances in the Czech Republic. We used the methodological achievements presented by Chytrý & Tichý (2003), and extended the analyses to the Cocktail method (Bruelheide 2000) and the expert system (Kočí *et al.* 2003).

The purpose of the present study was to revise the classification of vegetation in Poland and to conduct the statistical determination of diagnostic, constant and dominant species of higher syntaxonomical units. A large data set was analyzed, by which subjective

determination of indicator species for each vegetation unit was avoided. For practical purposes, we focused only on diagnostic, constant and dominant species for classes and alliances. The idea of determination of diagnostic species for the orders was abandoned, as they are of low importance in plant community characterization. Many alliances within one class belong only to a single order. In this case, diagnostic species for class and order are equally significant. Therefore, the present revision does not include diagnostic species for orders, similarly to the previous syntaxonomical revision for the Czech Republic (Chytrý & Tichý 2003).

The authors of this paper are aware of provisional nature of the present classification, which is caused by lack of phytosociological data from some regions of Poland.

The main aim of the study was achieved in a stepwise process of data analysis: (1) carrying out a syntaxonomical review of vegetation classification in Poland using statistically determined groups of co-occurring species and formal definitions, (2) determination of diagnostic species of higher syntaxonomical units, (3) determination of floristic distinctiveness of some syntaxa, especially poorly delimited ones, aiming at critical assessment of their validity in the present classification system.

Acknowledgements. The authors would like to express their gratitude to those who contributed to this work. In particular, we are grateful to our friends from many research centers in Poland for providing phytosociological data to the *Polish Vegetation Database*, and to all volunteers and apprentices who helped develop our database. Special thanks to Michał Śliwiński, former deputy custodian and honorary member of the *Polish Vegetation Database*, for contributing greatly to the database in the first years of its activity.
We are especially thankful to Milan Chytrý and the scientific research team of the Vegetation Science Group from Masaryk University for invaluable help and training in the Cocktail method and the use of the expert system.

2. MATERIAL AND METHODS

Data set and data stratification. The present study includes procedures and methods used in similar recent studies from the Czech Republic and Slovakia (Chytrý & Tichý 2003; Jarolímek & Šibík 2008). The main source of information for analyses were phytosociological relevés contained in the *Polish Vegetation Database* (Kącki & Śliwiński 2012a, b). The database gathers phytosociological relevés from the territory of Poland and stores them in the database program TURBOVEG (Hennekens & Schaminée 2001). The database contains 54,982 relevés (state on September, 2013) [http://synbiot.uni.wroc.pl/] (Fig. 1).

These resources represent most, if not all, plant communities identified hitherto in Poland. There are 10 906 unpublished relevés without assignment to any syntaxonomic unit. Selection of the relevés for the analysis was performed on the entire data set applying the following procedures: (1) relevés without geographical coordinates were deleted, (2) plots with an area of 50 to 2,000 m^2 for scrub and forest vegetation and 5 to 500 m^2 for herbaceous vegetation were selected (an exceptions are *Ruppietea, Zosteretea* and *Isoëto-Nano-Juncetea*, where minimal plot size was set at 0.1 m^2). A total of 43,686 relevés were used, including 2,853 species of plants and fungi. Data were analysed using the JUICE software package (Tichý 2002).

Within this data set, all records of juvenile trees and shrubs occurring in the herb layer were deleted. In addition, tree-layer and shrub-layer records were merged for every species, so that each species occurred only once in the entire data set (Chytrý 2003, 2007; Roleček 2007). Species determined only to the genus level were also excluded.

The next step was to unify nomenclature of species in order to equate different taxonomic concepts of species, subspecies and lower taxonomic units often named differently by different authors.

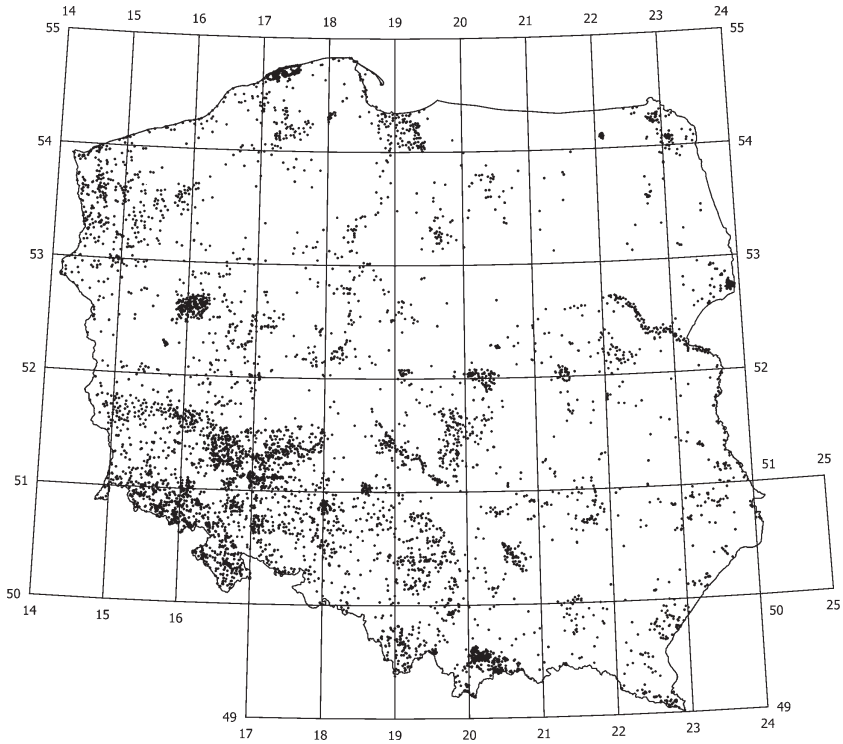

Fig. 1. Distribution of phytosociological relevés stored in PVD (state on September, 2013).

This procedure limits species diversity within the whole data set, and excludes diagnostic species for some syntaxa. On the other hand, it eliminates or reduces incorrect interpretation of the results. However, this procedure was crucial for analysis because the relevés used were collected over a long period of time, during which taxonomic nomenclature changed, with taxa described either *sensu lato* or *sensu stricto*. These different taxonomic concepts could possibly lead to the incorrect interpretation of some taxa and affect the final classification (Jansen & Dengler 2010).

The nomenclature for vascular plants used in the present study follows Mirek *et al.* (2002). Species not included there follows the *Flora Europaea* (Tutin *et al.* 1964-1980). The nomenclature used for mosses follows Ochyra *et al*. (2003), for liveworts and hornworts follows Szweykowski (2006), for lichens [lichenized fungi] follows Fałtynowicz (2003) and Piercey-Normore *et al.* (2010) and for algae follows Guiry & Guiry (2013).

Narrowly defined species or some other lower taxonomic units were merged into a broader concept. Species defined by Kubát *et al.* (2002) as aggregates were given the abbreviation *agg*. Other species described as *sensu lato* were marked with abbreviation *s. l*. Broadly-defined taxa are listed below:

***Achillea millefolium* agg.** – *Achillea millefolium* L., *Achillea millefolium* subsp. *millefolium* L., *Achillea millefolium* L. subsp. *sudetica* (Opiz) Weiss, *Achillea collina* Becker ex Rchb.

***Aethusa cynapium* s. l.** – *Aethusa cynapium* L. var. *domestica* Wallr., *Aethusa cynapium* L. subsp. *agrestis* (Wallr.) Dostál, *Aethusa cynapium* L. subsp. *cynapioides* (M. Bieb.) Nyman, *Aethusa* sp.

***Alchemilla vulgaris* s. l.** – all species exluding *Alchemilla glaucescens* Wallr.

***Angelica archangelica* s. l.** – *Angelica archangelica* subsp. *archangelica* L., *Angelica archangelica* L. subsp. *litoralis* (Fr.) Thell.

***Anthoxanthum odoratum* s. l.** – *Anthoxanthum odoratum* L., *Anthoxanthum alpinum* Á. Löve & D. Löve

***Anthyllis vulneraria* s. l.** – *Anthyllis vulneraria* L. subsp. *polyphylla* (DC.) Nyman, *Anthyllis vulneraria* subsp. *vulneraria* L., *Anthyllis vulneraria* L., *Anthyllis alpestris* (Kit.) Rchb.

***Arenaria serpyllifolia* agg.** – *Arenaria serpyllifolia* L., *Arenaria leptoclados* Guss.

***Aster novi-belgii* s. l.** – *Aster lanceolatus* Willd., *Aster novi-belgii* L.

***Atriplex prostrata* s. l.** – *Atriplex latifolia* Wahlenb., *Atriplex hastata* subsp. *hastata* DC., *Atriplex hastata* DC. subsp. *polonicum* (Zap.) Aellen, *Atriplex hastata* DC. subsp. *salina* Wallr., *Atriplex prostrata* subsp. *latifolia* (Lindm.) Rauschert

***Batrachium aquatile* s. l.** – *Batrachium aquatile* (L.) Dumort., *Batrachium peltatum* Schrank

***Beta vulgaris* s. l.** – *Beta vulgaris* L. subsp. *maritima* (L.) Arcang., *Beta vulgaris* L. var. *crassa* Mansf., *Beta vulgaris* L. var. *esculenta* L.

***Bryum capillare* s. l.** – *Bryum capillare* Hedw., *Bryum elegans* Nees, *Bryum subelegans* Kindb.

Calamagrostis varia (Schrad.) Host – *Calamagrostis varia* (Schrad.) Host, *Calamagrostis* sp. cf. *varia*

***Callitriche palustris* s. l.** – *Callitriche palustris* L. emend. Loennr., *Callitriche cophocarpa* Sendtn., *Callitriche platycarpa* Kütz., *Callitriche stagnalis* Scop.

***Carex flava* agg.** – *Carex demissa* Hornem., *Carex flava* L., *Carex serotina* Mérat, *Carex oederi* Retz. s. str.

***Carex contigua* s. l.** – *Carex muricata* F.W. Schultz, *Carex divulsa* Stokes, *Carex spicata* Huds., *Carex muricata* L. subsp. *lamprocarpa* Čelak

***Centaurea jacea* s. l.** – *Centaurea jacea* L. subsp. *oxylepis* (Wimm. & Grab.) Hayek, *Centaurea jacea* L., *Centaurea jacea* L. var. *oxylepis*

***Cerastium pumilum* s. l.** – *Cerastium glutinosum* F.W. Schultz, *Cerastium pumilum* Curtis s. str.

***Chenopodium album* agg.** – *Chenopodium album* L. subsp. *striatum* (Krašan) Murr, *Chenopodium album* L. subsp. *viride* (L.) S. & M., *Chenopodium opulifolium* Schrad. ex W.D.J. Koch & Ziz., *Chenopodium strictum* Roth, *Chenopodium suecicum* Murr

***Cladonia arbuscula* s. l.** – *Cladonia arbuscula* (Wallr.) Flot. subsp. *beringiana* Ahti, *Cladonia arbuscula* (Wallr.) Flot. subsp. *mitis* (Sandst.) Ruoss

***Cladonia macilenta* s. l.** – *Cladonia macilenta* Hoffm., *Cladonia floerkeana* (Fr.) Flörke

***Cladonia pleurota* s. l.** – *Cladonia coccifera* (L.) Willd., *Cladonia pleurota* (Flörke) Schaer.

***Crataegus monogyna* s. l.** – *Crataegus monogyna* Jacq., *Crataegus* × *calycina* Peterm., *Crataegus macrocarpa* Hegetschw.

***Dactylorhiza maculata* s. l.** – *Dactylorhiza maculata* (L.) Soó s. str., *Dactylorhiza fuchsii* (Druce) Soó

***Dactylorhiza majalis* s. l.** – *Dactylorhiza majalis* (Rchb.) P.F. Hunt & Summerh. subsp. *brevifolia* (Bisse) Sengh, *Dactylorhiza russowii* (Klinge) Holub, *Dactylorhiza traunsteineri* (Saut.) Soó

***Dryopteris carthusiana* s. l.** – *Dryopteris carthusiana* (Vill.) H.P. Fuchs, *Dryopteris dilatata* (Hoffm.) A. Gray s. str., *Dryopteris expansa* (C. Presl) Fraser-Jenk. & Jermy

***Dryopteris filix-mas* s. l.** – *Dryopteris affinis* s. str (Lowe) Fraser-Jenk., *Dryopteris filix-mas* (L.) Schott

***Eleocharis palustris* agg.** – *Eleocharis palustris* (L.) Roem. & Schult., *Eleocharis mamillata* (H. Lindb.) H. Lindb. ex Dörfl. s. str., *Eleocharis uniglumis* (Link) Schult.

***Elymus intermedius* s. l.** – *Elytrigia intermedia* (Host) Nevski subsp. *barbulata* (Schur), *Elytrigia intermedia* (Host) Nevski subsp. *trichophora* (Link) Löve & D. Löve

***Empetrum nigrum* s. l.** – *Empetrum hermaphroditum* Hagerup, *Empetrum nigrum* L. s. str., *Empetrum* sp.

***Epilobium tetragonum* agg.** – *Epilobium tetragonum* L. subsp. *lamyi* (F.W. Schulz) Nyman, *Epilobium tetragonum* subsp. *tetragonum* L.

***Epipactis helleborine* s. l.** – *Epipactis helleborine* (L.) Crantz s. str., *Epipactis leptochila* (Godfery) Godfery, *Epipactis greuteri* H. Baumann & Künkele, *Epipactis albensis* Nováková & Rydlo, *Epipactis muelleri* Godfery

***Festuca ovina* s. l.** – *Festuca duvalii* (St. Yves) Stohr, *Festuca ovina* L. s. str., *Festuca guestfalica* Boenn. ex Rchb., *Festuca tenuifolia* Sibth.

***Festuca rubra* agg.** – *Festuca nigrescens* Lam., *Festuca rubra* L. s. str., *Festuca rubra* L. subsp. *arenaria* (Osbeck) Syme

***Festuca trachyphylla* s. l.** – *Festuca duriuscula* L. sensu auct. polon., *Festuca trachyphylla* (Hack.) Krajina

***Galeobdolon luteum* s. l.** – *Galeobdolon luteum* Huds. subsp. *montanum* Pers., *Galeobdolon luteum* Huds.

***Galeopsis tetrahit* s. l.** – *Galeopsis bifida* Boenn., *Galeopsis tetrahit* L.

***Galium mollugo* agg.** – *Galium album* Mill., *Galium album* L. var. *dumetorum* (Jord.) Rouy, *Galium mollugo* L. subsp. *elatum* (Thuill.) Syme, *Galium mollugo* L. subsp. *erectum* Syme

***Galium palustre* agg.** – *Galium elongatum* C. Presl, *Galium palustre* L. subsp. *caespitosum* (G. Mey.) Oberd.

***Gentianella germanica* s. l.** – *Gentianella amarella* (L.) Börner, *Gentianella amarella* subsp. *amarella* (L.) Börner, *Gentianella praecox* (A. & J. Kern.) Dostál, *Gentianella bohemica* Skalický, *Gentianella germanica* (Willd.) Börner, *Gentianella lutescens* (Velen.) Holub

***Geum urbanum* s. l.** – *Geum aleppicum* Jacq., *Geum urbanum* L.

***Glechoma hederacea* s. l.** – *Glechoma hederacea* L., *Glechoma hirsuta* Waldst. & Kit.

***Heracleum sphondylium* s. l.** – *Heracleum sphondylium* L. subsp. *sibiricum* (L.) Simonk., *Heracleum sphondylium* L. subsp. *transsilvanicum* Schur, *Heracleum sphondylium* L. s. str.

***Hieracium alpinum* agg.** – *Hieracium alpinum* L. s. l., *Hieracium tubulosum* Tausch, *Hieracium schustleri* Zlatník, *Hieracium melanocephalum* Tausch

***Hieracium pilosella* s. l.** – *Hieracium pilosella* L., *Hieracium bauhinii* Schult., *Hieracium flagellare* Willd., *Hieracium lactucella* Wallr., *Hieracium piloselloides* Vill.

***Hieracium sabaudum* s. l.** – *Hieracium sabaudum* Schult., *Hieracium racemosum* (Waldst. & Kit.) Willd.

***Hieracium lachenalii* s. l.** – *Hieracium argillaceum* Jord., *Hieracium caesium* (Fr.) Fr. (*bifidum*>*lachenalii*), *Hieracium lachenalii* C.C. Gmel., *Hieracium vulgatum* Fr. p.p.

***Hypnum cupressiforme* agg.** – *Hypnum cupressiforme* Hedw., *Hypnum lacunosum* (Brid.) Hoffm. ex Brid., *Hypnum mamillatum* (Brid.) Loeske

***Knautia arvensis* agg.** – *Knautia arvensis* (L.) Coult., *Knautia arvensis* subsp. *arvensis* (L.) Coult., *Knautia kitaibelii* (Schult.) Borbás, *Knautia* sp.

***Limprichtia revolvens* s. l.** – *Limprichtia revolvens* (Sw.) Loeske, *Limprichtia cossonii* (Schimp.) L.E. Anderson, H.A. Crum & W.R. Buck

***Luzula campestris* agg.** – *Luzula campestris* (L.) DC., *Luzula multiflora* (Retz.) Lej., *Luzula pallescens* Sw., *Luzula sudetica* (Willd.) DC.

***Mentha arvensis* s. l.** – *Mentha arvensis* L. subsp. *austriaca* (Jacq.) Briq., *Mentha arvensis* L.

***Molinia caerulea* s. l.** – *Molinia caerulea* (L.) Moench subsp. *arundinacea* (Schrank) H.K.G. Paul, *Molinia caerulea* (L.) Moench

***Monotropa hypopitys* s. l.** – *Monotropa hypophegea* Wallr., *Monotropa hypopitys* L. s. str.

***Montia fontana* s. l.** – *Montia fontana* L. subsp. *amporitana* Sennen, *Montia fontana* L.

***Myosotis palustris* agg.** – *Myosotis laxa* Lehm. subsp. *caespitosa* (C.F. Schultz) Hyl., *Myosotis nemorosa* Besser, *Myosotis palustris* (L.) Hill

***Odontites verna* s. l.** – *Odontites verna* (Bellardi) Dumort. subsp. *serotina* (Dumort.) Corb., *Odontites verna* subsp. *verna* (Bellardi) Dumort.

***Oenothera biennis* s. l.** – *Oenothera ammophila* Focke, *Oenothera biennis* L., *Oenothera* sp., *Oenothera fallax* Renner emend. Rostański, *Oenothera depressa* Greene, *Oenothera acutifolia* Rostański, *Oenothera rubricaulis* Kleb.

***Oxalis fontana* s. l.** – *Oxalis stricta* L. nom. ambig., *Oxalis europaea* Jord., *Oxalis corniculata* L.

***Oxycoccus palustris* s. l.** – *Oxycoccus palustris* Pers., *Oxycoccus microcarpus* Turcz. ex Rupr., *Oxycoccus* sp.

***Plagiomnium affine* s. l.** – *Plagiomnium rostratum* (Schrad.) T.J. Kop., *Plagiomnium medium* (Bruch & Schimp.) T.J. Kop., *Plagiomnium ellipticum* (Brid.) T.J. Kop., *Plagiomnium elatum* (Bruch & Schimp.) T.J. Kop., *Plagiomnium affine* (Blandow ex Funck) T.J. Kop.

***Plantago major* s. l.** – *Plantago major* var. *microstachya* Hayne, *Plantago major* L. s. str., *Plantago winteri* Wirtg.

***Poa annua* s. l.** – *Poa annua* var. *aquatica* Asch., *Poa annua* var. *pauciflora* Fiek, *Poa annua* var. *reptans* Hausskn., *Poa supina* Schrad.

***Poa bulbosa* s. l.** – *Poa bulbosa* var. *vivipara* (Koeler) Arcang., *Poa bulbosa* L.

***Poa pratensis* s. l.** – *Poa angustifolia* L., *Poa pratensis* L. s. str.

***Polygala vulgaris* s. l.** – *Polygala oxyptera* Rchb., *Polygala vulgaris* L. s. str.

***Polygonum amphibium* s. l.** – *Polygonum amphibium* f. *terrestre* (Leers) S.F. Blake., *Polygonum amphibium* L., *Polygonum amphibium* f. *natans* Leyss

***Polygonum aviculare* agg.** – *Polygonum aviculare* L., *Polygonum arenastrum* Boreau, *Polygonum neglectum* Besser

***Polygonum lapathifolium* s. l.** – *Polygonum nodosum* Pers., *Polygonum lapathifolium* L. var. *incanum* Koch, *Polygonum brittingeri* Opiz, *Polygonum lapathifolium* L. subsp. *pallidum* (With.) Fr., *Polygonum lapathifolium* subsp. *lapathifolium* L.

***Polytrichastrum formosum* s. l.** – *Polytrichastrum longisetum* (Brid.) G.L. Smith, *Polytrichastrum pallidisetum* (Funck) G.L. Sm., *Polytrichastrum formosum* (Hedw.) G.L. Sm.

***Potamogeton pusillus* agg.** – *Potamogeton pusillus* L., *Potamogeton bertholdii* Fieber

***Pulmonaria officinalis* s. l.** – *Pulmonaria obscura* Dumort., *Pulmonaria officinalis* L. s. str.

***Pulsatilla pratensis* s. l.** – *Pulsatilla pratensis* (L.) Mill. subsp. *nigricans* (Störck) Zämelis, *Pulsatilla pratensis* (L.) Mill.

***Ranunculus auricomus* agg.** – all species within *Ranunculus cassubicus* L. s. l.

***Ranunculus polyanthemos* s. l.** – *Ranunculus nemorosus* DC., *Ranunculus polyanthemos* L.

***Rhizomnium punctatum* s. l.** – *Rhizomnium pseudopunctatum* (Bruch & Schimp.) T.J. Kop., *Rhizomnium magnifolium* (Horik) T.J. Kop., *Rhizomnium punctatum* (Hedw.) T.J. Kop.

***Ribes spicatum* s. l.** – *Ribes rubrum* L., *Ribes spicatum* E. Robson

***Rosa rubiginosa* s. l.** – *Rosa agrestis* Savi, *Rosa elliptica* Tausch, *Rosa micrantha* Borrer ex Sm., *Rosa rubiginosa* L.

***Rubus fruticosus* agg.** – *Rubus candicans* auct. non Weihe ex Rchb., *Rubus cordifolius* Waldst. & Kit., *Rubus thyrsanthus* Focke, *Rubus crassus* Holuby, *Rubus divaricatus* P.J. Müll., *Rubus glaucellus* Sudre, *Rubus glivicensis* Sprib., *Rubus gothicus* Frid. & Gelert ex E.H.L. Krause, *Rubus graecensis* W. Maurer, *Rubus hercynicus* G. Braun, *Rubus infestus* Weihe, *Rubus lentiginosus* Lees, *Rubus macrophyllus* Weihe & Ness, *Rubus nemoralis* P.J. Müll., *Rubus nemorosus* Hayne, *Rubus oboranus* (Sprib.) Sprib., *Rubus opacus* Focke, *Rubus rhombifolius* auct. non Weihe & Ness, *Rubus scissus* W.C.R. Watson, *Rubus serpens* auct. non Weihe, *Rubus siemianicensis* Sprib., *Rubus sylvaticus* Weihe & Ness, *Rubus wimmerianus* (Sprib. ex Sudre) Sprib.

***Rumex acetosella* s. l.** – *Rumex acetosella* L., *Rumex tenuifolius* (Wallr.) Á. Löve

***Salix repens* s. l.** – *Salix rosmarinifolia* (L.), *Salix arenaria* L.

***Senecio nemorensis* agg.** – *Senecio nemorensis* L. subsp. *nemorensis* sensu auct. polon. p.p., *Senecio nemorensis* L. subsp. *fuchsii* (C. Gmelin) Čelak

***Silene otites* s. l.** – *Silene otites* (L.) Wibel, *Silene borysthenica* (Gruner) Walters

***Solidago canadensis* s. l.** – *Solidago altissima* L., *Solidago canadensis* L.

***Sphagnum capillifolium* s. l.** – *Sphagnum capillifolium* (Ehrh.) Hedw., *Sphagnum rubellum* Wilson, *Sphagnum nemoreum* Scop.

***Sphagnum palustre* s. l.** – *Sphagnum palustre* L., *Sphagnum centrale* (C.E.O. Jensen) A. Eddy

***Sphagnum recurvum* agg.** – *Sphagnum angustifolium* (C.E.O. Jensen ex Russow) C.E.O. Jensen, *Sphagnum fallax* (Klinggr.) Klinggr., *Sphagnum flexuosum* Dozy & Molk.

***Stellaria media* agg.** – *Stellaria media* (L.) Vill., *Stellaria neglecta* Weihe, *Stellaria pallida* (Dumort.) Piré

Taraxacum* sect. *Ruderalia – *Taraxacum officinale* F.H. Wigg., *Taraxacum officinale* agg., *Taraxacum* sp., *Taraxacum* sect. *Ruderalia*

***Trifolium pratense* s. l.** – *Trifolium pretense* L., *Trifolium pratense* subsp. *maritimum* (Zabel) Rothm.

***Trollius europaeus* s. l.** – *Trollius altissimus* Crantz, *Trollius europaeus* L. s. str.

***Vaccinium uliginosum* s. l.** – *Vaccinium uliginosum* L., *Vaccinium gaultherioides* Bigelow

***Viola tricolor* s. l.** – *Viola tricolor* L. subsp. *curtisii* (E. Forst.) Syme, *Viola tricolor* L. subsp. *maritima* (Schweigg.) Hyl., *Viola tricolor* L. subsp. *subalpina* Gaudin

Data analysis. The final set of relevés was analyzed using the Cocktail method (Bruelheide 2000) included in the JUICE program (Tichý 2002). Vegetation classification starts with combining species into species groups. A single group consists of species that occupy similar ecological niches. The tendency of species to co-occur is determined using the Phi coefficient, which is the measure of fidelity (Sokal & Rohlf 1995; Chytrý *et al.* 2002). To create a species group, a single species is selected. The next step is to analyze the data set in order to find the species with the highest fidelity to the selected species. This species becomes a member of the group as long as it is not an element of any other species group. Otherwise, the species with lower ranking fidelity values are assigned to the target group. The last stage is to create formal definition of particular vegetation unit. This is done by combining species groups using the logical operators AND, OR and NOT.

An example:
***Juncus acutiflorus* species group**: *Juncus acutiflorus, Achillea ptarmica, Lotus uliginosus*.
***Caltha palustris* species group**: *Myosotis palustris* agg., *Caltha palustris, Galium uliginosum, Scirpus sylvaticus, Crepis paludosa, Equisetum palustre*.
***Cirsium oleraceum* species group**: *Geum rivale, Angelica sylvestris, Cirsium oleraceum, Filipendula ulmaria*.

Formal definition of *Crepido paludosae-Juncetum acutiflori* *Juncus acutiflorus* > 5% AND group *Juncus acutiflorus* OR group *Caltha palustris* NOT group *Cirsium oleraceum* OR *Molinia caerulea* s. l. > 5%.

According to this definition, a relevé is assigned to the association *Crepido paludosae-Juncetum acutiflori*, belonging to the alliance *Calthion*, when it contains *Juncus acutiflorus* with a cover of more than 5% and at least the threshold number of species from the groups *Juncus acutiflorus* and/or *Caltha palustris*, and when it contains less than the threshold number of species from the group *Cirsium oleraceum* or the species *Molinia caerulea* s. l. with a cover of more than 5%. The threshold number was established as a half of the members of particular species group.

The species groups and formal definitions used in the present study come from the expert system, which was developed in the project of vegetation classification of the Czech Republic (Kočí *et al.* 2003; Chytrý 2007, 2009, 2011, 2013).

Direct application of the Czech expert system did not, however, yield satisfactory results. The results obtained did not reflect the diversity of Polish vegetation. Moreover, many relevés were assigned incorrectly. This resulted mainly from regional differences and the phytosociological and geographical distinctness of

vegetation types in Poland as compared to their counterparts in the Czech Republic. Where necessary, species groups were carefully examined and modified. This was done for the alliances *Molinion caeruleae*, *Calamagrostion arundinaceae* and *Caucalidion*. Additionally, new species groups and formal definitions were developed for syntaxa not found in the Czech vegetation. It was done for associations from *Ammophiletea*, *Cakiletea*, *Violetea calaminariae*, *Zosteretea*, *Charetea* (partially), *Koelerion albescentis*, *Salicion arenariae, Trisetion fusci*, *Calamagrostion variae*, *Melampyrion pratensis* and *Lolio-Linion*.

Using the formalized classification approach made it possible to distinguish vegetation units to the level of associations, which were subsequently grouped into alliances and classes. Vegetation units were designated with codes compatible with those given in the classification of the Czech vegetation (Chytrý 2012). For the vegetation units not reported from the Czech Republic, but recognized in the Polish classification, new compatible codes were given. All vegetation units were established as core groups. In order to check whether all relevés within one core group were correctly assigned using formal definitions, hierarchical classification was performed using the TWINSPAN (Hill 1979). If some relevés were not consistent with other relevés from the same core group, formal definitions were modified or relevés were simply moved to the closest corresponding groups. This procedure made it possible to distinguish the class *Carici-Kobresietea*. If neither of these strategies did not yield usable results, the relevés were excluded.

The relevés stored in the *Polish Vegetation Database* are unevenly distributed across Poland. Taking into account that some of the areas are over-sampled, whereas others lack phytosociological data, the relevés had to be geographically stratified to improve representativeness (Knollová *et al.* 2005). For this purpose, we applied a grid used in floristic mapping in Central Europe, which is included in the JUICE software package (Tichý 2002). From the data set, only three relevés of each syntaxon per grid square of 1.25 longitudinal × 0.75 latitudinal minute (ca. 1.5 × 1.4 km) were selected. Geographical stratification reduced the number of relevés to 30,476 with defined syntaxonomical membership.

Diagnostic species were determined using the Phi coefficient, which reflects the relation between species and vegetation units and shows the diagnostic value of the species in a particular vegetation unit (Chytrý *et al.* 2002; Chytrý 2007). Phi coefficient values range from −1 to 1, but in the output, they were multiplied by 100. The higher the Phi coefficient value for a given species, the more specific the respective species is for given vegetation unit. Diagnostic species were determined using equal numbers of relevés for each group. This eliminated the dependency between the Phi coefficient and the size of the relevé group (Tichý & Chytrý 2006).

Statistically determined diagnostic species played an important role in quantifying the quality of syntaxa delimitation. For this evaluation the Sharpness Index (Eq. 1), the Asymmetric Similarity Index (Eq. 2) and the Uniqueness Index (Eq. 3) were used (Chytrý & Tichý 2003). Statistical significance of affinity of diagnostic species to vegetation units was tested using Fisher's exact test (Chytrý *et al.* 2002). Significance level was set at $p < 0.01$. This high threshold of significance was established to reduce the influence of small groups with a greater homogeneity and a greater number of diagnostic species. High thresholds of significance prevented overestimation of diagnostic species for vegetation units represented by small numbers of relevés (Chytrý *et al.* 2006; Chytrý 2007).

Sharpness shows the relation between the number or quality of diagnostic species and average species richness of its stands. A vegetation unit is considered well delimited (sharp) if a large proportion of its species is specific to this unit, while being absent or rare in other vegetation units. The higher the number of species with high values for the Phi coefficient, higher the Sharpness Index for the vegetation unit. The Sharpness Index (*S*) for a particular vegetation unit *j* was calculated using the following formula:

$$S_j = \frac{1 + \sum_i \Phi_{ij} 100}{R_j} \qquad \text{(Eq. 1)}$$

where Φ_{ij} is the fidelity of species *i* to vegetation unit *j* and *Rj* is the mean number of species in relevés of vegetation unit *j*.

Uniqueness expresses the distinctness of a given vegetation unit from other units of the same rank, such as class or alliance. A vegetation unit is considered well delimited (unique), if it includes diagnostic species that are exclusively diagnostic for this vegetation unit. The Uniqueness Index for a particular vegetation unit decreases with the increasing number of diagnostic species shared with other vegetation units. The Uniqueness Index is closely related to the Asymmetric Similarity Index (Chytrý & Tichý 2003; Tichý *et al.* 2011).

In order to calculate the Uniqueness Index, the Asymmetric Similarity Index between every pair of vegetation units *j* and *k* was computed (Chytrý & Tichý 2003; Tichý *et al.* 2011). The Asymmetric Similarity Index (*T*) was calculated using the following formula:

$$T_{jk} = \frac{\sum_i \Phi_{ij}\Phi_{ik}}{\sum_i \Phi^2_{ij}} \qquad \text{(Eq. 2)}$$

where Φ_{ij} is the fidelity of species *i* to vegetation unit *j* and Φ_{ik} is the fidelity of species *i* to vegetation unit *k*. The Asymmetric Similarity Index ranges from 0 to ∞ and is high if a large proportion of diagnostic species of a given vegetation unit are also diagnostic for other vegetation units. The Asymmetric Similarity Index was calculated for every pair of classes and for every pair of alliances. Its values show to what extent the syntaxa compared are similar.

Calculating the Asymmetric Similarity Index made it possible to compute the Uniqueness Index for a particular vegetation unit (*j*). The Uniqueness Index (*U*) was calculated using the following formula:

$$U_j = \frac{1}{\sum_k T_{jk}} \qquad \text{(Eq. 3)}$$

Using the Sharpness Index and the Uniqueness Index made it possible to detect well delimited vegetation units or indicate those for which delimitation is uncertain.

Species with a fidelity exceeding 18 ($\Phi > 0.18$) were considered diagnostic. Constant species were defined as those with a high frequency in the given vegetation unit. The threshold frequency values for constant species were set arbitrarily at 40% for both classes and alliances. Dominant species were defined as those having a cover of more than 50% in at least 3% of the relevés for the given vegetation unit. In this fashion, all species with sporadically high cover in a particular vegetation type were excluded.

Diagnostic, constant and dominant species are presented in the form of lists for each vegetation unit with decreasing values of indices in particular categories.

3. RESULTS

The vegetation of Poland is represented by 44 classes comprising 153 alliances (Appendix 1). The new classification of Polish vegetation was developed by analyzing large set of relevés collected from all over Poland (Fig. 1).

The vegetation units delimited using the Cocktail method are well defined and clearly distinct from each other. Most of them are characterized by unique composition of diagnostic, constant and dominant species (Appendix 2). However, syntaxa distinguished on the basis of a small number of relevés should be interpreted with caution because their diagnostic, constant and dominant species may not be reliable.

The sharpest classes mainly include natural vegetation, in particular non-forest plant communities. The Sharpness Index is highest for classes of specialized plant communities

of limited extent and for classes with strict habitat requirements, such as *Zosteretea marinae*, *Charetea, Elyno-Seslerietea, Violetea calaminariae, Cakiletea maritimae* and *Salicetea herbaceae* (Tab. 1). Among the anthropogenic vegetation, the Sharpness Index is the highest for the class *Stellarietea mediae*, which includes a great number of diagnostic species. Suprisingly, the Sharpness Index is relatively low for classes of forest vegetation such as *Carpino-Fagetea*, *Quercetea robori-petraeae* and *Vaccinio-Piceetea*, even though these are among the most important and differentiated natural vegetation types in Poland. The Sharpness Index is also low for classes of anthropogenic vegetation, such as *Artemisietea vulgaris*, *Epilobietea angustifolii* and *Galio-Urticetea*. The least sharp and least distinct class in terms of floristic composition is *Rhamno-Prunetea*.

Classes also differed in terms of the Uniqueness Index. Certain classes have a high Sharpness Index, but a low Uniqueness Index. These include *Salicetea herbaceae* and *Potametea*. On the other hand, there are classes with both a high Sharpness Index and a high Uniqueness Index (Tab. 1). These include plant communities associated with a specific type of habitat, belonging to the classes *Isoëto-Nano-Juncetea*, *Oxycocco-Sphagnetea*, *Thero-Salicornietea* and *Charetea* (Appendix 2). These classes are characterized by high floristic distinctiveness but relatively low species richness (Tab. 1). Conversely, the classes *Polygono arenastri-Poëtea annuae* and *Asplenietea trichomanis* are represented by small number of exclusive diagnostic species. They consist of a narrow group of specialist species that are rarely found in other vegetation types.

On the basis of the Asymmetric Similarity Index, all classes distinguished have a relatively distinct floristic composition (Tab. 2). Among all pairs of classes compared, the highest similarity is indicated for the classes *Quercetea robori-petraeae* and *Quercetea pubescentis*. A special attention should be paid to the pairs of classes that are similar in terms of floristic composition, but different in the structure. Examples of such pairs are *Phragmito-Magno-Caricetea* and *Alnetea glutinosae, Galio-Urticetea* and *Salicetea purpureae, Epilobietea angustifolii* and *Quercetea robori-petraeae*. Similarly, alpine plant communities of limited extent, often found in a mosaic of extreme habitats are also very similar to each other. Anthropogenic plant communities from the classes *Artemisietea vulgaris* and *Stellarietea mediae* are closely related. Even though they are similar in terms of floristic composition, it is not appropriate to merge these classes because they occupy different habitat types.

Alliances are differentiated in the same way as classes are. The Sharpness Index is high for vegetation with specific habitat requirements, such as marsh, aquatic and alpine communities belonging to the alliances *Zosterion marinae*, *Charion canescentis*, *Caricion firmae* and *Seslerion tatrae*. They are very specialized plant communities characterized by sharp ecological boundaries and large proportion of specialists species (Appendix 2). Additionally, these vegetation units are characterized by high values for the Uniqueness Index (Tab. 3). Anthropogenic plant communities from the alliances *Caucalidion*, *Arnoseridion* and *Lolio-Linion*, which are almost extinct in the agricultural landscape of Poland, are also the most unique vegetation units. The alliances *Sorbo-Fagion*, *Salicion elaeagno-daphnoidis, Quercion petraeae* and *Pulsatillo-Pinion* represent the most unique alliance among forest and scrub vegetation. By contrast, alliances representing semi-natural vegetation including meadows and dry grasslands were poorly delimited. Only few of these alliances have high values for the Uniqueness Index, such as *Cnidion venosi*, *Cynosurion cristati* and *Molinion caeruleae* (Tab. 3). Reed communities and some forest-edge plant communities are poorly represented by diagnostic species, but are unique in terms of species composition.

Table 1

Sharpness Index (*S*) and Uniqueness Index (*U*) of phytosociological classes of Poland

Syntaxa are ranked by decreasing values of the Sharpness Index. Explanations: Abb. – abbreviation of class name, N_1 – total number of relevés of particular syntaxa in the data set, N_2 – number of relevés used after stratification, A – average number of taxa rounded to the whole number.

No.	Class	Code	Abb.	N_1	N_2	A	*S*	*U*
1.	*Zosteretea marinae*	VE	*ZOS MAR*	48	26	35	215.33	1.000
2.	*Charetea*	VC	*CHARET*	187	116	5	119.42	0.874
3.	*Elyno-Seslerietea*	AC	*ELY-SES*	24	18	32	119.13	0.834
4.	*Violetea calaminariae*	TI	*VIO CAL*	18	12	26	96.63	0.887
5.	*Stellarietea mediae*	XB	*STE MED*	6485	4874	20	87.06	0.881
6.	*Cakiletea maritimae*	DB	*CAK MAR*	23	10	8	82.36	0.833
7.	*Salicetea herbaceae*	AE	*SAL HER*	38	19	16	76.76	0.656
8.	*Isoëto-Nano-Juncetea*	MA	*ISO-JUN*	237	190	15	74.87	0.767
9.	*Oxycocco-Sphagnetea*	RC	*OXY-SPH*	434	306	14	71.18	0.765
10.	*Ammophiletea arenariae*	DA	*AMM ARE*	345	186	12	69.90	0.713
11.	*Potametea*	VB	*POTAME*	855	557	7	69.50	0.599
12.	*Thero-Salicornietea*	TB	*THE-SAL*	22	15	6	69.48	0.772
13.	*Carici-Kobresietea*	AF	*CAR-KOB*	16	8	30	68.78	0.640
14.	*Festuco-Puccinellietea*	TC	*FES-PUC*	192	136	14	66.84	0.797
15.	*Erico-Pinetea*	LE	*ERI-PIN*	13	8	42	66.80	0.730
16.	*Juncetea trifidi*	AB	*JUN TRI*	48	27	13	64.49	0.517
17.	*Loiseleurio-Vaccinietea*	AA	*LOI-VAC*	20	17	16	57.83	0.379
18.	*Lemnetea*	VA	*LEMNET*	1050	755	8	57.26	0.723
19.	*Quercetea pubescentis*	LC	*QUE PUB*	120	98	49	55.20	0.720
20.	*Littorelletea uniflorae*	VD	*LIT UNI*	231	164	10	52.94	0.872
21.	*Koelerio-Corynephoretea*	TF	*KOE-COR*	1571	1131	20	51.95	0.821
22.	*Roso pendulinae-Pinetea mugo*	KC	*ROS-PIN*	20	16	15	50.76	0.554
23.	*Cymbalario-Parietarietea*	SB	*CYM-PAR*	47	18	10	48.37	0.743
24.	*Bidentetea tripartitae*	MB	*BID TRI*	209	169	14	46.73	0.689
25.	*Alnetea glutinosae*	LA	*ALN GLU*	410	312	35	46.49	0.779
26.	*Scheuchzerio-Caricetea*	RB	*SCH-CAR*	1457	1063	23	41.72	0.653
27.	*Robinietea*	KD	*ROBINI*	79	63	23	40.30	0.802
28.	*Montio-Cardaminetea*	RA	*MON-CAR*	378	279	23	37.22	0.772
29.	*Thlaspietea rotundifolii*	SC	*THL ROT*	39	25	25	37.19	0.765
30.	*Festuco-Brometea*	TH	*FES-BRO*	1491	1193	32	35.05	0.680
31.	*Salicetea purpureae*	KA	*SAL PUR*	128	95	25	34.11	0.851
32.	*Molinio-Arrhenatheretea*	TD	*MOL-ARR*	7844	5863	29	28.26	0.694
33.	*Mulgedio-Aconitetea*	AD	*MUL-ACO*	198	127	21	26.67	0.623
34.	*Carpino-Fagetea*	LB	*CAR-FAG*	5030	3210	29	24.17	0.632
35.	*Calluno-Ulicetea*	TE	*CAL-ULI*	991	698	26	22.69	0.540
36.	*Quercetea robori-petraeae*	LD	*QUE ROB*	814	604	27	21.40	0.420
37.	*Vaccinio-Piceetea*	LF	*VAC-PIC*	2136	1134	24	19.63	0.441
38.	*Polygono arenastri-Poëtea annuae*	XA	*POL-POË*	567	352	15	19.25	0.829
39.	*Asplenietea trichomanis*	SA	*ASP TRI*	396	279	17	17.11	0.697
40.	*Phragmito-Magno-Caricetea*	MC	*PHR-CAR*	5093	3395	15	16.75	0.537
41.	*Artemisietea vulgaris*	XC	*ART VUL*	1430	814	18	9.97	0.548
42.	*Epilobietea angustifolii*	XE	*EPI ANG*	188	137	22	7.73	0.505
43.	*Galio-Urticetea*	XD	*GAL-URT*	1827	1219	18	7.30	0.437
44.	*Rhamno-Prunetea*	KB	*RHA-PRU*	914	717	24	3.79	0.649

Table 2

Similarity of classes

Similarity of classes in the left column to the classes in the right column ordered according to decreasing values of the Asymmetric Similarity Index (*T*). Only 25 pairs of classes with the highest Similarity Index are shown.

Class 1	Class 2	*T*
Quercetea robori-petraeae	*Quercetea pubescentis*	68.5
Phragmito-Magno-Caricetea	*Alnetea glutinosae*	65.1
Galio-Urticetea	*Salicetea purpureae*	63.6
Loiseleurio-Vaccinietea	*Carici rupestris-Kobresietea*	56.9
Potametea	*Lemnetea*	52.5
Galio-Urticetea	*Robinietea*	48.5
Artemisietea vulgaris	*Stellarietea mediae*	46.6
Juncetea trifidi	*Loiseleurio-Vaccinietea*	43.5
Loiseleurio-Vaccinietea	*Juncetea trifidi*	40.6
Rhamno-Prunetea	*Robinietea*	36.1
Lemnetea	*Potametea*	36.0
Bidentetea tripartitae	*Isoëto-Nano-Juncetea*	32.5
Vaccinio-Piceetea	*Quercetea robori-petraeae*	30.3
Scheuchzerio-Caricetea	*Oxycocco-Sphagnetea*	29.1
Mulgedio-Aconitetea	*Roso pendulinae-Pinetea mugo*	29.0
Epilobietea angustifolii	*Quercetea robori-petraeae*	28.8
Mulgedio-Aconitetea	*Salicetea herbaceae*	27.1
Loiseleurio-Vaccinietea	*Salicetea herbaceae*	25.8
Epilobietea angustifolii	*Roso pendulinae-Pinetea mugo*	25.3
Thero-Salicornietea	*Festuco-Puccinellietea*	25.2
Ammophiletea arenariae	*Cakiletea maritimae*	24.2
Quercetea robori-petraeae	*Vaccinio-Piceetea*	24.2
Carpino-Fagetea	*Montio-Cardaminetea*	19.7
Epilobietea angustifolii	*Calluno-Ulicetea*	19.4
Isoëto-Nano-Juncetea	*Bidentetea tripartitae*	19.0

Table 3

Sharpness Index (*S*) and Uniqueness Index (*U*) of phytosociological alliances of Poland

Syntaxa are ranked by decreasing values of the Sharpness Index. Explanations: Code – alliance code, Abb. – abbreviation of alliance name, N – number of relevés, A – average number of taxa rounded to the whole number.

No.	Alliance	Code	Abb.	N	A	*S*	*U*
1.	*Zosterion marinae*	VEA	*Zos mar*	26	6	184.55	0.846
2.	*Charion canescentis*	VCC	*Cha can*	6	5	149.01	0.783
3.	*Littorellion uniflorae*	VDA	*Lit uni*	11	5	101.54	0.921
4.	*Caricion firmae*	ACB	*Car fir*	7	31	84.00	0.602
5.	*Nitellion flexilis*	VCA	*Nit fle*	10	6	80.06	0.783
6.	*Seslerion tatrae*	ACA	*Ses tat*	11	32	78.03	0.609
7.	*Juncion trifidi*	ABA	*Jun tri*	9	17	74.86	0.649
8.	*Batrachion fluitantis*	VBC	*Bat flu*	23	6	70.19	0.749
9.	*Charion globularis*	VCB	*Cha glo*	101	5	69.38	0.857
10.	*Armerion halleri*	TIA	*Arm hal*	12	26	68.16	0.868
11.	*Salicion herbaceae*	AEA	*Sal her*	8	15	68.01	0.825
12.	*Atriplicion littoralis*	XBG	*Atr lit*	10	8	57.89	0.564
13.	*Radiolion linoidis*	MAB	*Rad lin*	68	16	57.87	0.867
14.	*Swertio-Dichodontion*	RAD	*Swe-Dic*	19	20	54.41	0.873

Tab. 3 continued

15. *Festucion versicoloris*	AFA	*Fes ver*	8	30	52.83	0.504
16. *Juncion baltici*	DAC	*Jun bal*	47	13	47.41	0.663
17. *Agropyro-Minuartion*	DAB	*Agr-Min*	12	8	46.13	0.474
18. *Lolio-Linion*	XBL	*Lol-Lin*	6	24	45.76	0.664
19. *Nymphaeion albae*	VBA	*Nym alb*	172	7	45.34	0.466
20. *Salicornion prostratae*	TBA	*Sal pro*	17	6	44.71	0.604
21. *Caucalidion*	XBA	*Caucal*	266	25	44.68	0.667
22. *Oxycocco-Ericion*	RCB	*Oxy-Eri*	39	16	44.19	0.438
23. *Ammophilion arenariae*	DAA	*Amm are*	127	12	42.23	0.430
24. *Festucion picturatae*	AEB	*Fes pic*	11	28	40.78	0.454
25. *Bromo pannonici-Festucion*	THB	*Bro-Fes*	8	35	40.20	0.463
26. *Puccinellion limosae*	TCA	*Puc lim*	48	10	40.16	0.536
27. *Hydrocharition morsus-ranae*	VCA	*Hyd mor*	211	7	38.57	0.482
28. *Eleocharition ovatae*	MAA	*Ele ova*	110	14	38.39	0.576
29. *Salicion silesiacae*	ADC	*Sal sil*	12	24	36.98	0.435
30. *Koelerion glaucae*	TGA	*Koe gla*	21	27	36.51	0.565
31. *Diantho lumnitzeri-Seslerion*	THC	*Dia-Ses*	23	34	35.33	0.442
32. *Loiseleurio-Vaccinion*	AAA	*Loi-Vac*	17	16	33.60	0.336
33. *Verbenion supinae*	MAC	*Ver sup*	12	14	33.41	0.710
34. *Sorbo-Fagion*	LBD	*Sor-Fag*	35	38	33.35	0.616
35. *Epilobio-Montion*	RAC	*Epi-Mon*	2	18	33.25	0.891
36. *Pulsatillo slavicae-Pinion*	LEA	*Pul-Pin*	8	43	32.85	0.408
37. *Dryopterido-Athyrion*	ADE	*Dry-Ath*	15	13	32.33	0.336
38. *Potamion*	VBB	*Potami*	328	6	31.12	0.463
39. *Malvion neglectae*	XBI	*Mal neg*	60	13	30.84	0.761
40. *Sphagno-Tomentypnion*	RBB	*Sph-Tom*	37	38	30.52	0.675
41. *Asplenion cuneifolii*	SAB	*Asp cun*	13	10	29.91	0.726
42. *Oxycocco-Empetrion*	RCC	*Oxy-Emp*	73	13	29.10	0.283
43. *Arabidopsion thalianae*	TFE	*Ara tha*	13	20	29.10	0.648
44. *Sphagno-Utricularion*	VAB	*Sph-Utr*	40	11	27.25	0.816
45. *Lemnion minoris*	VAA	*Lem min*	497	8	26.85	0.530
46. *Quercion pubescenti-petraeae*	LCA	*Que pub*	8	44	26.79	0.589
47. *Calamagrostion variae*	ADF	*Cal var*	11	47	26.68	0.476
48. *Juncion gerardii*	TCB	*Jun ger*	88	17	26.51	0.666
49. *Arnoseridion minimae*	XBD	*Arn min*	439	14	25.42	0.404
50. *Eleocharition acicularis*	VDB	*Ele aci*	112	10	25.22	0.562
51. *Calamagrostion arundinaceae*	ADB	*Cal aru*	8	23	24.61	0.511
52. *Sphagnion cuspidati*	RBE	*Sph cus*	162	12	24.42	0.401
53. *Salicion elaeagno-daphnoidis*	KAB	*Sal ela*	9	38	23.96	0.895
54. *Adenostylion alliariae*	ADD	*Ade all*	15	17	23.44	0.463
55. *Quercion petraeae*	LCC	*Que pet*	90	49	23.16	0.585
56. *Nardo-Caricion bigelowii*	ABB	*Nar-Car*	18	11	22.30	0.572
57. *Pinion mugo*	KCA	*Pin mug*	16	15	22.26	0.367
58. *Lycopodo-Cratoneurion*	RAB	*Lyc-Cra*	12	22	22.09	0.643
59. *Salicion triandrae*	KAA	*Sal tri*	32	20	21.81	0.641
60. *Sphagnion magellanici*	RCA	*Sph mag*	194	15	21.59	0.263
61. *Caricion davallianae*	RBA	*Car dav*	217	34	21.36	0.516
62. *Bidention tripartitae*	MBA	*Bid tri*	118	14	21.18	0.544
63. *Veronico-Lysimachion*	TDJ	*Ver-Lys*	15	17	21.07	0.808
64. *Veronico-Euphorbion*	XBB	*Ver-Eup*	495	22	20.80	0.431
65. *Festucion valesiacae*	THD	*Fes val*	199	29	20.78	0.448

Tab. 3 continued

66.	*Chelidonio-Robinion*	KDA	*Che-Rob*	63	23	20.43	0.826
67.	*Salsolion ruthenicae*	XBJ	*Sal rut*	43	17	20.41	0.553
68.	*Nardo strictae-Agrostion*	TEB	*Nar-Agr*	17	26	19.53	0.362
69.	*Meliloto-Bolboschoenion*	MCB	*Mel-Bol*	51	14	19.37	0.882
70.	*Vaccinio uliginosi-Pinion*	LFD	*Vac-Pin*	162	21	19.11	0.292
71.	*Salicion cinereae*	LAB	*Sal cin*	89	27	18.65	0.521
72.	*Tilio platyphylli-Acerion*	LBF	*Til-Ace*	366	29	18.43	0.499
73.	*Corynephorion canescentis*	TFA	*Cor can*	645	17	18.18	0.464
74.	*Thero-Airion*	TFB	*The-Air*	59	14	18.09	0.767
75.	*Koelerion albescentis*	TFG	*Koe alb*	38	30	18.03	0.608
76.	*Ranunculion aquatilis*	VBD	*Ran aqu*	34	11	18.02	0.774
77.	*Onopordion acanthii*	XCA	*Ono aca*	16	15	17.04	0.843
78.	*Trisetion fusci*	ADG	*Tri fus*	12	23	16.97	0.465
79.	*Chenopodion rubri*	MBB	*Che rub*	51	14	16.44	0.572
80.	*Piceion abietis*	LFC	*Pic abi*	283	19	16.07	0.571
81.	*Melampyrion pratensis*	THJ	*Mel pra*	18	37	15.57	0.503
82.	*Spergulo-Erodion*	XBF	*Spe-Ero*	431	17	15.37	0.413
83.	*Alnion glutinosae*	LAA	*Aln glu*	223	38	14.86	0.539
84.	*Salicion arenariae*	KBH	*Sal are*	42	40	14.54	0.510
85.	*Scleranthion annui*	XBC	*Scl ann*	2331	21	14.54	0.269
86.	*Fragarion vescae*	XEB	*Fra ves*	3	14	14.39	0.947
87.	*Oxalidion fontanae*	XBE	*Oxa fon*	357	21	14.31	0.358
88.	*Bromion erecti*	THF	*Bro ere*	195	35	13.56	0.446
89.	*Prunion fruticosae*	KBA	*Pru fru*	59	27	13.50	0.585
90.	*Cnidion venosi*	TDI	*Cni ven*	208	28	13.24	0.717
91.	*Cirsio-Brachypodion*	THE	*Cir-Bra*	186	32	12.77	0.407
92.	*Alysso-Festucion pallentis*	THA	*Aly-Fes*	91	34	12.44	0.312
93.	*Alysso-Sedion*	TFF	*Aly-Sed*	65	24	12.42	0.494
94.	*Utricularion vulgaris*	VAB	*Utr vul*	47	15	12.42	0.615
95.	*Fagion sylvaticae*	LBC	*Fag syl*	727	27	12.29	0.378
96.	*Eragrostion cilianensi-minoris*	XBK	*Era cil*	80	13	12.25	0.694
97.	*Nardion strictae*	TEA	*Nar str*	56	19	12.19	0.293
98.	*Molinion caeruleae*	TDD	*Mol cae*	731	33	11.61	0.570
99.	*Arction lappae*	XCE	*Acr lap*	100	15	11.58	0.703
100.	*Caricion remotae*	RAA	*Car rem*	246	23	11.27	0.552
101.	*Salicion albae*	KAC	*Sal alb*	54	26	11.21	0.567
102.	*Rumicion alpini*	XDF	*Rum alp*	39	21	11.02	0.732
103.	*Cymbalario-Asplenion*	SBA	*Cym-Asp*	18	10	10.83	0.775
104.	*Carpinion betuli*	LBB	*Car bet*	341	30	10.43	0.445
105.	*Polygono-Trisetion*	TDB	*Pol-Tri*	395	30	10.02	0.435
106.	*Violion caninae*	TEC	*Vio can*	304	34	9.51	0.410
107.	*Eleocharito-Sagittarion*	MCC	*Ele-Sag*	223	12	9.26	0.800
108.	*Geranion sanguinei*	THH	*Ger san*	128	32	9.17	0.438
109.	*Nardo-Juncion squarrosi*	TED	*Nar-Jun*	69	18	8.70	0.595
110.	*Koelerio-Phleion phleoidis*	THG	*Koe-Phl*	96	30	8.56	0.359
111.	*Carici-Rumicion hydrolapathi*	MCF	*Car-Rum*	112	14	8.44	0.566
112.	*Stipion calamagrostis*	SCA	*Sti cal*	25	25	8.28	0.605
113.	*Coronopodo-Polygonion*	XAA	*Cor-Pol*	142	16	7.96	0.436
114.	*Sisymbrion officinalis*	XBH	*Sis off*	59	16	7.55	0.721
115.	*Senecion fluviatilis*	XDA	*Sen flu*	216	14	7.32	0.541
116.	*Glycerio-Sparganion*	MCE	*Gly-Spa*	178	16	7.22	0.715

Tab. 3 continued

117. *Cystopteridion*	SAA	*Cystop*	124	16	6.72	0.543
118. *Petasition hybridi*	XDB	*Pet hyb*	117	21	6.59	0.695
119. *Armerion elongatae*	TFC	*Arm elo*	89	23	6.36	0.345
120. *Quercion roboris*	LDB	*Que rob*	262	28	6.32	0.386
121. *Phalaridion arundinaceae*	MCD	*Pha aru*	68	15	6.29	0.596
122. *Genisto germanicae-Quercion*	LDA	*Gen-Que*	342	27	6.28	0.321
123. *Cynosurion cristati*	TDC	*Cyn cri*	537	24	6.16	0.688
124. *Juncion effusi*	TDG	*Jun eff*	71	23	5.84	0.485
125. *Luzulo-Fagion*	LBE	*Luz-Fag*	719	23	5.61	0.324
126. *Alnion incanae*	LBA	*Aln inc*	1022	32	5.57	0.530
127. *Aegopodio-Sambucion nigrae*	KBD	*Aeg-Sam*	103	16	5.56	0.695
128. *Asplenion septentrionalis*	SAC	*Asp sep*	142	19	5.41	0.458
129. *Dicrano-Pinion*	LFB	*Dic-Pin*	689	26	5.14	0.302
130. *Saginion procumbentis*	XAB	*Sag pro*	210	15	5.14	0.433
131. *Alopecurion pratensis*	TDH	*Alo pra*	541	27	5.11	0.551
132. *Euphorbio-Callunion*	TEE	*Eup-Cal*	44	28	4.88	0.525
133. *Sphagno-Caricion canescentis*	RBD	*Sph-Car*	317	18	4.75	0.234
134. *Geo urbani-Alliarion*	XDD	*Geo-All*	227	24	4.51	0.724
135. *Magno-Caricion elatae*	MCG	*Car ela*	509	21	4.28	0.708
136. *Potentillion anserinae*	TDK	*Pot ans*	60	18	4.07	0.462
137. *Calthion palustris*	TDF	*Cal pal*	2153	28	3.85	0.400
138. *Phragmition australis*	MCA	*Phr aus*	1089	12	3.79	1.000
139. *Hyperico-Scleranthion*	TFD	*Hyp-Scl*	222	22	3.53	0.311
140. *Atriplicion*	XBG	*Atripl*	307	17	2.98	0.251
141. *Arrhenatherion elatioris*	TDA	*Arr ela*	1152	32	2.91	0.420
142. *Magno-Caricion gracilis*	MCH	*Car gra*	1165	17	2.66	0.515
143. *Calamagrostion villosae*	ADA	*Cal vil*	54	18	2.43	0.211
144. *Genisto pilosae-Vaccinion*	TEF	*Gen-Vac*	208	20	2.35	0.464
145. *Berberidion vulgaris*	KBB	*Ber vul*	229	24	2.34	0.558
146. *Epilobion angustifolii*	XEA	*Epi ang*	134	22	2.29	0.506
147. *Convolvulo-Elytrigion*	XCC	*Con-Ely*	328	19	2.26	0.475
148. *Caricion canescenti-nigrae*	RBC	*Car can*	330	23	1.97	0.499
149. *Trifolion medii*	THI	*Tri med*	249	30	1.78	0.567
150. *Impatienti-Stachyion*	XDC	*Imp-Sta*	93	22	1.09	1.000
151. *Dauco-Melilotion*	XCB	*Dau-Mel*	624	21	0.05	1.000
152. *Aegopodion podagrariae*	XDE	*Aeg pod*	749	20	0.05	1.000
153. *Sambuco-Salicion capreae*	KBC	*Sam-Sal*	284	26	0.04	-

Most of the vegetation units compared using the Asymmetric Similarity Index are well defined (Tab. 4). Only some pairs of alliances, such as *Genisto pilosae-Vaccinion* and *Nardo strictae-Agrostion*, *Calamagrostion villosae* and *Salicion silesiacae* or *Calamagrostion villosae* and *Dryopterido-Athyrion* are very similar. However, the high similarity of the alliance *Salicion silesiacae* to the other vegetation units may result from a low number of the relevés representing this alliance in the data set or from the fact it is fragmentarily developed in Poland (Tab. 4).

The Asymmetric Similarity Index is high for pairs of alliances having similar origins and habitat requirements, but different geographical ranges or vegetation structures. This is true for pairs of alliances such as *Sphagnion magellanici* and *Oxycocco-Empetrion* or *Oxycocco-Ericion* and *Oxycocco-Empetrion*, as well as for other peat bog vegetation types such as *Sphagnion magellanici* and *Vaccinio uliginosi-Pinion*.

Table 4

Similarity of alliances

Similarity of alliances in the left column to the alliances in the right column ordered according to decreasing values of the Asymmetric Similarity Index (*T*). Only 50 pairs of alliances with the highest Asymmetric Similarity Index are shown.

Alliance 1	Alliance 2	*T*
Genisto pilosae-Vaccinion	*Nardo strictae-Agrostion*	146.7
Calamagrostion villosae	*Salicion silesiacae*	138.2
Calamagrostion villosae	*Dryopterido-Athyrion*	109.1
Sphagnion magellanici	*Oxycocco-Empetrion*	95.1
Scleranthion annui	*Lolio-Linion*	93.4
Saginion procumbentis	*Coronopodo-Polygonion*	87.2
Oxycocco-Empetrion	*Oxycocco-Ericion*	80.2
Agropyro-Minuartion	*Atriplicion littoralis*	79.9
Berberidion vulgaris	*Quercion pubescenti-petraeae*	79.3
Calamagrostion villosae	*Calamagrostion arundinaceae*	78.0
Sphagno-Caricion canescentis	*Sphagnion cuspidati*	77.8
Oxycocco-Empetrion	*Sphagnion magellanici*	77.0
Armerion elongatae	*Koelerion glaucae*	74.8
Genisto germanicae-Quercion	*Quercion petraeae*	73.9
Sphagnion magellanici	*Vaccinio uliginosi-Pinion*	73.6
Koelerio-Phleion phleoidis	*Koelerion glaucae*	71.9
Atriplicion	*Malvion neglectae*	71.9
Juncion effusi	*Epilobio-Montion*	69.5
Arnoseridion minimae	*Lolio-Linion*	69.4
Asplenion septentrionalis	*Asplenion cuneifolii*	69.0
Scleranthion annui	*Arnoseridion minimae*	69.0
Arrhenatherion elatioris	*Polygono-Trisetion*	67.9
Loiseleurio-Vaccinion	*Juncion trifidi*	66.7
Alysso-Festucion pallentis	*Bromo pannonici-Festucion*	64.1
Sphagnion magellanici	*Oxycocco-Ericion*	63.2
Lemnion minoris	*Hydrocharition morsus-ranae*	63.1
Vaccinio uliginosi-Pinion	*Sphagnion magellanici*	62.6
Loiseleurio-Vaccinion	*Festucion versicoloris*	62.5
Dryopterido-Athyrion	*Salicion silesiacae*	62.1
Fagion sylvaticae	*Tilio platyphylli-Acerion*	61.9
Nardion strictae	*Festucion picturatae*	60.4
Atriplicion	*Veronico-Euphorbion*	60.2
Convolvulo-Elytrigion	*Lolio-Linion*	59.6
Atriplicion	*Spergulo-Erodion*	59.4
Alysso-Festucion pallentis	*Diantho lumnitzeri-Seslerion*	59.3
Pinion mugo	*Salicion silesiacae*	59.0
Sphagno-Caricion canescentis	*Oxycocco-Ericion*	58.4
Atriplicion	*Oxalidion fontanae*	57.6
Vaccinio uliginosi-Pinion	*Oxycocco-Empetrion*	57.1
Oxalidion fontanae	*Veronico-Euphorbion*	56.4
Puccinellion limosae	*Salicornion prostratae*	56.2
Veronico-Euphorbion	*Caucalidion*	56.0
Oxycocco-Empetrion	*Vaccinio uliginosi-Pinion*	54.3
Coronopodo-Polygonion	*Saginion procumbentis*	54.3
Caricion davallianae	*Sphagno-Tomentypnion*	54.2
Salicornion prostratae	*Puccinellion limosae*	53.9
Polygono-Trisetion	*Nardo strictae-Agrostion*	53.9
Atriplicion littoralis	*Agropyro-Minuartion*	53.5
Potamion	*Nymphaeion albae*	52.1
Caricion canescenti-nigrae	*Sphagno-Tomentypnion*	51.0

4. DISCUSSION

The establishment and development of the *Polish Vegetation Database* has opened new possibilities for advanced phytosociological research (Kącki & Śliwiński 2012a, b). The Polish database is a part of a rapidly evolving network of phytosociological databases around the world (Dengler *et al.* 2011). Availability of large data sets provides a great opportunity to learn about diversity of vegetation across large geographical areas. It also helps in creating a coherent classification system (Bruelheide & Chytrý 2000; Dengler *et al.* 2012). The analyses carried out in this study are the first step in a comprehensive and nation-wide survey of vegetation in Poland. They reflect changes made in classification systems based on numerous syntaxonomical revisions and rely on the proper use of the *International Code of Phytosociological Nomenclature* (Grabherr & Mucina 1993; Mucina, Grabherr & Ellmauer 1993; Mucina, Grabherr & Wallnöfer 1993; Barkman *et al.* 1995; Berg *et al.* 2004; Chytrý 2007, 2009, 2011, 2012, 2013; Landucci *et al.* 2013; Šumberová & Hrivnák 2013).

The Cocktail method and expert system make it possible to maintain coherence of classification of vegetation across the Europe. The basic element of the classification approach used in this study is determination of species with a strong tendency to co-occur in vegetation units. This approach is based on the concept of sociological species groups (Passarge 1964; Doing 1969). The methods rely on recent achievements in phytosociology, and are designed to provide reproducible results for various biogeographical regions.

Species groups and formal definitions are valuable and useful tools that can be used to classify vegetation of Poland, although they sometimes have to be adapted to regional conditions. In order to create definitions of vegetation units, new combinations of species should be recognized. Diagnostic species determined in this study often correspond to indicator species (character and differential) indicated on the basis of traditional approach (Matuszkiewicz W. 2008).

In contrast to the classical phytosociology, vegetation units distinguished using formalized classification are characterized by more diverse species composition including diagnostic, constant and dominant species.

The results of this study provide a way to critically examine the classification system in Poland. However, the interpretation of the results is not as reliable as can be desired, mainly because the phytosociological data stored in the *Polish Vegetation Database* are still incomplete. Therefore, some syntaxa are poorly represented by relevés, which results in less reliable determination of diagnostic species for delimited syntaxa. This also might affects the final classification. Nevertheless, the present study raises many questions about classification of vegetation in Poland.

Until now, the vegetation of Poland has been divided into 41 classes comprising 108 alliances (Matuszkiewicz W. 1981). Even though the vegetation of Poland is highly diverse, almost no attempts have been made to characterize vegetation on a wide spatial scale on the basis of large sets of relevés. Forest plant communities are an exception (Matuszkiewicz W. & Matuszkiewicz A. 1973; Matuszkiewicz W. & Matuszkiewicz J.M. 1973; Matuszkiewicz J.M. 1976, 1977, 1988, 2001; Dzwonko 1986; Jakubowska-Gabara 1993, 1996). Unfortunately, many other types of vegetation have been studied only in regional surveys.These regional studies, however, greatly increase the knowledge of the diversity of vegetation in the country. Since the first edition of the identification key to plant

communities in Poland appeared, the number of plant associations has increased from 355 to 487, and the number of alliances from 108 to 114, whereas the number of classes has remained unchanged (Matuszkiewicz W. 1981, 2008).

The present classification and diagnostic species determined for each vegetation unit confirm high diversity of vegetation in Poland. This classification relies on the Polish database resources, which for some regions may not be complete and representative. Some of the syntaxa distinguished will probably be supplemented with new data and undergo subsequent revisions. There is no doubt that the class *Thlaspietea rotundifoliae* needs to be re-assessed. Within that class, data analysis revealed only one alliance *Stipion calamagrostis.* The data set did not contain information on other vegetation types found on mobile screes in Poland, as described by Kosiński (1999).

The classification of vegetation found on heavy metal soil is problematic and has been subjected to many syntaxonomical discussions (e.g., Ernst 1974, 1976; Punz & Mucina 1997; Becker *et al.* 2007; Dierschke & Becker 2008). In Poland, grasslands occurring on zinc-lead post-mining wastes were described comprehensively by Grodzińska & Szarek-Łukaszewska (2009). According to this study, the class *Violetea calaminariae* in Poland is characterized mainly by *Biscutella laevigata* and many other differential species, including lichens with different substrate preferences. In the present study, the class *Violetea calaminariae* is also well represented by diagnostic species of lichens. However, only terricolous lichens were included in the analyses (Bielczyk *et al.* 2009).

The present classification revealed the presence of the relevés in the data set that can be assigned to the class *Carici-Kobresietea*, which has not been reported hitherto from Poland. These relevés were collected from the alpine zones of Babia Góra and were originally assigned to the alliances *Seslerion tatrae* and *Juncion trifidi* (Walas 1933). Classification of the class *Mulgedio-Aconitetea* follows the most recent syntaxonomical revisions of this syntaxon in Europe (Kliment *et al*. 2010; Michl *et al.* 2010). Within the subalpine tall forb and deciduous scrub vegetation, the least represented by relevés and hence the least distinct syntaxon is the alliance *Salicion silesiacae,* which was recently reported from Poland (Parusel 2010). This vegetation unit is closely related to the alliance *Calamagrostion villosae* in terms of species composition, but on the other hand they are structurally distinct. Generally, alpine vegetation is represented by a small number of relevés in the *Polish Vegetation Database*. Some of the vegetation units might therefore be poorly delimited. It is necessary to collect more comprehensive data on alpine vegetation in order to extend our knowledge about its manifold diversity.

The class *Molinio-Arrhenatheretea* is one of the classes that is best represented by relevés in the *Polish Vegetation Database*. Formalized classification brought only slight changes that confirm the current state of knowledge about the diversity of plant communities within this class (Kucharski & Michalska-Hejduk 1994; Załuski 1995; Kucharski 1999; Brzeg & Wojterska 2001; Trąba & Wolański 2011, 2012; Kącki 2012). The only essential changes were with regard to wet meadows from the alliance *Calthion*. Data analysis indicated that the alliances *Calthion* and *Filipendulion* were very similar, and were therefore merged into a single alliance. The same solution was accepted in the Czech Republic (Chytrý & Tichý 2003). In the present classification, alluvial vegetation was divided into the alliances *Cnidion*, *Alopecurion* and *Veronico-Lysimachion*, similarly to other studies in Poland (Borysiak 1994; Załuski 1995). A different view was adopted in other European countries, where the alliances *Cnidion*, *Alopecurion* and *Veronico-Lysimachion* were merged into the alliance *Deschampsion caespitosae* (Botta-Dukat *et al.* 2005; Chytrý 2007).

In the data set analyzed, these alliances are well delimited, both floristically and structurally (Tab. 3). Dry grasslands of the classes *Trifolio-Geranietea* and *Festuco-Brometea* generate a lot of interest because of their high diversity and variability (Dengler 2004a, b; Brzeg 2005; Janišová *et al.* 2007; Jarolímek & Šibík 2008; Janišová & Dúbravková 2010). Based on a solution proposed by Chytrý (2007), the alliances usually classified under the class *Trifolio-Geranietea* were assigned to the class *Festuco-Brometea*.

The results of this study demonstrate the high value of the phytosociological data stored in the *Polish Vegetation Database*. However, there are still plant communities which have not been included in this paper, primarily due to insufficient data from some regions of Poland. The changes implemented to the classification system are a general proposal, the details of which require further discussion and refinement.

5. CONCLUSIONS

The results of the present study confirm that formalized classification can be successfully used to precisely delimit vegetation units. Most of the units delimited are well represented by diagnostic species. In addition, this method yield reproducible classification results regardless of the origin of the relevés. Direct application of formal definitions created for different biogeographic regions may result in incorrect classification due to many regional differences in the structure and diversity of vegetation. The final results of the present study suggest that the vegetation of Poland can be divided into 44 classes and 153 alliances. Using a large set of relevés provides comprehensive insight into variability of vegetation over large habitat and geographical gradients. However, the present classification of vegetation with statistically determined diagnostic, constant and dominant species requires further discussion and refinement.

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7. SATYSTYCZNE ZDEFINIOWANIE GATUNKÓW DIAGNOSTYCZNYCH, STAŁYCH I DOMINUJĄCYCH W WYŻSZYCH JEDNOSTKACH ROŚLINNOŚCI POLSKI (streszczenie)

Praca ta prezentuje rewizję syntakonomiczną oraz statystyczne wyznaczenie gatunków diagnostycznych, stałych i dominujących dla wyższych jednostek syntaksonomicznych Polski. Dotychczas jedynym kompleksowym opracowaniem stanowiącym źródło informacji o zróżnicowaniu roślinności Polski był *Przewodnik do oznaczania zbiorowisk roślinnych Polski* autorstwa Profesora W. Matuszkiewicza. Pierwsze wydanie tego podręcznika ukazało się ponad 30 lat temu. Wykaz zespołów oraz innych jednostek syntaksonomicznych zawarty w kolejnych wydaniach tego przewodnika, choć uzupełniany o nowe dane nigdy nie został poddany weryfikacji w szerszym aspekcie zmienności roślinności odzwierciedlonej w rewizjach powstających w innych krajach europejskich.

Analizy w szerokich gradientach siedliskowych wykonane na podstawie dużych zbiorów zdjęć stają się możliwe dzięki elektronicznym bazom danych fitosocjologicznych, dynamicznie powstających na przełomie wieków. W Polsce od roku 2007 funkcjonuje baza danych o roślinności Polski *Polish Vegetation Database*, której zasoby obejmują 54 982 zdjęcia fitosocjologiczne wykonane na obszarze całego kraju.

Celem niniejszej pracy jest dokonanie przeglądu zróżnicowania roślinności Polski na poziomie wyższych jednostek syntaksonomicznych wraz ze statystycznym określeniem gatunków diagnostycznych, stałych i dominujących poszczególnych syntaksonów. Główny cel badań realizowano poprzez: (1) dokonanie przeglądu zróżnicowania roślinności Polski z wykorzystaniem statystycznie określonych grup gatunków współwystępujących

i sformalizowanego opisu zespołów; (2) określenie gatunków diagnostycznych, stałych i dominujących dla wyższych jednostek fitosocjologicznych; (3) dokonanie oceny odrębności florystycznej niektórych syntaksonów, zwłaszcza słabo scharakteryzowanych w celu krytycznego spojrzenia na zasadność utrzymania ich w obecnym systemie klasyfikacyjnym.

Wszystkie analizy wykonano na podstawie statystycznych analiz dużego zbioru zdjęć, z pominięciem subiektywnego i lokalnego wpływu tzw. wiedzy eksperckiej na dobór gatunków charakteryzujących poszczególne syntaksony. Zawartość bazy poddano wstępnej stratyfikacji wykluczając z analiz wszystkie zdjęcia fitosocjologiczne wykonane na nietypowych powierzchniach oraz te bez przypisanych lokalizacji i współrzędnych geograficznych. Ostateczny zbiór danych wykorzystany w analizach obejmował 43 686 zdjęć fitosocjologicznych. Ponadto ujednolicono i uzgodniono nazewnictwo stosowane przez różnych autorów dla gatunków, ich podgatunków lub innych, niższych jednostek taksonomicznych. Z powodu nierównomiernego zgromadzenia zdjęć w bazie przeprowadzono geograficzną stratyfikację materiału. W tym celu przyjęto siatkę kwadratów stosowaną w kartowaniu flory i fauny Europy. Z całości sklasyfikowanego zbioru wylosowano maksymalnie po trzy zdjęcia reprezentujące dany syntakson w kwadracie wyznaczonym przez 1,25 długości geograficznej oraz 0,75 szerokości geograficznej (czyli w przybliżeniu 1,5×1,4 km). W rezultacie otrzymano zbiór 30 476 zdjęć fitosocjologicznych. W obrębie przygotowanego zbioru wszystkie gatunki drzew i krzewów występujące w różnych warstwach połączono w jedną, tak by gatunek występował tylko raz w tabeli. Z bazy usunięto także wszystkie gatunki juwenilne. Materiał ten został poddany sformalizowanej i hierarchicznej klasyfikacji, której wyniki przedstawiono na poziomie klas i związków roślinnych.

Wszystkie analizy przeprowadzono w programie JUICE. Całość zbioru poddano klasyfikacji metodą Cocktail. Procedura klasyfikacji roślinności za pomocą tej metody polega na tworzeniu grup gatunków współwystępujących w zbiorowiskach roślinnych. Tworzenie definicji asocjacji możliwe jest poprzez łączenie ze sobą grup gatunków za pomocą operatorów logicznych AND, OR oraz NOT.

Gatunki diagnostyczne zdefiniowano za pomocą współczynnika wierności phi coefficient, który określa relację pomiędzy gatunkami i jednostkami fitosocjologicznymi oraz ukazuje wierność gatunków dla danej jednostki roślinności. Za gatunek diagnostyczny uznano ten, którego wartość phi coefficient wynosiła co najmniej 18. Wartość progową dla gatunków stałych określono arbitralnie na poziomie 40% zarówno dla klas i związków. Natomiast za gatunek dominujący uznano takson, który osiągnął pokrycie powyżej 50% i występował w przynajmniej 3% zdjęć z danej jednostki roślinności. Wyodrębnione syntaksony scharakteryzowano wskaźnikami Sharpness i Uniqueness. Wysokie wartości obu tych wskaźników dla poszczególnych jednostek świadczą o ich znacznej odrębności syntaksonomicznej.

Roślinność Polski charakteryzują 44 klasy łączące 153 związki roślinne. Jest to obraz ukazujący duże zróżnicowanie roślinności kraju oraz reprezentatywność materiałów zgromadzonych w *Polish Vegetation Database*. Wydzielone sytaksony w przeważającej części są dobrze wyodrębnione dzięki gatunkom diagnostycznym. Zastosowanie metody Cocktail i sformalizowanej klasyfikacji roślinności przyczynia się do dobrego zdefiniowania syntakonów przez gatunki diagnostyczne, a także daje możliwość uzyskiwania powtarzalnego rezultatu bez względu na pochodzenie materiału fitosocjologicznego.

Appendix 1

A synopsis of vegetation units of Poland

The nomenclature of syntaxa follows several syntaxonomical reviews (Matuszkiewicz W. 1981; Chytrý 2007, 2009, 2011, 2012, 2013; Jarolímek & Šibík 2008; Landucci *et al.* 2013; Šumberová & Hrivnák 2013).

Aquatic vegetation

VA Lemnetea de Bolós et Masclans 1955
- *Lemnetalia minoris* Tüxen 1955
  - VAA *Lemnion minoris* de Bolós et Masclans 1955
  - VAB *Utricularion vulgaris* Passarge 1964
  - VAC *Hydrocharition morsus-ranae* (Passarge 1964) Westhoff et den Held 1969

VB Potametea Klika in Klika et Novák 1941
- *Potametalia* Koch 1926
  - VBA *Nymphaeion albae* Oberdorfer 1957
  - VBB *Potamion* Miljan 1933
- *Callitricho-Batrachetalia* Passarge 1978
  - VBC *Batrachion fluitantis* Neuhäusl 1959
  - VBD *Ranunculion aquatilis* Passarge 1964

VC Charetea Fukarek ex Krausch 1964
- *Nitelletalia flexilis* Krause 1969
  - VCA *Nitellion flexilis* Krause 1969
- *Charetalia hispidae* Sauer ex Krausch 1964
  - VCB *Charion globularis* Krausch 1964
  - VCC *Charion canescentis* Krausch 1964

VD Littorelletea uniflorae Br.-Bl. et Tüxen ex Westhoff et al. 1946
- *Littorelletalia* Koch ex Tüxen 1937
  - VDA *Littorellion uniflorae* Koch ex Tüxen 1937
  - VDB *Eleocharition acicularis* Pietsch ex Dierßen 1975
- *Utricularietalia intermedio-minoris* Pietsch 1965
  - VDC *Sphagno-Utricularion* Müller et Görs 1960

VE Zosteretea marine Pignatti 1953
- *Zosteretalia marinae* Béguinot 1941
  - VEA *Zosterion marine* Christiansen 1934

Wetland vegetation

MA Isoëto-Nano-Juncetea Br.-Bl. et Tüxen ex Br.-Bl. et al. 1952
- *Nanocyperetalia* Klika 1935
  - MAA *Eleocharition ovatae* Philippi 1968
  - MAB *Radiolion linoidis* Pietsch 1973
  - MAC *Verbenion supinae* Slavić 1951

MB Bidentetea tripartitae Tüxen et al. ex von Rochow 1951
- *Bidentetalia tripartitae* Br.-Bl. et Tüxen ex Klika et Hadač 1944

MBA *Bidention tripartitae* Nordhagen ex Klika et Hadač1944
MBB *Chenopodion rubri* (Tüxen 1960) Hilbig et Jage 1972
MC Phragmito-Magno-Caricetea Klika in Klika et Novák 1941
Phragmitetalia Koch 1926
MCA *Phragmition australis* Koch 1926
MCB *Meliloto dentati-Bolboschoenion maritimi* Hroudová et al. 2009
Oenanthetalia aquaticae Hejný ex Balátová-Tuláčková el. al. in Grabherr et Mucina 1993
MCC *Eleocharito palustris-Sagittarion sagittifoliae* Passarge 1964
Nasturtio-Glycerietalia Pignatti 1953
MCD *Phalaridion arundinaceae* Kopecký 1961
MCE *Glycerio-Sparganion* Br.-Bl. et Sissingh in Boer 1942
Magno-Caricetalia Pignatti 1954
MCF *Carici-Rumicion hydrolapathi* Passarge 1964
MCG *Magno-Caricion elatae* Koch 1926
MCH *Magno-Caricion gracilis* Géhu 1961

Springs, fens and bogs vegetation

RA Montio-Cardaminetea Br.-Bl. et Tüxen ex Klika et Hadač 1944
Cardamino-Chrysosplenietalia Hinterlang 1992
RAA *Caricion remotae* Kästner 1941
RAB *Lycopodo europaei-Cratoneurion commutati* Hadač 1983
Montio-Cardaminetalia Pawłowski et al. 1928
RAC *Epilobio nutantis-Montion fontanae* Zechmeister in Zechmeister et Mucina 1994
RAD *Swertio perennis-Dichodontion palustris* Hadač 1983

RB Scheuchzerio palustris-Caricetea fuscae Tüxen 1937
Caricetalia davallianae Br.-Bl. 1949
RBA *Caricion davallianae* Klika 1934
RBB *Sphagno warnstorfii-Tomentypnion nitentis* Dahl 1956
Caricetalia fuscae (W. Koch 1926) Nordhagen 1936
RBC *Caricion canescenti-nigrae* Nordhagen 1937
RBD *Sphagno-Caricion canescentis* Passarge (1964) 1978
Scheuchzerietalia palustris Nordhagen 1936
RBE *Sphagnion cuspidati* Krajina 1933

RC Oxycocco-Sphagnetea Br.-Bl. et Tüxen ex Westhoff et al. 1946
Sphagnetalia magellanici (Pawłowski et al. 1928) Kästner et Flössner 1933
RCA *Sphagnion magellanici* Kästner et Flössner 1933
RCB *Oxycocco palustris-Ericion tetralicis* Nordhagen ex Tüxen 1937
RCC *Oxycocco microcarpi-Empetrion hermaphroditi* Nordhagen ex Du Rietz 1954

Rock and scree vegetation

SA Asplenietea trichomanis (Br.-Bl. in Meier et Br.-Bl. 1934) Oberdorfer 1977
Potentilletalia caulescentis Br.-Bl. in Br.-Bl. et Jenny 1926
SAA *Cystopteridion* Richard 1972
Androsacetalia vandeli Br.-Bl. in Meier et Br-Bl. 1934 corr. Br.-Bl. 1948
SAB *Asplenion cuneifolii* Br.-Bl. ex Eggler 1955
SAC *Asplenion septentrionalis* Gams ex Oberdorfer 1938

SB Cymbalario muralis-Parietarietea judaicae Oberdorfer 1969
Tortulo-Cymbalarietalia Segal 1969
SBA *Cymbalario muralis-Asplenion* Segal 1969

SC Thlaspietea rotundifolii Br.-Bl. 1948
Galio-Parietarietalia officinalis Boşcaiu et al. 1966
SCA *Stipion calamagrostis* Br.-Bl. et al. 1952

Alpine and subalpine vegetation

AA Loiseleurio-Vaccinietea Eggler ex Schubert 1960
Rhododendro-Vaccinietalia Br.-Bl. in Br.-Bl. et Jenny 1926
AAA *Loiseleurio precumbentis-Vaccinion* Br.-Bl. in Br.-Bl. et Jenny 1926

AB Juncetea trifidi Hadač in Klika et Hadač 1944
Caricetea curvulae Br.-Bl. in Br.-Bl. et Jenny 1926
ABA *Juncion trifidi* Krajina 1933
ABB *Nardo strictae-Caricion bigelowii* Nordhagen 1943

AC Elyno-Seslerietea Br.-Bl. 1948
Seslerietalia Br.-Bl. in Br.-Bl. et Jenny 1926
ACA *Seslerion tatrae* Pawłowski 1935 corr. Klika 1955
ACB *Caricion firmae* Gams 1936

AD Mulgedio-Aconitetea Hadač et Klika in Klika et Hadač 1944
Calamagrostietalia villosae Pawłowski et al. 1928
ADA *Calamagrostion villosae* Pawłowski et al. 1928
ADB *Calamagrostion arundinaceae* (Luquet 1926) Oberdorfer 1957
ADF *Calamagrostion variae* Sillinger 1932
ADG *Trisetion fusci* Krajina 1933
Alnetalia viridis Rűbel ex Rejmánek in Huml et al. 1979
ADC *Salicion silesiacae* Rejmánek et al. 1971
Adenostyletalia alliariae Br.-Bl. 1930
ADD *Adenostylion alliariae* Br.-Bl. 1926
ADE *Dryopterido filicis-maris-Athyrion distentifolii* (Holub ex Sýkora et Štursa 1973) Jeník et al. 1980

AE Salicetea herbaceae Br.-Bl. 1948
Salicetalia herbaceae Br.-Bl. in Br.-Bl. et Jenny 1926
AEA *Salicion herbaceae* Br.-Bl. in Br.-Bl. et Jenny 1926
AEB *Festucion picturatae* Krajina 1933 corr. Dúbravcová 2007

AF Carici rupestris-Kobresietea bellardii Ohba 1974
Oxytropido-Elynetalia Oberdorfer ex Albrecht 1969
AFA *Festucion versicoloris* Krajina 1933

Dune vegetation

DA Ammophiletea arenariae Br.-Bl. et Tüxen ex Westhoff et al. 1946
Ammophiletalia arenariae Br.-Bl. 1933
DAA *Ammophilion arenariae* Br.-Bl. 1933
DAB *Agropyro-Minuartion peploidis* Tüxen ex Br.-Bl. et Tüxen 1952
DAC *Juncion baltici* (Piotrowska 2002) Kącki et al. alliance nova propos. hoc. loco.

DB Cakiletea maritimae Tüxen et Preising ex Br.-Bl. et Tüxen 1952
Cakiletalia maritimae R. Tx. apud Oberdorfer (1949) 1950
DBA *Atriplicion littoralis* Nordhagen 1940

Grasslands, subhalophilous, heathlands and fringe vegetation

TB Thero-Salicornietea strictae Tüxen in Tüxen et Oberdorfer 1958

Thero-Salicornietalia Pignatti et Tüxen in Tüxen et Oberdorfer 1958
TBA *Salicornion prostratae* Géhu 1992

TC Festuco-Puccinellietea Soó 1968 ex Vicherek 1973
Puccinelietalia Soó 1947
TCA *Puccinellion limosae* Soó 1933
Scorzonero-Juncetalia gerardii Vicherek 1973
TCB *Juncion gerardii* Wendelberger 1943

TD Molinio-Arrhenatheretea Tüxen 1937
Arrhenatheretalia Tüxen 1931
TDA *Arrhenatherion elatioris* Luquet 1926
TDB *Polygono bistortae-Trisetion flavescentis* Br.-Bl. et Tüxen ex Marschall 1947
TDC *Cynosurion cristati* Tüxen 1947
Molinietalia Koch 1926
TDD *Molinion caeruleae* Koch 1926
TDH *Alopecurion pratensis* Passarge 1964
TDI *Cnidion venosi* Balátová-Tuláčková 1965
TDJ *Veronico longifoliae-Lysimachion vulgaris* (Passarge 1977) Balátová-Tuláčková 1981
TDF *Calthion palustris* Tüxen 1937
Potentillo-Polygonetalia Tüxen 1947
TDG *Juncion effusi* Westhoff et van Leeuwen ex Hejný et al. 1979
TDK *Potentillion anserinae* Tüxen 1947

TE Calluno-Ulicetea Br.-Bl. et Tüxen ex Klika et Hadač 1944
Nardetalia strictae Oberdorfer ex Preising 1949
TEA *Nardion strictae* Br.-Bl. 1926
TEB *Nardo strictae-Agrostion tenuis* Sillinger 1933
TEC *Violion caninae* Schwickerath 1944
TED *Nardo strictae-Juncion squarrosi* (Oberdorfer 1957) Passarge 1964
Ulicetalia Quantin 1935
TEE *Euphorbio cyparissiae-Callunion vulgaris* Schubert ex Passarge in Scamoni 1963
TEF *Genisto pilosae-Vaccinion* Br.-Bl. 1926

TF Koelerio-Corynephoretea Klika in Klika et Novák 1941
Corynephoretalia Klika 1934
TFA *Corynephorion canescentis* Klika 1931
TFB *Thero-Airion* Tüxen ex Oberdorfer 1957
TFC *Armerion elongatae* Pötsch 1962
TFD *Hyperico perforati-Scleranthion perennis* Moravec 1967
Sedo-Scleranthetalia Br.-Bl. 1955
TFE *Arabidopsion thalianae* Passarge 1964
TFF *Alysso alyssoidis-Sedion* Oberdorfer et Müller in Müller 1961
TFG *Koelerion albescentis* Tüxen 1937
TGA *Koelerion glaucae* Volk 1931

TH Festuco-Brometea Br.-Bl. et Tüxen ex Soó 1947
Festucetalia valesiacae Br.-Bl. et Tüxen ex Br.-Bl. 1949
THA *Alysso-Festucion pallentis* Moravec in Holub et al. 1967
THB *Bromo pannonici-Festucion pallentis* Zólyomi 1966
THC *Diantho lumnitzeri-Seslerion* (Soó 1971) Chytrý et Mucina in Mucina et al. 1993
THD *Festucion valesiacae* Klika 1931
THG *Koelerio-Phleion phleoidis* Korneck 1974
Brometalia erecti Koch 1926
THE *Cirsio-Brachypodion pinnati* Hadač et Klika ex Klika 1951

THF *Bromion erecti* Koch 1926
Origanetalia vulgaris Müller 1962
THH *Geranion sanguinei* Tüxen in Müller 1962
THI *Trifolion medii* Müller 1962
Melampyro pratensis-Holcetalia mollis Passarge 1979
THJ *Melampyrion pratensis* Passarge 1979

TI Violetea calaminariae Br.-Bl. et Tüxen 1943
Violetalia calaminariae Br.-Bl. et Tüxen ex Westhoff et al. 1946
TIA *Armerion halleri* Ernst 1965

Scrub, shrubs and anthropogenic tree stands

KA Salicetea purpureae Moor 1958
Salicetalia purpureae Moor 1958
KAA *Salicion triandrae* Müller et Görs 1958
KAB *Salicion elaeagno-daphnoidis* (Moor 1958) Grass in Mucina et al. 1993
KAC *Salicion albae* de Soó 1951

KB Rhamno-Prunetea Rivas Goday et Borja Carbonell ex Tüxen 1962
Prunetalia spinosae Tüxen 1952
KBA *Prunion fruticosae* Tüxen 1952
KBB *Berberidion vulgaris* Br.-Bl. et Tüxen 1952
Sambucetalia racemosae Doing 1962
KBC *Sambuco-Salicion capreae* Tüxen et Neumann ex Oberdorfer 1957
KBD *Aegopodio podagrariae-Sambucion nigrae* Chytrý 2013
KBH *Salicion arenariae* Tüxen ex Passarge in Scamoni 1943

KC Roso pendulinae-Pinetea mugo Theurillat in Theurillat et al. 1995
Junipero-Pinetalia mugo Boşcaiu 1971
KCA *Pinion mugo* Pawłowski et al. 1928

KD Robinietea Jurko ex Hadač et Sofron 1980
Chelidonio-Robinietalia Jurko ex Hadač et Sofron 1980
KDA *Chelidonio-Robinion* Hadač et Sofron ex Vítková a Chytrý 2013

Forests

LA Alnetea glutinosae Br.-Bl. et Tüxen ex Westhoff et al. 1946
Alnetalia glutinosae Tüxen 1937
LAA *Alnion glutinosae* Malcuit 1929
Salicetalia auritae Doing ex Steffen 1968
LAB *Salicion cinereae* Müller et Görs ex Passarge 1961

LB Carpino-Fagetea Jakucs 1967
Fagetalia sylvaticae Pawłowski et al. 1928
LBA *Alnion incanae* Pawłowski et al. 1928
LBB *Carpinion betuli* Issler 1931
LBC *Fagion sylvaticae* Luquet 1926
LBD *Sorbo-Fagion sylvaticae* Hofmann in Passarge 1968
LBE *Luzulo-Fagion sylvaticae* Lohmeyer et Tüxen in Tüxen 1954
LBF *Tilio platyphylli-Acerion* Klika 1955

LC Quercetea pubescentis Doing Kraft ex Scamoni et Passarge 1959
Quercetalia pubescentis-petraeae Klika 1933
LCA *Quercion pubescenti-petraeae* Br.-Bl. 1932

LCC *Quercion petraeae* Issler 1931

LD Quercetea robori-petraeae Br.-Bl. et Tüxen ex Oberdorfer 1957
Quercetalia roboris Tüxen 1931
LDA *Genisto germanicae-Quercion* Neuhäusl et Neuhäuslová-Novotná 1967
LDB *Quercion roboris* Malcuit 1929

LE Erico-Pinetea Horvat 1959
Erico-Pinetalia Horvat 1959
LEA *Pulsatillo slavicae-Pinion* Fajmonová 1978

LF Vaccinio-Piceetea Br.-Bl. in Br.-Bl. et al. 1939
Piceetalia abietis Pawłowski et al. 1928
LFB *Dicrano-Pinion* (Libbert 1933) Matuszkiewicz 1962
LFC *Piceion abietis* Pawłowski et al. 1928
LFD *Vaccinio uliginosi-Pinion sylvestris* Passarge et Hofmann1968

Synanthropic vegetation

XA Polygono arenastri-Poëtea annuae Rivas-Martínez 1975 corr. Rivas-Martínez et al. 1991
Polygono arenastri-Poëtalia annuae Tüxen in Géhu et al. 1972 corr. Rivas-Martínez et al. 1991
XAA *Coronopodo-Polygonion arenastri* Sissingh 1969
XAB *Saginion procumbentis* Tüxen et Ohba in Géhu et al. 1972

XB Stellarietea mediae Tüxen et al. ex von Rochow 1951
Centaureetalia cyani Tüxen et al. ex von Rochow 1951
XBA *Caucalidion* von Rochow 1951
XBB *Veronico-Euphorbion* Sissingh ex Passarge 1964
XBC *Scleranthion annui* (Kruseman et Vlieger 1939) Sissingh in Westhoff et al. 1946
XBD *Arnoseridion minimae* Malato-Beliz et al. 1960
Atriplici-Chenopodietalia albi (Tüxen 1937) Nordhagen 1940
XBE *Oxalidion fontanae* Passarge 1978
XBF *Spergulo arvensis-Erodion cicutariae* J. Tüxen in Passarge 1964
Sisymbrietalia J. Tüxen in Lohmeyer et al. 1962
XBG *Atriplicion* Passarge 1978
XBH *Sisymbrion officinalis* Tüxen et al. ex von Rochow 1951
XBI *Malvion neglectae* (Gutte 1966) Hejný 1978
Eragrostietalia J. Tüxen ex Poli 1966
XBJ *Salsolion ruthenicae* Philippi 1971
XBK *Eragrostion cilianensi-minoris* Tüxen ex Oberdorfer 1954
Lolio remotae-Linetalia J. Tüxen et Tüxen in Lohmeyer et al. 1962
XBL *Lolio-Linion* Tüxen 1950

XC Artemisietea vulgaris Lohmeyer et al. ex von Rochow 1951
Onopordetalia Br.-Bl. et Tüxen ex Klika et Hadač 1944
XCA *Onopordion acanthii* Br.-Bl. et al. 1936
XCB *Dauco carotae-Melilotion* Görs ex Rostański et Gutte 1971
XCE *Arction lappae* Tüxen 1937
Agropyretalia repentis Görs 1966
XCC *Convolvulo arvensis-Elytrigion repentis* Görs 1966

XD Galio-Urticetea Passarge ex Kopecký 1969
Calystegietalia sepium Tüxen ex Mucina 1993
XDA *Senecionion fluviatilis* Tüxen ex Moor 1958
XDB *Petasition hybridi* Sillinger 1933
Lamio albi-Chenopodietalia boni-henrici Kopecký 1969

XDC *Impatienti noli-tangere-Stachyion sylvaticae* Görs ex Mucina in Mucina et al. 1993
XDD *Geo urbani-Alliarion petiolatae* Lohmeyer et Oberdorfer in Görs et Müller 1969
XDE *Aegopodion podagrariae* Tüxen 1967
XDF *Rumicion alpini* Scharfetter 1938

XE Epilobietea angustifolii Tüxen et Preising ex von Rochow 1951
Atropetalia Vlieger 1937
XEA *Epilobion angustifolii* Tüxen ex Oberdorfer 1957
XEB *Fragarion vescae* Tüxen ex von Rochow 1951

Appendix 2

Diagnostic, constant and dominant species in vegetation units of Poland

Appendix 2 presents the list of classes and alliances delimited on the basis of data from the *Polish Vegetation Database*. Characterization of syntaxa include diagnostic, constant and dominant species. If a species occurs in more than one category within a particular vegetation unit, it is designated with following abbreviations: Dg – diagnostic species, C – constant species, Dm – dominant species. For each diagnostic species, the Phi coefficient value (expressing fidelity) is shown. The threshold value for fidelity was set at 18. Species with a fidelity equal to or greater than 18 ($\Phi > 0.18$) were considered species with diagnostic value. The threshold of frequency value for constant species was set at 40%. Dominant species were defined as those having cover of more than 50% in at least 3% of the relevés in a given vegetation unit. Diagnostic, constant and dominant species are ranked by decreasing values of indexes in particular categories. Diagnostic species are ranked by decreasing values of the Phi coefficient (multiplied by 100), constant species by decreasing values of percentage frequency of occurrence, and dominant species by decreasing percentage of cases with species cover exceeding 50%.

A list of classes included in Appendix 2

A list of classes and alliances with statistically determined diagnostic, constant and dominant species

VA Class
LEMNETEA
Vegetation of free floating aquatic plants
Number of relevés: 755

Diagnostic species (14):

Lemna minor	C, Dm	63.7
Spirodela polyrhiza	C, Dm	56.5
Lemna trisulca	C, Dm	55.5
Hydrocharis morsus-ranae	Dm	43.5
Salvinia natans	Dm	36.2
Ceratophyllum demersum	Dm	35.7
Stratiotes aloides	Dm	32.8

Lemna gibba		28.1
Wolffia arrhiza	Dm	27.4
Nuphar lutea		24.2
Riccia fluitans		22.8
Utricularia vulgaris		18.9
Elodea canadensis		18.6
Ricciocarpos natans		18.5
Constant species (3):		
Lemna minor	Dg, Dm	80.0
Spirodela polyrhiza	Dg, Dm	52.0
Lemna trisulca	Dg, Dm	51.0
Dominant species (8):		
Lemna minor	Dg, C	10.0
Spirodela polyrhiza	Dg, C	9.0
Ceratophyllum demersum	Dg	8.0
Stratiotes aloides	Dg	7.0
Lemna trisulca	Dg, C	6.0
Salvinia natans	Dg	5.0
Wolffia arrhiza	Dg	4.0
Hydrocharis morsus-ranae	Dg	3.0

VAA Alliance
Lemnion minoris
Vegetation of lemnids and free-floating aquatic ferns and liverworts
Number of relevés: 497

Diagnostic species (7):		
Lemna minor	C, Dm	38.7
Spirodela polyrhiza	C, Dm	37.5
Lemna trisulca	C, Dm	34.1
Lemna gibba		25.3
Wolffia arrhiza	Dm	23.9
Salvinia natans	Dm	23.5
Riccia fluitans		18.8
Constant species (3):		
Lemna minor	Dg, Dm	89.0
Spirodela polyrhiza	Dg, Dm	57.0
Lemna trisulca	Dg, Dm	52.0
Dominant species (5):		
Lemna minor	Dg, C	15.0
Spirodela polyrhiza	Dg, C	12.0
Lemna trisulca	Dg, C	8.0
Salvinia natans	Dg	7.0
Wolffia arrhiza	Dg	6.0

VAB Alliance
Utricularion vulgaris
Vegetation of bladderworts in mesotrophic to eutrophic water bodies
Number of relevés: 47

Diagnostic species (6):		
Utricularia vulgaris	C, Dm	61.6
Potamogeton rutilus	Dm	35.8
Lemna minor	C	23.4
Stratiotes aloides		21.2
Utricularia australis		19.5
Schoenoplectus lacustris		18.1
Constant species (2):		
Utricularia vulgaris	Dg, Dm	91.0
Lemna minor	Dg	55.0
Dominant species (3):		
Utricularia vulgaris	Dg, C	23.0
Thelypteris palustris		6.0
Potamogeton rutilus	Dg	6.0

VAC Alliance
Hydrocharition morsus-ranae
Vegetation of large free-floating vascular plants
Number of relevés: 211

Diagnostic species (8):		
Stratiotes aloides	C, Dm	50.3
Hydrocharis morsus-ranae	C, Dm	45.7
Ceratophyllum demersum	C, Dm	37.9
Lemna trisulca	C	36.6
Spirodela polyrhiza	C	31.9
Salvinia natans		27.7
Lemna minor	C	27.5
Nuphar lutea	C	26.3
Constant species (7):		
Hydrocharis morsus-ranae	Dg, Dm	67.0
Lemna minor	Dg	64.0
Ceratophyllum demersum	Dg, Dm	57.0
Lemna trisulca	Dg	56.0
Stratiotes aloides	Dg, Dm	55.0
Spirodela polyrhiza	Dg	49.0
Nuphar lutea	Dg	41.0
Dominant species (3):		
Ceratophyllum demersum	Dg, C	28.0
Stratiotes aloides	Dg, C	26.0
Hydrocharis morsus-ranae	Dg, C	11.0

VB Class
POTAMETEA
Vegetation of aquatic plants rooted in the bottom
Number of relevés: 557

Diagnostic species (16):

Nuphar lutea	Dm	41.5
Ceratophyllum demersum		36.9
Myriophyllum verticillatum	Dm	36.5
Nymphaea alba	Dm	33.4
Potamogeton natans	Dm	32.5
Potamogeton crispus		32.1
Elodea canadensis	Dm	31.8
Myriophyllum spicatum		28.7
Batrachium circinatum		24.8
Potamogeton lucens	Dm	24.1
Potamogeton perfoliatus		23.5
Lemna minor		23.5
Trapa natans		22.3
Spirodela polyrhiza		20.7
Hydrocharis morsus-ranae		20.1
Stratiotes aloides		18.3

Constant species (0):

Dominant species (7):

Nuphar lutea	Dg	8.0
Elodea canadensis	Dg	6.0
Potamogeton lucens	Dg	5.0
Nymphaea alba	Dg	5.0
Potamogeton natans	Dg	4.0
Myriophyllum verticillatum	Dg	4.0
Hottonia palustris		3.0

VBA Alliance
Nymphaeion albae
Vegetation of aquatic plants rooted in the bottom and with leaves floating on the water surface
Number of relevés: 172

Diagnostic species (12):

Nuphar lutea	C, Dm	45.3
Nymphaea alba	C, Dm	42.0
Trapa natans	Dm	34.1
Ceratophyllum demersum	C	33.7
Nymphoides peltata	Dm	21.2
Batrachium circinatum		21.2
Spirodela polyrhiza		20.9
Myriophyllum spicatum		20.4
Hydrocharis morsus-ranae		19.6

Potamogeton crispus		18.8
Potamogeton natans		18.4
Myriophyllum verticillatum		18.3

Constant species (3):

Nuphar lutea	Dg, Dm	70.0
Nymphaea alba	Dg, Dm	53.0
Ceratophyllum demersum	Dg	51.0

Dominant species (4):

Nuphar lutea	Dg, C	23.0
Nymphaea alba	Dg, C	15.0
Trapa natans	Dg	9.0
Nymphoides peltata	Dg	3.0

VBB Alliance
Potamion
Vegetation of aquatic plants rooted in the bottom
Number of relevés: 328

Diagnostic species (9):

Potamogeton lucens	Dm	22.3
Potamogeton crispus		22.1
Myriophyllum spicatum		21.1
Ceratophyllum demersum		21.1
Potamogeton alpinus		19.8
Myriophyllum verticillatum	Dm	18.7
Elodea canadensis	Dm	18.7
Potamogeton pusillus agg.		18.5
Najas minor		18.1

Constant species (0):

Dominant species (5):

Potamogeton lucens	Dg	9.0
Elodea canadensis	Dg	9.0
Potamogeton natans		8.0
Myriophyllum verticillatum	Dg	5.0
Potamogeton obtusifolius		3.0

VBC Alliance
Batrachion fluitantis
Vegetation of aquatic plants in streams
Number of relevés: 23

Diagnostic species (9):

Potamogeton nodosus	C, Dm	74.4
Callitriche hamulata	C	65.7
Batrachium fluitans		40.2
Batrachium aquatile s. l.		32.2

Myriophyllum verticillatum		31.0
Callitriche palustris s. l.		28.3
Elodea canadensis		26.4
Nuphar lutea		25.0
Potamogeton natans		23.1
Constant species (2):		
Potamogeton nodosus	Dg, Dm	57.0
Callitriche hamulata	Dg	43.0
Dominant species (1):		
Potamogeton nodosus	Dg, C	22.0

VBD Alliance
Ranunculion aquatilis
Vegetation of aquatic plants in shallow water bodies with fluctuating water table
Number of relevés: 34

Diagnostic species (5):		
Hottonia palustris	C, Dm	80.3
Callitriche palustris s. l.	Dm	29.4
Alisma plantago-aquatica	C	27.4
Glyceria fluitans	C	24.0
Sium latifolium		19.0
Constant species (3):		
Hottonia palustris	Dg, Dm	100.0
Alisma plantago-aquatica	Dg	59.0
Glyceria fluitans	Dg	41.0
Dominant species (3):		
Hottonia palustris	Dg, C	50.0
Alnus glutinosa		12.0
Callitriche palustris s. l.	Dg, C	6.0

VC Class
CHARETEA
Vegetation of stoneworts
Number of relevés: 116

Diagnostic species (21):		
Chara tomentosa	Dm	53.3
Chara fragilis	Dm	47.4
Nitellopsis obtusa	Dm	39.8
Chara rudis	Dm	35.7
Chara contraria		29.4
Fontinalis antipyretica		27.9
Nitella syncarpa	Dm	25.5
Potamogeton lucens		25.3
Utricularia vulgaris		24.0

Chara vulgaris		23.6
Myriophyllum spicatum		22.9
Nitella mucronata		22.4
Chara jubata		22.3
Chara aculeolata		21.9
Potamogeton natans		21.6
Chara hispida	Dm	21.3
Chara delicatula		20.9
Chara crassicaulis	Dm	20.5
Chara coronata	Dm	20.5
Chara tenuispina		18.4
Najas marina		18.3

Constant species (0):

Dominant species (9):

Chara tomentosa	Dg	26.0
Chara rudis	Dg	11.0
Chara fragilis	Dg	11.0
Nitellopsis obtusa	Dg	9.0
Nitella syncarpa	Dg	6.0
Chara coronata	Dg	5.0
Chara crassicaulis	Dg	4.0
Chara polyacantha		3.0
Chara hispida	Dg	3.0

VCA Alliance
Nitellion flexilis
Vegetation of stoneworts in calcium-poor water
Number of relevés: 10

Diagnostic species (13):

Nitella syncarpa	C, Dm	84.3
Chara fragilis	C	64.2
Chara vulgaris	Dm	46.5
Potamogeton gramineus		43.4
Fontinalis antipyretica	C	41.0
Chara aculeolata		40.4
Nymphaea alba	C	31.6
Aldrovanda vesiculosa		31.5
Potamogeton natans	C	27.0
Utricularia vulgaris	C	26.6
Chara delicatula	Dm	25.9
Najas marina		22.1
Batrachium aquatile s. l.		18.8

Constant species (2):

Nitella syncarpa	Dg, Dm	80.0
Chara fragilis	Dg	70.0

Dominant species (3):

Nitella syncarpa	Dg, C	70.0
Chara vulgaris	Dg	10.0
Chara delicatula	Dg	10.0

VCB Alliance

Charion globularis

Vegetation of stoneworts in calcium-rich or brackish water

Number of relevés: 101

Diagnostic species (11):

Chara tomentosa	Dm	54.0
Nitellopsis obtusa	Dm	41.2
Chara rudis	Dm	37.9
Chara contraria		30.0
Chara jubata		23.7
Nitella mucronata		23.4
Chara crassicaulis	Dm	22.2
Chara coronata	Dm	21.0
Potamogeton lucens		20.1
Chara tenuispina		19.8
Chara fragilis	Dm	19.6

Constant species (0):

Dominant species (8):

Chara tomentosa	Dg	30.0
Chara rudis	Dg	13.0
Chara fragilis	Dg	13.0
Nitellopsis obtusa	Dg	11.0
Chara coronata	Dg	6.0
Chara crassicaulis	Dg	5.0
Chara polyacantha		4.0
Chara hispida		4.0

VCC Alliance

Charion canescentis

Submerged stonewort swards of brackish to hyper-saline waters

Number of relevés: 6

Diagnostic species (14):

Tolypella nidifica	C	89.2
Chara canescens		57.6
Pylaiella littoralis		45.7
Zostera marina		44.1
Ectocarpus siliculosus		44.1
Chara delicatula		42.6
Cladophora fracta		40.7
Chara baltica		40.7
Chara aspera		37.2

Zannichellia palustris		37.1
Polysiphonia nigrescens		37.0
Sphacelaria cirrosa		36.6
Ceramium rubrum		36.6
Potamogeton pectinatus		31.6
Constant species (1):		
Tolypella nidifica	Dg	83.0
Dominant species (0):		

VD Class
LITTORELLETEA UNIFLORAE
Vegetation of oligotrophic water bodies
Number of relevés: 164

Diagnostic species (20):		
Juncus bulbosus	C, Dm	56.9
Eleocharis acicularis	Dm	48.2
Utricularia minor		33.1
Utricularia intermedia		29.0
Elatine hexandra		28.1
Ranunculus flammula		27.6
Callitriche palustris s. l.		27.1
Myriophyllum alternifolium		25.6
Lobelia dortmanna		25.5
Scorpidium scorpioides	Dm	24.0
Littorella uniflora		23.2
Isoëtes lacustris		23.2
Riccia cavernosa		22.3
Utricularia ochroleuca		21.3
Luronium natans		20.4
Eleocharis ovata		20.2
Gnaphalium uliginosum		20.0
Hydrocotyle vulgaris		19.8
Alisma plantago-aquatica		19.3
Juncus articulatus		19.0
Constant species (1):		
Juncus bulbosus	Dg, Dm	42.0
Dominant species (3):		
Eleocharis acicularis	Dg	27.0
Juncus bulbosus	Dg, C	11.0
Scorpidium scorpioides	Dg	3.0

VDA Alliance
Littorellion uniflorae
Submerged vegetation of oligotrophic water bodies
Number of relevés: 11

Diagnostic species (9):		
Lobelia dortmanna	C	99.8
Isoëtes lacustris	C, Dm	78.2
Myriophyllum alternifolium	C	77.2
Littorella uniflora		56.4
Sparganium angustifolium		51.3
Juncus bulbosus	C, Dm	34.2
Potamogeton perfoliatus	Dm	27.9
Potamogeton praelongus		26.3
Eleocharis palustris agg.	C	25.7
Constant species (5):		
Lobelia dortmanna	Dg	100.0
Myriophyllum alternifolium	Dg	64.0
Isoëtes lacustris	Dg, Dm	64.0
Eleocharis palustris agg.	Dg	55.0
Juncus bulbosus	Dg, Dm	45.0
Dominant species (3):		
Potamogeton perfoliatus	Dg	9.0
Juncus bulbosus	Dg, C	9.0
Isoëtes lacustris	Dg, C	9.0

VDB Alliance
Eleocharition acicularis
Vegetation of amphibious plants in shallow, oligotrophic to mesotrophic water bodies
Number of relevés: 112

Diagnostic species (10):		
Eleocharis acicularis	C, Dm	51.7
Juncus bulbosus	C, Dm	32.3
Elatine hexandra		26.6
Riccia cavernosa		25.6
Luronium natans		23.3
Pilularia globulifera		21.1
Callitriche palustris s. l.		21.1
Eleocharis ovata		21.0
Elatine hydropiper		20.3
Ranunculus flammula		18.2
Constant species (2):		
Eleocharis acicularis	Dg, Dm	59.0
Juncus bulbosus	Dg, Dm	43.0

Dominant species (2):

Eleocharis acicularis	Dg, C	30.0
Juncus bulbosus	Dg, C	4.0

VDC Alliance
Sphagno-Utricularion
Vegetation of oligotrophic pools with bladderworts
Number of relevés: 40

Diagnostic species (8):

Utricularia minor	C	60.8
Utricularia intermedia		46.8
Scorpidium scorpioides	Dm	44.4
Utricularia ochroleuca	Dm	43.3
Juncus bulbosus		30.0
Drosera intermedia		27.3
Campylium polygamum		21.0
Comarum palustre		18.4

Constant species (2):

Utricularia minor	Dg	62.0
Comarum palustre		42.0

Dominant species (5):

Scorpidium scorpioides	Dg	12.0
Sphagnum recurvum agg.		8.0
Utricularia ochroleuca	Dg	5.0
Sphagnum subsecundum		5.0
Sphagnum denticulatum		5.0

VE Class
ZOSTERETEA MARINAE
Eel-grass swards on muddy and sandy substrates in the sublittoral and eulittoral zones
Number of relevés: 26

Diagnostic species (29):

Polysiphonia nigrescens	C	66.3
Ceramium diaphanum	C	64.6
Furcellaria fastigiata		61.6
Fucus vesiculosus	Dm	61.6
Enteromorpha spp.	Dm	61.6
Phyllophora brodiaei		55.0
Enteromorpha compressa		55.0
Zostera marina		45.9
Ectocarpus siliculosus	Dm	45.9
Ulva clathrata		43.5
Cladophora sericea		43.5
Pilaiella littoralis	Dm	41.6
Potamogeton pectinatus		39.1
Enteromorpha linza		38.9

Ahnfeltia plicata		36.3
Spirulina subsalsa		33.6
Polysiphonia violacea		33.6
Enteromorpha lingulata		33.6
Rhodomela subfusca		27.4
Enteromorpha intestinalis		27.4
Cladophora gracilis		27.4
Cladophora glaucescens		27.4
Rivularia atra		27.1
Enteromorpha crinita		19.4
Elachista fucicola		19.4
Dictyosiphon hippuroides		19.4
Cladophora rupestris		19.4
Chorda filum		19.4
Ceramium strictum		19.4
Constant species (2):		
Polysiphonia nigrescens	Dg	46.0
Ceramium diaphanum	Dg	42.0
Dominant species (4):		
Enteromorpha spp.	Dg	12.0
Pilaiella littoralis	Dg	4.0
Fucus vesiculosus	Dg	4.0
Ectocarpus siliculosus	Dg	4.0

VEA Alliance

Zosterion marinae

Temperate eel-grass swards on muddy and sandy substrates in sublittoral and eulittoral zones

Number of relevés: 26

Diagnostic species (29):		
Ceramium diaphanum	C	64.9
Furcellaria fastigiata		61.9
Fucus vesiculosus	Dm	61.9
Enteromorpha spp.	Dm	61.9
Phyllophora brodiaei		55.3
Enteromorpha compressa		55.3
Polysiphonia nigrescens	C	51.5
Ulva clathrata		43.7
Cladophora sericea		43.7
Enteromorpha linza		39.1
Ahnfeltia plicata		35.1
Spirulina subsalsa		33.9
Polysiphonia violacea		33.9
Enteromorpha lingulata		33.9
Zostera marina		30.4
Ectocarpus siliculosus	Dm	30.4
Rhodomela subfusca		27.7
Enteromorpha intestinalis		27.7

Cladophora glaucescens		27.7
Cladophora gracilis		27.6
Rivularia atra		27.0
Pilaiella littoralis	Dm	26.2
Potamogeton pectinatus		25.4
Enteromorpha crinita		19.5
Elachista fucicola		19.5
Dictyosiphon hippuroides		19.5
Cladophora rupestris		19.5
Chorda filum		19.5
Ceramium strictum		19.5
Constant species (2):		
Polysiphonia nigrescens	Dg	46.0
Ceramium diaphanum	Dg	42.0
Dominant species (4):		
Enteromorpha spp.	Dg	12.0
Pilaiella littoralis	Dg	4.0
Fucus vesiculosus	Dg	4.0
Ectocarpus siliculosus	Dg	4.0

MA Class
ISOËTO-NANO-JUNCETEA
Vegetation of annual wetland herbs
Number of relevés: 190

Diagnostic species (37):		
Cyperus fuscus	C, Dm	54.3
Gnaphalium uliginosum	C	51.1
Juncus bufonius	C	46.5
Peplis portula		43.9
Anthoceros agrestis		39.7
Limosella aquatica		39.4
Plantago intermedia	C	39.1
Riccia glauca		37.3
Phaeoceros laevis		35.1
Rorippa palustris		34.6
Fossombronia wondraczekii		34.2
Riccia sorocarpa		33.7
Hypericum humifusum		33.1
Rumex maritimus		32.7
Centunculus minimus		27.7
Tortula truncata		27.5
Veronica anagallis-aquatica		26.8
Radiola linoides		24.7
Ranunculus sceleratus		24.2
Polygonum hydropiper		23.7
Trichodon cylindricus		23.7
Potentilla supina		22.3
Polygonum persicaria		21.8

Sagina procumbens		21.4
Gypsophila muralis		21.2
Bidens tripartita		20.6
Myosurus minimus		20.5
Leersia oryzoides		19.7
Eleocharis acicularis		19.7
Lindernia procumbens		19.4
Eleocharis ovata		19.1
Dicranella rufescens		18.9
Spergularia rubra		18.5
Pohlia melanodon		18.5
Bryum argenteum		18.3
Veronica serpyllifolia		18.1
Pulicaria vulgaris		18.1

Constant species (4):

Gnaphalium uliginosum	Dg	58.0
Cyperus fuscus	Dg, Dm	51.0
Plantago intermedia	Dg	46.0
Juncus bufonius	Dg	44.0

Dominant species (1):

Cyperus fuscus	Dg, C	6.0

MAA Alliance
Eleocharition ovatae
Vegetation of short-growing annual herbs on exposed bottoms of fisponds
Number of relevés: 110

Diagnostic species (19):

Cyperus fuscus	C, Dm	63.4
Limosella aquatica	C	48.4
Rumex maritimus	C	34.7
Gnaphalium uliginosum	C	33.4
Plantago intermedia	C	31.7
Rorippa palustris	C	31.3
Ranunculus sceleratus		27.3
Lindernia procumbens		26.5
Eleocharis acicularis		26.0
Eleocharis ovata		23.7
Potentilla supina		23.2
Dichostylis micheliana		21.3
Riccia cavernosa		21.1
Leersia oryzoides		20.9
Elatine hydropiper		20.7
Bidens frondosa		19.7
Juncus bufonius		19.2
Veronica anagallis-aquatica		19.1
Peplis portula		19.0

Constant species (6):

Cyperus fuscus	Dg, Dm	85.0
Gnaphalium uliginosum	Dg	68.0
Plantago intermedia	Dg	63.0
Limosella aquatica	Dg	50.0
Rorippa palustris	Dg	48.0
Rumex maritimus	Dg	47.0

Dominant species (1):

Cyperus fuscus	Dg, C	9.0

MAB Alliance
Radiolion linoidis
Vegetation of short-growing annual herbs on wet sand
Number of relevés: 68

Diagnostic species (26):

Anthoceros agrestis	C	66.8
Riccia glauca	C	61.1
Phaeoceros laevis		58.7
Fossombronia wondraczekii		57.5
Riccia sorocarpa		54.9
Hypericum humifusum		53.5
Centunculus minimus		46.1
Tortula truncata		43.7
Radiola linoides		42.1
Peplis portula		33.7
Juncus bufonius	C, Dm	31.8
Dicranella rufescens		31.6
Trichodon cylindricus		30.1
Atrichum tenellum		28.2
Pohlia annotina		26.7
Gypsophila muralis		26.6
Tortula acaulon		26.1
Bryum argenteum		25.0
Sagina procumbens		24.7
Juncus capitatus		24.6
Riccia ciliata		24.2
Illecebrum verticillatum		24.0
Ephemerum serratum		24.0
Gnaphalium uliginosum	C	21.9
Blasia pusilla		20.7
Spergula arvensis		18.9

Constant species (4):

Juncus bufonius	Dg, Dm	57.0
Gnaphalium uliginosum	Dg	46.0
Anthoceros agrestis	Dg	46.0
Riccia glauca	Dg	43.0

Dominant species (1):

Juncus bufonius	Dg, C	4.0

MAC Alliance
Verbenion supinae
Vegetation of annual herbs on base-rich exposed bottoms in warm areas
Number of relevés: 12

Diagnostic species (13):

Myosurus minimus	C	65.1
Pulicaria vulgaris	C, Dm	49.4
Ranunculus sardous		39.9
Philonotis marchica		39.0
Bidens tripartita	C	35.0
Cerastium glomeratum		32.0
Polygonum hydropiper	C	29.5
Veronica anagallis-aquatica		28.4
Peplis portula	Dm	28.2
Juncus bufonius	C	27.6
Cyperus flavescens		24.9
Bidens cernua		21.5
Gnaphalium uliginosum	C	19.9

Constant species (7):

Bidens tripartita	Dg	67.0
Polygonum hydropiper	Dg	58.0
Myosurus minimus	Dg	50.0
Juncus bufonius	Dg	50.0
Pulicaria vulgaris	Dg, Dm	42.0
Potentilla anserina		42.0
Gnaphalium uliginosum	Dg	42.0

Dominant species (3):

Pulicaria vulgaris	Dg, C	25.0
Peplis portula	Dg	8.0
Juncus compressus		8.0

MB Class
BIDENTETEA TRIPARTITAE
Vegetation of annual nitrophilous wetland herbs
Number of relevés: 169

Diagnostic species (22):

Bidens cernua		45.6
Bidens tripartita	C	42.3
Polygonum lapathifolium s. l.	C	39.2
Bidens frondosa		38.2
Polygonum hydropiper	C, Dm	37.5
Rumex maritimus	Dm	36.9
Rorippa palustris		34.1

Alopecurus aequalis		33.7
Chenopodium rubrum		33.6
Ranunculus sceleratus		32.6
Chenopodium glaucum	Dm	29.4
Echinochloa crus-galli		25.0
Polygonum persicaria		24.8
Oenanthe aquatica		23.1
Polygonum mite		22.9
Polygonum minus		22.6
Rorippa amphibia		20.7
Bidens connata		20.6
Bidens radiata		20.1
Myosoton aquaticum		19.2
Pulicaria vulgaris		19.0
Plantago intermedia		18.4
Constant species (3):		
Polygonum lapathifolium s. l.	Dg	45.0
Polygonum hydropiper	Dg, Dm	43.0
Bidens tripartita	Dg	43.0
Dominant species (4):		
Polygonum hydropiper	Dg, C	8.0
Rumex maritimus	Dg	7.0
Chenopodium glaucum	Dg	4.0
Atriplex prostrata s. l.		4.0

MBA Alliance

Bidention tripartitae

Nitrophilous vegetation of exposed bottoms and wet ruderal habitats

Number of relevés: 118

Diagnostic species (11):		
Bidens cernua	C	37.0
Bidens tripartita	C	28.7
Alopecurus aequalis	Dm	28.1
Rorippa palustris	C	26.9
Ranunculus sceleratus		26.8
Bidens frondosa		26.5
Polygonum hydropiper	C, Dm	26.4
Rumex maritimus	Dm	23.3
Bidens connata		23.3
Polygonum minus		20.6
Polygonum mite		19.3
Constant species (5):		
Bidens tripartita	Dg	55.0
Polygonum hydropiper	Dg, Dm	53.0
Rorippa palustris	Dg	42.0
Polygonum lapathifolium s. l.	Dm	42.0
Bidens cernua	Dg	42.0

Dominant species (4):

Polygonum hydropiper	Dg, C	12.0
Rumex maritimus	Dg	8.0
Alopecurus aequalis	Dg	4.0
Polygonum lapathifolium s. l.	C	3.0

MBB Alliance
Chenopodion rubri
Nitrophilous vegetation with *Chenopodium* and *Atriplex* in wet habitats
Number of relevés: 51

Diagnostic species (7):

Chenopodium glaucum	C, Dm	49.6
Chenopodium rubrum	C, Dm	46.7
Atriplex prostrata s. l.	C, Dm	27.0
Potentilla supina		23.8
Rumex maritimus	Dm	21.2
Polygonum lapathifolium s. l.	C	20.8
Bidens frondosa		18.1

Constant species (4):

Chenopodium rubrum	Dg, Dm	59.0
Chenopodium glaucum	Dg, Dm	55.0
Polygonum lapathifolium s. l.	Dg	51.0
Atriplex prostrata s. l.	Dg, Dm	49.0

Dominant species (4):

Chenopodium glaucum	Dg, C	12.0
Atriplex prostrata s. l.	Dg, C	12.0
Chenopodium rubrum	Dg, C	8.0
Rumex maritimus	Dg	4.0

MC Class
PHRAGMITO-MAGNO-CARICETEA
Marsh vegetation
Number of relevés: 3395

Diagnostic species (12):

Carex gracilis	Dm	29.4
Lythrum salicaria		26.7
Glyceria maxima	Dm	25.1
Galium palustre agg.	C	23.7
Rumex hydrolapathum		23.6
Phragmites australis	Dm	19.5
Equisetum fluviatile		19.1
Polygonum amphibium s. l.		18.4
Phalaris arundinacea	Dm	18.3
Typha latifolia		18.2
Carex acutiformis	Dm	18.2
Iris pseudacorus		18.1

Constant species (1):

Galium palustre agg.	Dg	41.0

Dominant species (5):

Carex gracilis	Dg	8.0
Phragmites australis	Dg	7.0
Glyceria maxima	Dg	5.0
Carex acutiformis	Dg	5.0
Phalaris arundinacea	Dg	4.0

MCA Alliance
Phragmition australis
Fresh-water reed vegetation
Number of relevés: 1089

Diagnostic species (2):

Glyceria maxima	Dm	23.4
Acorus calamus	Dm	20.3

Constant species (1):

Phragmites australis	Dm	51.0

Dominant species (8):

Phragmites australis	C	22.0
Glyceria maxima	Dg	14.0
Typha latifolia		8.0
Typha angustifolia		5.0
Sparganium erectum		5.0
Schoenoplectus lacustris		4.0
Acorus calamus	Dg	4.0
Equisetum fluviatile		3.0

MCB Alliance
Meliloto dentati-Bolboschoenion maritimi
Continental brackish marsh vegetation
Number of relevés: 51

Diagnostic species (8):

Bolboschoenus maritimus	C, Dm	72.6
Schoenoplectus tabernaemontani	C	57.5
Chara polyacantha		31.5
Mentha aquatica	C	23.7
Typha angustifolia		23.3
Teucrium scordium		22.9
Inula britannica		21.8
Eleocharis palustris agg.	C	20.0

Constant species (6):

Bolboschoenus maritimus	Dg, Dm	100.0
Schoenoplectus tabernaemontani	Dg	55.0

Phragmites australis	Dm	49.0
Eleocharis palustris agg.	Dg	43.0
Mentha aquatica	Dg	41.0
Agrostis stolonifera		41.0

Dominant species (3):

Bolboschoenus maritimus	Dg, C	73.0
Phragmites australis	C	4.0
Calliergonella cuspidata		4.0

MCC Alliance

Eleocharito palustris-Sagittarion sagittifoliae

Vegetation of large wetland herbs in habitats with periodical changes of water level

Number of relevés: 223

Diagnostic species (5):

Oenanthe aquatica	Dm	23.6
Sparganium emersum	Dm	22.9
Rorippa amphibia	Dm	21.5
Alisma plantago-aquatica	C	21.4
Scirpus radicans	Dm	19.0

Constant species (1):

Alisma plantago-aquatica	Dg	47.0

Dominant species (7):

Eleocharis palustris agg.		13.0
Rorippa amphibia	Dg	7.0
Oenanthe aquatica	Dg	7.0
Scirpus radicans	Dg	4.0
Sparganium emersum	Dg	3.0
Hippuris vulgaris		3.0
Butomus umbellatus		3.0

MCD Alliance

Phalaridion arundinaceae

Reed and tall-sedge vegetation on river banks

Number of relevés: 68

Diagnostic species (4):

Phalaris arundinacea	C, Dm	31.2
Myosoton aquaticum		26.5
Carex buekii		19.4
Urtica dioica	C, Dm	19.2

Constant species (3):

Urtica dioica	Dg, Dm	93.0
Phalaris arundinacea	Dg, Dm	90.0
Cirsium arvense		57.0

Dominant species (2):

Phalaris arundinacea	Dg, C	29.0
Urtica dioica	Dg, C	16.0

MCE Alliance
Glycerio-Sparganion
Medium-tall reed stands along brooks and on floating islands
Number of relevés: 178

Diagnostic species (4):

Glyceria fluitans	C, Dm	36.9
Berula erecta		29.4
Nasturtium officinale	Dm	25.4
Leersia oryzoides		19.8

Constant species (2):

Glyceria fluitans	Dg, Dm	62.0
Myosotis palustris agg.		42.0

Dominant species (2):

Glyceria fluitans	Dg, C	16.0
Nasturtium officinale	Dg	4.0

MCF Alliance
Carici-Rumicion hydrolapathi
Vegetation of wetland herbs on organic muddy sediments
Number of relevés: 112

Diagnostic species (4):

Carex pseudocyperus	C	32.2
Thelypteris palustris	C, Dm	31.0
Cicuta virosa		26.9
Calla palustris		24.2

Constant species (6):

Thelypteris palustris	Dg, Dm	55.0
Phragmites australis	Dm	44.0
Lysimachia vulgaris		43.0
Lycopus europaeus		43.0
Galium palustre agg.		43.0
Carex pseudocyperus	Dg	42.0

Dominant species (6):

Thelypteris palustris	Dg, C	15.0
Sphagnum recurvum agg.		6.0
Phragmites australis	C	6.0
Carex paniculata		6.0
Sphagnum cuspidatum		5.0
Calla palustris	Dg	4.0

MCG Alliance

Magno-Caricion elatae

Tall-sedge vegetation in littoral zones of oligotrophic and mesotrophic water bodies
Number of relevés: 509

Diagnostic species (4):		
Carex elata	Dm	26.6
Carex appropinquata	Dm	23.5
Cladium mariscus	Dm	19.7
Galium palustre agg.	C	18.1
Constant species (6):		
Galium palustre agg.	Dg	62.0
Lythrum salicaria		52.0
Lysimachia vulgaris		47.0
Calliergonella cuspidata	Dm	44.0
Carex rostrata	Dm	42.0
Comarum palustre		41.0
Dominant species (6):		
Carex rostrata	C	15.0
Carex elata	Dg	14.0
Carex appropinquata	Dg	11.0
Cladium mariscus	Dg	10.0
Calliergonella cuspidata	C	8.0
Calamagrostis canescens		5.0

MCH Alliance

Magno-Caricion gracilis

Tall-sedge vegetation in littoral zones of eutrophic water bodies
Number of relevés: 1165

Diagnostic species (2):		
Carex gracilis	C, Dm	26.5
Carex acutiformis	Dm	18.9
Constant species (3):		
Lythrum salicaria		55.0
Galium palustre agg.		55.0
Carex gracilis	Dg, Dm	45.0
Dominant species (8):		
Carex gracilis	Dg, C	23.0
Carex acutiformis	Dg	15.0
Phalaris arundinacea		11.0
Carex riparia		5.0
Carex disticha		5.0
Carex vesicaria		4.0
Carex paniculata		4.0
Calliergonella cuspidata		4.0

RA Class
MONTIO-CARDAMINETEA
Vegetation of springs
Number of relevés: 279

Diagnostic species (29):		
Chrysosplenium alternifolium	C	46.8
Carex remota	Dm	44.9
Cardamine amara subsp. *amara*	C, Dm	43.8
Impatiens noli-tangere	C	38.3
Stellaria nemorum	C	37.3
Rhizomnium punctatum s. l.		35.9
Chrysosplenium oppositifolium	Dm	35.5
Chaerophyllum hirsutum		35.0
Lysimachia nemorum		33.7
Brachythecium rivulare		33.7
Athyrium filix-femina	C	33.1
Petasites albus	Dm	32.7
Carex sylvatica		28.5
Stachys sylvatica		28.1
Crepis paludosa		27.4
Veronica montana		26.1
Cardamine flexuosa		25.3
Circaea lutetiana		24.7
Plagiomnium undulatum		24.2
Stellaria uliginosa		23.7
Equisetum sylvaticum		23.7
Myosotis palustris agg.		23.2
Galeobdolon luteum s. l.		23.2
Oxalis acetosella	C	20.3
Allium sibiricum		19.7
Scapania undulata		19.4
Caltha laeta		19.4
Epilobium alsinifolium		19.3
Ranunculus repens		19.0
Constant species (7):		
Impatiens noli-tangere	Dg	51.0
Athyrium filix-femina	Dg	50.0
Urtica dioica		49.0
Chrysosplenium alternifolium	Dg	48.0
Stellaria nemorum	Dg	45.0
Cardamine amara subsp. *amara*	Dg, Dm	44.0
Oxalis acetosella	Dg	43.0
Dominant species (4):		
Chrysosplenium oppositifolium	Dg	6.0
Petasites albus	Dg	4.0
Carex remota	Dg	4.0
Cardamine amara subsp. *amara*	Dg, C	4.0

RAA Alliance
Caricion remotae
Vegetation of non-calcareous forest springs
Number of relevés: 246

Diagnostic species (10):

Chrysosplenium oppositifolium	Dm	38.0
Cardamine amara subsp. *amara*	C, Dm	32.0
Carex remota	C, Dm	31.7
Chrysosplenium alternifolium	C	30.2
Impatiens noli-tangere	C	26.7
Stellaria nemorum	C	21.6
Athyrium filix-femina	C	21.4
Lysimachia nemorum		19.7
Petasites albus	Dm	19.2
Rhizomnium punctatum s. l.		18.9

Constant species (9):

Impatiens noli-tangere	Dg	58.0
Athyrium filix-femina	Dg	56.0
Urtica dioica		55.0
Chrysosplenium alternifolium	Dg	53.0
Stellaria nemorum	Dg	50.0
Oxalis acetosella		49.0
Cardamine amara subsp. *amara*	Dg, Dm	49.0
Carex remota	Dg, Dm	44.0
Ranunculus repens		43.0

Dominant species (4):

Chrysosplenium oppositifolium	Dg	7.0
Petasites albus	Dg	5.0
Carex remota	Dg, C	4.0
Cardamine amara subsp. *amara*	Dg, C	4.0

RAB Alliance
Lycopodo europaei-Cratoneurion commutati
Vegetation of calcareous forest springs with tufa formation
Number of relevés: 12

Diagnostic species (16):

Palustriella commutata	C, Dm	80.9
Cratoneuron filicinum		41.6
Bryum pseudotriquetrum	C	41.0
Epilobium alsinifolium	C	40.1
Riccardia multifida		28.8
Marchantia aquatica		27.6
Rhizomnium punctatum s. l.		27.2
Equisetum palustre	C	26.1
Stellaria uliginosa		25.7
Viola biflora	C	22.6

Valeriana simplicifolia		21.3
Cirsium rivulare		20.8
Plagiochila porelloides		19.2
Pellia neesiana		19.1
Pellia endiviifolia		18.9
Chaerophyllum hirsutum	C, Dm	18.5
Constant species (8):		
Palustriella commutata	Dg, Dm	92.0
Equisetum palustre	Dg	67.0
Deschampsia caespitosa		58.0
Bryum pseudotriquetrum	Dg	58.0
Viola biflora	Dg	42.0
Myosotis palustris agg.		42.0
Epilobium alsinifolium	Dg	42.0
Chaerophyllum hirsutum	Dg, Dm	42.0
Dominant species (6):		
Palustriella commutata	Dg, C	33.0
Climacium dendroides		25.0
Menyanthes trifoliata		8.0
Palustriella decipiens		8.0
Chaerophyllum hirsutum	Dg, C	8.0
Alnus incana		8.0

RAC Alliance

Epilobio nutantis-Montion fontanae

Vegetation of subatlantic, submontane springs in open habitats

Number of relevés: 2

Diagnostic species (11):		
Montia fontana s. l.	C	99.4
Philonotis caespitosa	C	69.3
Scapania nemorea	C	63.7
Carex canescens	C	55.5
Philonotis fontana	C, Dm	53.4
Viola palustris	C	50.2
Epilobium palustre	C	44.0
Agrostis canina	C	43.1
Juncus articulatus	C	38.4
Juncus effusus	C	33.9
Myosotis palustris agg.	C	30.1
Constant species (26):		
Viola palustris	Dg	100.0
Ranunculus repens		100.0
Myosotis palustris agg.	Dg	100.0
Montia fontana s. l.	Dg	100.0
Juncus effusus	Dg	100.0
Juncus articulatus	Dg	100.0
Epilobium palustre	Dg	100.0

Carex canescens	Dg	100.0
Agrostis canina	Dg	100.0
Veronica beccabunga		50.0
Trifolium repens		50.0
Stellaria uliginosa		50.0
Sphagnum recurvum agg.		50.0
Scirpus sylvaticus		50.0
Scapania nemorea	Dg	50.0
Rumex acetosa		50.0
Philonotis fontana	Dg, Dm	50.0
Philonotis caespitosa	Dg	50.0
Galium palustre agg.		50.0
Equisetum palustre		50.0
Deschampsia caespitosa		50.0
Carex ovalis		50.0
Carex nigra		50.0
Calliergonella cuspidata		50.0
Straminergon stramineum		50.0
Brachythecium rivulare		50.0

Dominant species (1):

Philonotis fontana	Dg, C	50.0

RAD Alliance

Swertio perennis-Dichodontion palustris

Vegetation of non-calcareous alpine and subalpine springs

Number of relevés: 19

Diagnostic species (24):

Scapania uliginosa	C	74.1
Allium sibiricum	C, Dm	73.3
Bryum schleicheri	C	62.4
Aconitum plicatum		55.8
Diobelonella palustris	Dm	52.6
Swertia perennis	C	49.0
Epilobium anagallidifolium		47.7
Pohlia wahlenbergii		47.1
Epilobium alsinifolium	C	45.7
Warnstorfia sarmentosa		44.8
Philonotis seriata		43.9
Meesia triquetra		43.6
Epilobium nutans		41.3
Viola biflora	C	40.9
Blindia acuta		39.2
Pedicularis sudetica		37.8
Caltha laeta		37.5
Sphagnum subsecundum		36.8
Rhizomnium punctatum s. l.	C	29.8
Cardamine amara subsp. *opizii*		26.4
Scapania subalpina		22.9

Salix lapponum		22.9
Jungermannia obovata		22.9
Sphagnum squarrosum		19.9
Constant species (9):		
Viola biflora	Dg	74.0
Deschampsia caespitosa		74.0
Allium sibiricum	Dg, Dm	63.0
Scapania uliginosa	Dg	58.0
Epilobium alsinifolium	Dg	47.0
Bryum schleicheri	Dg	47.0
Swertia perennis	Dg	42.0
Rhizomnium punctatum s. l.	Dg	42.0
Alchemilla vulgaris s. l.		42.0
Dominant species (5):		
Diobelonella palustris	Dg	16.0
Allium sibiricum	Dg, C	11.0
Aconitum firmum		11.0
Palustriella decipiens		5.0
Palustriella commutata		5.0

RB Class
SCHEUCHZERIO PALUSTRIS-CARICETEA FUSCAE
Vegetation of fens, transitional mires and bog hollows
Number of relevés: 1063

Diagnostic species (37):		
Carex panicea		38.6
Carex rostrata	C, Dm	38.3
Eriophorum angustifolium	C	36.5
Carex nigra	C	34.8
Carex echinata		32.2
Agrostis canina		32.0
Eriophorum latifolium		31.7
Carex flava agg.		30.2
Dactylorhiza majalis s. l.		29.7
Carex limosa		28.9
Sphagnum recurvum agg.	Dm	28.7
Epipactis palustris		28.5
Menyanthes trifoliata		27.9
Carex canescens		26.7
Bryum pseudotriquetrum		26.3
Comarum palustre		25.8
Viola palustris		25.5
Drosera rotundifolia		25.5
Galium uliginosum		24.5
Carex diandra		23.7
Straminergon stramineum		23.5
Aulacomnium palustre		22.9
Limprichtia revolvens s. l.		22.5

Carex dioica		22.4
Rhynchospora alba	Dm	22.2
Potentilla erecta		22.0
Oxycoccus palustris s. l.		21.9
Cirsium rivulare		21.2
Equisetum palustre		20.6
Calliergonella cuspidata		20.5
Cirsium palustre		19.8
Sphagnum teres		19.7
Tomentypnum nitens		19.5
Valeriana dioica		19.2
Lotus uliginosus		19.1
Carex davalliana		18.8
Pinguicula vulgaris		18.1
Constant species (3):		
Carex nigra	Dg	49.0
Eriophorum angustifolium	Dg	41.0
Carex rostrata	Dg, Dm	41.0
Dominant species (4):		
Sphagnum recurvum agg.	Dg	19.0
Molinia caerulea s. l.		4.0
Rhynchospora alba	Dg	3.0
Carex rostrata	Dg, C	3.0

RBA Alliance
Caricion davallianae
Calcareous fens
Number of relevés: 217

Diagnostic species (28):		
Eriophorum latifolium	C	43.6
Carex flava agg.	C	40.1
Carex panicea	C	39.3
Dactylorhiza majalis s. l.	C	38.3
Carex davalliana	Dm	34.7
Cirsium rivulare	C	33.9
Valeriana simplicifolia		30.9
Epipactis palustris		30.7
Bryum pseudotriquetrum	C	29.2
Eleocharis quinqueflora		29.0
Limprichtia revolvens s. l.		28.9
Campylium stellatum		27.8
Schoenus nigricans		27.1
Pinguicula vulgaris		24.9
Triglochin palustre		24.4
Briza media	C	21.5
Equisetum palustre	C, Dm	21.0
Pohlia wahlenbergii		20.2
Prunella vulgaris	C	20.1

Calliergonella cuspidata	C, Dm	20.0
Crepis paludosa	C	19.9
Liparis loeselii		19.7
Potentilla erecta	C	19.6
Juncus articulatus	C	19.5
Carex flacca		19.1
Carex lepidocarpa		18.8
Gentianella uliginosa		18.4
Carex echinata		18.2

Constant species (16):

Carex panicea	Dg	84.0
Potentilla erecta	Dg	69.0
Carex flava agg.	Dg	64.0
Briza media	Dg	59.0
Carex nigra		56.0
Calliergonella cuspidata	Dg, Dm	55.0
Equisetum palustre	Dg, Dm	54.0
Ranunculus acris		53.0
Juncus articulatus	Dg	53.0
Dactylorhiza majalis s. l.	Dg	53.0
Cirsium rivulare	Dg	53.0
Prunella vulgaris	Dg	50.0
Eriophorum latifolium	Dg	49.0
Crepis paludosa	Dg	42.0
Bryum pseudotriquetrum	Dg	42.0
Caltha palustris		41.0

Dominant species (4):

Molinia caerulea s. l.		5.0
Equisetum palustre	Dg, C	4.0
Carex davalliana	Dg	4.0
Calliergonella cuspidata	Dg, C	4.0

RBB Alliance

Sphagno warnstorfii-Tomentypnion nitentis

Fens with calcicolous species and calcitolerant peat mosses

Number of relevés: 37

Diagnostic species (36):

Tomentypnum nitens	C	62.7
Sphagnum warnstorfii	Dm	54.3
Carex dioica		47.8
Paludella squarrosa	Dm	47.1
Epipactis palustris	C	45.9
Sphagnum teres	C	44.0
Helodium blandowii		42.9
Sphagnum contortum		39.3
Eriophorum latifolium	C	38.6
Hamatocaulis vernicosus		37.7
Campylium stellatum	C	37.7

Carex diandra	Dm	34.2
Limprichtia revolvens s. l.		34.0
Aulacomnium palustre	C	32.4
Menyanthes trifoliata	C	31.9
Galium uliginosum	C	31.3
Carex echinata	C	31.3
Hammarbya paludosa		30.8
Carex limosa		30.1
Carex flava agg.	C	26.7
Bryum pseudotriquetrum		26.3
Carex panicea	C	26.0
Dactylorhiza majalis s. l.		25.3
Equisetum fluviatile	C	25.1
Calliergonella cuspidata	C	25.1
Hypnum pratense		24.5
Pedicularis palustris		22.5
Dicranum bonjeanii		22.0
Carex rostrata	C	21.8
Climacium dendroides	C	21.0
Pinguicula vulgaris		20.8
Cirsium rivulare		20.2
Sphagnum obtusum		19.4
Crepis paludosa	C	19.0
Drosera rotundifolia	C	18.5
Valeriana simplicifolia		18.3

Constant species (26):

Calliergonella cuspidata	Dg	68.0
Galium uliginosum	Dg	65.0
Aulacomnium palustre	Dg	62.0
Potentilla erecta	Dm	57.0
Menyanthes trifoliata	Dg	57.0
Tomentypnum nitens	Dg	57.0
Equisetum fluviatile	Dg	57.0
Epipactis palustris	Dg	57.0
Carex panicea	Dg	57.0
Carex echinata	Dg	54.0
Carex rostrata	Dg	51.0
Carex nigra		51.0
Festuca rubra agg.		49.0
Briza media		49.0
Sphagnum teres	Dg	46.0
Plagiomnium affine s. l.		46.0
Campylium stellatum	Dg	46.0
Lychnis flos-cuculi		43.0
Leontodon hispidus		43.0
Eriophorum latifolium	Dg	43.0
Carex flava agg.	Dg	43.0
Ranunculus acris		41.0
Drosera rotundifolia	Dg	41.0
Crepis paludosa	Dg	41.0

Climacium dendroides	Dg	41.0
Anthoxanthum odoratum s. l.		41.0
Dominant species (3):		
Sphagnum warnstorfii	Dg	16.0
Paludella squarrosa	Dg	5.0
Carex diandra	Dg	5.0

RBC Alliance
Caricion canescenti-nigrae
Sligthly acidic fens
Number of relevés: 330

Diagnostic species (2):		
Carex rostrata	C	23.7
Carex nigra	C, Dm	21.3
Constant species (3):		
Carex nigra	Dg, Dm	66.0
Carex rostrata	Dg	55.0
Festuca rubra agg.		42.0
Dominant species (4):		
Calliergonella cuspidata		4.0
Sphagnum recurvum agg.		3.0
Carex nigra	Dg, C	3.0
Carex diandra		3.0

RBD Alliance
Sphagno-Caricion canescentis
Acidic fens (transitional mires)
Number of relevés: 317

Diagnostic species (4):		
Sphagnum recurvum agg.	C, Dm	25.9
Eriophorum angustifolium	C, Dm	20.4
Agrostis canina	C	19.1
Comarum palustre	C	18.2
Constant species (6):		
Sphagnum recurvum agg.	Dg, Dm	68.0
Eriophorum angustifolium	Dg, Dm	49.0
Agrostis canina	Dg	46.0
Carex rostrata	Dm	43.0
Comarum palustre	Dg	42.0
Carex nigra		42.0
Dominant species (6):		
Sphagnum recurvum agg.	Dg, C	44.0
Carex rostrata	C	8.0
Molinia caerulea s. l.		7.0

Carex lasiocarpa		5.0
Eriophorum angustifolium	Dg, C	4.0
Oxycoccus palustris s. l.		3.0

RBE Alliance
Sphagnion cuspidati
Vegetation of bog hollows
Number of relevés: 162

Diagnostic species (10):

Rhynchospora alba	C, Dm	45.0
Carex limosa	Dm	36.4
Scheuchzeria palustris	Dm	32.5
Drosera rotundifolia	C	31.9
Eriophorum angustifolium	C, Dm	31.7
Oxycoccus palustris s. l.	C, Dm	31.4
Sphagnum recurvum agg.	C, Dm	28.7
Sphagnum cuspidatum	Dm	26.6
Carex rostrata	C	21.2
Warnstorfia fluitans		18.2

Constant species (6):

Sphagnum recurvum agg.	Dg, Dm	75.0
Eriophorum angustifolium	Dg, Dm	73.0
Oxycoccus palustris s. l.	Dg, Dm	69.0
Drosera rotundifolia	Dg	68.0
Carex rostrata	Dg	50.0
Rhynchospora alba	Dg, Dm	46.0

Dominant species (10):

Sphagnum recurvum agg.	Dg, C	33.0
Rhynchospora alba	Dg, C	18.0
Sphagnum cuspidatum	Dg	7.0
Oxycoccus palustris s. l.	Dg, C	7.0
Eriophorum angustifolium	Dg, C	6.0
Sphagnum magellanicum		4.0
Scheuchzeria palustris	Dg	4.0
Carex limosa	Dg	4.0
Sphagnum papillosum		3.0
Sphagnum denticulatum		3.0

RC Class
OXYCOCCO-SPHAGNETEA
Bog vegetation
Number of relevés: 306

Diagnostic species (28):

Eriophorum vaginatum	C, Dm	75.8
Oxycoccus palustris s. l.	C, Dm	71.4
Andromeda polifolia	C	61.7

Sphagnum recurvum agg.	C, Dm	56.7
Ledum palustre	C	54.7
Sphagnum magellanicum	Dm	52.5
Polytrichum strictum		51.5
Erica tetralix		49.2
Drosera rotundifolia	C	48.6
Vaccinium uliginosum s. l.		39.6
Aulacomnium palustre		36.9
Betula pubescens	C	34.8
Sphagnum capillifolium s. l.		34.7
Eriophorum angustifolium		34.0
Sphagnum papillosum		30.9
Calluna vulgaris	C	30.1
Sphagnum cuspidatum	Dm	26.8
Molinia caerulea s. l.		26.2
Pinus sylvestris	C, Dm	25.2
Baeothryon cespitosum		21.5
Sphagnum tenellum		21.3
Mylia anomala		21.3
Straminergon stramineum		20.4
Rhynchospora alba		19.7
Sphagnum fimbriatum		19.6
Sphagnum compactum		19.6
Sphagnum denticulatum		19.2
Sphagnum palustre s. l.		18.8
Constant species (9):		
Oxycoccus palustris s. l.	Dg, Dm	77.0
Eriophorum vaginatum	Dg, Dm	72.0
Sphagnum recurvum agg.	Dg, Dm	70.0
Pinus sylvestris	Dg, Dm	69.0
Drosera rotundifolia	Dg	49.0
Andromeda polifolia	Dg	48.0
Calluna vulgaris	Dg	47.0
Betula pubescens	Dg	47.0
Ledum palustre	Dg	43.0
Dominant species (6):		
Sphagnum recurvum agg.	Dg, C	29.0
Eriophorum vaginatum	Dg, C	8.0
Sphagnum magellanicum	Dg	7.0
Oxycoccus palustris s. l.	Dg, C	6.0
Sphagnum cuspidatum	Dg	4.0
Pinus sylvestris	Dg, C	4.0

RCA Alliance
Sphagnion magellanici
Continental and subcontinental bogs
Number of relevés: 194

Diagnostic species (11):

Eriophorum vaginatum	C, Dm	46.6
Oxycoccus palustris s. l.	C, Dm	35.8
Ledum palustre	C	34.6
Polytrichum strictum	C	30.9
Sphagnum recurvum agg.	C, Dm	30.6
Andromeda polifolia		25.2
Vaccinium uliginosum s. l.		23.9
Sphagnum magellanicum	Dm	23.9
Betula pubescens	C	23.2
Sphagnum capillifolium s. l.		19.5
Drosera rotundifolia	C	19.1

Constant species (9):

Sphagnum recurvum agg.	Dg, Dm	79.0
Eriophorum vaginatum	Dg, Dm	79.0
Oxycoccus palustris s. l.	Dg, Dm	78.0
Pinus sylvestris	Dm	71.0
Betula pubescens	Dg	57.0
Ledum palustre	Dg	51.0
Polytrichum strictum	Dg	42.0
Drosera rotundifolia	Dg	42.0
Molinia caerulea s. l.		41.0

Dominant species (7):

Sphagnum recurvum agg.	Dg, C	37.0
Eriophorum vaginatum	Dg, C	12.0
Pinus sylvestris	C	6.0
Oxycoccus palustris s. l.	Dg, C	6.0
Sphagnum magellanicum	Dg	4.0
Sphagnum cuspidatum		4.0
Pinus mugo		3.0

RCB Alliance
Oxycocco palustris-Ericion tetralicis
Oceanic and suboceanic bogs
Number of relevés: 39

Diagnostic species (25):

Erica tetralix	C, Dm	72.8
Andromeda polifolia	C	38.4
Sphagnum papillosum		37.6
Sphagnum tenellum		36.6
Oxycoccus palustris s. l.	C	30.5
Drosera rotundifolia	C	30.0

Sphagnum fuscum		28.4
Hypnum jutlandicum		25.1
Eriophorum vaginatum	C	25.1
Sphagnum capillifolium s. l.	C, Dm	24.1
Sphagnum denticulatum	Dm	23.3
Sphagnum cuspidatum	Dm	23.1
Eriophorum angustifolium	C	22.8
Sphagnum magellanicum	Dm	22.7
Sphagnum molle		22.6
Calluna vulgaris	C	22.5
Sphagnum recurvum agg.	C, Dm	22.3
Sphagnum compactum		20.7
Baeothryon cespitosum		20.5
Aulacomnium palustre		19.5
Polytrichum strictum		18.4
Odontoschisma sphagni		18.4
Leucobryum glaucum		18.4
Pinus sylvestris	C	18.2
Cetraria muricata		18.1
Constant species (11):		
Erica tetralix	Dg, Dm	95.0
Pinus sylvestris	Dg	79.0
Oxycoccus palustris s. l.	Dg	67.0
Drosera rotundifolia	Dg	64.0
Calluna vulgaris	Dg	64.0
Sphagnum recurvum agg.	Dg, Dm	59.0
Andromeda polifolia	Dg	59.0
Eriophorum angustifolium	Dg	54.0
Molinia caerulea s. l.		44.0
Eriophorum vaginatum	Dg	44.0
Sphagnum capillifolium s. l.	Dg, Dm	41.0
Dominant species (7):		
Sphagnum recurvum agg.	Dg, C	15.0
Erica tetralix	Dg, C	13.0
Sphagnum capillifolium s. l.	Dg, C	10.0
Sphagnum magellanicum	Dg	8.0
Vaccinium uliginosum s. l.		5.0
Sphagnum denticulatum	Dg	5.0
Sphagnum cuspidatum	Dg	5.0

RCC Alliance
Oxycocco microcarpi-Empetrion hermaphroditi
Boreal bogs
Number of relevés: 73

Diagnostic species (13):		
Andromeda polifolia	C	43.0
Eriophorum vaginatum	C, Dm	40.0
Oxycoccus palustris s. l.	C, Dm	37.9

Sphagnum magellanicum	C, Dm	35.0
Vaccinium uliginosum s. l.	C	31.1
Sphagnum capillifolium s. l.	C	30.0
Drosera rotundifolia	C	28.2
Polytrichum strictum		26.9
Calluna vulgaris	C	25.2
Baeothryon cespitosum	Dm	24.7
Ledum palustre		20.0
Sphagnum recurvum agg.	C, Dm	19.5
Erica tetralix		18.3
Constant species (10):		
Oxycoccus palustris s. l.	Dg, Dm	82.0
Calluna vulgaris	Dg	71.0
Eriophorum vaginatum	Dg, Dm	68.0
Andromeda polifolia	Dg	66.0
Drosera rotundifolia	Dg	60.0
Pinus sylvestris		58.0
Sphagnum recurvum agg.	Dg, Dm	52.0
Sphagnum magellanicum	Dg, Dm	51.0
Sphagnum capillifolium s. l.	Dg	51.0
Vaccinium uliginosum s. l.	Dg	48.0
Dominant species (6):		
Sphagnum magellanicum	Dg, C	16.0
Sphagnum recurvum agg.	Dg, C	12.0
Oxycoccus palustris s. l.	Dg, C	10.0
Sphagnum cuspidatum		5.0
Baeothryon cespitosum	Dg	4.0
Eriophorum vaginatum	Dg, C	4.0

SA Class
ASPLENIETEA TRICHOMANIS
Vegetation of rocks, walls and stable screes
Number of relevés: 279

Diagnostic species (10):		
Polypodium vulgare	C	53.3
Asplenium trichomanes		39.1
Cystopteris fragilis		35.1
Asplenium septentrionale		34.6
Hypnum cupressiforme agg.		27.5
Asplenium ruta-muraria		23.4
Asplenium cuneifolium		21.6
Geranium robertianum		20.7
Poa nemoralis		19.6
Dryopteris filix-mas s. l.		18.8
Constant species (1):		
Polypodium vulgare	Dg	54.0

Dominant species (0):

SAA Alliance
Cystopteridion
Vegetation of calcareous rock outcrops and walls
Number of relevés: 124

Diagnostic species (3):		
Cystopteris fragilis	C	50.0
Asplenium trichomanes	C	27.8
Asplenium ruta-muraria	C	26.8
Constant species (4):		
Cystopteris fragilis	Dg	63.0
Asplenium ruta-muraria	Dg	52.0
Geranium robertianum		47.0
Asplenium trichomanes	Dg	43.0

Dominant species (0):

SAB Alliance
Asplenion cuneifolii
Vegetation of serpentine outcrops
Number of relevés: 13

Diagnostic species (8):		
Asplenium cuneifolium	C, Dm	90.5
Asplenium adulterinum		61.9
Silene vulgaris	C	33.9
Polypodium vulgare	C	29.1
Sedum album		28.3
Hypnum cupressiforme agg.	C	23.9
Asplenium septentrionale		22.9
Viscaria vulgaris		19.2
Constant species (4):		
Asplenium cuneifolium	Dg, Dm	85.0
Silene vulgaris	Dg	77.0
Hypnum cupressiforme agg.	Dg	62.0
Polypodium vulgare	Dg	54.0
Dominant species (1):		
Asplenium cuneifolium	Dg, C	8.0

SAC Alliance
Asplenion septentrionalis
Vegetation of siliceous rock outcrops and talus slopes
Number of relevés: 142

Diagnostic species (3):		
Polypodium vulgare	C, Dm	47.2
Asplenium septentrionale		34.8
Hypnum cupressiforme agg.	C, Dm	20.5
Constant species (3):		
Polypodium vulgare	Dg, Dm	86.0
Hypnum cupressiforme agg.	Dg, Dm	54.0
Poa nemoralis		49.0
Dominant species (2):		
Hypnum cupressiforme agg.	Dg, C	5.0
Polypodium vulgare	Dg, C	4.0

SB Class
CYMBALARIO MURALIS-PARIETARIETEA JUDAICAE
Nitrophilous vegetation of walls
Number of relevés: 18

Diagnostic species (19):		
Cymbalaria muralis	C	93.4
Asplenium ruta-muraria		34.9
Artemisia vulgaris	C	26.1
Cystopteris fragilis		24.8
Bryum capillare s. l.		24.7
Chelidonium majus		23.3
Oxalis fontana s. l.		22.8
Bryum caespiticium		22.8
Parietaria officinalis		22.5
Homalothecium sericeum		22.5
Hedera helix		22.2
Sambucus racemosa		21.8
Campanula latifolia		21.7
Sciuro-hypnum populeum		21.6
Tortula subulata		21.4
Epilobium collinum		20.4
Sedum album		19.5
Tortula muralis		18.9
Bryoerythrophyllum recurvirostrum		18.6
Constant species (3):		
Cymbalaria muralis	Dg	89.0
Artemisia vulgaris	Dg	50.0
Taraxacum sect. *Ruderalia*		44.0

Dominant species (2):

Lycium barbarum		6.0
Hypnum cupressiforme agg.		6.0

SBA Alliance
Cymbalario muralis-Asplenion
Wall vegetation with neophytes of Mediterranean origin
Number of relevés: 18

Diagnostic species (2):

Cymbalaria muralis	C	92.6
Asplenium ruta-muraria		19.5

Constant species (3):

Cymbalaria muralis	Dg	89.0
Artemisia vulgaris		50.0
Taraxacum sect. *Ruderalia*		44.0

Dominant species (2):

Lycium barbarum		6.0
Hypnum cupressiforme agg.		6.0

SC Class
THLASPIETEA ROTUNDIFOLII
Vegetation of mobile screes
Number of relevés: 25

Diagnostic species (33):

Galeopsis angustifolia	50.2
Teucrium chamaedrys	43.5
Gymnocarpium robertianum	42.4
Anthemis tinctoria	39.2
Campanula sibirica	35.5
Ranunculus bulbosus	32.3
Verbascum chaixii subsp. *austriacum*	32.2
Potentilla collina	30.3
Sanguisorba minor	29.7
Berberis vulgaris	29.7
Echium vulgare	29.2
Abietinella abietina	28.8
Homalothecium lutescens	27.0
Acinos arvensis	27.0
Artemisia absinthium	26.7
Allium oleraceum	25.4
Rosa rubiginosa s. l.	25.2
Viola collina	25.0
Aster amellus	24.1
Cerinthe minor	22.6
Scabiosa columbaria	21.2
Hieracium pilosella s. l.	21.2

Viola tricolor s. l.		20.9
Tortula muralis		20.4
Picris hieracioides		20.1
Petrorhagia prolifera		19.7
Sempervivum tectorum		19.5
Salvia verticillata		19.4
Sedum sexangulare		19.3
Scabiosa ochroleuca		19.2
Didymodon acutus		18.8
Eryngium planum		18.7
Lepidium campestre		18.4

Constant species (1):

Galium mollugo agg.		44.0

Dominant species (0):

SCA Alliance
Stipion calamagrostis
Vegetation of calcareous screes
Number of relevés: 25

Diagnostic species (7):

Galeopsis angustifolia		47.2
Gymnocarpium robertianum		31.1
Teucrium chamaedrys		25.4
Verbascum chaixii subsp. *austriacum*		24.5
Sempervivum tectorum		19.5
Potentilla collina		19.4
Anthemis tinctoria		18.8

Constant species (1):

Galium mollugo agg.		44.0

Dominant species (0):

AA Class
LOISELEURIO-VACCINIETEA
Alpine heathlands
Number of relevés: 17

Diagnostic species (31):

Huperzia selago	C	50.4
Polytrichastrum alpinum	C, Dm	45.6
Cetraria islandica	C	44.9
Juniperus communis subsp. *alpina*		42.2
Luzula alpino-pilosa	C, Dm	38.1
Senecio carniolicus		37.2
Deschampsia flexuosa	C, Dm	36.6
Hieracium alpinum agg.	C	36.1
Homogyne alpina	C	35.9

Scapania parvifolia		34.0
Poa laxa		32.7
Vaccinium vitis-idaea	C	31.5
Campanula polymorpha	C	30.9
Juncus trifidus		30.0
Festuca airoides		28.6
Campanula alpina		27.3
Vaccinium myrtillus	C, Dm	26.4
Empetrum nigrum s. l.		26.3
Vaccinium uliginosum s. l.	Dm	24.3
Cladonia bellidiflora		24.0
Diphasiastrum alpinum		23.6
Mutellina purpurea	C	23.4
Oreochloa disticha		23.1
Doronicum clusii		23.0
Agrostis rupestris		21.7
Soldanella carpatica		20.9
Potentilla aurea		19.7
Carex sempervirens		19.5
Lophozia sudetica		19.4
Solidago virgaurea	C	19.2
Polytrichum piliferum		19.1
Constant species (12):		
Deschampsia flexuosa	Dg, Dm	88.0
Vaccinium myrtillus	Dg, Dm	82.0
Vaccinium vitis-idaea	Dg	76.0
Huperzia selago	Dg	71.0
Cetraria islandica	Dg	71.0
Homogyne alpina	Dg	65.0
Polytrichastrum alpinum	Dg, Dm	59.0
Luzula alpino-pilosa	Dg, Dm	59.0
Campanula polymorpha	Dg	53.0
Solidago virgaurea	Dg	47.0
Hieracium alpinum agg.	Dg	47.0
Mutellina purpurea	Dg	41.0
Dominant species (6):		
Deschampsia flexuosa	Dg, C	29.0
Luzula alpino-pilosa	Dg, C	24.0
Vaccinium uliginosum s. l.	Dg	12.0
Polytrichastrum alpinum	Dg, C	12.0
Vaccinium myrtillus	Dg, C	6.0
Nardus stricta		6.0

AAA Alliance
Loiseleurio procumbentis-Vaccinion
Arcto-alpine dwarf-shrub vegetation
Number of relevés: 17

Diagnostic species (18):		
Polytrichastrum alpinum	C, Dm	45.4
Huperzia selago	C	45.0
Juniperus communis subsp. *alpina*		40.2
Cetraria islandica	C	37.2
Scapania parvifolia		34.2
Luzula alpino-pilosa	C, Dm	32.2
Poa laxa		31.0
Hieracium alpinum agg.	C	29.2
Senecio carniolicus		28.2
Campanula polymorpha	C	25.4
Cladonia bellidiflora		24.2
Vaccinium vitis-idaea	C, Dm	23.9
Deschampsia flexuosa	C, Dm	23.6
Homogyne alpina	C	23.4
Festuca airoides		23.3
Diphasiastrum alpinum		20.9
Juncus trifidus		20.6
Campanula alpina		18.8
Constant species (12):		
Deschampsia flexuosa	Dg, Dm	88.0
Vaccinium myrtillus		82.0
Vaccinium vitis-idaea	Dg, Dm	76.0
Huperzia selago	Dg	71.0
Cetraria islandica	Dg	71.0
Homogyne alpina	Dg	65.0
Polytrichastrum alpinum	Dg, Dm	59.0
Luzula alpino-pilosa	Dg, Dm	59.0
Campanula polymorpha	Dg	53.0
Solidago virgaurea		47.0
Hieracium alpinum agg.	Dg	47.0
Mutellina purpurea		41.0
Dominant species (6):		
Deschampsia flexuosa	Dg, C	29.0
Luzula alpino-pilosa	Dg, C	24.0
Vaccinium uliginosum s. l.		12.0
Polytrichastrum alpinum	Dg, C	12.0
Vaccinium myrtillus	C	6.0
Nardus stricta		6.0

AB Class
JUNCETEA TRIFIDI
Alpine grasslands on base-poor soil
Number of relevés: 27

Diagnostic species (27):

Carex bigelowii subsp. *rigida*		55.8
Hieracium alpinum agg.	C	46.2
Juncus trifidus	Dm	43.3
Avenula versicolor		41.0
Festuca airoides	C, Dm	40.0
Oreochloa disticha		39.9
Campanula alpina		39.5
Cladonia rangiferina		35.6
Cladonia stellaris		33.0
Alectoria ochroleuca		33.0
Leucanthemopsis alpina		32.5
Deschampsia flexuosa	C, Dm	29.8
Hypochaeris uniflora		27.3
Cetraria islandica	C, Dm	27.0
Flavocetraria cucullata		26.9
Polygonum bistorta	C	26.7
Potentilla aurea		25.6
Arnica montana		23.6
Homogyne alpina	C	23.4
Senecio carniolicus		22.9
Vaccinium myrtillus	C	21.6
Agrostis rupestris		20.3
Vaccinium vitis-idaea	C	19.6
Lophozia lycopodioides		19.0
Nardus stricta		18.9
Flavocetraria nivalis		18.8
Ptilidium pulcherrimum		18.7

Constant species (8):

Deschampsia flexuosa	Dg, Dm	74.0
Vaccinium myrtillus	Dg	70.0
Hieracium alpinum agg.	Dg	59.0
Vaccinium vitis-idaea	Dg	52.0
Polygonum bistorta	Dg	52.0
Festuca airoides	Dg, Dm	48.0
Homogyne alpina	Dg	44.0
Cetraria islandica	Dg, Dm	44.0

Dominant species (5):

Juncus trifidus	Dg	11.0
Festuca airoides	Dg, C	7.0
Rhytidiadelphus squarrosus		4.0
Cetraria islandica	Dg, C	4.0
Deschampsia flexuosa	Dg, C	4.0

ABA Alliance
Juncion trifidi
Wind-swept alpine grasslands on base-poor soil
Number of relevés: 9

Diagnostic species (27):

Juncus trifidus	C, Dm	89.8
Campanula alpina	C	82.4
Oreochloa disticha	C	81.3
Avenula versicolor	C	81.1
Leucanthemopsis alpina	C	58.7
Alectoria ochroleuca		57.6
Cladonia rangiferina	C	55.4
Senecio carniolicus	C	53.7
Hieracium alpinum agg.	C	48.9
Flavocetraria cucullata		47.0
Cetraria islandica	C, Dm	41.1
Festuca airoides	C	37.3
Agrostis rupestris	C	36.3
Salix herbacea		34.6
Lophozia lycopodioides		33.2
Flavocetraria nivalis		33.0
Doronicum clusii		32.3
Cladonia grayi		32.1
Carex sempervirens	C	28.3
Homogyne alpina	C	24.1
Luzula alpino-pilosa	C	24.0
Polytrichum piliferum	C	23.3
Geum montanum	C	23.3
Mutellina purpurea	C	22.7
Vaccinium vitis-idaea	C	20.5
Hypochaeris uniflora		19.0
Ranunculus pseudomontanus		18.6

Constant species (21):

Juncus trifidus	Dg, Dm	100.0
Campanula alpina	Dg	100.0
Oreochloa disticha	Dg	89.0
Hieracium alpinum agg.	Dg	78.0
Cetraria islandica	Dg, Dm	78.0
Avenula versicolor	Dg	78.0
Vaccinium vitis-idaea	Dg	67.0
Vaccinium myrtillus		67.0
Homogyne alpina	Dg	67.0
Mutellina purpurea	Dg	56.0
Festuca airoides	Dg	56.0
Cladonia rangiferina	Dg	56.0
Agrostis rupestris	Dg	56.0
Senecio carniolicus	Dg	44.0
Polytrichum piliferum	Dg	44.0

Luzula alpino-pilosa	Dg	44.0
Leucanthemopsis alpina	Dg	44.0
Geum montanum	Dg	44.0
Carex sempervirens	Dg	44.0
Polygonum bistorta		44.0
Deschampsia flexuosa		44.0

Dominant species (2):

Juncus trifidus	Dg, C	33.0
Cetraria islandica	Dg, C	11.0

ABB Alliance
Nardo strictae-Caricion bigelowii
Closed alpine grasslands on base-poor soil
Number of relevés: 18

Diagnostic species (8):

Carex bigelowii subsp. *rigida*	C	63.1
Cladonia stellaris		40.7
Hieracium alpinum agg.	C	31.1
Festuca airoides	C, Dm	29.6
Arnica montana		23.9
Deschampsia flexuosa	C, Dm	23.8
Ptilidium pulcherrimum		22.5
Polygonum bistorta	C	18.3

Constant species (10):

Deschampsia flexuosa	Dg, Dm	89.0
Vaccinium myrtillus		72.0
Polygonum bistorta	Dg	56.0
Hieracium alpinum agg.	Dg	50.0
Carex bigelowii subsp. *rigida*	Dg	50.0
Vaccinium vitis-idaea		44.0
Nardus stricta		44.0
Festuca airoides	Dg, Dm	44.0
Deschampsia caespitosa		44.0
Calluna vulgaris		44.0

Dominant species (3):

Festuca airoides	Dg, C	33.0
Deschampsia flexuosa	Dg, C	22.0
Rhytidiadelphus squarrosus		6.0

AC Class
ELYNO-SESLERIETEA
Alpine grasslands on base-rich soil
Number of relevés: 18

Diagnostic species (87):

Sesleria tatrae	C	97.1

Carex firma	C, Dm	94.2
Thymus carpaticus	C	88.8
Trisetum alpestre	C	87.3
Gentiana clusii	C	81.3
Euphrasia salisburgensis	C	80.7
Bellidiastrum michelii	C	79.2
Gentiana verna	C	74.2
Crepis jacquinii	C	70.3
Ranunculus pseudomontanus	C	69.5
Scabiosa lucida	C	66.6
Primula auricula	C	66.2
Pedicularis verticillata	C	66.2
Dryas octopetala	C, Dm	66.2
Androsace chamaejasme	C	65.6
Gentianella germanica s. l.		63.0
Campanula cochleariifolia		61.9
Carex sempervirens	C	59.9
Phyteuma orbiculare	C	59.0
Helianthemum nummularium s. l.	C	57.7
Hieracium villosum		57.3
Draba aizoides		57.3
Galium anisophyllum	C	57.0
Tofieldia calyculata		55.7
Ranunculus alpestris		52.3
Pinguicula alpina		52.3
Minuartia kitaibelii		52.3
Festuca tatrae		52.3
Androsace lactea		52.3
Selaginella selaginoides	C	52.0
Dianthus plumarius		52.0
Hieracium bupleuroides		51.8
Veronica aphylla		45.9
Polygonum viviparum		45.8
Potentilla crantzii		45.6
Parnassia palustris	C	43.7
Festuca versicolor	C, Dm	43.5
Leontodon incanus		42.9
Silene acaulis		40.4
Saxifraga caesia		40.4
Saxifraga aizoides		40.4
Salix reticulata		40.4
Salix alpina		40.4
Minuartia verna		40.4
Gymnadenia odoratissima		40.4
Chamorchis alpina		40.4
Bupleurum ranunculoides		40.4
Gypsophila repens		40.0
Polygala amara subsp. *brachyptera*		36.5
Carduus glaucus		35.8
Primula minima		35.0
Pedicularis oederi		33.0

Veronica alpina		32.8
Poa alpina		32.3
Thesium alpinum		31.2
Asplenium viride		30.4
Aster alpinus		29.7
Veronica fruticans		29.3
Campanula polymorpha	C	29.0
Swertia perennis		28.5
Hieracium lachenalii s. l.		26.8
Jovibarba hirta		25.5
Saxifraga paniculata		25.4
Cerastium alpinum		24.7
Asplenium ruta-muraria		24.3
Bartsia alpina		23.6
Soldanella carpatica		23.4
Viola alpina		23.3
Trichostomum crispulum		23.3
Salix retusa		23.3
Minuartia sedoides		23.3
Pachypleurum simplex		23.3
Leontodon pseudotaraxaci		23.3
Kernera saxatilis		23.3
Frullania tamarisci		23.3
Carex brachystachys		23.3
Antennaria carpatica		23.3
Plagiopus oederiana		22.6
Neckera crispa		22.2
Botrychium lunaria		21.1
Carlina acaulis		21.0
Pseudorchis albida		20.3
Agrostis rupestris		20.3
Gymnadenia conopsea		19.8
Ditrichum flexicaule		19.7
Antennaria dioica		19.3
Vaccinium vitis-idaea	C	18.7
Constant species (25):		
Sesleria tatrae	Dg	94.0
Carex firma	Dg, Dm	89.0
Thymus carpaticus	Dg	83.0
Galium anisophyllum	Dg	83.0
Trisetum alpestre	Dg	78.0
Euphrasia salisburgensis	Dg	78.0
Bellidiastrum michelii	Dg	78.0
Phyteuma orbiculare	Dg	72.0
Scabiosa lucida	Dg	67.0
Gentianella germanica s. l.	Dg	67.0
Gentiana clusii	Dg	67.0
Carex sempervirens	Dg	67.0
Ranunculus pseudomontanus	Dg	56.0
Helianthemum nummularium s. l.	Dg	56.0

Gentiana verna	Dg	56.0
Vaccinium vitis-idaea	Dg	50.0
Parnassia palustris	Dg	50.0
Festuca versicolor	Dg, Dm	50.0
Crepis jacquinii	Dg	50.0
Campanula polymorpha	Dg	50.0
Selaginella selaginoides	Dg	44.0
Primula auricula	Dg	44.0
Pedicularis verticillata	Dg	44.0
Dryas octopetala	Dg, Dm	44.0
Androsace chamaejasme	Dg	44.0

Dominant species (3):

Festuca versicolor	Dg, C	17.0
Dryas octopetala	Dg, C	11.0
Carex firma	Dg, C	6.0

ACA Alliance

Seslerion tatrae

Alpine and subalpine chionophilous blue-grass swards on leeward slopes with deeper soils on calcareous bedrock

Number of relevés: 11

Diagnostic species (56):

Trisetum alpestre	C	80.9
Crepis jacquinii	C	77.8
Hieracium villosum	C	73.7
Gentiana clusii	C	73.1
Primula auricula	C	71.9
Bellidiastrum michelii	C	68.2
Minuartia kitaibelii	C	67.3
Festuca tatrae	C	67.3
Euphrasia salisburgensis	C	65.9
Campanula cochleariifolia	C	65.6
Sesleria tatrae	C	65.5
Gentiana verna	C	61.4
Carex firma	C	60.4
Pedicularis verticillata	C	59.6
Thymus carpaticus	C	59.0
Hieracium bupleuroides	C	57.0
Scabiosa lucida	C	53.7
Phyteuma orbiculare	C	53.1
Carex sempervirens	C	53.0
Bupleurum ranunculoides		52.1
Tofieldia calyculata	C	51.7
Androsace lactea		50.9
Leontodon incanus	C	50.8
Polygala amara subsp. *brachyptera*	C	47.3
Ranunculus pseudomontanus	C	46.7
Draba aizoides		44.8

Gentianella germanica s. l.		43.4
Galium anisophyllum	C	40.3
Carduus glaucus	C	39.4
Pinguicula alpina		36.2
Veronica fruticans		35.6
Helianthemum nummularium s. l.	C	35.5
Trichostomum crispulum		30.1
Kernera saxatilis		30.1
Frullania tamarisci		30.1
Carex brachystachys		30.1
Thesium alpinum		30.0
Plagiopus oederiana		28.8
Aster alpinus		27.5
Hieracium lachenalii s. l.	C	27.2
Gypsophila repens		26.3
Veronica aphylla		25.7
Festuca versicolor	Dm	25.7
Asplenium ruta-muraria	C	23.0
Ranunculus alpestris		22.9
Parnassia palustris		21.6
Campanula polymorpha	C	21.6
Fissidens dubius		21.4
Asplenium viride		21.4
Epipactis atrorubens		21.3
Poa alpina		20.9
Neckera crispa		20.9
Saxifraga paniculata		20.4
Dianthus plumarius		19.6
Jovibarba hirta		18.8
Carlina acaulis		18.6

Constant species (31):

Trisetum alpestre	Dg	100.0
Thymus carpaticus	Dg	91.0
Sesleria tatrae	Dg	91.0
Euphrasia salisburgensis	Dg	91.0
Bellidiastrum michelii	Dg	91.0
Scabiosa lucida	Dg	82.0
Phyteuma orbiculare	Dg	82.0
Gentiana clusii	Dg	82.0
Carex sempervirens	Dg	82.0
Carex firma	Dg	82.0
Galium anisophyllum	Dg	73.0
Crepis jacquinii	Dg	73.0
Primula auricula	Dg	64.0
Hieracium lachenalii s. l.	Dg	64.0
Helianthemum nummularium s. l.	Dg	64.0
Gentianella germanica s. l.	Dg	64.0
Gentiana verna	Dg	64.0
Ranunculus pseudomontanus	Dg	55.0
Polygala amara subsp. *brachyptera*	Dg	55.0

Pimpinella saxifraga		55.0
Pedicularis verticillata	Dg	55.0
Hieracium villosum	Dg	55.0
Campanula cochleariifolia	Dg	55.0
Tofieldia calyculata	Dg	45.0
Minuartia kitaibelii	Dg	45.0
Leontodon incanus	Dg	45.0
Hieracium bupleuroides	Dg	45.0
Festuca tatrae	Dg	45.0
Carduus glaucus	Dg	45.0
Campanula polymorpha	Dg	45.0
Asplenium ruta-muraria	Dg	45.0

Dominant species (1):

Festuca versicolor	Dg	18.0

ACB Alliance

Caricion firmae

Alpine and subalpine open sedge swards on shallow calcareous soils on northern wind-swept slopes and ridges

Number of relevés: 7

Diagnostic species (60):

Androsace chamaejasme	C	94.9
Dryas octopetala	C, Dm	84.0
Carex firma	C, Dm	74.0
Sesleria tatrae	C	72.2
Selaginella selaginoides	C	72.0
Silene acaulis	C	65.3
Saxifraga aizoides	C	65.3
Salix reticulata	C	65.3
Salix alpina	C	65.3
Chamorchis alpina	C	65.3
Polygonum viviparum	C	64.1
Primula minima	C	60.8
Potentilla crantzii	C	58.2
Galium anisophyllum	C	55.9
Ranunculus alpestris	C	54.6
Pedicularis oederi		53.3
Festuca versicolor	C, Dm	51.4
Ranunculus pseudomontanus	C	49.0
Gentianella germanica s. l.	C	48.9
Dianthus plumarius	C	46.9
Saxifraga caesia		46.4
Minuartia verna		46.4
Gymnadenia odoratissima		46.4
Thymus carpaticus	C	46.2
Bartsia alpina	C	44.7
Parnassia palustris	C	43.5
Bellidiastrum michelii	C	42.6

Gentiana verna	C	41.1
Euphrasia salisburgensis	C	41.0
Veronica aphylla		40.7
Pinguicula alpina		37.9
Gentiana clusii	C	37.9
Viola alpina		37.7
Salix retusa		37.7
Minuartia sedoides		37.7
Pachypleurum simplex		37.7
Leontodon pseudotaraxaci		37.7
Antennaria carpatica		37.7
Botrychium lunaria		37.3
Phyteuma orbiculare	C	36.8
Cerastium alpinum		35.6
Draba aizoides		35.1
Trisetum alpestre	C	34.2
Swertia perennis		33.0
Soldanella carpatica	C	32.4
Pedicularis verticillata		30.9
Pseudorchis albida		29.6
Veronica alpina		28.3
Agrostis rupestris	C	27.8
Scabiosa lucida	C	27.7
Campanula polymorpha	C	27.6
Carex sempervirens	C	27.3
Huperzia selago	C	26.9
Ranunculus oreophilus		25.0
Helianthemum nummularium s. l.	C	23.5
Asplenium viride		22.5
Vaccinium vitis-idaea	C	22.2
Gypsophila repens		20.6
Androsace lactea		19.7
Potentilla aurea	C	18.4

Constant species (39):

Sesleria tatrae	Dg	100.0
Galium anisophyllum	Dg	100.0
Carex firma	Dg, Dm	100.0
Androsace chamaejasme	Dg	100.0
Selaginella selaginoides	Dg	86.0
Dryas octopetala	Dg, Dm	86.0
Vaccinium vitis-idaea	Dg	71.0
Thymus carpaticus	Dg	71.0
Soldanella carpatica	Dg	71.0
Polygonum viviparum	Dg	71.0
Parnassia palustris	Dg	71.0
Gentianella germanica s. l.	Dg	71.0
Festuca versicolor	Dg, Dm	71.0
Bartsia alpina	Dg	71.0
Ranunculus pseudomontanus	Dg	57.0
Primula minima	Dg	57.0

Phyteuma orbiculare	Dg	57.0
Euphrasia salisburgensis	Dg	57.0
Campanula polymorpha	Dg	57.0
Bellidiastrum michelii	Dg	57.0
Vaccinium myrtillus		43.0
Trisetum alpestre	Dg	43.0
Silene acaulis	Dg	43.0
Scabiosa lucida	Dg	43.0
Saxifraga aizoides	Dg	43.0
Salix reticulata	Dg	43.0
Salix alpina	Dg	43.0
Ranunculus alpestris	Dg	43.0
Potentilla crantzii	Dg	43.0
Potentilla aurea	Dg	43.0
Huperzia selago	Dg	43.0
Homogyne alpina		43.0
Helianthemum nummularium s. l.	Dg	43.0
Gentiana verna	Dg	43.0
Gentiana clusii	Dg	43.0
Dianthus plumarius	Dg	43.0
Chamorchis alpina	Dg	43.0
Carex sempervirens	Dg	43.0
Agrostis rupestris	Dg	43.0
Dominant species (3):		
Dryas octopetala	Dg, C	29.0
Festuca versicolor	Dg, C	14.0
Carex firma	Dg, C	14.0

AD Class
MULGEDIO-ACONITETEA
Subalpine tall-forb and deciduous-shrub vegetation
Number of relevés: 127

Diagnostic species (20):		
Ranunculus platanifolius		43.1
Gentiana asclepiadea	C	42.7
Cicerbita alpina	Dm	39.4
Veratrum lobelianum	Dm	38.0
Rumex alpestris		36.5
Senecio subalpinus		32.7
Luzula sylvatica		28.4
Doronicum austriacum		28.2
Poa chaixii		28.1
Adenostyles alliariae		27.8
Polygonatum verticillatum		26.6
Hypericum maculatum		24.6
Athyrium distentifolium	Dm	24.2
Phyteuma spicatum		23.0
Streptopus amplexifolius		22.9

Calamagrostis villosa	Dm	22.5
Epilobium alpestre		19.6
Sedum fabaria		19.1
Phleum rhaeticum		19.1
Aconitum firmum		18.3
Constant species (1):		
Gentiana asclepiadea	Dg	49.0
Dominant species (7):		
Athyrium distentifolium	Dg	17.0
Calamagrostis villosa	Dg	17.0
Calamagrostis varia		9.0
Deschampsia caespitosa		7.0
Cicerbita alpina	Dg	6.0
Veratrum lobelianum	Dg	11.0
Calamagrostis arundinacea		6.0

ADA Alliance
Calamagrostion villosae
Subalpine tall grasslands
Number of relevés: 54

Diagnostic species (2):		
Gentiana asclepiadea	C, Dm	23.2
Veratrum lobelianum	C, Dm	19.4
Constant species (6):		
Gentiana asclepiadea	Dg, Dm	57.0
Deschampsia caespitosa	Dm	56.0
Hypericum maculatum	Dm	54.0
Vaccinium myrtillus		44.0
Mutellina purpurea		43.0
Veratrum lobelianum	Dg, Dm	41.0
Dominant species (8):		
Calamagrostis villosa		26.0
Veratrum lobelianum	Dg, C	7.0
Deschampsia caespitosa	C	7.0
Rubus idaeus		6.0
Hypericum maculatum	C	6.0
Alchemilla vulgaris s. l.		6.0
Sphagnum recurvum agg.		4.0
Gentiana asclepiadea	Dg, C	4.0

ADB Alliance
Calamagrostion arundinaceae
Subalpine grasslands with *Calamagrostis arundinacea*
Number of relevés: 8

Diagnostic species (22):

Calamagrostis arundinacea	C, Dm	43.0
Cirsium waldsteinii		35.3
Astrantia major		34.6
Luzula sylvatica	C	33.3
Hypochaeris uniflora		32.6
Gentiana asclepiadea	C	30.8
Knautia dipsacifolia		29.5
Helleborus purpurascens		28.2
Scilla bifolia		28.0
Luzula luzuloides	C	27.9
Carlina acaulis	C	26.1
Dianthus compactus		25.5
Phyteuma spicatum	C	24.4
Aposeris foetida		24.2
Athyrium filix-femina	C	24.1
Poa chaixii		23.6
Crepis conyzifolia		23.5
Hieracium aurantiacum		22.2
Nardus stricta	C	20.9
Campanula serrata		20.8
Solidago alpestris		20.5
Tanacetum corymbosum subsp. *clusii*		20.2

Constant species (12):

Calamagrostis arundinacea	Dg, Dm	100.0
Vaccinium myrtillus	Dm	75.0
Luzula luzuloides	Dg	75.0
Gentiana asclepiadea	Dg	75.0
Rubus idaeus		62.0
Nardus stricta	Dg	62.0
Luzula sylvatica	Dg	62.0
Athyrium filix-femina	Dg	62.0
Potentilla erecta		50.0
Phyteuma spicatum	Dg	50.0
Homogyne alpina		50.0
Carlina acaulis	Dg	50.0

Dominant species (2):

Calamagrostis arundinacea	Dg, C	50.0
Vaccinium myrtillus	C	25.0

ADF Alliance
Calamagrostion variae
Calciphilous tall grasslands on gravely soil in montane to subalpine belts
Number of relevés: 11

Diagnostic species (42):

Hypericum hirsutum		53.9
Aruncus sylvestris	C	50.9
Calamagrostis varia	C, Dm	47.8
Vicia sylvatica		43.2
Gymnocarpium robertianum	C	42.7
Cirsium erisithales		38.5
Valeriana tripteris	C	38.1
Rumex scutatus		37.0
Asplenium viride	C	36.2
Laserpitium latifolium	C	35.2
Digitalis grandiflora	C	31.4
Saxifraga adscendens		30.1
Carex contigua s. l.		29.6
Cardamine trifolia		29.4
Clinopodium vulgare	C	28.9
Pimpinella major	C	27.1
Salvia verticillata	C	26.8
Rubus saxatilis		26.7
Fragaria vesca	C	26.7
Melica nutans	C	26.0
Cruciata glabra	C	26.0
Carduus collinus		26.0
Stachys germanica		25.5
Geranium columbinum		25.4
Carex digitata	C	25.3
Bupleurum falcatum		25.2
Lonicera nigra		24.9
Clematis alpina		24.8
Carduus glaucus		23.4
Asarum europaeum	C	23.0
Stachys alpina		21.3
Epipactis atrorubens		21.3
Origanum vulgare	C	21.0
Galium mollugo agg.	C	20.9
Lathyrus pratensis	C	20.8
Antennaria dioica		20.5
Hieracium laevigatum		20.1
Sorbus aira		19.1
Silene nemoralis		19.0
Hieracium murorum	C	18.8
Anthemis tinctoria		18.3
Campanula glomerata		18.2

Constant species (29):

Calamagrostis varia	Dg, Dm	100.0
Galium mollugo agg.	Dg	91.0
Fragaria vesca	Dg	91.0
Veronica chamaedrys		73.0
Euphorbia cyparissias		73.0
Cruciata glabra	Dg	73.0
Clinopodium vulgare	Dg	73.0
Valeriana tripteris	Dg	64.0
Melica nutans	Dg	64.0
Salvia verticillata	Dg	55.0
Lathyrus pratensis	Dg	55.0
Gymnocarpium robertianum	Dg	55.0
Digitalis grandiflora	Dg	55.0
Carex digitata	Dg	55.0
Vincetoxicum hirundinaria		45.0
Poa nemoralis		45.0
Pimpinella saxifraga		45.0
Pimpinella major	Dg	45.0
Origanum vulgare	Dg	45.0
Medicago lupulina		45.0
Linum catharticum		45.0
Leontodon hispidus		45.0
Laserpitium latifolium	Dg	45.0
Hieracium murorum	Dg	45.0
Geranium robertianum		45.0
Coronilla varia		45.0
Asplenium viride	Dg	45.0
Asarum europaeum	Dg	45.0
Aruncus sylvestris	Dg	45.0

Dominant species (2):

Calamagrostis varia	Dg, C	73.0
Hylocomium splendens		9.0

ADG Alliance

Trisetion fusci

Tall grasslands on alluviums of mountain streams on siliceous bedrock

Number of relevés: 12

Diagnostic species (14):

Senecio subalpinus	C	38.7
Phleum rhaeticum	C	34.6
Aconitum firmum	C, Dm	33.7
Lysimachia nemorum	C	32.6
Gnaphalium norvegicum		28.8
Oreopteris limbosperma		27.2
Chaerophyllum hirsutum	C	26.5
Pellia epiphylla		26.4
Luzula sylvatica	C	26.4

Streptopus amplexifolius		23.7
Viola biflora	C	22.6
Poa chaixii		20.9
Phyteuma spicatum	C	20.1
Equisetum sylvaticum		20.1
Constant species (14):		
Deschampsia caespitosa	Dm	75.0
Senecio subalpinus	Dg	58.0
Myosotis palustris agg.		58.0
Chaerophyllum hirsutum	Dg	58.0
Aconitum firmum	Dg, Dm	58.0
Luzula sylvatica	Dg	50.0
Viola biflora	Dg	42.0
Rumex alpestris		42.0
Potentilla erecta		42.0
Phyteuma spicatum	Dg	42.0
Phleum rhaeticum	Dg	42.0
Lysimachia nemorum	Dg	42.0
Anthoxanthum odoratum s. l.		42.0
Alchemilla vulgaris s. l.		42.0
Dominant species (4):		
Mutellina purpurea		8.0
Deschampsia caespitosa	C	8.0
Palustriella commutata		8.0
Aconitum firmum	Dg, C	8.0

ADC Alliance
Salicion silesiacae
Subalpine deciduous scrub and woodland
Number of relevés: 12

Diagnostic species (31):		
Athyrium distentifolium	C, Dm	48.5
Ribes petraeum	C	44.1
Lonicera nigra	C	38.4
Polystichum lonchitis		37.9
Ranunculus platanifolius	C	35.3
Rosa pendulina		33.9
Sedum fabaria		33.4
Salix silesiaca	C	31.8
Gentiana asclepiadea	C	30.8
Geranium sylvaticum	C	29.2
Bucklandiella microcarpa		28.8
Lophozia longidens		28.8
Adenostyles alliariae	C	28.8
Veratrum lobelianum	C	28.4
Oreopteris limbosperma		26.9
Pinus mugo	C, Dm	26.7
Rumex alpestris	C	25.1

Rubus idaeus	C	24.8
Cicerbita alpina		24.6
Milium effusum	C	24.0
Streptopus amplexifolius		23.7
Calamagrostis villosa	C	23.7
Polygonatum verticillatum		23.4
Sorbus aucuparia	C, Dm	23.2
Stellaria nemorum	C	21.9
Dryopteris carthusiana s. l.	C	21.9
Luzula sylvatica	C	21.8
Hylocomiastrum umbratum	Dm	21.7
Prenanthes purpurea		21.1
Oxalis acetosella	C	19.1
Aconitum firmum		18.8
Constant species (26):		
Athyrium distentifolium	Dg, Dm	100.0
Sorbus aucuparia	Dg, Dm	92.0
Rubus idaeus	Dg	92.0
Vaccinium myrtillus	Dm	83.0
Gentiana asclepiadea	Dg	75.0
Oxalis acetosella	Dg	67.0
Dryopteris carthusiana s. l.	Dg	67.0
Veratrum lobelianum	Dg	58.0
Salix silesiaca	Dg	58.0
Rumex alpestris	Dg	58.0
Ranunculus platanifolius	Dg	58.0
Stellaria nemorum	Dg	50.0
Picea abies		50.0
Milium effusum	Dg	50.0
Geranium sylvaticum	Dg	50.0
Calamagrostis villosa	Dg	50.0
Solidago virgaurea		42.0
Senecio nemorensis agg.		42.0
Ribes petraeum	Dg	42.0
Pinus mugo	Dg	42.0
Luzula sylvatica	Dg	42.0
Lonicera nigra	Dg	42.0
Homogyne alpina		42.0
Polygonum bistorta		42.0
Deschampsia flexuosa		42.0
Adenostyles alliariae	Dg, Dm	42.0
Dominant species (7):		
Athyrium distentifolium	Dg, C	50.0
Sorbus aucuparia	Dg, C	17.0
Pinus mugo	Dg, C	17.0
Vaccinium myrtillus	C	8.0
Rhytidiadelphus squarrosus		8.0
Hylocomiastrum umbratum	Dg	8.0
Adenostyles alliariae	Dg, C	8.0

ADD Alliance
Adenostylion alliariae
Subalpine tall-forb vegetation
Number of relevés: 15

Diagnostic species (14):

Cicerbita alpina	C, Dm	55.1
Doronicum austriacum	C, Dm	38.7
Adenostyles alliariae	C, Dm	37.1
Thalictrum aquilegiifolium		34.4
Petasites albus	Dm	28.6
Epilobium alpestre		28.1
Ranunculus platanifolius	C	28.0
Stellaria nemorum	C	26.4
Melandrium rubrum		22.8
Veratrum lobelianum	C	22.5
Primula elatior	C	22.4
Oxalis acetosella	C	19.1
Milium effusum		19.0
Polygonatum verticillatum		18.6

Constant species (10):

Cicerbita alpina	Dg, Dm	73.0
Oxalis acetosella	Dg	67.0
Stellaria nemorum	Dg	60.0
Myosotis palustris agg.		53.0
Adenostyles alliariae	Dg, Dm	53.0
Veratrum lobelianum	Dg	47.0
Rubus idaeus		47.0
Ranunculus platanifolius	Dg	47.0
Primula elatior	Dg	47.0
Doronicum austriacum	Dg, Dm	47.0

Dominant species (6):

Cicerbita alpina	Dg, C	33.0
Petasites albus	Dg	13.0
Aruncus sylvestris		13.0
Adenostyles alliariae	Dg, C	13.0
Doronicum austriacum	Dg, C	7.0
Chaerophyllum hirsutum		7.0

ADE Alliance
Dryopterido filicis-maris-Athyrion distentifolii
Subalpine tall-fern vegetation
Number of relevés: 15

Diagnostic species (15):

Athyrium distentifolium	C, Dm	45.2
Veratrum lobelianum	C	29.3
Pellia epiphylla		28.2

Adenostyles alliariae		27.6
Rumex alpestris	C	25.9
Festuca carpatica		25.1
Cicerbita alpina		24.6
Homogyne alpina	C	24.1
Phegopteris connectilis		23.1
Gentiana punctata		22.4
Calamagrostis villosa	C	22.0
Doronicum austriacum	Dm	21.8
Ranunculus platanifolius		19.7
Gentiana asclepiadea	C	18.6
Epilobium alpestre		18.6

Constant species (8):

Athyrium distentifolium	Dg, Dm	93.0
Rubus idaeus	Dm	67.0
Homogyne alpina	Dg	67.0
Veratrum lobelianum	Dg	60.0
Rumex alpestris	Dg	60.0
Oxalis acetosella		53.0
Gentiana asclepiadea	Dg	47.0
Calamagrostis villosa	Dg	47.0

Dominant species (2):

Athyrium distentifolium	Dg, C	87.0
Doronicum austriacum	Dg	7.0

AE Class
SALICETEA HERBACEAE
Snow bed vegetation
Number of relevés: 19

Diagnostic species (53):

Gnaphalium supinum	C	61.8
Festuca picta	C, Dm	58.0
Sedum alpestre		55.4
Mutellina purpurea	C, Dm	55.1
Kiaeria starkei		45.3
Taraxacum nigricans		44.6
Oligotrichum hercynicum		42.9
Potentilla aurea	C	41.7
Geum montanum	C	41.5
Gentiana punctata		40.2
Anthoxanthum odoratum s. l.	C	39.9
Cerastium cerastoides		39.0
Pogonatum urnigerum		38.6
Nardia scalaris		38.5
Geranium sylvaticum		36.4
Lophozia sudetica		35.7
Gnaphalium norvegicum		35.4
Primula elatior		33.6

Phleum rhaeticum		32.8
Niphotrichum ericoides		31.9
Niphotrichum elongatum		31.7
Sanionia uncinata		30.8
Jungermannia sphaerocarpa	Dm	30.7
Luzula alpino-pilosa	C	30.0
Agrostis rupestris		29.9
Soldanella carpatica	C	29.2
Rumex alpestris		28.8
Phyteuma spicatum		27.9
Ditrichum heteromallum		27.8
Luzula luzuloides	C	26.2
Alchemilla vulgaris s. l.		25.0
Campanula polymorpha	C	23.8
Sibbaldia procumbens		22.7
Pseudoleskea incurvata		22.7
Oxystegus tenuirostris		22.6
Polytrichastrum pallidisetum		22.1
Deschampsia flexuosa	C, Dm	22.1
Bryum bicolor		21.7
Aconitum firmum		21.7
Ranunculus platanifolius		21.4
Deschampsia caespitosa	C	21.4
Euphrasia picta		21.1
Thalictrum aquilegiifolium		21.0
Thymus alpestris		20.4
Nardus stricta	Dm	20.4
Pedicularis hacquetii		19.8
Solidago virgaurea	C	19.3
Alchemilla pyrenaica		19.2
Rhinanthus alpinus		18.7
Homogyne alpina		18.7
Epilobium anagallidifolium		18.4
Doronicum austriacum		18.4
Adenostyles alliariae		18.2

Constant species (14):

Mutellina purpurea	Dg, Dm	89.0
Anthoxanthum odoratum s. l.	Dg	89.0
Potentilla aurea	Dg	58.0
Deschampsia flexuosa	Dg, Dm	58.0
Deschampsia caespitosa	Dg	53.0
Vaccinium myrtillus		47.0
Solidago virgaurea	Dg	47.0
Soldanella carpatica	Dg	47.0
Gnaphalium supinum	Dg	47.0
Luzula alpino-pilosa	Dg	47.0
Geum montanum	Dg	47.0
Luzula luzuloides	Dg	42.0
Festuca picta	Dg, Dm	42.0
Campanula polymorpha	Dg	42.0

Dominant species (8):

Mutellina purpurea	Dg, C	11.0
Jungermannia sphaerocarpa	Dg	11.0
Festuca picta	Dg, C	11.0
Nardus stricta	Dg	5.0
Chaerophyllum hirsutum		5.0
Deschampsia flexuosa	Dg, C	5.0
Athyrium distentifolium		5.0
Agrostis capillaris		5.0

AEA Alliance
Salicion herbaceae
Snow beds and snow fields vegetation on siliceous bedrock
Number of relevés: 8

Diagnostic species (21):

Gnaphalium supinum	C	74.6
Kiaeria starkei	C	69.6
Oligotrichum hercynicum	C	65.9
Lophozia sudetica	C	61.1
Pogonatum urnigerum	C	60.2
Cerastium cerastoides		58.6
Sedum alpestre	C	58.0
Nardia scalaris		55.3
Jungermannia sphaerocarpa	Dm	48.4
Niphotrichum ericoides		48.2
Sanionia uncinata		47.6
Niphotrichum elongatum		46.6
Ditrichum heteromallum		41.0
Agrostis rupestris	C	41.0
Sibbaldia procumbens		34.9
Polytrichastrum pallidisetum		31.7
Mutellina purpurea	C	31.2
Bryum bicolor		29.9
Potentilla aurea	C	21.7
Deschampsia flexuosa	C	19.7
Salix herbacea		19.3

Constant species (14):

Gnaphalium supinum	Dg	88.0
Mutellina purpurea	Dg	75.0
Deschampsia flexuosa	Dg	75.0
Anthoxanthum odoratum s. l.		75.0
Oligotrichum hercynicum	Dg	62.0
Deschampsia caespitosa		62.0
Agrostis rupestris	Dg	62.0
Vaccinium myrtillus		50.0
Sedum alpestre	Dg	50.0
Potentilla aurea	Dg	50.0
Pogonatum urnigerum	Dg	50.0

Nardus stricta		50.0
Lophozia sudetica	Dg	50.0
Kiaeria starkei	Dg	50.0

Dominant species (1):

Jungermannia sphaerocarpa	Dg	25.0

AEB Alliance
Festucion picturatae
Chionophilous vegetation of fixed screes on siliceous bedrock
Number of relevés: 11

Diagnostic species (35):

Festuca picta	C, Dm	68.3
Taraxacum nigricans		54.2
Gnaphalium norvegicum		44.1
Mutellina purpurea	C, Dm	42.2
Gentiana punctata		41.2
Luzula alpino-pilosa	C	40.1
Geum montanum	C	38.9
Geranium sylvaticum	C	37.5
Primula elatior	C	31.1
Pseudoleskea incurvata		30.1
Phleum rhaeticum		30.1
Oxystegus tenuirostris		29.3
Pulsatilla alba		28.9
Soldanella carpatica	C	28.7
Potentilla aurea	C	28.1
Euphrasia picta		27.4
Rhodiola rosea		26.3
Campanula polymorpha	C	26.2
Dianthus superbus		25.8
Solidago virgaurea	C	24.6
Traunsteinera globosa		23.4
Rumex alpestris	C	23.4
Thymus alpestris		23.3
Phyteuma orbiculare		23.0
Anthoxanthum odoratum s. l.	C	22.8
Phyteuma spicatum	C	22.1
Anemone narcissiflora		22.0
Pedicularis hacquetii		21.5
Alchemilla vulgaris s. l.	C	20.9
Sedum alpestre		20.7
Aconitum firmum		20.6
Luzula luzuloides	C	19.8
Rhinanthus alpinus		19.6
Homogyne alpina	C	19.4
Thalictrum aquilegiifolium		18.5

Constant species (20):

Mutellina purpurea	Dg, Dm	100.0

Anthoxanthum odoratum s. l.	Dg	100.0
Solidago virgaurea	Dg	82.0
Luzula alpino-pilosa	Dg	73.0
Geum montanum	Dg	73.0
Festuca picta	Dg, Dm	73.0
Soldanella carpatica	Dg	64.0
Primula elatior	Dg	64.0
Potentilla aurea	Dg	64.0
Geranium sylvaticum	Dg	64.0
Alchemilla vulgaris s. l.	Dg	64.0
Rumex alpestris	Dg	55.0
Luzula luzuloides	Dg	55.0
Homogyne alpina	Dg	55.0
Campanula polymorpha	Dg	55.0
Polygonum bistorta		55.0
Vaccinium myrtillus		45.0
Phyteuma spicatum	Dg	45.0
Deschampsia caespitosa		45.0
Deschampsia flexuosa	Dm	45.0

Dominant species (7):

Mutellina purpurea	Dg, C	18.0
Festuca picta	Dg, C	18.0
Nardus stricta		9.0
Chaerophyllum hirsutum		9.0
Deschampsia flexuosa	C	9.0
Athyrium distentifolium		9.0
Agrostis capillaris		9.0

AF Class

CARICI RUPESTRIS-KOBRESIETEA BELLARDII

Arctic-alpine grasslands and heaths of windward riges and edges on neutral soil

Number of relevés: 8

Diagnostic species (42):

Ranunculus oreophilus	C	87.8
Anemone narcissiflora	C	86.2
Pulsatilla alba	C	86.1
Rhodiola rosea	C	84.4
Bartsia alpina	C	76.8
Saxifraga paniculata	C	71.1
Polytrichastrum alpinum	C	69.2
Galium anisophyllum	C	69.1
Hylocomium splendens	C, Dm	61.3
Luzula alpino-pilosa	C	58.3
Dianthus superbus	C	57.3
Hieracium bifidum		56.0
Tortella tortuosa	C	55.4
Festuca versicolor	C, Dm	55.1
Huperzia selago	C	53.8

Campanula polymorpha	C	53.5
Soldanella carpatica	C	48.3
Cetraria islandica	C, Dm	47.9
Polygonum bistorta	C	47.9
Alchemilla pyrenaica		47.9
Salix silesiaca	C	45.6
Carex atrata		44.5
Parnassia palustris	C	43.7
Niphotrichum canescens	C	43.4
Cardaminopsis arenosa	C	40.7
Phyteuma orbiculare	C	40.0
Solidago virgaurea	C	39.9
Rhytidiadelphus triquetrus		39.0
Viola biflora		38.4
Cerastium alpinum		37.9
Vaccinium vitis-idaea	C	36.8
Oxyria digyna		35.0
Achillea millefolium agg.	C	34.4
Sphagnum capillifolium s. l.		33.7
Leucanthemum vulgare	C	31.4
Festuca airoides		30.6
Mutellina purpurea	C	29.2
Valeriana tripteris		29.1
Vaccinium myrtillus	C	28.5
Selaginella selaginoides		28.4
Distichium capillaceum		28.0
Hypnum cupressiforme agg.		26.5

Constant species (29):

Rhodiola rosea	Dg	100.0
Pulsatilla alba	Dg	100.0
Galium anisophyllum	Dg	100.0
Bartsia alpina	Dg	100.0
Anemone narcissiflora	Dg	100.0
Achillea millefolium agg.	Dg	100.0
Vaccinium vitis-idaea	Dg	88.0
Vaccinium myrtillus	Dg	88.0
Solidago virgaurea	Dg	88.0
Saxifraga paniculata	Dg	88.0
Ranunculus oreophilus	Dg	88.0
Polytrichastrum alpinum	Dg	88.0
Luzula alpino-pilosa	Dg	88.0
Hylocomium splendens	Dg, Dm	88.0
Campanula polymorpha	Dg	88.0
Polygonum bistorta	Dg	88.0
Soldanella carpatica	Dg	75.0
Huperzia selago	Dg	75.0
Cetraria islandica	Dg, Dm	75.0
Tortella tortuosa	Dg	62.0
Salix silesiaca	Dg	62.0
Festuca versicolor	Dg, Dm	62.0

Cardaminopsis arenosa	Dg	62.0
Niphotrichum canescens	Dg	50.0
Phyteuma orbiculare	Dg	50.0
Parnassia palustris	Dg	50.0
Mutellina purpurea	Dg	50.0
Leucanthemum vulgare	Dg	50.0
Dianthus superbus	Dg	50.0

Dominant species (3):

Festuca versicolor	Dg, C	50.0
Hylocomium splendens	Dg, C	12.0
Cetraria islandica	Dg, C	12.0

AFA Alliance

Festucion versicoloris

Alpine grassy communities on steep terraced slopes and stable screes on mylonites

Number of relevés: 8

Diagnostic species (38):

Anemone narcissiflora	C	82.9
Pulsatilla alba	C	81.0
Ranunculus oreophilus	C	78.2
Rhodiola rosea	C	74.0
Polytrichastrum alpinum	C	67.9
Bartsia alpina	C	63.0
Galium anisophyllum	C	55.9
Hieracium bifidum		52.3
Saxifraga paniculata	C	50.8
Luzula alpino-pilosa	C	48.5
Huperzia selago	C	47.9
Dianthus superbus	C	47.9
Tortella tortuosa	C	45.0
Festuca versicolor	C, Dm	44.8
Hylocomium splendens	C, Dm	43.5
Campanula polymorpha	C	42.9
Cetraria islandica	C, Dm	39.6
Carex atrata		39.3
Oxyria digyna		35.3
Salix silesiaca	C	34.2
Soldanella carpatica	C	34.1
Phyteuma orbiculare	C	32.0
Niphotrichum canescens	C	31.8
Cerastium alpinum		31.1
Cardaminopsis arenosa	C	30.5
Parnassia palustris	C	30.1
Polygonum bistorta	C	29.8
Vaccinium vitis-idaea	C	27.6
Solidago virgaurea	C	26.5
Rhytidiadelphus triquetrus		25.4
Festuca airoides		24.9

Distichium capillaceum		23.9
Valeriana tripteris		22.0
Sphagnum capillifolium s. l.		21.9
Selaginella selaginoides		20.4
Viola biflora		20.3
Mutellina purpurea	C	20.3
Vaccinium myrtillus	C	18.8
Constant species (29):		
Rhodiola rosea	Dg	100.0
Pulsatilla alba	Dg	100.0
Galium anisophyllum	Dg	100.0
Bartsia alpina	Dg	100.0
Anemone narcissiflora	Dg	100.0
Achillea millefolium agg.		100.0
Vaccinium vitis-idaea	Dg	88.0
Vaccinium myrtillus	Dg	88.0
Solidago virgaurea	Dg	88.0
Saxifraga paniculata	Dg	88.0
Ranunculus oreophilus	Dg	88.0
Polytrichastrum alpinum	Dg	88.0
Luzula alpino-pilosa	Dg	88.0
Hylocomium splendens	Dg, Dm	88.0
Campanula polymorpha	Dg	88.0
Polygonum bistorta	Dg	88.0
Soldanella carpatica	Dg	75.0
Huperzia selago	Dg	75.0
Cetraria islandica	Dg, Dm	75.0
Tortella tortuosa	Dg	62.0
Salix silesiaca	Dg	62.0
Festuca versicolor	Dg, Dm	62.0
Cardaminopsis arenosa	Dg	62.0
Niphotrichum canescens	Dg	50.0
Phyteuma orbiculare	Dg	50.0
Parnassia palustris	Dg	50.0
Mutellina purpurea	Dg	50.0
Leucanthemum vulgare		50.0
Dianthus superbus	Dg	50.0
Dominant species (3):		
Festuca versicolor	Dg, C	50.0
Hylocomium splendens	Dg, C	12.0
Cetraria islandica	Dg, C	12.0

DA Class

AMMOPHILETEA ARENARIAE

Vegetation of moving and fixed dominated by rhizomatous grasses, sedges and dwarf shrubs

Number of relevés: 186

Diagnostic species (25):

Ammophila arenaria	C	64.9
Carex arenaria	C	51.7
Juncus balticus		39.7
Artemisia campestris subsp. *sericea*		38.7
Corynephorus canescens	C	36.5
Hypogymnia physodes		35.3
Hieracium umbellatum		30.5
Juncus articulatus subsp. *litoralis*		29.9
Linaria odora		29.7
Cladonia scabriuscula		29.7
Festuca polesica		29.3
Lathyrus japonicus subsp. *maritimus*		29.0
Salix repens s. l.		28.1
Eryngium maritimum		28.1
Cladonia pleurota s. l.		27.7
Leymus arenarius		27.6
Jasione montana		27.6
Empetrum nigrum s. l.		25.2
×*Calammophila baltica*		24.8
Cladonia macilenta s. l.		23.6
Cladonia portentosa		23.2
Pohlia nutans		21.4
Cladonia chlorophaea		21.3
Cephaloziella divaricata		20.2
Platismatia glauca		18.5

Constant species (4):

Ammophila arenaria	Dg	76.0
Festuca rubra agg.		49.0
Corynephorus canescens	Dg	46.0
Carex arenaria	Dg	43.0

Dominant species (1):

Polytrichum commune	6.0

DAA Alliance

Ammophilion arenariae

Vegetation of young to fixed dunes around the Atlantic coast of Europe

Number of relevés: 127

Diagnostic species (19):

Ammophila arenaria	C	45.9
Festuca polesica		35.0

Lathyrus japonicus subsp. *maritimus*		32.8
Linaria odora		31.9
Artemisia campestris subsp. *sericea*		30.2
Hypogymnia physodes		27.2
Leymus arenarius	C	25.1
Corynephorus canescens	C	23.6
Cladonia scabriuscula		23.4
×*Calammophila baltica*		23.2
Platismatia glauca		22.5
Hieracium umbellatum	C	21.6
Cephaloziella divaricata		21.6
Jasione montana		20.4
Cladonia macilenta s. l.		20.2
Cladonia pleurota s. l.		19.5
Eryngium maritimum		19.1
Cladonia portentosa		19.1
Cladonia chlorophaea		18.6

Constant species (5):

Ammophila arenaria	Dg	83.0
Festuca rubra agg.		59.0
Hieracium umbellatum	Dg	50.0
Corynephorus canescens	Dg	48.0
Leymus arenarius	Dg	41.0

Dominant species (0):

DAB Alliance

Agropyro-Minuartion peploidis

Pioneer vegetation of coastal foredunes

Number of relevés: 12

Diagnostic species (7):

Petasites spurius	C	67.7
Leymus arenarius	C, Dm	62.9
Elymus farctus	C	57.8
Honckenya peploides	C	53.0
×*Calammophila baltica*	C	48.8
Ammophila arenaria	C, Dm	41.6
Cakile maritima		20.9

Constant species (7):

Leymus arenarius	Dg, Dm	100.0
Petasites spurius	Dg	92.0
Honckenya peploides	Dg	75.0
Festuca rubra agg.		75.0
Ammophila arenaria	Dg, Dm	75.0
×*Calammophila baltica*	Dg	67.0
Elymus farctus	Dg	42.0

Dominant species (2):

Leymus arenarius	Dg, C	17.0
Ammophila arenaria	Dg, C	8.0

DAC Alliance
Juncion baltici
Vegetation of active deflation hollows
Number of relevés: 47

Diagnostic species (17):

Juncus balticus	C	81.2
Juncus articulatus subsp. *litoralis*		60.0
Carex arenaria	C	47.5
Salix repens s. l.	C	43.7
Empetrum nigrum s. l.	C	33.4
Ammophila arenaria	C	32.8
Lycopodiella inundata		32.1
Gymnocolea inflata		30.4
Polytrichum commune	C, Dm	28.1
Corynephorus canescens	C	25.2
Cephalozia connivens		25.2
Drosera anglica		24.5
Cephalozia bicuspidata		23.2
Agrostis stolonifera	C	22.8
Pohlia nutans	C, Dm	22.4
Salix aurita		20.6
Lophozia capitata		20.6

Constant species (10):

Carex arenaria	Dg	89.0
Juncus balticus	Dg	70.0
Agrostis stolonifera	Dg	68.0
Salix repens s. l.	Dg	66.0
Ammophila arenaria	Dg	60.0
Polytrichum commune	Dg, Dm	55.0
Pohlia nutans	Dg, Dm	53.0
Corynephorus canescens	Dg	51.0
Empetrum nigrum s. l.	Dg	45.0
Calluna vulgaris	Dm	45.0

Dominant species (3):

Polytrichum commune	Dg, C	32.0
Calluna vulgaris	C	11.0
Pohlia nutans	Dg, C	26.0

DB Class

CAKILETEA MARITIMAE

Pioneer vegetation, mostly of nitrophilous summer annuals, on nutrient-rich detritus of strandlines on sand and shingle beaches

Number of relevés: 10

Diagnostic species (12):

Salsola kali	C	98.6
Cakile maritima	C, Dm	95.8
Leymus arenarius	C	85.4
Honckenya peploides	C	79.4
×*Calammophila baltica*	C	69.6
Petasites spurius	C	67.6
Ammophila arenaria	C	41.6
Atriplex litoralis		28.3
Elymus farctus		27.6
Festuca rubra agg.	C	27.3
Helianthus annuus		23.8
Atriplex prostrata s. l.		20.6

Constant species (8):

Salsola kali	Dg	100.0
Leymus arenarius	Dg	100.0
Cakile maritima	Dg, Dm	100.0
Honckenya peploides	Dg	80.0
Festuca rubra agg.	Dg	70.0
×*Calammophila baltica*	Dg	70.0
Petasites spurius	Dg	60.0
Ammophila arenaria	Dg	50.0

Dominant species (1):

Cakile maritima	Dg, C	10.0

DBA Alliance

Atriplicion littoralis

Communities of shingle or strand lines sometimes mixed with but not covered by sand

Number of relevés: 10

Diagnostic species (9):

Cakile maritima	C, Dm	85.8
Salsola kali	C	84.2
Leymus arenarius	C	62.9
Honckenya peploides	C	56.6
×*Calammophila baltica*	C	51.3
Petasites spurius	C	44.0
Ammophila arenaria	C	27.3
Atriplex litoralis		26.8
Helianthus annuus		23.1

Constant species (8):

Salsola kali	Dg	100.0
Leymus arenarius	Dg	100.0
Cakile maritima	Dg, Dm	100.0
Honckenya peploides	Dg	80.0
Festuca rubra agg.		70.0
×*Calammophila baltica*	Dg	70.0
Petasites spurius	Dg	60.0
Ammophila arenaria	Dg	50.0

Dominant species (1):

Cakile maritima	Dg, C	10.0

TB Class
THERO-SALICORNIETEA STRICTAE
Vegetation of annual succulent halophytes
Number of relevés: 15

Diagnostic species (8):

Salicornia europaea	C, Dm	96.7
Puccinellia distans	C, Dm	75.5
Atriplex prostrata s. l.	C	53.2
Spergularia salina	C	51.3
Aster tripolium		35.5
Sonchus oleraceus		34.9
Atriplex nitens		30.7
Lepidium ruderale		28.9

Constant species (4):

Salicornia europaea	Dg, Dm	100.0
Puccinellia distans	Dg, Dm	93.0
Atriplex prostrata s. l.	Dg	73.0
Spergularia salina	Dg	47.0

Dominant species (2):

Salicornia europaea	Dg, C	47.0
Puccinellia distans	Dg, C	33.0

TBA Alliance
Salicornion prostratae
Inland salt marshes with annual succulent halophytes
Number of relevés: 15

Diagnostic species (7):

Salicornia europaea	C, Dm	91.9
Puccinellia distans	C, Dm	59.7
Atriplex prostrata s. l.	C	40.3
Spergularia salina	C	39.3
Aster tripolium		29.1
Atriplex nitens		22.4

Sonchus oleraceus		19.0
Constant species (4):		
Salicornia europaea	Dg, Dm	100.0
Puccinellia distans	Dg, Dm	93.0
Atriplex prostrata s. l.	Dg	73.0
Spergularia salina	Dg	47.0
Dominant species (2):		
Salicornia europaea	Dg, C	47.0
Puccinellia distans	Dg, C	33.0

TC Class
FESTUCO-PUCCINELLIETEA
Saline grasslands
Number of relevés: 136

Diagnostic species (29):		
Triglochin maritimum	C	66.5
Glaux maritima		60.8
Juncus compressus	C	54.6
Trifolium fragiferum		47.7
Agrostis stolonifera	C, Dm	42.5
Potentilla anserina	C, Dm	41.2
Puccinellia distans	C, Dm	37.9
Festuca arundinacea		36.5
Spergularia salina		35.8
Carex distans		33.8
Carex contigua s. l.		33.2
Carex secalina		31.1
Lotus tenuis		30.4
Eleocharis palustris agg.		30.4
Atriplex prostrata s. l.	C	29.1
Plantago intermedia		28.9
Schoenoplectus tabernaemontani		28.3
Poa subcaerulea		27.3
Bolboschoenus maritimus		26.4
Phragmites australis	C	26.4
Juncus ranarius		25.1
Triglochin palustre		24.9
Plantago maritima		23.8
Melilotus dentata		23.2
Carex disticha		22.6
Juncus gerardi		22.2
Taraxacum sect. *Palustria*		21.5
Blysmus compressus		19.9
Centaurium pulchellum		19.9
Constant species (7):		
Agrostis stolonifera	Dg, Dm	59.0
Potentilla anserina	Dg, Dm	51.0

Puccinellia distans	Dg, Dm	49.0
Triglochin maritimum	Dg	45.0
Phragmites australis	Dg	43.0
Juncus compressus	Dg	43.0
Atriplex prostrata s. l.	Dg	42.0

Dominant species (3):

Agrostis stolonifera	Dg, C	8.0
Puccinellia distans	Dg, C	5.0
Potentilla anserina	Dg, C	5.0

TCA Alliance
Puccinellion limosae
Intermittently dry saline grasslands
Number of relevés: 48

Diagnostic species (11):

Spergularia salina	C, Dm	74.4
Puccinellia distans	C, Dm	62.6
Atriplex prostrata s. l.	C, Dm	42.4
Glaux maritima	Dm	38.6
Triglochin maritimum		29.5
Aster tripolium	Dm	27.2
Lotus tenuis		26.8
Plantago maritima		22.7
Juncus compressus		20.2
Plantago intermedia		18.5
Juncus gerardi		18.1

Constant species (4):

Puccinellia distans	Dg, Dm	98.0
Spergularia salina	Dg, Dm	88.0
Atriplex prostrata s. l.	Dg, Dm	77.0
Phragmites australis		42.0

Dominant species (7):

Puccinellia distans	Dg, C	15.0
Spergularia salina	Dg, C	6.0
Glaux maritima	Dg	6.0
Bolboschoenus maritimus		6.0
Atriplex prostrata s. l.	Dg, C	6.0
Salicornia europaea		4.0
Aster tripolium	Dg	4.0

TCB Alliance
Juncion gerardii
Mesic and wet saline grasslands
Number of relevés: 88

Diagnostic species (14):

Triglochin maritimum	C	60.0
Glaux maritima		46.2
Trifolium fragiferum	Dm	43.3
Juncus compressus	C	33.9
Carex secalina		33.8
Carex distans		26.5
Festuca arundinacea	Dm	25.7
Potentilla anserina	C, Dm	25.8
Poa subcaerulea		25.6
Agrostis stolonifera	C, Dm	24.5
Carex contigua s. l.		23.4
Eleocharis palustris agg.	C	19.5
Schoenoplectus tabernaemontani		18.7
Carex disticha		18.2

Constant species (6):

Agrostis stolonifera	Dg, Dm	74.0
Potentilla anserina	Dg, Dm	68.0
Triglochin maritimum	Dg	54.0
Juncus compressus	Dg	53.0
Phragmites australis	Dm	45.0
Eleocharis palustris agg.	Dg	43.0

Dominant species (5):

Agrostis stolonifera	Dg, C	11.0
Potentilla anserina	Dg, C	8.0
Trifolium fragiferum	Dg	5.0
Phragmites australis	C	5.0
Festuca arundinacea	Dg	5.0

TD Class
MOLINIO-ARRHENATHERETEA
Meadows and mesic pastures
Number of relevés: 5863

Diagnostic species (33):

Rumex acetosa	C	35.9
Ranunculus acris	C	34.8
Holcus lanatus	C	33.2
Festuca pratensis		32.9
Lychnis flos-cuculi		32.7
Lathyrus pratensis		32.5
Sanguisorba officinalis		31.8
Alopecurus pratensis		31.6

Lotus uliginosus		29.9
Campanula patula		25.3
Cirsium rivulare		24.5
Galium uliginosum		24.3
Stellaria graminea		24.2
Phleum pratense		23.8
Plantago lanceolata	C	23.4
Selinum carvifolia		22.8
Trifolium pratense s. l.		22.6
Trisetum flavescens		22.5
Vicia cracca		22.0
Angelica sylvestris		22.0
Centaurea jacea s. l.		21.8
Equisetum palustre		21.7
Carex panicea		21.2
Filipendula ulmaria		20.9
Cerastium holosteoides		20.1
Alchemilla vulgaris s. l.		19.7
Deschampsia caespitosa	C	19.6
Ranunculus repens		18.9
Ranunculus auricomus agg.		18.7
Cynosurus cristatus		18.6
Achillea ptarmica		18.4
Festuca rubra agg.	C	18.2
Geum rivale		18.1
Constant species (8):		
Ranunculus acris	Dg	57.0
Rumex acetosa	Dg	56.0
Festuca rubra agg.	Dg	50.0
Deschampsia caespitosa	Dg	49.0
Achillea millefolium agg.		46.0
Holcus lanatus	Dg	44.0
Anthoxanthum odoratum s. l.		42.0
Plantago lanceolata	Dg	41.0
Dominant species (1):		
Molinia caerulea s. l.		4.0

TDA Alliance
Arrhenatherion elatioris
Lowland to submontane mesic meadows
Number of relevés: 1152

Diagnostic species (4):		
Trisetum flavescens		29.0
Campanula patula	C	25.7
Plantago lanceolata	C	18.2
Arrhenatherum elatius	C, Dm	18.1

Constant species (21):

Achillea millefolium agg.		80.0
Dactylis glomerata		73.0
Plantago lanceolata	Dg	72.0
Veronica chamaedrys		66.0
Festuca rubra agg.		66.0
Rumex acetosa		64.0
Galium mollugo agg.		64.0
Ranunculus acris		60.0
Anthoxanthum odoratum s. l.		57.0
Agrostis capillaris		57.0
Poa pratensis s. l.		51.0
Campanula patula	Dg	50.0
Vicia cracca		49.0
Arrhenatherum elatius	Dg, Dm	49.0
Leucanthemum vulgare		47.0
Trifolium pratense s. l.		46.0
Taraxacum sect. *Ruderalia*		45.0
Alchemilla vulgaris s. l.		45.0
Festuca pratensis		43.0
Pimpinella saxifraga		41.0
Holcus lanatus		41.0

Dominant species (1):

Arrhenatherum elatius	Dg, C	4.0

TDB Alliance
Polygono bistortae-Trisetion flavescentis
Montane mesic meadows
Number of relevés: 395

Diagnostic species (12):

Cardaminopsis halleri	C	41.2
Crepis mollis		32.0
Hypericum maculatum	C	28.8
Campanula patula	C	28.6
Trisetum flavescens		25.0
Alchemilla vulgaris s. l.	C	24.2
Stellaria graminea	C	22.8
Meum athamanticum		20.5
Ranunculus acris	C	20.0
Phyteuma spicatum	C	19.8
Rumex acetosa	C	19.6
Agrostis capillaris	C, Dm	19.3

Constant species (19):

Agrostis capillaris	Dg, Dm	87.0
Festuca rubra agg.	Dm	85.0
Hypericum maculatum	Dg	83.0
Veronica chamaedrys		74.0

Ranunculus acris	Dg	73.0
Alchemilla vulgaris s. l.	Dg	73.0
Rumex acetosa	Dg	71.0
Achillea millefolium agg.		70.0
Anthoxanthum odoratum s. l.		62.0
Campanula patula	Dg	55.0
Stellaria graminea	Dg	52.0
Cardaminopsis halleri	Dg	52.0
Plantago lanceolata		50.0
Luzula campestris agg.		49.0
Potentilla erecta		44.0
Dactylis glomerata		44.0
Vicia cracca		43.0
Phyteuma spicatum	Dg	41.0
Deschampsia caespitosa	Dm	41.0
Dominant species (3):		
Festuca rubra agg.	C	7.0
Agrostis capillaris	Dg, C	6.0
Deschampsia caespitosa	C	4.0

TDC Alliance
Cynosurion cristati
Mesic pastures and perennial grasslands of trampled habitats
Number of relevés: 537

Diagnostic species (6):		
Lolium perenne	C, Dm	32.1
Cynosurus cristatus		27.9
Bellis perennis		23.4
Trifolium repens	C	23.0
Leontodon autumnalis	C	22.1
Plantago major s. l.	C	19.8
Constant species (11):		
Trifolium repens	Dg	72.0
Taraxacum sect. *Ruderalia*		68.0
Achillea millefolium agg.		64.0
Lolium perenne	Dg, Dm	62.0
Plantago lanceolata		53.0
Plantago major s. l.	Dg	49.0
Agrostis capillaris		47.0
Dactylis glomerata		44.0
Leontodon autumnalis	Dg	42.0
Cerastium holosteoides		42.0
Ranunculus repens		41.0
Dominant species (1):		
Lolium perenne	Dg, C	5.0

TDD Alliance
Molinion caeruleae
Intermittently wet, nutrient-poor meadows
Number of relevés: 731

Diagnostic species (15):		
Succisa pratensis	C	40.1
Selinum carvifolia	C	39.0
Molinia caerulea s. l.	C, Dm	32.0
Ophioglossum vulgatum		30.3
Carex hartmanii		25.6
Serratula tinctoria		24.1
Carex panicea	C	24.0
Sanguisorba officinalis	C	23.6
Gentiana pneumonanthe		22.0
Centaurea jacea s. l.	C	21.2
Galium boreale		20.8
Galium uliginosum		18.8
Lotus uliginosus		18.7
Silaum silaus		18.5
Betonica officinalis		18.1
Constant species (17):		
Molinia caerulea s. l.	Dg, Dm	89.0
Deschampsia caespitosa		64.0
Potentilla erecta		62.0
Succisa pratensis	Dg	57.0
Ranunculus acris		54.0
Festuca rubra agg.		53.0
Carex panicea	Dg	53.0
Selinum carvifolia	Dg	52.0
Holcus lanatus		51.0
Centaurea jacea s. l.	Dg	51.0
Rumex acetosa		45.0
Achillea millefolium agg.		45.0
Briza media		45.0
Sanguisorba officinalis	Dg	42.0
Lychnis flos-cuculi		42.0
Vicia cracca		41.0
Anthoxanthum odoratum s. l.		41.0
Dominant species (1):		
Molinia caerulea s. l.	Dg, C	26.0

TDI Alliance
Cnidion venosi
Continental alluvial meadows
Number of relevés: 208

Diagnostic species (13):

Allium angulosum	C	54.8
Cnidium dubium	C	47.4
Sanguisorba officinalis	C	32.3
Alopecurus pratensis	C	31.3
Galium boreale	C	25.7
Lathyrus pratensis	C	25.5
Silaum silaus		25.3
Gratiola officinalis		25.0
Potentilla reptans	C	22.8
Scutellaria hastifolia		20.7
Vicia cracca	C	19.4
Viola stagnina		18.4
Serratula tinctoria		18.3

Constant species (14):

Alopecurus pratensis	Dg	74.0
Poa pratensis s. l.		68.0
Lathyrus pratensis	Dg	66.0
Vicia cracca	Dg	63.0
Deschampsia caespitosa		61.0
Sanguisorba officinalis	Dg	56.0
Rumex acetosa		55.0
Ranunculus repens		49.0
Galium boreale	Dg	49.0
Potentilla reptans	Dg	45.0
Ranunculus acris		44.0
Cnidium dubium	Dg	44.0
Allium angulosum	Dg	42.0
Lychnis flos-cuculi		41.0

Dominant species (0):

TDH Alliance
Alopecurion pratensis
Alluvial *Alopecurus* meadows
Number of relevés: 541

Diagnostic species (6):

Holcus lanatus	C, Dm	28.5
Alopecurus pratensis	C, Dm	23.9
Lychnis flos-cuculi	C	21.7
Festuca pratensis	C	21.7
Rumex acetosa	C	21.6
Ranunculus acris	C	20.0

Constant species (18):

Holcus lanatus	Dg, Dm	82.0
Rumex acetosa	Dg	77.0
Ranunculus acris	Dg	73.0
Ranunculus repens		72.0
Deschampsia caespitosa	Dm	64.0
Plantago lanceolata		59.0
Alopecurus pratensis	Dg, Dm	57.0
Lychnis flos-cuculi	Dg	56.0
Anthoxanthum odoratum s. l.		56.0
Poa pratensis s. l.		55.0
Festuca rubra agg.		55.0
Cerastium holosteoides		55.0
Taraxacum sect. *Ruderalia*		52.0
Festuca pratensis	Dg	52.0
Achillea millefolium agg.		52.0
Trifolium pratense s. l		45.0
Poa trivialis		43.0
Trifolium repens		42.0

Dominant species (3):

Alopecurus pratensis	Dg, C	5.0
Holcus lanatus	Dg, C	4.0
Deschampsia caespitosa	C	3.0

TDJ Alliance

Veronico longifoliae-Lysimachion vulgaris

Central European sub-continental tall-forb vegetation on alluvia of large rivers

Number of relevés: 15

Diagnostic species (12):

Veronica longifolia	C	73.7
Thalictrum lucidum	C	60.0
Thalictrum flavum		34.5
Filipendula ulmaria	C, Dm	27.2
Populus xcanadensis		25.6
Symphytum officinale	C	23.1
Aster novi-belgii s. l.	Dm	21.4
Lysimachia vulgaris	C	21.1
Lythrum salicaria	C	19.6
Carex gracilis		19.5
Rumex palustris		18.7
Humulus lupulus		18.3

Constant species (7):

Veronica longifolia	Dg	80.0
Lysimachia vulgaris	Dg	73.0
Filipendula ulmaria	Dg, Dm	73.0
Lythrum salicaria	Dg	60.0
Thalictrum lucidum	Dg	53.0

Symphytum officinale	Dg	47.0
Phalaris arundinacea		47.0
Dominant species (4):		
Filipendula ulmaria	Dg, C	13.0
Juncus effusus		7.0
Galium aparine		7.0
Aster novi-belgii s. l.	Dg	7.0

TDF Alliance
Calthion palustris
Wet tall-herb meadows
Number of relevés: 2153

Diagnostic species (5):		
Scirpus sylvaticus	C, Dm	22.6
Lotus uliginosus	C	22.6
Cirsium rivulare		21.0
Lychnis flos-cuculi	C	20.4
Filipendula ulmaria	C, Dm	19.9
Constant species (13):		
Ranunculus acris		60.0
Deschampsia caespitosa		59.0
Rumex acetosa		57.0
Filipendula ulmaria	Dg, Dm	55.0
Lychnis flos-cuculi	Dg	53.0
Myosotis palustris agg.		48.0
Holcus lanatus		48.0
Lotus uliginosus	Dg	46.0
Equisetum palustre		45.0
Ranunculus repens		44.0
Lathyrus pratensis		44.0
Angelica sylvestris		42.0
Scirpus sylvaticus	Dg, Dm	41.0
Dominant species (2):		
Scirpus sylvaticus	Dg, C	7.0
Filipendula ulmaria	Dg, C	4.0

TDG Alliance
Juncion effusi
Vegetation on wet siliceous disturbed soils with *Juncus effusus*
Number of relevés: 71

Diagnostic species (5):		
Epilobium palustre	C	35.7
Juncus effusus	C, Dm	31.9
Hydrocotyle vulgaris		26.8
Holcus lanatus	C	20.7

Lotus uliginosus		19.4
Constant species (11):		
Juncus effusus	Dg, Dm	94.0
Epilobium palustre	Dg	82.0
Deschampsia caespitosa	Dm	72.0
Holcus lanatus	Dg	61.0
Ranunculus repens		55.0
Festuca rubra agg.		49.0
Galium palustre agg.		46.0
Carex nigra		46.0
Lythrum salicaria		45.0
Lysimachia vulgaris		42.0
Cirsium palustre		42.0
Dominant species (2):		
Juncus effusus	Dg, C	31.0
Deschampsia caespitosa	C	11.0

TDK Alliance
Potentillion anserinae
Trampled vegetation on wet irregularly inundated habitats
Number of relevés: 60

Diagnostic species (3):		
Agrostis stolonifera	C, Dm	32.0
Alopecurus geniculatus	Dm	21.8
Atriplex tatarica		20.4
Constant species (3):		
Agrostis stolonifera	Dg, Dm	93.0
Ranunculus repens		67.0
Potentilla anserina	Dm	47.0
Dominant species (3):		
Agrostis stolonifera	Dg, C	33.0
Potentilla anserina	C	3.0
Alopecurus geniculatus	Dg	3.0

TE Class
CALLUNO-ULICETEA
Nardus grasslands and heathlands
Number of relevés: 698

Diagnostic species (23):		
Nardus stricta	C, Dm	43.2
Luzula campestris agg.	C	37.5
Polygala vulgaris s. l.		35.7
Potentilla erecta	C	34.2
Danthonia decumbens		34.2

Agrostis capillaris	C	32.2
Carex pilulifera		32.1
Hypericum maculatum		29.8
Stellaria graminea		26.2
Anthoxanthum odoratum s. l.	C	24.9
Campanula patula		24.1
Briza media		23.2
Festuca rubra agg.	C	23.0
Viola canina		22.9
Plantago lanceolata		20.5
Rumex acetosa		19.8
Veronica officinalis		19.6
Carlina acaulis		19.6
Carex pallescens		19.1
Dianthus deltoides		19.0
Hieracium pilosella s. l.		19.8
Thymus pulegioides		18.7
Calluna vulgaris	Dm	18.2
Constant species (7):		
Agrostis capillaris	Dg	70.0
Nardus stricta	Dg, Dm	62.0
Festuca rubra agg.	Dg	60.0
Anthoxanthum odoratum s. l.	Dg	60.0
Potentilla erecta	Dg	56.0
Luzula campestris agg.	Dg	53.0
Achillea millefolium agg.		46.0
Dominant species (4):		
Nardus stricta	Dg, C	16.0
Vaccinium myrtillus		5.0
Calluna vulgaris	Dg	5.0
Pleurozium schreberi		4.0

TEA Alliance
Nardion strictae
Subalpine *Nardus* grasslands
Number of relevés: 56

Diagnostic species (9):		
Nardus stricta	C, Dm	31.4
Potentilla aurea	C	29.2
Homogyne alpina	C	22.5
Geum montanum	C	22.4
Hieracium atratum		22.1
Phleum rhaeticum		22.0
Campanula bohemica		18.9
Anastrophyllum minutum		18.8
Luzula luzuloides	C	18.7

Constant species (9):

Nardus stricta	Dg, Dm	91.0
Vaccinium myrtillus	Dm	79.0
Potentilla aurea	Dg	66.0
Homogyne alpina	Dg	62.0
Deschampsia flexuosa		61.0
Anthoxanthum odoratum s. l.		59.0
Luzula luzuloides	Dg	52.0
Agrostis capillaris		48.0
Geum montanum	Dg	43.0

Dominant species (2):

Nardus stricta	Dg, C	34.0
Vaccinium myrtillus	C	9.0

TEB Alliance
Nardo strictae-Agrostion tenuis
Montane *Nardus* grasslands with alpine species
Number of relevés: 17

Diagnostic species (18):

Carex pilulifera	C	32.7
Phyteuma spicatum	C	32.0
Hypericum maculatum	C	30.7
Nardus stricta	C, Dm	30.3
Veronica officinalis	C	30.1
Poa chaixii	C	29.9
Potentilla erecta	C	27.8
Cardaminopsis halleri		27.7
Campanula patula	C	27.6
Luzula luzuloides	C	26.2
Potentilla aurea	C	23.1
Hieracium lachenalii s. l.	C	22.4
Crepis mollis		21.4
Agrostis capillaris	C	21.1
Cruciata glabra	C	20.7
Allium victorialis		19.4
Picris hieracioides		19.3
Carlina acaulis		18.1

Constant species (24):

Potentilla erecta	Dg	94.0
Agrostis capillaris	Dg	94.0
Nardus stricta	Dg, Dm	88.0
Hypericum maculatum	Dg	88.0
Festuca rubra agg.	Dm	82.0
Veronica officinalis	Dg	71.0
Luzula luzuloides	Dg	71.0
Carex pilulifera	Dg	71.0
Ranunculus acris		65.0

Phyteuma spicatum	Dg	65.0
Vaccinium myrtillus		59.0
Cruciata glabra	Dg	59.0
Achillea millefolium agg.		59.0
Potentilla aurea	Dg	53.0
Luzula campestris agg.		53.0
Hieracium lachenalii s. l.	Dg	53.0
Campanula patula	Dg	53.0
Anthoxanthum odoratum s. l.		53.0
Veronica chamaedrys		47.0
Poa chaixii	Dg	47.0
Rumex acetosa		41.0
Leontodon hispidus		41.0
Gentiana asclepiadea		41.0
Alchemilla vulgaris s. l.		41.0
Dominant species (4):		
Nardus stricta	Dg, C	29.0
Festuca rubra agg.	C	18.0
Rubus idaeus		6.0
Holcus mollis		6.0

TEC Alliance
Violion caninae
Nardus grasslands
Number of relevés: 304

Diagnostic species (15):		
Polygala vulgaris s. l.	C	31.4
Danthonia decumbens	C	29.2
Viola canina		22.7
Nardus stricta	C, Dm	21.8
Luzula campestris agg.	C	21.0
Thymus pulegioides	C	20.2
Briza media	C	20.0
Lotus corniculatus	C	19.8
Euphrasia rostkoviana		19.8
Stellaria graminea	C	19.7
Potentilla erecta	C	19.2
Campanula patula		19.1
Agrostis capillaris	C	18.5
Plantago lanceolata	C	18.4
Dianthus deltoides		18.2
Constant species (25):		
Agrostis capillaris	Dg	84.0
Festuca rubra agg.	Dm	81.0
Anthoxanthum odoratum s. l.		79.0
Achillea millefolium agg.		78.0
Plantago lanceolata	Dg	73.0
Potentilla erecta	Dg	67.0

Luzula campestris agg.	Dg	66.0
Nardus stricta	Dg, Dm	65.0
Pimpinella saxifraga		62.0
Thymus pulegioides	Dg	60.0
Ranunculus acris		56.0
Briza media	Dg	56.0
Rumex acetosa		53.0
Lotus corniculatus	Dg	52.0
Leontodon hispidus		52.0
Hieracium pilosella s. l.		51.0
Veronica chamaedrys		50.0
Hypericum maculatum		50.0
Leucanthemum vulgare		48.0
Polygala vulgaris s. l.	Dg	47.0
Danthonia decumbens	Dg	47.0
Stellaria graminea	Dg	45.0
Alchemilla vulgaris s. l.		45.0
Trifolium repens		44.0
Knautia arvensis agg.		44.0
Dominant species (2):		
Nardus stricta	Dg, C	13.0
Festuca rubra agg.	C	3.0

TED Alliance
Nardo strictae-Juncion squarrosi
Wet *Nardus* grasslands
Number of relevés: 69

Diagnostic species (5):		
Juncus squarrosus	C	59.9
Pedicularis sylvatica		32.2
Nardus stricta	C, Dm	28.3
Carex ovalis		19.4
Potentilla erecta	C	18.6
Constant species (7):		
Nardus stricta	Dg, Dm	83.0
Potentilla erecta	Dg	65.0
Agrostis capillaris		65.0
Juncus squarrosus	Dg	55.0
Anthoxanthum odoratum s. l.		45.0
Carex nigra		43.0
Luzula campestris agg.		42.0
Dominant species (1):		
Nardus stricta	Dg, C	17.0

TEE Alliance
Euphorbio cyparissiae-Callunion vulgaris
Dry lowland and colline heathlands
Number of relevés: 44

Diagnostic species (6):		
Carex ericetorum		28.4
Hieracium pilosella s. l.	C	27.4
Calluna vulgaris	C, Dm	27.4
Genista tinctoria		18.2
Agrostis vinealis		18.1
Polytrichum juniperinum		18.0
Constant species (10):		
Hieracium pilosella s. l.	Dg	98.0
Calluna vulgaris	Dg, Dm	77.0
Rumex acetosella s. l.		57.0
Anthoxanthum odoratum s. l.		48.0
Agrostis capillaris		48.0
Achillea millefolium agg.		48.0
Euphorbia cyparissias		45.0
Hypericum perforatum		43.0
Festuca ovina s. l.		43.0
Calamagrostis epigejos		41.0
Dominant species (5):		
Pleurozium schreberi		16.0
Calluna vulgaris	Dg, C	14.0
Pinus sylvestris		7.0
Juniperus communis		5.0
Hypnum jutlandicum		5.0

TEF Alliance
Genisto pilosae-Vaccinion
Submontane to subalpine *Vaccinium* heathlands
Number of relevés: 208

Diagnostic species (1):		
Carex pilulifera	C	22.3
Constant species (11):		
Vaccinium myrtillus	Dm	78.0
Agrostis capillaris		59.0
Potentilla erecta		54.0
Nardus stricta	Dm	54.0
Luzula campestris agg.		49.0
Festuca rubra agg.		49.0
Carex pilulifera	Dg	49.0
Calluna vulgaris	Dm	48.0
Pleurozium schreberi	Dm	46.0

Deschampsia flexuosa	Dm	44.0
Hypericum maculatum		42.0

Dominant species (5):

Nardus stricta	C	19.0
Vaccinium myrtillus	C	14.0
Calluna vulgaris	C	13.0
Pleurozium schreberi	C	9.0
Deschampsia flexuosa	C	3.0

TF Class
KOELERIO-CORYNEPHORETEA
Pioneer vegetation of sandy and shallow soils
Number of relevés: 1131

Diagnostic species (35):

Corynephorus canescens	C	49.4
Spergula morisonii		45.2
Veronica dillenii		41.2
Scleranthus perennis		40.4
Artemisia campestris	C	38.4
Polytrichum piliferum		37.9
Thymus serpyllum		37.2
Rumex acetosella s. l.	C	35.7
Cerastium semidecandrum		35.4
Jasione montana		34.3
Trifolium arvense		33.3
Teesdalia nudicaulis		31.3
Hieracium pilosella s. l.	C	31.3
Helichrysum arenarium		30.2
Cetraria aculeata		28.6
Cladonia arbuscula s. l.		27.9
Filago minima		27.5
Potentilla argentea		27.1
Koeleria glauca		27.1
Ceratodon purpureus		26.1
Sedum acre		25.7
Astragalus arenarius		25.4
Silene otites s. l.		24.6
Festuca psammophila		22.6
Brachythecium albicans		22.2
Hypochaeris radicata		20.9
Cladonia cervicornis subsp. *verticillata*		20.9
Scleranthus polycarpos		20.0
Cladonia uncialis		19.7
Aira praecox		19.6
Herniaria glabra		19.2
Arenaria serpyllifolia agg.		19.1
Sedum sexangulare		19.0
Centaurea stoebe		18.7

Cladonia fimbriata		18.5

Constant species (4):

Hieracium pilosella s. l.	Dg	56.0
Rumex acetosella s. l.	Dg	55.0
Corynephorus canescens	Dg	55.0
Artemisia campestris	Dg	42.0

Dominant species (0):

TFA Alliance
Corynephorion canescentis
Open sand grasslands
Number of relevés: 645

Diagnostic species (12):

Corynephorus canescens	C, Dm	44.7
Spergula morisonii		42.6
Polytrichum piliferum	C	29.5
Cladonia arbuscula s. l.		27.0
Koeleria glauca		25.2
Cladonia cervicornis subsp. *verticillata*		25.2
Scleranthus perennis		21.9
Teesdalia nudicaulis		21.7
Jasione montana		20.9
Cetraria aculeata		20.4
Cladonia uncialis		19.0
Veronica dillenii		18.3

Constant species (6):

Corynephorus canescens	Dg, Dm	89.0
Rumex acetosella s. l.		56.0
Polytrichum piliferum	Dg	56.0
Hieracium pilosella s. l.		56.0
Artemisia campestris		43.0
Ceratodon purpureus		41.0

Dominant species (1):

Corynephorus canescens	Dg, C	5.0

TFB Alliance
Thero-Airion
Vegetation of annual grasses on sandy soils
Number of relevés: 59

Diagnostic species (9):

Aira praecox	C, Dm	75.2
Vulpia myuros		29.0
Spergula morisonii		26.4
Filago minima		23.4
Aira caryophyllea		23.0

Scleranthus polycarpos		21.0
Hypochaeris radicata		19.8
Polytrichum piliferum		19.4
Rumex acetosella s. l.	C	19.0

Constant species (3):

Rumex acetosella s. l.	Dg	69.0
Aira praecox	Dg, Dm	69.0
Agrostis capillaris		61.0

Dominant species (1):

Aira praecox	Dg, C	12.0

TFC Alliance

Armerion elongatae

Closed sand grasslands

Number of relevés: 89

Diagnostic species (6):

Armeria maritima s. l.	C	36.3
Thymus serpyllum	C	26.9
Helichrysum arenarium		21.2
Artemisia campestris	C	21.1
Dianthus deltoides		19.3
Trifolium arvense		18.8

Constant species (10):

Hieracium pilosella s. l.		65.0
Artemisia campestris	Dg	65.0
Armeria maritima s. l.	Dg	62.0
Achillea millefolium agg.		48.0
Thymus serpyllum	Dg	47.0
Sedum acre		46.0
Rumex acetosella s. l.		46.0
Plantago lanceolata		46.0
Poa pratensis s. l.		43.0
Agrostis capillaris		43.0

Dominant species (0):

TFD Alliance

Hyperico perforati-Scleranthion perennis

Submontane acidophilous vegetation of shallow soils

Number of relevés: 222

Diagnostic species (5):

Hieracium pilosella s. l.	C	22.0
Festuca ovina s. l.	C	19.6
Jasione montana		18.5
Potentilla argentea		18.3
Trifolium arvense		18.0

Constant species (6):

Hieracium pilosella s. l.	Dg	80.0
Rumex acetosella s. l.		65.0
Festuca ovina s. l.	Dg	61.0
Achillea millefolium agg.		60.0
Agrostis capillaris		54.0
Plantago lanceolata		41.0

Dominant species (0):

TFE Alliance
Arabidopsion thalianae
Acidophilous vegetation of vernal therophytes and succulents
Number of relevés: 13

Diagnostic species (17):

Veronica dillenii	C	52.6
Artemisia austriaca		47.9
Veronica verna	C	43.6
Androsace septentrionalis		38.7
Herniaria glabra		36.3
Scleranthus perennis		33.3
Brachythecium albicans	C	31.4
Erophila verna		29.1
Cerastium semidecandrum	C	26.8
Myosotis stricta		26.1
Anthemis ruthenica		24.9
Saxifraga tridactylites		23.5
Astragalus arenarius		23.3
Artemisia campestris	C	22.6
Potentilla argentea	C	21.2
Sedum acre	C	18.9
Ceratodon purpureus	C	18.2

Constant species (13):

Veronica dillenii	Dg	77.0
Brachythecium albicans	Dg	69.0
Artemisia campestris	Dg	69.0
Rumex acetosella s. l.		62.0
Hieracium pilosella s. l.	Dm	62.0
Sedum acre	Dg	54.0
Ceratodon purpureus	Dg	54.0
Achillea millefolium agg.		54.0
Veronica verna	Dg	46.0
Potentilla argentea	Dg	46.0
Festuca rubra agg.		46.0
Cerastium semidecandrum	Dg	46.0
Arenaria serpyllifolia agg.		46.0

Dominant species (1):

Hieracium pilosella s. l.	C	8.0

TFF Alliance
Alysso alyssoidis-Sedion
Basiphilous vegetation of vernal therophytes and succulents
Number of relevés: 65

Diagnostic species (13):		
Acinos arvensis	C	33.6
Centaurea stoebe	C	30.4
Alyssum alyssoides		29.1
Teucrium botrys		26.3
Arenaria serpyllifolia agg.	C	22.0
Sedum acre	C, Dm	21.8
Potentilla neumanniana		21.8
Arabis recta		20.3
Petrorhagia prolifera		19.2
Euphorbia cyparissias	C	19.2
Echium vulgare		19.2
Tortella inclinata		18.7
Sedum sexangulare		18.5
Constant species (7):		
Euphorbia cyparissias	Dg	78.0
Acinos arvensis	Dg	75.0
Centaurea stoebe	Dg	74.0
Sedum acre	Dg, Dm	62.0
Arenaria serpyllifolia agg.	Dg	60.0
Medicago falcata		49.0
Artemisia campestris		46.0
Dominant species (2):		
Stipa capillata		3.0
Sedum acre	Dg, C	3.0

TFG Alliance
Koelerion albescentis
Sand dune dry grasslands
Number of relevés: 38

Diagnostic species (17):		
Anthyllis vulneraria subsp. *maritima*	C, Dm	79.7
Ononis repens		44.2
Artemisia campestris subsp. *sericea*	C	35.8
Carex arenaria	C	34.6
Hippophaë rhamnoides		34.3
Cladonia scabriuscula		34.2
Peltigera canina		32.4
Didymodon fallax		26.7
Euphrasia stricta		25.5
Hieracium umbellatum	C	22.7
Barbula unguiculata		20.8

Corynephorus canescens	C	20.5
Sedum acre	C	20.4
Cladonia fimbriata		20.4
Rosa rugosa		20.1
Dicranella varia		18.5
Cladonia chlorophaea		18.0

Constant species (18):

Festuca rubra agg.		89.0
Anthyllis vulneraria subsp. *maritima*	Dg, Dm	68.0
Carex arenaria	Dg	66.0
Achillea millefolium agg.		63.0
Sedum acre	Dg	58.0
Galium mollugo agg.		55.0
Hieracium umbellatum	Dg	53.0
Poa pratensis s. l.		50.0
Anthoxanthum odoratum s. l.		50.0
Rumex acetosella s. l.		47.0
Ceratodon purpureus		47.0
Cerastium holosteoides		47.0
Trifolium pratense s. l.		45.0
Solidago virgaurea		45.0
Knautia arvensis agg.		45.0
Artemisia campestris subsp. *sericea*	Dg	45.0
Corynephorus canescens	Dg	42.0
Pinus sylvestris		42.0

Dominant species (2):

Hypnum cupressiforme agg.		5.0
Anthyllis vulneraria subsp. *maritima*	Dg, C	5.0

TFH Alliance
Koelerion glaucae
Xeric sand grasslands
Number of relevés: 21

Diagnostic species (38):

Silene otites s. l.	C	46.6
Cerastium semidecandrum	C	39.3
Silene chlorantha		34.4
Medicago minima		33.5
Helichrysum arenarium	C	33.1
Sedum reflexum		33.0
Thymus serpyllum	C	32.8
Petrorhagia prolifera		32.4
Holosteum umbellatum		31.8
Placidium squamulosum		30.5
Niphotrichum canescens	C	30.3
Artemisia campestris	C	30.1
Veronica dillenii	C	28.9
Vicia lathyroides		28.8

Trifolium arvense	C	27.1
Myosotis stricta		24.2
Senecio vernalis		23.2
Sedum sexangulare		23.1
Trapeliopsis granulosa		22.9
Festuca trachyphylla s. l.	C	22.6
Sedum acre	C, Dm	22.0
Toninia sedifolia		21.8
Minuartia viscosa		21.8
Phleum phleoides	C, Dm	21.4
Erophila verna		21.4
Cladonia pyxidata		20.9
Squamarina lentigera		20.8
Peltigera rufescens		20.8
Syntrichia ruralis		20.4
Chondrilla juncea		20.1
Collema tenax		19.8
Cladonia subrangiformis		19.5
Fulgensia fulgens		19.2
Centaurea stoebe	C	19.0
Arenaria serpyllifolia agg.	C	19.0
Psora decipiens		18.4
Cetraria aculeata		18.3
Cladonia chlorophaea		18.1
Constant species (16):		
Artemisia campestris	Dg	90.0
Silene otites s. l.	Dg	67.0
Cerastium semidecandrum	Dg	67.0
Sedum acre	Dg, Dm	62.0
Helichrysum arenarium	Dg	62.0
Trifolium arvense	Dg	57.0
Thymus serpyllum	Dg	57.0
Euphorbia cyparissias		57.0
Phleum phleoides	Dg, Dm	52.0
Arenaria serpyllifolia agg.	Dg	52.0
Niphotrichum canescens	Dg	48.0
Poa pratensis s. l.		48.0
Festuca trachyphylla s. l.	Dg	48.0
Ceratodon purpureus	Dm	48.0
Centaurea stoebe	Dg	48.0
Veronica dillenii	Dg	43.0
Dominant species (4):		
Ceratodon purpureus	C	10.0
Sedum acre	Dg, C	5.0
Phleum phleoides	Dg, C	5.0
Festuca psammophila		5.0

TH Class
FESTUCO-BROMETEA
Dry grasslands
Number of relevés: 1193

Diagnostic species (43):

Salvia pratensis		41.8
Phleum phleoides		37.7
Galium verum	C	37.6
Medicago falcata	C	37.5
Brachypodium pinnatum	C, Dm	36.9
Centaurea scabiosa		35.6
Euphorbia cyparissias	C	34.0
Achillea pannonica		32.6
Fragaria viridis		31.9
Agrimonia eupatoria		29.4
Asperula cynanchica		29.0
Prunella grandiflora		27.5
Stipa capillata	Dm	27.4
Centaurea stoebe		27.4
Scabiosa ochroleuca		27.1
Coronilla varia		26.8
Veronica spicata		26.4
Trifolium montanum		26.3
Potentilla arenaria		26.1
Koeleria macrantha		25.8
Ononis spinosa		24.7
Seseli annuum		24.5
Plantago media		24.4
Filipendula vulgaris		23.4
Knautia arvensis agg.		23.1
Sanguisorba minor		23.0
Stachys recta		22.9
Melampyrum arvense		22.9
Thesium linophyllon		22.0
Thymus pulegioides		21.9
Briza media		21.7
Campanula sibirica		21.3
Dianthus carthusianorum		20.3
Pimpinella saxifraga	C	20.1
Festuca trachyphylla s. l.		20.1
Poa pratensis s. l.	C	19.7
Inula ensifolia		19.6
Bromus erectus		19.5
Artemisia campestris		19.5
Anthyllis vulneraria s. l.		18.9
Thalictrum minus		18.4
Acinos arvensis		18.3
Falcaria vulgaris		18.2

Constant species (7):

Euphorbia cyparissias	Dg	59.0
Galium verum	Dg	50.0
Medicago falcata	Dg	47.0
Poa pratensis s. l.	Dg	46.0
Pimpinella saxifraga	Dg	44.0
Brachypodium pinnatum	Dg, Dm	43.0
Achillea millefolium agg.		42.0

Dominant species (2):

Brachypodium pinnatum	Dg, C	13.0
Stipa capillata	Dg	3.0

THA Alliance
Alysso-Festucion pallentis
Hercynian rock-outcrop vegetation with *Festuca pallens*
Number of relevés: 91

Diagnostic species (17):

Festuca pallens	C	35.2
Jovibarba hirta	C	33.9
Allium montanum		24.8
Leptogium lichenoides		24.7
Arabis hirsuta		24.7
Acinos arvensis	C	24.6
Vincetoxicum hirundinaria	C	24.4
Encalypta streptocarpa		22.8
Tortella tortuosa		22.5
Asplenium ruta-muraria	C	22.2
Potentilla pusilla		22.1
Erysimum odoratum		21.5
Taraxacum laevigatum		21.1
Silene nutans		19.9
Galium cracoviense		19.8
Scabiosa ochroleuca	C	18.4
Thymus pulegioides	C	18.1

Constant species (12):

Festuca pallens	Dg	65.0
Jovibarba hirta	Dg	64.0
Euphorbia cyparissias		64.0
Vincetoxicum hirundinaria	Dg	62.0
Acinos arvensis	Dg	56.0
Galium mollugo agg.		55.0
Thymus pulegioides	Dg	54.0
Scabiosa ochroleuca	Dg	48.0
Sedum acre		47.0
Poa compressa		47.0
Achillea millefolium agg.		45.0
Asplenium ruta-muraria	Dg	44.0

Dominant species (2):

Phleum phleoides	3.0
Melica transsilvanica	3.0

THB Alliance
Bromo pannonici-Festucion pallentis
Pannonian vegetation of limestone outcrops
Number of relevés: 8

Diagnostic species (40):

Teucrium montanum	C	77.8
Erysimum wittmannii	C	65.2
Melica transsilvanica	C	55.6
Jovibarba hirta	C	53.8
Bupleurum falcatum	C	53.0
Salvia verticillata	C	50.2
Cotoneaster integerrimus	C	48.2
Viola hirta	C	45.0
Inula conyza	C	44.9
Dendranthema zawadskii		44.8
Libanotis pyrenaica	C	41.5
Festuca pallens	C	40.9
Silene nemoralis		39.8
Asplenium ruta-muraria	C	38.8
Stachys germanica		35.3
Potentilla pusilla		33.8
Cotoneaster niger		32.1
Sanguisorba minor	C	31.2
Polygonatum odoratum	C	30.2
Vincetoxicum hirundinaria	C	30.1
Coronilla varia	C	29.5
Calamagrostis varia	C	29.4
Digitalis grandiflora	C	28.7
Polygala comosa		26.6
Berberis vulgaris		26.0
Allium montanum		25.6
Cornus sanguinea	C	25.1
Aster alpinus		25.1
Clinopodium vulgare	C	24.6
Scabiosa lucida		24.1
Centaurea triumfetti		24.0
Galium mollugo agg.	C	23.3
Euphorbia cyparissias	C	21.7
Juniperus communis	C	21.3
Aquilegia vulgaris		21.2
Carex alba		21.0
Medicago falcata	C	20.4
Scabiosa ochroleuca	C	19.1
Hypericum perforatum	C	18.7
Carex ornithopoda		18.2

Constant species (29):

Teucrium montanum	Dg	100.0
Salvia verticillata	Dg	100.0
Jovibarba hirta	Dg	100.0
Galium mollugo agg.	Dg	100.0
Viola hirta	Dg	88.0
Euphorbia cyparissias	Dg	88.0
Coronilla varia	Dg	88.0
Vincetoxicum hirundinaria	Dg	75.0
Sanguisorba minor	Dg	75.0
Hypericum perforatum	Dg	75.0
Festuca pallens	Dg	75.0
Erysimum wittmannii	Dg	75.0
Bupleurum falcatum	Dg	75.0
Asplenium ruta-muraria	Dg	75.0
Libanotis pyrenaica	Dg	62.0
Polygonatum odoratum	Dg	62.0
Melica transsilvanica	Dg	62.0
Medicago falcata	Dg	62.0
Juniperus communis	Dg	62.0
Cornus sanguinea	Dg	62.0
Clinopodium vulgare	Dg	62.0
Calamagrostis varia	Dg	62.0
Sedum acre		50.0
Scabiosa ochroleuca	Dg	50.0
Pimpinella saxifraga		50.0
Inula conyza	Dg	50.0
Fragaria vesca		50.0
Digitalis grandiflora	Dg	50.0
Cotoneaster integerrimus	Dg	50.0

Dominant species (0):

THC Alliance
Diantho lumnitzeri-Seslerion
Sesleria varia grasslands
Number of relevés: 23

Diagnostic species (45):

Sesleria varia	C, Dm	55.4
Allium montanum	C	51.4
Rhytidium rugosum		48.8
Libanotis pyrenaica	C, Dm	40.4
Helianthemum alpestre subsp. *rupifragum*		40.3
Jovibarba hirta	C	37.1
Dendranthema zawadskii		36.3
Saxifraga paniculata	C	35.0
Galium cracoviense		31.6
Aster alpinus		30.7
Erysimum wittmannii		29.8

Festuca pallens	C	28.1
Neckera pumila		27.7
Centaurea triumfetti		25.0
Alyssum saxatile		25.0
Astragalus danicus		24.8
Lepraria incana		24.2
Ctenidium molluscum		24.0
Laserpitium latifolium		23.3
Viola rupestris		23.1
Asperula cynanchica		22.7
Veronica austriaca		22.3
Thymus carpaticus		22.0
Asplenium ruta-muraria	C	22.0
Carex supina		21.0
Orobanche alba		20.8
Hieracium schmidtii		20.8
Brachythecium geheebii		20.8
Acinos arvensis	C	20.8
Cotoneaster integerrimus		20.6
Vincetoxicum hirundinaria	C	20.5
Carex humilis		20.5
Neckera crispa		20.0
Encalypta streptocarpa		20.0
Teucrium montanum		19.7
Homalothecium sericeum		19.6
Euphorbia cyparissias	C	19.2
Sedum spurium		19.1
Thalictrum simplex		18.8
Gypsophila repens		18.7
Astragalus australis		18.7
Polygonatum odoratum		18.4
Dianthus carthusianorum	C	18.2
Silene nemoralis		18.1
Anthyllis vulneraria s. l.		18.1

Constant species (13):

Euphorbia cyparissias	Dg	78.0
Allium montanum	Dg	74.0
Jovibarba hirta	Dg	70.0
Sesleria varia	Dg, Dm	61.0
Libanotis pyrenaica	Dg, Dm	61.0
Saxifraga paniculata	Dg	61.0
Vincetoxicum hirundinaria	Dg	52.0
Festuca pallens	Dg	52.0
Galium mollugo agg.		48.0
Dianthus carthusianorum	Dg	48.0
Acinos arvensis	Dg	48.0
Coronilla varia		43.0
Asplenium ruta-muraria	Dg	43.0

Dominant species (2):

Sesleria varia	Dg, C	13.0
Libanotis pyrenaica	Dg, C	9.0

THD Alliance

Festucion valesiacae

Narrow-leaved dry grasslands and short-grass steppes

Number of relevés: 199

Diagnostic species (23):

Stipa capillata	C, Dm	49.6
Potentilla arenaria	C	34.1
Koeleria macrantha	C	31.5
Achillea pannonica	C	30.7
Salvia pratensis	C	30.5
Pterygoneurum subsessile		29.7
Oxytropis pilosa		28.2
Centaurea stoebe	C	27.1
Phleum phleoides	C	26.4
Scabiosa canescens		25.4
Anthericum liliago		25.1
Campanula sibirica	C	24.6
Festuca valesiaca		23.0
Festuca trachyphylla s. l.	C	22.1
Falcaria vulgaris		21.5
Dianthus carthusianorum	C	21.5
Bothriochloa ischaemum		21.5
Stipa pulcherrima		21.2
Galium verum	C	21.2
Medicago falcata	C	20.7
Artemisia campestris	C	20.6
Stachys recta		19.5
Pleurochaete squarrosa		18.3

Constant species (15):

Potentilla arenaria	Dg	83.0
Euphorbia cyparissias		72.0
Galium verum	Dg	69.0
Salvia pratensis	Dg	67.0
Centaurea stoebe	Dg	66.0
Phleum phleoides	Dg	64.0
Artemisia campestris	Dg	64.0
Medicago falcata	Dg	63.0
Achillea pannonica	Dg	63.0
Stipa capillata	Dg, Dm	56.0
Dianthus carthusianorum	Dg	56.0
Koeleria macrantha	Dg	50.0
Festuca trachyphylla s. l.	Dg	47.0
Poa pratensis s. l.		42.0
Campanula sibirica	Dg	41.0

Dominant species (2):

Stipa capillata	Dg, C	19.0
Brachypodium pinnatum		3.0

THG Alliance
Koelerio-Phleion phleoidis
Acidophilous dry grasslands
Number of relevés: 96

Diagnostic species (12):

Phleum phleoides	C, Dm	35.1
Avenula pratensis		31.6
Veronica spicata	C	31.3
Dianthus carthusianorum	C	22.1
Potentilla arenaria	C	21.7
Koeleria macrantha		21.4
Stipa joannis	Dm	19.8
Artemisia campestris	C	19.4
Achillea pannonica		18.7
Filipendula vulgaris		18.3
Centaurea stoebe	C	18.3
Salvia pratensis	C	18.0

Constant species (15):

Phleum phleoides	Dg, Dm	83.0
Veronica spicata	Dg	62.0
Artemisia campestris	Dg	60.0
Dianthus carthusianorum	Dg	57.0
Galium verum		56.0
Potentilla arenaria	Dg	54.0
Euphorbia cyparissias		54.0
Hieracium pilosella s. l.		50.0
Centaurea stoebe	Dg	46.0
Poa pratensis s. l.		44.0
Pimpinella saxifraga		44.0
Medicago falcata		44.0
Hypericum perforatum		44.0
Thymus pulegioides		41.0
Salvia pratensis		41.0

Dominant species (3):

Stipa joannis	Dg	5.0
Phleum phleoides	Dg, C	4.0
Stipa capillata		3.0

THE Alliance
Cirsio-Brachypodion pinnati
Subcontinental broad-leaved semi-dry grasslands and tall-grass steppes
Number of relevés: 186

Diagnostic species (17):

Aster amellus		31.4
Brachypodium pinnatum	C, Dm	31.3
Inula ensifolia	Dm	30.5
Prunella grandiflora		30.3
Teucrium chamaedrys		29.8
Ononis spinosa		26.9
Salvia pratensis	C	26.1
Linum catharticum	C	21.7
Cirsium acaule		21.6
Centaurea pannonica		21.6
Salvia verticillata	C	21.4
Anemone sylvestris		21.0
Thesium linophyllon		20.6
Medicago falcata	C	20.0
Campanula sibirica		20.0
Scabiosa ochroleuca	C	19.8
Plantago media	C	19.1

Constant species (12):

Brachypodium pinnatum	Dg, Dm	74.0
Euphorbia cyparissias		62.0
Medicago falcata	Dg	61.0
Salvia pratensis	Dg	58.0
Linum catharticum	Dg	55.0
Scabiosa ochroleuca	Dg	52.0
Pimpinella saxifraga		52.0
Galium verum		47.0
Plantago media	Dg	45.0
Salvia verticillata	Dg	44.0
Sanguisorba minor		43.0
Agrimonia eupatoria		41.0

Dominant species (2):

Brachypodium pinnatum	Dg, C	24.0
Inula ensifolia	Dg	10.0

THF Alliance
Bromion erecti
Suboceanic broad-leaved semi-dry grasslands
Number of relevés: 195

Diagnostic species (20):

Centaurea scabiosa	C	31.6
Sanguisorba minor	C	30.7

Seseli annuum	C	29.1
Carex caryophyllea	C	28.9
Brachypodium pinnatum	C, Dm	28.0
Thymus pulegioides	C	26.6
Anthyllis vulneraria s. l.	C, Dm	25.4
Potentilla heptaphylla		24.5
Helianthemum nummularium s. l.	C	23.9
Trifolium montanum		23.4
Carlina acaulis	C	23.1
Fragaria viridis	C	23.0
Briza media	C	21.9
Polygala comosa		21.7
Koeleria pyramidata		20.5
Bromus erectus	Dm	20.1
Scabiosa ochroleuca	C	20.0
Asperula cynanchica		20.0
Plantago media	C	18.4
Lotus corniculatus	C	18.4
Constant species (25):		
Thymus pulegioides	Dg	77.0
Sanguisorba minor	Dg	74.0
Euphorbia cyparissias		68.0
Centaurea scabiosa	Dg	68.0
Brachypodium pinnatum	Dg, Dm	67.0
Achillea millefolium agg.		64.0
Briza media	Dg	61.0
Knautia arvensis agg.		58.0
Poa pratensis s. l.		57.0
Pimpinella saxifraga		55.0
Anthyllis vulneraria s. l.	Dg, Dm	54.0
Medicago falcata		53.0
Scabiosa ochroleuca	Dg	52.0
Carex caryophyllea	Dg	52.0
Fragaria viridis	Dg	50.0
Leontodon hispidus		49.0
Coronilla varia		49.0
Lotus corniculatus	Dg	48.0
Galium mollugo agg.		47.0
Linum catharticum		45.0
Carlina acaulis	Dg	45.0
Seseli annuum	Dg	44.0
Plantago lanceolata		44.0
Helianthemum nummularium s. l.	Dg	44.0
Plantago media	Dg	43.0
Dominant species (3):		
Brachypodium pinnatum	Dg, C	26.0
Bromus erectus	Dg	4.0
Anthericum ramosum		4.0

THH Alliance
Geranion sanguinei
Dry herbaceous fringe vegetation
Number of relevés: 128

Diagnostic species (12):		
Peucedanum cervaria	C	39.3
Vicia tenuifolia	Dm	30.9
Geranium sanguineum		28.6
Brachypodium pinnatum	C, Dm	26.1
Thesium linophyllon		25.1
Fragaria viridis	C	23.2
Veronica teucrium		22.3
Prunella grandiflora		20.8
Melampyrum cristatum		20.4
Salvia pratensis	C	20.2
Galium verum	C	19.9
Centaurea scabiosa	C	19.0
Constant species (12):		
Galium verum	Dg	66.0
Euphorbia cyparissias		62.0
Brachypodium pinnatum	Dg, Dm	62.0
Poa pratensis s. l.		55.0
Peucedanum cervaria	Dg	54.0
Medicago falcata		52.0
Fragaria viridis	Dg	51.0
Coronilla varia		48.0
Salvia pratensis	Dg	45.0
Prunus spinosa		43.0
Centaurea scabiosa	Dg	42.0
Festuca rubra agg.		41.0
Dominant species (2):		
Vicia tenuifolia	Dg	10.0
Brachypodium pinnatum	Dg, C	10.0

THI Alliance
Trifolion medii
Mesic herbaceous fringe vegetation
Number of relevés: 249

Diagnostic species (2):		
Trifolium medium	C, Dm	27.9
Agrimonia eupatoria	C	24.0
Constant species (12):		
Achillea millefolium agg.		67.0
Poa pratensis s. l.		60.0
Galium mollugo agg.		59.0

Knautia arvensis agg.		55.0
Agrimonia eupatoria	Dg	54.0
Pimpinella saxifraga		53.0
Galium verum		52.0
Dactylis glomerata		51.0
Veronica chamaedrys		47.0
Hypericum perforatum		47.0
Arrhenatherum elatius		44.0
Trifolium medium	Dg, Dm	42.0
Dominant species (2):		
Brachypodium pinnatum		13.0
Trifolium medium	Dg, C	3.0

THJ Alliance
Melampyrion pratensis
Acidophilous fringe vegetation
Number of relevés: 18

Diagnostic species (20):		
Melampyrum pratense	C	49.9
Lathyrus montanus		45.5
Pseudoscleropodium purum	C	41.4
Festuca ovina s. l.	C	27.4
Pleurozium schreberi	C, Dm	23.7
Quercus petraea	C	22.4
Trifolium aureum		22.2
Dicranum polysetum		21.9
Hypnum cupressiforme agg.	C	21.4
Quercus robur	C	20.4
Poa pratensis s. l.	C	19.9
Pyrola chlorantha		19.5
Plagiomnium affine s. l.	C	19.5
Anthoxanthum odoratum s. l.	C	18.6
Knautia arvensis agg.	C	18.5
Veronica officinalis	C	18.4
Galium verum	C	18.4
Agrostis capillaris	C	18.3
Sciuro-hypnum oedipodium		18.2
Trifolium medium		18.0
Constant species (23):		
Melampyrum pratense	Dg	100.0
Poa pratensis s. l.	Dg	94.0
Festuca ovina s. l.	Dg	83.0
Anthoxanthum odoratum s. l.	Dg	83.0
Agrostis capillaris	Dg	83.0
Quercus robur	Dg	78.0
Veronica chamaedrys		72.0
Pleurozium schreberi	Dg, Dm	72.0
Pseudoscleropodium purum	Dg	67.0

Hypericum perforatum		67.0
Achillea millefolium agg.		67.0
Knautia arvensis agg.	Dg	61.0
Galium verum	Dg	61.0
Festuca rubra agg.		61.0
Sorbus aucuparia		56.0
Plagiomnium affine s. l.	Dg	56.0
Hypnum cupressiforme agg.	Dg	56.0
Fragaria vesca		56.0
Vaccinium myrtillus		50.0
Quercus petraea	Dg	50.0
Galium mollugo agg.		50.0
Veronica officinalis	Dg	44.0
Hieracium pilosella s. l.		44.0
Dominant species (1):		
Pleurozium schreberi	Dg, C	17.0

TI Class
VIOLETEA CALAMINARIAE
Swards on soils rich in heavy metals, natural or anthropogenic
Number of relevés: 12

Diagnostic species (43):		
Cladonia glauca	C	88.1
Biscutella laevigata	C	86.3
Cladonia pocillum	C	85.3
Cladonia pyxidata	C	84.8
Rumex thyrsiflorus	C	80.7
Armeria maritima s. l.	C	76.5
Diploschistes muscorum	C	72.4
Silene vulgaris	C	72.1
Bacidia bagliettoana	C	69.7
Carex caryophyllea	C	68.9
Dianthus carthusianorum	C	68.7
Mycobilimbia sabuletorum	C	64.0
Gypsophila fastigiata	C	61.4
Baeomyces rufus		57.3
Festuca ovina s. l.	C, Dm	56.6
Euphrasia stricta	C	55.5
Rhinanthus minor	C	54.6
Cladonia furcata	C	49.9
Cladonia foliacea	C	49.5
Weissia controversa		49.4
Cardaminopsis arenosa	C	43.6
Tortella tortuosa	C	36.1
Bryum caespiticium		35.3
Cetraria aculeata		33.3
Thymus pulegioides	C	32.6
Pimpinella saxifraga	C	32.6

Scabiosa ochroleuca	C	32.5
Potentilla arenaria	C	31.3
Carex hirta	C	31.3
Lotus corniculatus	C	28.8
Trapeliopsis flexuosa		28.6
Steinia geophana		28.6
Bacidina phacodes		28.6
Anthyllis vulneraria s. l.		28.6
Malaxis monophyllos		27.4
Leontodon hispidus	C	27.0
Campanula rotundifolia		25.1
Galium boreale		23.6
Linum catharticum		23.3
Galium mollugo agg.	C	23.2
Cladonia subulata		22.3
Gentianella germanica s. l.		22.1
Carlina vulgaris		19.9
Constant species (29):		
Silene vulgaris	Dg	100.0
Festuca ovina s. l.	Dg, Dm	100.0
Cladonia pyxidata	Dg	100.0
Cladonia glauca	Dg	100.0
Dianthus carthusianorum	Dg	92.0
Rumex thyrsiflorus	Dg	83.0
Armeria maritima s. l.	Dg	83.0
Cladonia pocillum	Dg	75.0
Carex caryophyllea	Dg	75.0
Biscutella laevigata	Dg	75.0
Pimpinella saxifraga	Dg	67.0
Diploschistes muscorum	Dg	67.0
Cardaminopsis arenosa	Dg	67.0
Galium mollugo agg.	Dg	58.0
Bacidia bagliettoana	Dg	58.0
Thymus pulegioides	Dg	50.0
Cladonia furcata	Dg	50.0
Tortella tortuosa	Dg	42.0
Scabiosa ochroleuca	Dg	42.0
Rhinanthus minor	Dg	42.0
Potentilla arenaria	Dg	42.0
Mycobilimbia sabuletorum	Dg	42.0
Lotus corniculatus	Dg	42.0
Leontodon hispidus	Dg	42.0
Gypsophila fastigiata	Dg	42.0
Euphrasia stricta	Dg	42.0
Cladonia foliacea	Dg	42.0
Carex hirta	Dg	42.0
Pinus sylvestris		42.0
Dominant species (1):		
Festuca ovina s. l.	Dg, C	50.0

TIA Alliance
Armerion halleri
North-central European heavy metal tolerant communities of spoil heaps
Number of relevés: 12

Diagnostic species (29):

Biscutella laevigata	C	86.3
Cladonia glauca	C	75.9
Cladonia pocillum	C	75.5
Cladonia pyxidata	C	75.3
Diploschistes muscorum	C	69.7
Bacidia bagliettoana	C	68.1
Mycobilimbia sabuletorum	C	64.2
Baeomyces rufus		57.6
Rumex thyrsiflorus	C	57.1
Gypsophila fastigiata	C	53.2
Armeria maritima s. l.	C	49.4
Weissia controversa		48.2
Silene vulgaris	C	44.5
Carex caryophyllea	C	41.9
Cladonia foliacea	C	40.2
Rhinanthus minor	C	36.9
Dianthus carthusianorum	C	36.3
Festuca ovina s. l.	C, Dm	33.3
Gentianella germanica s. l.		32.6
Cardaminopsis arenosa	C	32.6
Euphrasia stricta	C	31.2
Cladonia furcata	C	31.0
Tortella tortuosa	C	29.7
Trapeliopsis flexuosa		28.8
Steinia geophana		28.8
Bacidina phacodes		28.8
Cetraria aculeata		26.0
Malaxis monophyllos		25.2
Bryum caespiticium		22.8

Constant species (29):

Silene vulgaris	Dg	100.0
Festuca ovina s. l.	Dg, Dm	100.0
Cladonia pyxidata	Dg	100.0
Cladonia glauca	Dg	100.0
Dianthus carthusianorum	Dg	92.0
Rumex thyrsiflorus	Dg	83.0
Armeria maritima s. l.	Dg	83.0
Cladonia pocillum	Dg	75.0
Carex caryophyllea	Dg	75.0
Biscutella laevigata	Dg	75.0
Pimpinella saxifraga		67.0
Diploschistes muscorum	Dg	67.0
Cardaminopsis arenosa	Dg	67.0

Galium mollugo agg.		58.0
Bacidia bagliettoana	Dg	58.0
Thymus pulegioides		50.0
Cladonia furcata	Dg	50.0
Tortella tortuosa	Dg	42.0
Scabiosa ochroleuca		42.0
Rhinanthus minor	Dg	42.0
Potentilla arenaria		42.0
Mycobilimbia sabuletorum	Dg	42.0
Lotus corniculatus		42.0
Leontodon hispidus		42.0
Gypsophila fastigiata	Dg	42.0
Euphrasia stricta	Dg	42.0
Cladonia foliacea	Dg	42.0
Carex hirta		42.0
Pinus sylvestris		42.0

Dominant species (1):

Festuca ovina s. l.	Dg, C	50.0

KA Class
SALICETEA PURPUREAE
Riparian willow scrub and willow-poplar forests
Number of relevés: 95

Diagnostic species (27):

Salix fragilis	C, Dm	70.3
Salix viminalis		51.7
Salix triandra	Dm	47.8
Salix alba	Dm	45.0
Salix purpurea		43.8
Calystegia sepium	C	42.4
Populus nigra	Dm	42.1
Phalaris arundinacea	C	38.7
Humulus lupulus		37.6
Symphytum officinale		36.9
Rubus caesius	C	36.0
Glechoma hederacea s. l.	C	31.6
Galium aparine	C	31.4
Urtica dioica	C, Dm	29.5
Elymus caninus		28.3
Poa trivialis	C	26.2
Impatiens glandulifera		24.9
Myricaria germanica		24.7
Cucubalus baccifer		22.8
Lysimachia nummularia		21.3
Petasites hybridus		21.0
Senecio fluviatilis		20.7
Stachys palustris		20.1
Alnus incana		19.5

Solanum dulcamara		18.7
Lamium maculatum		18.7
Oxyrrhynchium hians		18.2

Constant species (8):

Urtica dioica	Dg, Dm	79.0
Salix fragilis	Dg, Dm	66.0
Galium aparine	Dg	58.0
Rubus caesius	Dg	55.0
Phalaris arundinacea	Dg	54.0
Poa trivialis	Dg	45.0
Calystegia sepium	Dg	45.0
Glechoma hederacea s. l.	Dg	41.0

Dominant species (5):

Salix fragilis	Dg, C	14.0
Salix alba	Dg	11.0
Urtica dioica	Dg, C	8.0
Salix triandra	Dg	5.0
Populus nigra	Dg	4.0

KAA Alliance
Salicion triandrae
Willow scrub of loamy and sandy river banks
Number of relevés: 32

Diagnostic species (14):

Salix triandra	C, Dm	73.3
Salix viminalis	C, Dm	71.3
Salix fragilis	C, Dm	31.5
Calystegia sepium	C	31.3
Salix purpurea	C, Dm	30.5
Senecio fluviatilis		25.7
Symphytum officinale	C	24.9
Humulus lupulus	C	24.4
Helianthus tuberosus		23.1
Phalaris arundinacea	C	22.3
Cucubalus baccifer		22.2
Salix alba		19.9
Rubus caesius	C	19.0
Solanum dulcamara		18.7

Constant species (11):

Urtica dioica	Dm	88.0
Salix viminalis	Dg, Dm	88.0
Salix triandra	Dg, Dm	66.0
Phalaris arundinacea	Dg	66.0
Calystegia sepium	Dg	62.0
Rubus caesius	Dg	56.0
Galium aparine	Dm	56.0
Symphytum officinale	Dg	50.0

Salix fragilis	Dg, Dm	50.0
Humulus lupulus	Dg	44.0
Salix purpurea	Dg, Dm	41.0

Dominant species (9):

Salix triandra	Dg, C	16.0
Urtica dioica	C	12.0
Salix viminalis	Dg, C	6.0
Solidago gigantea		3.0
Salix purpurea	Dg, C	3.0
Salix fragilis	Dg, C	3.0
Geranium robertianum		3.0
Galium aparine	C	3.0
Deschampsia caespitosa		3.0

KAB Alliance

Salicion elaeagno-daphnoidis

Willow scrub on river gravel accumulations

Number of relevés: 9

Diagnostic species (23):

Myricaria germanica	C, Dm	81.0
Salix purpurea	C	59.3
Euphorbia serrulata		47.4
Barbarea vulgaris		42.5
Mentha longifolia	C	39.6
Hypochaeris glabra		39.2
Alnus incana	C	35.0
Equisetum variegatum		34.9
Heliosperma quadridentatum		33.2
Calamagrostis pseudophragmites		31.0
Prunus serotina		30.7
Elymus caninus	C	30.7
Sambucus ebulus		29.4
Cruciata glabra		28.0
Tussilago farfara	C	27.6
Crepis biennis		26.3
Verbascum nigrum		25.6
Petasites hybridus		25.0
Verbena officinalis		24.6
Myosotis sylvatica		24.0
Trifolium hybridum		21.5
Rorippa sylvestris		19.7
Rumex obtusifolius		19.4

Constant species (19):

Salix purpurea	Dg	78.0
Myricaria germanica	Dg, Dm	67.0
Tussilago farfara	Dg	56.0
Plantago lanceolata		56.0
Hieracium pilosella s. l.		56.0

Trifolium repens		44.0
Trifolium pratense s. l.		44.0
Ranunculus repens		44.0
Prunella vulgaris		44.0
Mentha longifolia	Dg	44.0
Medicago lupulina		44.0
Lycopus europaeus		44.0
Festuca rubra agg.		44.0
Elymus caninus	Dg	44.0
Dactylis glomerata		44.0
Cirsium arvense		44.0
Arenaria serpyllifolia agg.		44.0
Alnus incana	Dg	44.0
Achillea millefolium agg.		44.0
Dominant species (1):		
Myricaria germanica	Dg, C	11.0

KAC Alliance
Salicion albae
Wilow poplar-forests of lowland rivers
Number of relevés: 54

Diagnostic species (11):		
Salix fragilis	C, Dm	53.3
Salix alba	C, Dm	42.9
Populus nigra	Dm	38.5
Humulus lupulus	C	24.8
Rubus caesius	C, Dm	21.4
Calystegia sepium	C	20.9
Glechoma hederacea s. l.	C	19.2
Galium aparine	C	18.9
Populus alba		18.7
Phalaris arundinacea	C	18.6
Impatiens glandulifera		18.3
Constant species (11):		
Urtica dioica	Dm	87.0
Salix fragilis	Dg, Dm	83.0
Galium aparine	Dg	69.0
Rubus caesius	Dg, Dm	63.0
Poa trivialis		56.0
Phalaris arundinacea	Dg	56.0
Glechoma hederacea s. l.	Dg	52.0
Salix alba	Dg, Dm	46.0
Humulus lupulus	Dg	44.0
Calystegia sepium	Dg	43.0
Alnus glutinosa		41.0
Dominant species (6):		
Salix fragilis	Dg, C	22.0

Salix alba	Dg, C	19.0
Urtica dioica	C	7.0
Populus nigra	Dg	7.0
Rubus caesius	Dg, C	4.0
Padus avium		4.0

KB Class
RHAMNO-PRUNETEA
Mesic and xeric scrub
Number of relevés: 717

Diagnostic species (4):

Prunus spinosa	Dm	28.9
Sambucus nigra	Dm	21.9
Cerasus fruticosa		21.3
Rosa canina		19.7

Constant species (1):

Urtica dioica		42.0

Dominant species (3):

Prunus spinosa	Dg	13.0
Corylus avellana		5.0
Sambucus nigra	Dg	5.0

KBA Alliance
Prunion fruticosae
Low xeric scrub
Number of relevés: 59

Diagnostic species (14):

Cerasus fruticosa	C, Dm	75.3
Festuca rupicola	C	36.2
Lembotropis nigricans		29.7
Salvia pratensis	C	26.1
Achillea pannonica	C	26.1
Thymus marschallianus		24.2
Stachys recta		23.1
Anemone sylvestris		22.6
Origanum vulgare	C	22.0
Campanula sibirica		20.3
Galium verum	C	20.1
Thalictrum minus		19.5
Asperula cynanchica		18.7
Lavatera thuringiaca		18.1

Constant species (10):

Cerasus fruticosa	Dg, Dm	81.0
Galium verum	Dg	66.0
Euphorbia cyparissias		61.0

Salvia pratensis	Dg	58.0
Medicago falcata		54.0
Achillea pannonica	Dg	54.0
Origanum vulgare	Dg	47.0
Rosa canina		46.0
Phleum phleoides		44.0
Festuca rupicola	Dg	42.0
Dominant species (2):		
Cerasus fruticosa	Dg, C	24.0
Brachypodium pinnatum		3.0

KBB Alliance
Berberidion vulgaris
Tall mesic and xeric scrub
Number of relevés: 229

Diagnostic species (2):		
Prunus spinosa	C, Dm	36.0
Crataegus monogyna s. l.	Dm	18.4
Constant species (2):		
Prunus spinosa	Dg, Dm	85.0
Rosa canina		44.0
Dominant species (2):		
Prunus spinosa	Dg, C	40.0
Crataegus monogyna s. l.	Dg	3.0

KBC Alliance
Sambuco-Salicion capreae
Mesic scrub in forest clearings, canopy openings and disturbed sites
Number of relevés: 284

Diagnostic species (0):		
Constant species (4):		
Rubus idaeus		67.0
Sorbus aucuparia		64.0
Quercus robur	Dm	44.0
Urtica dioica		42.0
Dominant species (3):		
Corylus avellana		9.0
Quercus robur	C	6.0
Calamagrostis epigejos		4.0

KBD Alliance
Aegopodio podagrariae-Sambucion nigrae
Nitrophilous scrub with *Sambucus nigra* in ruderal habitats
Number of relevés: 103

Diagnostic species (3):		
Lycium barbarum	Dm	33.3
Sambucus nigra	C, Dm	31.4
Geum urbanum s. l.	C	20.9
Constant species (4):		
Sambucus nigra	Dg, Dm	80.0
Urtica dioica	Dm	76.0
Geum urbanum s. l.	Dg	57.0
Galium aparine	Dm	50.0
Dominant species (4):		
Sambucus nigra	Dg, C	38.0
Lycium barbarum	Dg	14.0
Urtica dioica	C	12.0
Galium aparine	C	4.0

KBH Alliance
Salicion arenariae
Dunes scrub
Number of relevés: 42

Diagnostic species (19):		
Lonicera periclymenum	C	50.3
Carex arenaria	C	42.9
Ribes alpinum	C	38.8
Hieracium umbellatum	C	34.6
Polypodium vulgare	C	31.0
Hippophaë rhamnoides		31.0
Pseudoscleropodium purum	C, Dm	30.8
Populus tremula	C	28.0
Ribes spicatum s. l.		27.0
Sorbus aucuparia	C	24.2
Moehringia trinervia	C	23.1
Orthilia secunda		22.1
Lonicera xylosteum		21.6
Betula pendula	C	21.6
Fragaria vesca	C	19.7
Rosa canina	C	19.6
Melampyrum pratense		19.4
Salix caprea		18.6
Galium mollugo agg.	C	18.3
Constant species (24):		
Sorbus aucuparia	Dg	95.0

Galium mollugo agg.	Dg	81.0
Carex arenaria	Dg	81.0
Hieracium umbellatum	Dg	79.0
Poa pratensis s. l.		71.0
Betula pendula	Dg	71.0
Populus tremula	Dg	69.0
Fragaria vesca	Dg	69.0
Pinus sylvestris	Dm	69.0
Deschampsia flexuosa		67.0
Polypodium vulgare	Dg	57.0
Veronica chamaedrys		55.0
Moehringia trinervia	Dg	55.0
Taraxacum sect. *Ruderalia*		52.0
Rosa canina	Dg	52.0
Lonicera periclymenum	Dg	52.0
Ribes alpinum	Dg	50.0
Pseudoscleropodium purum	Dg, Dm	50.0
Pleurozium schreberi		50.0
Frangula alnus		50.0
Anthoxanthum odoratum s. l.		50.0
Rubus caesius		48.0
Quercus robur	Dm	48.0
Solidago virgaurea		45.0

Dominant species (3):

Pinus sylvestris	C	7.0
Quercus robur	C	5.0
Pseudoscleropodium purum	Dg, C	5.0

KC Class
ROSO PENDULINAE-PINETEA MUGO
Subalpine krummholz vegetation
Number of relevés: 16

Diagnostic species (22):

Pinus mugo	C, Dm	80.4
Athyrium distentifolium	C	70.4
Calamagrostis villosa	C	48.7
Ribes petraeum		47.3
Dryopteris carthusiana s. l.	C	36.3
Deschampsia flexuosa	C	36.2
Homogyne alpina	C	34.5
Listera cordata		34.1
Lonicera nigra		33.6
Vaccinium myrtillus	C, Dm	33.5
Salix silesiaca	C	31.0
Vaccinium vitis-idaea	C	30.7
Veratrum lobelianum		29.1
Rubus idaeus	C	27.9
Sedum fabaria		25.7

Chamaenerion angustifolium		24.1
Oxalis acetosella	C	24.0
Hylocomiastrum umbratum		23.2
Gymnocarpium dryopteris		21.5
Luzula sylvatica		20.6
Picea abies	C	19.6
Sorbus aucuparia	C	19.1

Constant species (13):

Vaccinium myrtillus	Dg, Dm	100.0
Pinus mugo	Dg, Dm	100.0
Deschampsia flexuosa	Dg	88.0
Athyrium distentifolium	Dg	88.0
Vaccinium vitis-idaea	Dg	75.0
Dryopteris carthusiana s. l.	Dg	69.0
Rubus idaeus	Dg	62.0
Homogyne alpina	Dg	62.0
Calamagrostis villosa	Dg	62.0
Sorbus aucuparia	Dg	50.0
Picea abies	Dg	50.0
Oxalis acetosella	Dg	50.0
Salix silesiaca	Dg	44.0

Dominant species (2):

Pinus mugo	Dg, C	88.0
Vaccinium myrtillus	Dg, C	56.0

KCA Alliance
Pinion mugo
Subalpine dwarf pine scrub
Number of relevés: 16

Diagnostic species (11):

Pinus mugo	C, Dm	65.4
Athyrium distentifolium	C	42.3
Ribes petraeum		32.9
Listera cordata		32.0
Calamagrostis villosa	C	30.0
Salix silesiaca	C	23.6
Vaccinium vitis-idaea	C	23.4
Deschampsia flexuosa	C	23.4
Dryopteris carthusiana s. l.	C	22.6
Homogyne alpina	C	22.5
Vaccinium myrtillus	C, Dm	21.9

Constant species (13):

Vaccinium myrtillus	Dg, Dm	100.0
Pinus mugo	Dg, Dm	100.0
Deschampsia flexuosa	Dg	88.0
Athyrium distentifolium	Dg	88.0
Vaccinium vitis-idaea	Dg	75.0

Dryopteris carthusiana s. l.	Dg	69.0
Rubus idaeus		62.0
Homogyne alpina	Dg	62.0
Calamagrostis villosa	Dg	62.0
Sorbus aucuparia		50.0
Picea abies		50.0
Oxalis acetosella		50.0
Salix silesiaca	Dg	44.0

Dominant species (2):

Pinus mugo	Dg, C	88.0
Vaccinium myrtillus	Dg, C	56.0

KD Class
ROBINIETEA
Robinia groves
Number of relevés: 63

Diagnostic species (29):

Robinia pseudacacia	C, Dm	94.6
Chelidonium majus	C, Dm	47.6
Ballota nigra		45.5
Chaerophyllum temulum		40.7
Arctium minus		39.4
Bromus sterilis	Dm	36.3
Acer negundo		35.6
Sambucus nigra	C, Dm	35.5
Sisymbrium loeselii		33.9
Solidago canadensis s. l.		33.4
Veronica hederifolia		33.2
Lonicera tatarica		33.0
Artemisia vulgaris	C	29.4
Geum urbanum s. l.	C	28.1
Clematis vitalba		26.9
Galeopsis pubescens		24.8
Hieracium floribundum		24.2
Ulmus glabra		23.7
Lamium purpureum		23.2
Myosotis sparsiflora		22.7
Fallopia convolvulus		22.5
Prunus cerasifera		22.2
Urtica dioica	C	21.9
Galium aparine	C, Dm	21.2
Anthriscus sylvestris		21.1
Taraxacum sect. *Ruderalia*	C	20.1
Solidago gigantea		20.0
Acer platanoides		18.7
Arrhenatherum elatius	Dm	18.1

Constant species (8):

Robinia pseudacacia	Dg, Dm	100.0

Urtica dioica	Dg	62.0
Sambucus nigra	Dg, Dm	56.0
Artemisia vulgaris	Dg	56.0
Chelidonium majus	Dg, Dm	54.0
Taraxacum sect. *Ruderalia*	Dg	51.0
Geum urbanum s. l.	Dg	46.0
Galium aparine	Dg, Dm	41.0

Dominant species (7):

Robinia pseudacacia	Dg, C	59.0
Bromus sterilis	Dg	10.0
Sambucus nigra	Dg, C	5.0
Arrhenatherum elatius		5.0
Impatiens parviflora		3.0
Galium aparine	Dg, C	3.0
Chelidonium majus	Dg, C	3.0

KDA Alliance
Chelidonio-Robinion
Robinia groves on mesic, eutrophic soils
Number of relevés: 63

Diagnostic species (16):

Robinia pseudacacia	C, Dm	83.8
Lonicera tatarica		33.2
Chelidonium majus	C, Dm	33.1
Solidago canadensis s. l.		26.4
Arctium minus		25.4
Clematis vitalba		23.9
Chaerophyllum temulum		23.6
Acer negundo		23.5
Hieracium floribundum		23.4
Ballota nigra		23.2
Bromus sterilis	Dm	22.6
Veronica hederifolia		21.8
Sisymbrium loeselii		21.4
Sambucus nigra	C, Dm	21.4
Myosotis sparsiflora		18.9
Prunus cerasifera		18.4

Constant species (8):

Robinia pseudacacia	Dg, Dm	100.0
Urtica dioica		62.0
Sambucus nigra	Dg, Dm	56.0
Artemisia vulgaris		56.0
Chelidonium majus	Dg, Dm	54.0
Taraxacum sect. *Ruderalia*		51.0
Geum urbanum s. l.		46.0
Galium aparine	Dm	41.0

Dominant species (7):

Robinia pseudacacia	Dg, C	59.0
Bromus sterilis	Dg	10.0
Sambucus nigra	Dg, C	5.0
Arrhenatherum elatius		5.0
Impatiens parviflora		3.0
Galium aparine	C	3.0
Chelidonium majus	Dg, C	3.0

LA Class
ALNETEA GLUTINOSAE
Alder and willow carrs
Number of relevés: 312

Diagnostic species (52):

Carex elongata	C	70.5
Peucedanum palustre	C	61.7
Thelypteris palustris	C	54.9
Alnus glutinosa	C, Dm	53.0
Solanum dulcamara	C	50.5
Lycopus europaeus	C	48.2
Iris pseudacorus	C	45.8
Calamagrostis canescens	C	45.8
Lysimachia vulgaris	C	44.4
Salix cinerea	C, Dm	43.9
Scutellaria galericulata	C	42.1
Carex acutiformis	C	40.6
Galium palustre agg.	C	40.3
Mnium hornum		39.2
Carex pseudocyperus		34.6
Frangula alnus	C, Dm	33.9
Calliergonella cuspidata	C	33.6
Sphagnum squarrosum		32.6
Calla palustris		31.3
Lythrum salicaria	C	30.0
Salix pentandra		29.9
Ribes nigrum		29.9
Climacium dendroides		28.6
Caltha palustris		28.4
Viola palustris		27.3
Eupatorium cannabinum		26.8
Calliergon cordifolium		26.4
Betula pubescens		26.3
Lysimachia thyrsiflora		25.8
Cirsium palustre		25.5
Filipendula ulmaria		25.2
Athyrium filix-femina		24.6
Sphagnum palustre s. l.		24.0
Padus avium		22.4
Dryopteris carthusiana s. l.	C	22.3

Cardamine amara subsp. *amara*		22.2
Impatiens noli-tangere		22.1
Comarum palustre		21.9
Dryopteris cristata		21.9
Humulus lupulus		21.0
Equisetum fluviatile		20.9
Carex vesicaria		20.6
Cirsium oleraceum		20.2
Deschampsia caespitosa	C	20.1
Plagiomnium undulatum		19.9
Carex paniculata		19.7
Brachythecium rutabulum		19.5
Scirpus sylvaticus		19.0
Plagiothecium ruthei		18.9
Myosotis palustris agg.		18.8
Juncus effusus		18.8
Carex elata		18.6

Constant species (19):

Alnus glutinosa	Dg, Dm	83.0
Lysimachia vulgaris	Dg	78.0
Lycopus europaeus	Dg	72.0
Peucedanum palustre	Dg	67.0
Frangula alnus	Dg	67.0
Galium palustre agg.	Dg	66.0
Carex elongata	Dg	61.0
Solanum dulcamara	Dg	60.0
Urtica dioica		54.0
Thelypteris palustris	Dg	51.0
Iris pseudacorus	Dg	50.0
Deschampsia caespitosa	Dg	50.0
Salix cinerea	Dg, Dm	46.0
Dryopteris carthusiana s. l.	Dg	45.0
Lythrum salicaria	Dg	44.0
Carex acutiformis	Dg	44.0
Calamagrostis canescens	Dg	42.0
Scutellaria galericulata	Dg	41.0
Calliergonella cuspidata	Dg	41.0

Dominant species (2):

Alnus glutinosa	Dg, C	49.0
Salix cinerea	Dg, C	12.0

LAA Alliance
Alnion glutinosae
Alder carrs
Number of relevés: 223

Diagnostic species (20):

Carex elongata	C	61.4
Alnus glutinosa	C, Dm	40.2

Peucedanum palustre	C	38.5
Solanum dulcamara	C	33.7
Mnium hornum		33.1
Ribes nigrum		32.3
Thelypteris palustris	C	28.8
Lycopus europaeus	C	28.6
Iris pseudacorus	C	27.7
Scutellaria galericulata	C	27.3
Carex acutiformis	C, Dm	25.5
Calamagrostis canescens	C	25.0
Lysimachia vulgaris	C	24.1
Galium palustre agg.	C	21.2
Frangula alnus	C	19.7
Cardamine amara subsp. *amara*		19.5
Impatiens noli-tangere	C	19.1
Dryopteris carthusiana s. l.	C	19.0
Athyrium filix-femina	C	18.8
Caltha palustris	C	18.7

Constant species (21):

Alnus glutinosa	Dg, Dm	99.0
Lysimachia vulgaris	Dg	83.0
Lycopus europaeus	Dg	78.0
Peucedanum palustre	Dg	74.0
Carex elongata	Dg	74.0
Galium palustre agg.	Dg	72.0
Solanum dulcamara	Dg	66.0
Frangula alnus	Dg	66.0
Urtica dioica		64.0
Deschampsia caespitosa		61.0
Dryopteris carthusiana s. l.	Dg	59.0
Iris pseudacorus	Dg	56.0
Thelypteris palustris	Dg	52.0
Carex acutiformis	Dg, Dm	50.0
Athyrium filix-femina	Dg	50.0
Scutellaria galericulata	Dg	48.0
Caltha palustris	Dg	45.0
Impatiens noli-tangere	Dg	42.0
Calamagrostis canescens	Dg	42.0
Sorbus aucuparia		41.0
Lythrum salicaria		41.0

Dominant species (2):

Alnus glutinosa	Dg, C	68.0
Carex acutiformis	Dg, C	4.0

LAB Alliance
Salicion cinereae
Willow carrs
Number of relevés: 89

Diagnostic species (20):		
Salix cinerea	C, Dm	45.5
Salix pentandra		42.0
Sphagnum squarrosum		29.2
Thelypteris palustris	C, Dm	28.3
Dryopteris cristata		27.6
Myrica gale	Dm	26.5
Peucedanum palustre	C	25.3
Calamagrostis canescens	C	24.9
Carex pseudocyperus		24.0
Solanum dulcamara	C	23.2
Carex elongata		23.0
Comarum palustre	C	22.2
Calliergon cordifolium		21.8
Frangula alnus	C	20.8
Lycopus europaeus	C	20.7
Sphagnum palustre s. l.		19.9
Betula pubescens	C	19.5
Lysimachia vulgaris	C	19.3
Carex appropinquata		18.3
Iris pseudacorus		18.1
Constant species (14):		
Salix cinerea	Dg, Dm	87.0
Frangula alnus	Dg	70.0
Lysimachia vulgaris	Dg	67.0
Lycopus europaeus	Dg	57.0
Lythrum salicaria		53.0
Galium palustre agg.		53.0
Thelypteris palustris	Dg, Dm	51.0
Comarum palustre	Dg	51.0
Peucedanum palustre	Dg	49.0
Calliergonella cuspidata		49.0
Betula pubescens	Dg	48.0
Solanum dulcamara	Dg	46.0
Alnus glutinosa		44.0
Calamagrostis canescens	Dg	42.0
Dominant species (4):		
Salix cinerea	Dg, C	42.0
Myrica gale	Dg	7.0
Sphagnum recurvum agg.		4.0
Thelypteris palustris	Dg, C	3.0

LB Class
CARPINO-FAGETEA
Broad-leaved deciduous forests
Number of relevés: 3210

Diagnostic species (28):		
Galeobdolon luteum s. l.	C	37.4
Galium odoratum		33.5
Fagus sylvatica	C, Dm	31.6
Dentaria bulbifera		28.9
Viola reichenbachiana		28.4
Polygonatum multiflorum		27.8
Anemone nemorosa	C	27.8
Mercurialis perennis		27.0
Pulmonaria officinalis s. l.		26.6
Oxalis acetosella	C	25.0
Acer pseudoplatanus	C	24.9
Milium effusum		24.6
Carex sylvatica		24.4
Asarum europaeum		24.4
Maianthemum bifolium		23.0
Carpinus betulus	Dm	23.0
Stellaria holostea		22.7
Stachys sylvatica		21.9
Athyrium filix-femina		21.7
Tilia cordata		21.6
Paris quadrifolia		20.9
Aegopodium podagraria		20.8
Fraxinus excelsior	Dm	20.2
Sanicula europaea		20.1
Abies alba		20.1
Ficaria verna		19.6
Acer platanoides		18.6
Dryopteris filix-mas s. l.		18.4
Constant species (5):		
Oxalis acetosella	Dg	52.0
Fagus sylvatica	Dg, Dm	47.0
Galeobdolon luteum s. l.	Dg	45.0
Acer pseudoplatanus	Dg	41.0
Anemone nemorosa	Dg	41.0
Dominant species (5):		
Fagus sylvatica	Dg, C	22.0
Alnus glutinosa		7.0
Quercus robur		5.0
Carpinus betulus	Dg	5.0
Fraxinus excelsior	Dg	3.0

LBA Alliance
Alnion incanae
Ash-alder alluvial forests
Number of relevés: 1022

Diagnostic species (9):		
Ficaria verna	C	27.2
Gagea lutea		23.9
Alnus glutinosa	C, Dm	23.2
Circaea lutetiana		22.4
Padus avium	C	22.3
Fraxinus excelsior	C, Dm	20.8
Impatiens noli-tangere	C, Dm	20.6
Stachys sylvatica	C	19.8
Euonymus europaea		18.1
Constant species (13):		
Urtica dioica		65.0
Alnus glutinosa	Dg, Dm	59.0
Fraxinus excelsior	Dg, Dm	55.0
Aegopodium podagraria		52.0
Padus avium	Dg	49.0
Quercus robur	Dm	48.0
Anemone nemorosa		47.0
Impatiens noli-tangere	Dg, Dm	45.0
Geum urbanum s. l.		45.0
Deschampsia caespitosa		45.0
Stachys sylvatica	Dg	41.0
Ficaria verna	Dg	41.0
Galium aparine		41.0
Dominant species (6):		
Alnus glutinosa	Dg, C	21.0
Quercus robur	C	8.0
Fraxinus excelsior	Dg, C	8.0
Alnus incana		6.0
Impatiens noli-tangere	Dg, C	3.0
Carpinus betulus		3.0

LBB Alliance
Carpinion betuli
Oak-hornbeam forests
Number of relevés: 341

Diagnostic species (14):		
Carpinus betulus	C, Dm	32.7
Polygonatum multiflorum		26.3
Lathyrus vernus		24.1
Tilia cordata	C, Dm	22.9
Pulmonaria officinalis s. l.		22.8

Hepatica nobilis		22.4
Viola reichenbachiana	C	21.9
Stellaria holostea		21.9
Melica nutans	C	21.4
Galeobdolon luteum s. l.	C	21.4
Dactylis polygama		20.1
Maianthemum bifolium	C	19.5
Anemone nemorosa	C	18.9
Milium effusum		18.3

Constant species (12):

Carpinus betulus	Dg, Dm	77.0
Quercus robur	Dm	59.0
Melica nutans	Dg	53.0
Maianthemum bifolium	Dg	53.0
Poa nemoralis		51.0
Viola reichenbachiana	Dg	50.0
Galeobdolon luteum s. l.	Dg	50.0
Anemone nemorosa	Dg	50.0
Tilia cordata	Dg, Dm	46.0
Corylus avellana	Dm	44.0
Sorbus aucuparia		42.0
Oxalis acetosella		41.0

Dominant species (6):

Carpinus betulus	Dg, C	21.0
Quercus robur	C	10.0
Tilia cordata	Dg, C	7.0
Quercus petraea		5.0
Fagus sylvatica		4.0
Corylus avellana	C	4.0

LBC Alliance
Fagion sylvaticae
Eutrophic beech forests
Number of relevés: 727

Diagnostic species (15):

Galium odoratum	C	37.5
Dentaria bulbifera		30.0
Galeobdolon luteum s. l.	C	29.2
Fagus sylvatica	C, Dm	27.5
Viola reichenbachiana	C	26.6
Mercurialis perennis		22.0
Dryopteris filix-mas s. l.	C	21.4
Carex sylvatica		20.7
Oxalis acetosella	C	20.6
Dentaria glandulosa		20.0
Festuca altissima		19.7
Acer pseudoplatanus	C	19.4
Actaea spicata		19.2

Athyrium filix-femina	C	18.7
Sanicula europaea		18.0
Constant species (11):		
Fagus sylvatica	Dg, Dm	80.0
Galium odoratum	Dg	73.0
Oxalis acetosella	Dg	72.0
Galeobdolon luteum s. l.	Dg	66.0
Viola reichenbachiana	Dg	60.0
Acer pseudoplatanus	Dg	58.0
Dryopteris filix-mas s. l.	Dg	51.0
Athyrium filix-femina	Dg	50.0
Anemone nemorosa		45.0
Mycelis muralis		42.0
Maianthemum bifolium		41.0
Dominant species (3):		
Fagus sylvatica	Dg, C	55.0
Abies alba		5.0
Carpinus betulus		4.0

LBD Alliance
Sorbo-Fagion sylvaticae
Calcicole beech forests
Number of relevés: 35

Diagnostic species (36):		
Cephalanthera damasonium	C	78.0
Fragaria moschata	C	56.3
Epipactis helleborine s. l.	C	55.9
Daphne mezereum	C	42.8
Hepatica nobilis	C	42.4
Carex digitata	C	37.7
Fagus sylvatica	C, Dm	33.8
Mercurialis perennis	C	33.7
Lonicera xylosteum	C	32.9
Brachypodium sylvaticum	C	31.8
Mycelis muralis	C	31.1
Sanicula europaea		30.8
Neottia nidus-avis		30.5
Cephalanthera rubra		30.4
Actaea spicata		30.1
Campanula persicifolia	C	29.7
Hieracium murorum	C	29.1
Convallaria majalis	C	28.1
Lathyrus vernus	C	27.9
Corallorhiza trifida		27.0
Hypericum montanum		25.9
Galium odoratum	C	25.9
Melica nutans	C	25.6
Pyrola chlorantha		25.2

Aquilegia vulgaris		24.3
Orthilia secunda		23.9
Melittis melissophyllum		22.5
Acer platanoides	C	22.3
Hedera helix		21.8
Campanula trachelium		20.9
Poa nemoralis	C	20.3
Acer pseudoplatanus	C	20.3
Ulmus glabra		20.2
Viburnum opulus		20.0
Sorbus aucuparia	C	19.9
Crataegus ×macrocarpa		18.8
Constant species (24):		
Fagus sylvatica	Dg, Dm	97.0
Sorbus aucuparia	Dg	80.0
Carex digitata	Dg	80.0
Mycelis muralis	Dg	71.0
Cephalanthera damasonium	Dg	71.0
Hieracium murorum	Dg	69.0
Hepatica nobilis	Dg	69.0
Daphne mezereum	Dg	66.0
Poa nemoralis	Dg	63.0
Melica nutans	Dg	63.0
Epipactis helleborine s. l.	Dg	63.0
Mercurialis perennis	Dg	60.0
Brachypodium sylvaticum	Dg	60.0
Acer pseudoplatanus	Dg	60.0
Lonicera xylosteum	Dg	57.0
Convallaria majalis	Dg	57.0
Galium odoratum	Dg	51.0
Fragaria moschata	Dg	51.0
Campanula persicifolia	Dg	51.0
Acer platanoides	Dg	51.0
Taraxacum sect. *Ruderalia*		46.0
Cornus sanguinea		46.0
Lathyrus vernus	Dg	43.0
Fraxinus excelsior		43.0
Dominant species (2):		
Fagus sylvatica	Dg, C	91.0
Maianthemum bifolium		6.0

LBE Alliance
Luzulo-Fagion sylvaticae
Acidophilous beech forests
Number of relevés: 719

Diagnostic species (6):		
Fagus sylvatica	C, Dm	25.4
Abies alba	Dm	22.7

Maianthemum bifolium	C	21.3
Oxalis acetosella	C	20.2
Dryopteris carthusiana s. l.	C	19.5
Polytrichastrum formosum s. l.	C	18.0

Constant species (9):

Fagus sylvatica	Dg, Dm	74.0
Oxalis acetosella	Dg	70.0
Picea abies	Dm	66.0
Vaccinium myrtillus	Dm	65.0
Sorbus aucuparia		65.0
Dryopteris carthusiana s. l.	Dg	60.0
Maianthemum bifolium	Dg	58.0
Polytrichastrum formosum s. l.	Dg	44.0
Luzula pilosa		41.0

Dominant species (4):

Fagus sylvatica	Dg, C	31.0
Picea abies	C	10.0
Abies alba	Dg	4.0
Vaccinium myrtillus	C	3.0

LBF Alliance
Tilio platyphylli-Acerion
Ravine forests
Number of relevés: 366

Diagnostic species (22):

Lunaria rediviva	Dm	36.0
Galeobdolon luteum s. l.	C	35.7
Mercurialis perennis	C, Dm	34.4
Galium odoratum	C	29.4
Dentaria bulbifera		29.3
Asarum europaeum	C	27.7
Pulmonaria officinalis s. l.	C	27.6
Phyllitis scolopendrium		26.8
Actaea spicata		26.2
Acer pseudoplatanus	C, Dm	26.1
Dryopteris filix-mas s. l.	C	25.7
Polystichum aculeatum		24.5
Acer platanoides	C	24.5
Ulmus glabra		22.8
Tilia platyphyllos		22.5
Polygonatum multiflorum		21.4
Fraxinus excelsior	C, Dm	19.5
Tilia cordata	Dm	19.4
Paris quadrifolia		18.8
Symphytum cordatum		18.5
Carpinus betulus	C, Dm	18.2
Aegopodium podagraria	C	18.0

Constant species (15):

Galeobdolon luteum s. l.	Dg	80.0
Acer pseudoplatanus	Dg, Dm	76.0
Mercurialis perennis	Dg, Dm	61.0
Dryopteris filix-mas s. l.	Dg	61.0
Galium odoratum	Dg	58.0
Urtica dioica		57.0
Acer platanoides	Dg	56.0
Asarum europaeum	Dg	54.0
Fagus sylvatica	Dm	53.0
Aegopodium podagraria	Dg	53.0
Fraxinus excelsior	Dg, Dm	52.0
Oxalis acetosella		51.0
Corylus avellana		49.0
Pulmonaria officinalis s. l.	Dg	48.0
Carpinus betulus	Dg, Dm	44.0

Dominant species (7):

Lunaria rediviva	Dg	12.0
Fagus sylvatica	C	8.0
Acer pseudoplatanus	Dg, C	8.0
Tilia cordata	Dg	5.0
Fraxinus excelsior	Dg, C	5.0
Mercurialis perennis	Dg, C	4.0
Carpinus betulus	Dg, C	4.0

LC Class
QUERCETEA PUBESCENTIS
Thermophilous oak forests
Number of relevés: 98

Diagnostic species (87):

Melittis melissophyllum	C	57.4
Campanula persicifolia	C	55.3
Trifolium alpestre	C	55.1
Polygonatum odoratum	C	55.0
Lathyrus niger		54.6
Betonica officinalis	C	51.5
Carex montana		50.4
Serratula tinctoria		50.0
Convallaria majalis	C	49.0
Potentilla alba		48.2
Silene nutans	C	46.2
Viscaria vulgaris		44.1
Melampyrum nemorosum		43.0
Galium schultesii	C	42.6
Geranium sanguineum		41.7
Anthericum ramosum		41.1
Melica nutans	C	39.5
Vincetoxicum hirundinaria	C	39.4

Hypericum montanum		39.1
Peucedanum oreoselinum		37.9
Trifolium rubens		37.0
Galium boreale		36.8
Sedum maximum	C	36.7
Genista tinctoria		36.6
Digitalis grandiflora		36.6
Pulmonaria angustifolia		35.9
Viola riviniana		35.3
Ranunculus polyanthemos s. l.		35.1
Euonymus verrucosa		34.8
Vicia cassubica		33.7
Hepatica nobilis		33.5
Quercus petraea	C, Dm	33.3
Peucedanum cervaria		33.3
Veronica officinalis	C	33.0
Lilium martagon		31.6
Astragalus glycyphyllos		31.0
Scorzonera humilis		30.9
Fragaria vesca	C	29.4
Veronica chamaedrys	C	29.1
Primula veris		29.0
Clinopodium vulgare		29.0
Sorbus torminalis		28.9
Calamagrostis arundinacea	C	28.5
Tilia cordata		28.1
Melampyrum pratense		27.1
Juniperus communis	C	27.0
Poa nemoralis	C	26.9
Fragaria moschata		26.6
Hieracium sabaudum s. l.		25.9
Ajuga reptans		25.8
Carpinus betulus		25.7
Rubus saxatilis		25.6
Festuca heterophylla		25.5
Quercus robur	C, Dm	23.8
Rhamnus cathartica		23.7
Hieracium murorum		23.6
Brachypodium pinnatum		23.6
Pteridium aquilinum		23.5
Hypericum perforatum	C	23.5
Origanum vulgare		23.1
Pyrus communis		22.9
Hieracium umbellatum		22.8
Festuca ovina s. l.	C	22.8
Solidago virgaurea	C	22.7
Anemone nemorosa		22.4
Koeleria grandis		22.2
Cerasus vulgaris		21.8
Hierochloë australis		21.5
Carex digitata		21.4

Lathyrus vernus		21.3
Luzula pilosa		20.8
Campanula rapunculoides		20.4
Crataegus monogyna s. l.		20.2
Veronica teucrium		20.1
Linaria vulgaris		20.1
Cephalanthera longifolia		20.0
Asperula tinctoria		20.0
Laserpitium prutenicum		19.9
Campanula glomerata		19.8
Rosa canina		19.7
Campanula trachelium		19.5
Maianthemum bifolium		19.4
Cornus sanguinea		19.2
Inula salicina		18.6
Platanthera bifolia		18.4
Lonicera xylosteum		18.3
Adenophora lilifolia		18.1
Constant species (26):		
Polygonatum odoratum	Dg	68.0
Convallaria majalis	Dg	62.0
Veronica chamaedrys	Dg	59.0
Fragaria vesca	Dg	57.0
Campanula persicifolia	Dg	57.0
Melica nutans	Dg	56.0
Solidago virgaurea	Dg	54.0
Quercus robur	Dg, Dm	54.0
Vincetoxicum hirundinaria	Dg	52.0
Trifolium alpestre	Dg	52.0
Hypericum perforatum	Dg	51.0
Poa nemoralis	Dg	49.0
Silene nutans	Dg	47.0
Quercus petraea	Dg, Dm	47.0
Sedum maximum	Dg	47.0
Betonica officinalis	Dg	46.0
Juniperus communis	Dg	46.0
Galium mollugo agg.		46.0
Festuca ovina s. l.	Dg	44.0
Poa pratensis s. l.		43.0
Veronica officinalis	Dg	42.0
Sorbus aucuparia		42.0
Melittis melissophyllum	Dg	42.0
Galium schultesii	Dg	42.0
Pinus sylvestris	Dm	42.0
Calamagrostis arundinacea	Dg	41.0
Dominant species (3):		
Quercus robur	Dg, C	17.0
Quercus petraea	Dg, C	17.0
Pinus sylvestris	C	3.0

LCA Alliance
Quercion pubescenti-petraeae
Peri-alpidic basiphilous thermophilous oak forests
Number of relevés: 8

Diagnostic species (44):

Ligustrum vulgare	C	51.1
Quercus pubescens		47.5
Campanula bononiensis		46.3
Linosyris vulgaris		38.7
Veronica teucrium		35.0
Asparagus officinalis		34.8
Pyrus pyraster		33.8
Inula germanica		33.6
Anthericum liliago		33.0
Rhamnus cathartica	C	31.0
Ulmus minor		29.6
Viola mirabilis		29.5
Crataegus laevigata		29.3
Rosa sherardii		28.0
Rubus saxatilis		27.6
Viscum album		27.5
Quercus robur	C, Dm	26.9
Brachypodium pinnatum	C, Dm	26.1
Juniperus communis	C	26.0
Prunus spinosa	C	26.0
Viola hirta	C	25.2
Falcaria vulgaris		25.2
Centaurea pannonica		25.1
Carex praecox		24.4
Carex michelii		23.5
Lithospermum officinale		23.0
Fragaria viridis	C	22.9
Acer campestre		22.9
Pyrus communis		22.8
Campanula sibirica		22.7
Teucrium chamaedrys		22.6
Agrimonia eupatoria	C	22.1
Melampyrum cristatum		21.8
Filipendula vulgaris		21.4
Homalothecium lutescens		21.3
Astragalus glycyphyllos		20.7
Medicago falcata	C	20.4
Vincetoxicum hirundinaria	C	19.6
Crataegus monogyna s. l.		19.6
Clinopodium vulgare	C	19.4
Cypripedium calceolus		19.2
Galium verum	C	18.9
Euphorbia cyparissias	C	18.2
Viola riviniana		18.0

Constant species (21):

Quercus robur	Dg, Dm	100.0
Juniperus communis	Dg	75.0
Euphorbia cyparissias	Dg	75.0
Rhamnus cathartica	Dg	62.0
Prunus spinosa	Dg	62.0
Medicago falcata	Dg	62.0
Galium verum	Dg	62.0
Brachypodium pinnatum	Dg, Dm	62.0
Pinus sylvestris	Dm	62.0
Viola hirta	Dg	50.0
Vincetoxicum hirundinaria	Dg	50.0
Rubus caesius		50.0
Poa pratensis s. l.		50.0
Ligustrum vulgare	Dg	50.0
Hypericum perforatum		50.0
Fragaria viridis	Dg	50.0
Dactylis glomerata		50.0
Coronilla varia		50.0
Clinopodium vulgare	Dg	50.0
Agrimonia eupatoria	Dg	50.0
Achillea millefolium agg.		50.0

Dominant species (3):

Quercus robur	Dg, C	12.0
Pinus sylvestris	C	12.0
Brachypodium pinnatum	Dg, C	12.0

LCC Alliance
Quercion petraeae
Acidophilous and thermophilous oak forests
Number of relevés: 90

Diagnostic species (42):

Melittis melissophyllum	C	45.6
Lathyrus niger	C	43.8
Potentilla alba		38.0
Carex montana		36.5
Serratula tinctoria	C	36.4
Polygonatum odoratum	C	36.3
Campanula persicifolia	C	36.2
Trifolium alpestre	C	35.0
Pulmonaria angustifolia		35.0
Betonica officinalis	C	33.2
Convallaria majalis	C	33.0
Galium schultesii	C	32.6
Melampyrum nemorosum		30.7
Trifolium rubens		29.2
Viscaria vulgaris		29.0
Silene nutans	C	28.6

Sorbus torminalis		27.7
Vicia cassubica		26.5
Geranium sanguineum		26.2
Genista tinctoria		26.2
Anthericum ramosum	C	25.9
Euonymus verrucosa		25.0
Scorzonera humilis		24.9
Melica nutans	C	24.4
Viola riviniana		24.3
Digitalis grandiflora	C	24.1
Hypericum montanum		23.8
Sedum maximum	C	22.8
Quercus petraea	C, Dm	22.4
Peucedanum oreoselinum	C	22.1
Festuca heterophylla		21.9
Lilium martagon		21.7
Hierochloë australis		21.0
Vincetoxicum hirundinaria	C	20.5
Galium boreale		20.3
Koeleria grandis		19.6
Ranunculus polyanthemos s. l.		19.1
Hieracium sabaudum s. l.		19.1
Veronica officinalis	C	18.9
Pteridium aquilinum		18.7
Cephalanthera longifolia		18.5
Calamagrostis arundinacea	C	18.3

Constant species (31):

Polygonatum odoratum	Dg	74.0
Convallaria majalis	Dg	67.0
Campanula persicifolia	Dg	62.0
Veronica chamaedrys		61.0
Melica nutans	Dg	60.0
Fragaria vesca		60.0
Solidago virgaurea		59.0
Trifolium alpestre	Dg	54.0
Vincetoxicum hirundinaria	Dg	52.0
Silene nutans	Dg	51.0
Hypericum perforatum		51.0
Quercus robur	Dm	50.0
Quercus petraea	Dg, Dm	50.0
Poa nemoralis		50.0
Sedum maximum	Dg	50.0
Betonica officinalis	Dg	49.0
Galium mollugo agg.		49.0
Festuca ovina s. l.		47.0
Veronica officinalis	Dg	46.0
Sorbus aucuparia		46.0
Melittis melissophyllum	Dg	46.0
Galium schultesii	Dg	46.0
Calamagrostis arundinacea	Dg	44.0

Lathyrus niger	Dg	43.0
Juniperus communis		43.0
Serratula tinctoria	Dg	42.0
Poa pratensis s. l.		42.0
Digitalis grandiflora	Dg	42.0
Peucedanum oreoselinum	Dg	41.0
Carpinus betulus		41.0
Anthericum ramosum	Dg	41.0

Dominant species (11):

Quercus robur	C	37.0
Quercus petraea	Dg, C	30.0

LD Class
QUERCETEA ROBORI-PETRAEAE
Acidophilous oak forests
Number of relevés: 604

Diagnostic species (24):

Quercus petraea	C, Dm	38.9
Melampyrum pratense		33.8
Convallaria majalis	C	32.3
Luzula pilosa	C	30.7
Pteridium aquilinum	C, Dm	29.9
Frangula alnus	C	26.5
Sorbus aucuparia	C	26.4
Quercus robur	C, Dm	25.2
Maianthemum bifolium		24.5
Rubus fruticosus agg.		23.5
Trientalis europaea		22.4
Holcus mollis		22.1
Polytrichastrum formosum s. l.		22.0
Betula pendula	C	21.9
Carex pilulifera		21.7
Hieracium sabaudum s. l.		21.6
Viola reichenbachiana		21.3
Calamagrostis arundinacea		20.9
Carpinus betulus		19.9
Hieracium murorum		19.1
Poa nemoralis		19.0
Moehringia trinervia		18.9
Galium schultesii		18.9
Anemone nemorosa		18.1

Constant species (9):

Sorbus aucuparia	Dg	65.0
Vaccinium myrtillus	Dm	59.0
Quercus robur	Dg, Dm	57.0
Quercus petraea	Dg, Dm	54.0
Frangula alnus	Dg	54.0
Betula pendula	Dg	45.0

Luzula pilosa	Dg	42.0
Convallaria majalis	Dg	42.0
Pteridium aquilinum	Dg, Dm	41.0

Dominant species (6):

Quercus petraea	Dg, C	21.0
Quercus robur	Dg, C	17.0
Vaccinium myrtillus	C	10.0
Pinus sylvestris		8.0
Pteridium aquilinum	Dg, C	4.0
Molinia caerulea s. l.		4.0

LDA Alliance
Genisto germanicae-Quercion
Central European acidophilous oak forests
Number of relevés: 342

Diagnostic species (7):

Quercus petraea	C, Dm	39.2
Convallaria majalis	C	24.7
Melampyrum pratense	C	22.3
Galium schultesii		21.2
Hieracium sabaudum s. l.		20.2
Pteridium aquilinum		19.1
Hieracium murorum	C	19.1

Constant species (10):

Quercus petraea	Dg, Dm	85.0
Vaccinium myrtillus	Dm	68.0
Sorbus aucuparia		54.0
Convallaria majalis	Dg	51.0
Poa nemoralis		47.0
Melampyrum pratense	Dg	46.0
Hieracium murorum	Dg	46.0
Festuca ovina s. l.		45.0
Calamagrostis arundinacea	Dm	43.0
Luzula pilosa		41.0

Dominant species (6):

Quercus petraea	Dg, C	35.0
Vaccinium myrtillus	C	14.0
Pinus sylvestris		6.0
Quercus robur		4.0
Pleurozium schreberi		4.0
Calamagrostis arundinacea	C	4.0

LDB Alliance
Quercion roboris
Subatlantic acidophilous oak forests
Number of relevés: 262

Diagnostic species (8):

Pteridium aquilinum	C, Dm	24.7
Quercus robur	C, Dm	24.4
Frangula alnus	C, Dm	24.0
Trientalis europaea	C	22.6
Rubus fruticosus agg.	C	20.4
Maianthemum bifolium	C	20.2
Sorbus aucuparia	C	19.7
Luzula pilosa	C	18.7

Constant species (14):

Quercus robur	Dg, Dm	92.0
Sorbus aucuparia	Dg	79.0
Frangula alnus	Dg, Dm	79.0
Betula pendula	Dm	60.0
Rubus fruticosus agg.	Dg	55.0
Maianthemum bifolium	Dg	55.0
Vaccinium myrtillus	Dm	48.0
Dryopteris carthusiana s. l.		48.0
Pteridium aquilinum	Dg, Dm	46.0
Luzula pilosa	Dg	43.0
Molinia caerulea s. l.	Dm	42.0
Trientalis europaea	Dg	41.0
Lysimachia vulgaris		41.0
Pinus sylvestris	Dm	41.0

Dominant species (9):

Quercus robur	Dg, C	34.0
Pinus sylvestris	C	10.0
Molinia caerulea s. l.	C	10.0
Pteridium aquilinum	Dg, C	8.0
Calamagrostis villosa		6.0
Vaccinium myrtillus	C	5.0
Quercus petraea		3.0
Frangula alnus	Dg, C	3.0
Betula pendula	C	3.0

LE Class
ERICO-PINETEA
Basiphilous submontane pine forests
Number of relevés: 8

Diagnostic species (73):

Festuca pallens	C	86.3
Calamagrostis varia	C, Dm	79.7

Bupleurum falcatum	C	65.7
Laserpitium latifolium	C	62.1
Epipactis atrorubens	C	55.3
Carex digitata	C	52.0
Euphorbia amygdaloides		51.6
Pimpinella major	C	50.0
Aquilegia vulgaris		49.8
Rumex scutatus		47.2
Teucrium montanum		46.8
Juniperus communis	C	46.4
Cruciata glabra	C	43.8
Galium mollugo agg.	C	43.4
Clematis alpina		43.3
Hieracium murorum	C	42.4
Carlina vulgaris	C	42.3
Carex flacca		42.2
Sesleria varia	Dm	41.4
Polygala amara subsp. *brachyptera*		41.4
Viola hirta		41.2
Fragaria vesca	C	39.9
Gymnocarpium robertianum		39.6
Salvia verticillata		38.3
Allium montanum		38.1
Vincetoxicum hirundinaria	C	37.7
Euphrasia rostkoviana		37.4
Linum catharticum	C	36.5
Hypericum perforatum	C	35.5
Digitalis grandiflora		35.3
Astragalus australis		34.8
Coronilla varia	C	34.6
Alyssum saxatile		34.5
Aconitum variegatum		34.5
Campanula rapunculoides		34.0
Actaea spicata		33.8
Sorbus aira		33.7
Pinus sylvestris	C, Dm	33.7
Vicia cracca	C	33.2
Carduus collinus		32.7
Tanacetum corymbosum subsp. *clusii*		32.1
Carex alba		32.1
Carduus glaucus		32.1
Silene nemoralis		32.0
Rhamnus cathartica		32.0
Picea abies	C	31.9
Bupleurum longifolium		31.8
Carex ornithopoda		31.7
Leucanthemum vulgare	C	31.4
Sanguisorba minor		31.0
Hieracium laevigatum		30.4
Valeriana tripteris		29.1
Daphne mezereum		29.0

Polygonatum odoratum		28.9
Jovibarba hirta		28.9
Campanula rotundifolia		28.6
Medicago lupulina		28.1
Euphorbia cyparissias	C	28.2
Corylus avellana	C	28.2
Rubus saxatilis		27.3
Clinopodium vulgare		27.2
Asplenium viride		27.1
Salix silesiaca		26.1
Hieracium lachenalii s. l.		25.8
Melica nutans		25.3
Botrychium lunaria		23.9
Thymus pulegioides		23.7
Scabiosa lucida		23.6
Aster alpinus		22.0
Veronica fruticans		21.7
Origanum vulgare		21.5
Chamaenerion angustifolium		18.7
Leontodon incanus		18.5
Constant species (23):		
Galium mollugo agg.	Dg	100.0
Calamagrostis varia	Dg, Dm	100.0
Festuca pallens	Dg	88.0
Pinus sylvestris	Dg, Dm	88.0
Picea abies	Dg	75.0
Juniperus communis	Dg	75.0
Hypericum perforatum	Dg	75.0
Fragaria vesca	Dg	75.0
Hieracium murorum	Dg	62.0
Cruciata glabra	Dg	62.0
Carex digitata	Dg	62.0
Vincetoxicum hirundinaria	Dg	50.0
Vicia cracca	Dg	50.0
Pimpinella major	Dg	50.0
Linum catharticum	Dg	50.0
Leucanthemum vulgare	Dg	50.0
Laserpitium latifolium	Dg	50.0
Euphorbia cyparissias	Dg	50.0
Epipactis atrorubens	Dg	50.0
Corylus avellana	Dg	50.0
Coronilla varia	Dg	50.0
Carlina vulgaris	Dg	50.0
Bupleurum falcatum	Dg	50.0
Dominant species (5):		
Pinus sylvestris	Dg, C	25.0
Sesleria varia	Dg	12.0
Poa compressa		12.0
Calamagrostis varia	Dg, C	12.0

Abietinella abietina		12.0

LEA Alliance
Pulsatillo slavicae-Pinion
Natural relict pine and larch forests on carbonates in the Carpathians
Number of relevés: 8

Diagnostic species (49):

Festuca pallens	C	47.9
Calamagrostis varia	C, Dm	47.8
Epipactis atrorubens	C	39.7
Laserpitium latifolium	C	38.8
Euphorbia amygdaloides		36.3
Bupleurum falcatum	C	35.0
Clematis alpina		34.2
Rumex scutatus		33.9
Polygala amara subsp. *brachyptera*		32.3
Aquilegia vulgaris		32.2
Aconitum variegatum		31.9
Pimpinella major	C	30.1
Gymnocarpium robertianum		29.1
Carex digitata	C	29.1
Astragalus australis		27.0
Carlina vulgaris	C	26.8
Sorbus aira		26.4
Hieracium murorum	C	26.4
Juniperus communis	C	26.0
Alyssum saxatile		24.0
Galium mollugo agg.	C	23.3
Carex flacca		22.7
Euphrasia rostkoviana		22.6
Sesleria varia	Dm	22.3
Cruciata glabra	C	22.1
Valeriana tripteris		22.0
Fragaria vesca	C	21.6
Carduus glaucus		21.3
Digitalis grandiflora		21.2
Carex alba		21.0
Picea abies	C	20.8
Bupleurum longifolium		20.6
Pinus sylvestris	C, Dm	20.3
Tanacetum corymbosum subsp. *clusii*		20.2
Salix silesiaca		20.0
Vincetoxicum hirundinaria	C	19.6
Linum catharticum	C	19.6
Asplenium viride		19.6
Teucrium montanum		18.8
Hypericum perforatum	C	18.7
Viola hirta		18.6
Actaea spicata		18.5

Hieracium laevigatum		18.3
Carex ornithopoda		18.2
Rubus saxatilis		18.1
Rhamnus cathartica		18.1
Campanula rapunculoides		18.1
Salvia verticillata		18.1

Constant species (23):

Galium mollugo agg.	Dg	100.0
Calamagrostis varia	Dg, Dm	100.0
Festuca pallens	Dg	88.0
Pinus sylvestris	Dg, Dm	88.0
Picea abies	Dg	75.0
Juniperus communis	Dg	75.0
Hypericum perforatum	Dg	75.0
Fragaria vesca	Dg	75.0
Hieracium murorum	Dg	62.0
Cruciata glabra	Dg	62.0
Carex digitata	Dg	62.0
Vincetoxicum hirundinaria	Dg	50.0
Vicia cracca		50.0
Pimpinella major	Dg	50.0
Linum catharticum	Dg	50.0
Leucanthemum vulgare		50.0
Laserpitium latifolium	Dg	50.0
Euphorbia cyparissias		50.0
Epipactis atrorubens	Dg	50.0
Corylus avellana		50.0
Coronilla varia		50.0
Carlina vulgaris	Dg	50.0
Bupleurum falcatum	Dg	50.0

Dominant species (5):

Pinus sylvestris	Dg, C	25.0
Sesleria varia	Dg	12.0
Poa compressa		12.0
Calamagrostis varia	Dg, C	12.0
Abietinella abietina		12.0

LF Class
VACCINIO-PICEETEA
Boreal coniferous forests
Number of relevés: 1134

Diagnostic species (19):

Dicranum polysetum		37.3
Pleurozium schreberi	C, Dm	37.2
Pinus sylvestris	C, Dm	30.4
Leucobryum glaucum		26.2
Trientalis europaea		26.1
Melampyrum pratense		25.0

Vaccinium myrtillus	C, Dm	24.8
Calluna vulgaris		24.7
Picea abies	C, Dm	23.4
Betula pendula	C	22.7
Polytrichastrum formosum s. l.		22.5
Chimaphila umbellata		21.6
Plagiothecium curvifolium		20.7
Lycopodium annotinum		20.6
Quercus robur	C	20.5
Vaccinium vitis-idaea	C	20.4
Luzula pilosa		20.1
Orthilia secunda		18.7
Hypnum jutlandicum		18.2

Constant species (8):

Pinus sylvestris	Dg, Dm	80.0
Vaccinium myrtillus	Dg, Dm	78.0
Pleurozium schreberi	Dg, Dm	62.0
Picea abies	Dg, Dm	58.0
Vaccinium vitis-idaea	Dg	54.0
Quercus robur	Dg	48.0
Betula pendula	Dg	46.0
Sorbus aucuparia		45.0

Dominant species (5):

Pinus sylvestris	Dg, C	30.0
Pleurozium schreberi	Dg, C	13.0
Vaccinium myrtillus	Dg, C	11.0
Picea abies	Dg, C	9.0
Calamagrostis villosa		4.0

LFB Alliance
Dicrano-Pinion
Acidophilous boreo-continental pine forests
Number of relevés: 689

Diagnostic species (6):

Dicranum polysetum	C	25.2
Chimaphila umbellata		25.1
Pinus sylvestris	C, Dm	23.2
Pleurozium schreberi	C, Dm	22.9
Melampyrum pratense		19.2
Vaccinium vitis-idaea	C	18.6

Constant species (10):

Pinus sylvestris	Dg, Dm	98.0
Vaccinium myrtillus	Dm	73.0
Pleurozium schreberi	Dg, Dm	70.0
Vaccinium vitis-idaea	Dg	61.0
Quercus robur		57.0
Betula pendula		56.0

Calluna vulgaris		49.0
Picea abies		48.0
Sorbus aucuparia		46.0
Dicranum polysetum	Dg	44.0
Dominant species (3):		
Pinus sylvestris	Dg, C	37.0
Pleurozium schreberi	Dg, C	18.0
Vaccinium myrtillus	C	10.0

LFC Alliance
Piceion abietis
European acidophilous spruce forests
Number of relevés: 283

Diagnostic species (13):		
Buckiella undulata		30.7
Plagiothecium curvifolium		30.6
Picea abies	C, Dm	27.0
Polytrichastrum formosum s. l.	C, Dm	26.9
Luzula luzulina		25.0
Bazzania trilobata		23.4
Sphagnum girgensohnii		21.8
Lycopodium annotinum		21.8
Calamagrostis villosa	C, Dm	21.1
Dryopteris carthusiana s. l.	C	20.2
Vaccinium myrtillus	C, Dm	19.8
Trientalis europaea		19.2
Calypogeia azurea		18.5
Constant species (8):		
Picea abies	Dg, Dm	95.0
Vaccinium myrtillus	Dg, Dm	92.0
Polytrichastrum formosum s. l.	Dg, Dm	64.0
Dryopteris carthusiana s. l.	Dg	62.0
Oxalis acetosella		61.0
Sorbus aucuparia		52.0
Deschampsia flexuosa		50.0
Calamagrostis villosa	Dg, Dm	45.0
Dominant species (6):		
Picea abies	Dg, C	34.0
Vaccinium myrtillus	Dg, C	14.0
Calamagrostis villosa	Dg, C	13.0
Pinus sylvestris		12.0
Polytrichastrum formosum s. l.	Dg, C	9.0
Athyrium distentifolium		8.0

LFD Alliance
Vaccinio uliginosi-Pinion sylvestris
Bog woodlands
Number of relevés: 162

Diagnostic species (16):		
Ledum palustre	C	54.1
Vaccinium uliginosum s. l.	C	38.3
Betula pubescens	C, Dm	29.4
Eriophorum vaginatum	C	28.2
Pleurozium schreberi	C, Dm	25.3
Dicranum polysetum		22.3
Sphagnum recurvum agg.	C, Dm	21.9
Pinus sylvestris	C, Dm	21.7
Oxycoccus palustris s. l.	C	21.6
Calluna vulgaris	C	21.6
Polytrichum commune	C	20.7
Sphagnum magellanicum		20.1
Molinia caerulea s. l.	C, Dm	19.9
Leucobryum glaucum		19.8
Vaccinium vitis-idaea	C	18.9
Sphagnum capillifolium s. l.		18.2
Constant species (16):		
Pinus sylvestris	Dg, Dm	93.0
Vaccinium myrtillus	Dm	79.0
Ledum palustre	Dg	79.0
Pleurozium schreberi	Dg, Dm	77.0
Betula pubescens	Dg, Dm	71.0
Vaccinium vitis-idaea	Dg	62.0
Calluna vulgaris	Dg	62.0
Vaccinium uliginosum s. l.	Dg	59.0
Sphagnum recurvum agg.	Dg, Dm	58.0
Molinia caerulea s. l.	Dg, Dm	57.0
Eriophorum vaginatum	Dg	49.0
Oxycoccus palustris s. l.	Dg	48.0
Frangula alnus		46.0
Quercus robur		44.0
Betula pendula		43.0
Polytrichum commune	Dg	41.0
Dominant species (6):		
Pinus sylvestris	Dg, C	31.0
Sphagnum recurvum agg.	Dg, C	14.0
Pleurozium schreberi	Dg, C	12.0
Vaccinium myrtillus	C	10.0
Betula pubescens	Dg, C	8.0
Molinia caerulea s. l.	Dg, C	5.0

XA Class
POLYGONO ARENASTRI-POËTEA ANNUAE
Vegetation of trampled habitats
Number of relevés: 352

Diagnostic species (8):		
Poa annua s. l.	C, Dm	56.5
Plantago major s. l.	C	43.5
Chamomilla suaveolens		42.8
Polygonum aviculare agg.	C	37.5
Lolium perenne		36.1
Capsella bursa-pastoris		28.0
Trifolium repens		22.5
Taraxacum sect. *Ruderalia*	C	20.8
Constant species (4):		
Poa annua s. l.	Dg, Dm	73.0
Plantago major s. l.	Dg	55.0
Taraxacum sect. *Ruderalia*	Dg	52.0
Polygonum aviculare agg.	Dg	46.0
Dominant species (1):		
Poa annua s. l.	Dg, C	8.0

XAA Alliance
Coronopodo-Polygonion arenastri
Annual vegetation of dry trampled habitats
Number of relevés: 142

Diagnostic species (5):		
Polygonum aviculare agg.	C, Dm	29.3
Lolium perenne	C	26.0
Chamomilla suaveolens		23.2
Poa annua s. l.	C	22.7
Plantago major s. l.	C	22.6
Constant species (5):		
Polygonum aviculare agg.	Dg, Dm	78.0
Poa annua s. l.	Dg	58.0
Plantago major s. l.	Dg	56.0
Taraxacum sect. *Ruderalia*		53.0
Lolium perenne	Dg	51.0
Dominant species (1):		
Polygonum aviculare agg.	Dg, C	4.0

XAB Alliance
Saginion procumbentis
Annual vegetation of mesic trampled habitats
Number of relevés: 210

Diagnostic species (3):

Poa annua s. l.	C, Dm	33.1
Plantago major s. l.	C	22.0
Chamomilla suaveolens	Dm	18.7

Constant species (3):

Poa annua s. l.	Dg, Dm	83.0
Plantago major s. l.	Dg	54.0
Taraxacum sect. *Ruderalia*		51.0

Dominant species (2):

Poa annua s. l.	Dg, C	13.0
Potentilla anserina		3.0

XB Class
STELLARIETEA MEDIAE
Annual vegetation of arable land and ruderal habitats
Number of relevés: 4874

Diagnostic species (57):

Centaurea cyanus	C	63.1
Viola arvensis	C	55.8
Apera spica-venti		47.9
Chenopodium album agg.	C	46.0
Myosotis arvensis		45.8
Raphanus raphanistrum		43.8
Scleranthus annuus		43.5
Fallopia convolvulus	C	42.8
Spergula arvensis		41.6
Sinapis arvensis		40.0
Stellaria media agg.	C	37.2
Veronica persica		36.8
Anagallis arvensis		35.2
Vicia angustifolia		35.1
Vicia hirsuta		33.8
Capsella bursa-pastoris		33.8
Matricaria maritima subsp. *inodora*		33.7
Euphorbia helioscopia		33.7
Galinsoga parviflora		32.8
Thlaspi arvense		32.3
Papaver rhoeas		32.2
Veronica arvensis		31.7
Equisetum arvense	C	31.7
Anthemis arvensis		31.2
Lamium amplexicaule		30.0

Erodium cicutarium		29.4
Setaria pumila		27.4
Lithospermum arvense		27.4
Avena fatua		27.3
Aphanes arvensis		27.2
Cirsium arvense	C	26.8
Anchusa arvensis		26.7
Convolvulus arvensis		26.4
Polygonum aviculare agg.		25.8
Elymus repens	C	25.7
Arnoseris minima		24.5
Arabidopsis thaliana		24.0
Vicia villosa		23.7
Polygonum lapathifolium s. l.		23.3
Papaver argemone		23.0
Echinochloa crus-galli		23.0
Galinsoga ciliata		22.8
Vicia tetrasperma		22.5
Erysimum cheiranthoides		22.4
Geranium pusillum		22.1
Veronica triphyllos		21.9
Consolida regalis		21.9
Setaria viridis		21.5
Polygonum persicaria		21.1
Chamomilla recutita		20.2
Myosotis stricta		20.0
Sonchus arvensis		19.7
Agrostemma githago		19.7
Melandrium noctiflorum		19.5
Neslia paniculata		19.4
Lamium purpureum		18.5
Galeopsis tetrahit s. l.		18.4

Constant species (8):

Chenopodium album agg.	Dg	56.0
Viola arvensis	Dg	55.0
Fallopia convolvulus	Dg	54.0
Stellaria media agg.	Dg	50.0
Equisetum arvense	Dg	50.0
Cirsium arvense	Dg	49.0
Centaurea cyanus	Dg	49.0
Elymus repens	Dg	48.0

Dominant species (0):

XBA Alliance
Caucalidion
Thermophilous weed vegetation of cereal fields on base-rich soils
Number of relevés: 266

Diagnostic species (34):

Consolida regalis	C	59.0
Euphorbia exigua		55.6
Lathyrus tuberosus	C	52.4
Melandrium noctiflorum	C	51.6
Papaver rhoeas	C	49.5
Adonis aestivalis		46.4
Avena fatua	C	44.3
Lithospermum arvense		39.8
Aethusa cynapium s. l.		39.7
Anagallis arvensis	C	37.5
Sinapis arvensis	C	36.6
Euphorbia helioscopia	C	35.7
Veronica persica	C	34.8
Veronica polita		34.6
Neslia paniculata		34.1
Valerianella dentata		31.9
Anagallis foemina		30.9
Sherardia arvensis		30.0
Galium spurium		29.8
Fumaria vaillantii		29.4
Myosotis arvensis	C	29.3
Stachys annua		28.3
Viola arvensis	C	26.7
Lamium amplexicaule		26.2
Apera spica-venti	C, Dm	24.7
Centaurea cyanus	C	23.4
Convolvulus arvensis	C	22.2
Fallopia convolvulus	C	20.7
Camelina microcarpa		20.7
Galium aparine	C	20.5
Odontites verna s. l.		19.9
Stellaria media agg.	C	19.7
Matricaria maritima subsp. *inodora*	C	19.6
Euphorbia falcata		18.1

Constant species (22):

Galium aparine	Dg	74.0
Convolvulus arvensis	Dg	72.0
Viola arvensis	Dg	70.0
Papaver rhoeas	Dg	68.0
Cirsium arvense		63.0
Fallopia convolvulus	Dg	61.0
Consolida regalis	Dg	58.0
Stellaria media agg.	Dg	57.0

Myosotis arvensis	Dg	55.0
Anagallis arvensis	Dg	55.0
Veronica persica	Dg	53.0
Sinapis arvensis	Dg	53.0
Apera spica-venti	Dg, Dm	52.0
Matricaria maritima subsp. *inodora*	Dg	50.0
Centaurea cyanus	Dg	49.0
Lathyrus tuberosus	Dg	47.0
Melandrium noctiflorum	Dg	44.0
Avena fatua	Dg	44.0
Polygonum aviculare agg.		43.0
Euphorbia helioscopia	Dg	42.0
Elymus repens		42.0
Chenopodium album agg.		42.0
Dominant species (1):		
Apera spica-venti	Dg, C	3.0

XBB Alliance
Veronico-Euphorbion
Basiphilous weed vegetation in root-crop fields
Number of relevés: 495

Diagnostic species (17):		
Euphorbia helioscopia	C	41.7
Veronica persica	C	37.5
Sonchus asper		30.8
Sinapis arvensis	C	30.2
Thlaspi arvense		29.0
Sonchus arvensis	C	28.7
Lamium amplexicaule		28.5
Stellaria media agg.	C	27.6
Chenopodium album agg.	C	26.5
Lamium purpureum		24.0
Anagallis arvensis		23.9
Fumaria officinalis		23.7
Galinsoga parviflora		21.9
Fallopia convolvulus	C	20.3
Cirsium arvense	C	19.7
Myosotis arvensis		18.7
Capsella bursa-pastoris	C	18.1
Constant species (15):		
Chenopodium album agg.	Dg	81.0
Stellaria media agg.	Dg	78.0
Cirsium arvense	Dg	76.0
Fallopia convolvulus	Dg	59.0
Elymus repens		59.0
Veronica persica	Dg	57.0
Equisetum arvense		55.0
Sonchus arvensis	Dg	51.0

Euphorbia helioscopia	Dg	49.0
Viola arvensis		45.0
Sinapis arvensis	Dg	44.0
Matricaria maritima subsp. *inodora*		43.0
Capsella bursa-pastoris	Dg	43.0
Convolvulus arvensis		42.0
Galium aparine		41.0

Dominant species (0):

XBC Alliance
Scleranthion annui
Weed vegetation of cereal fields on acidic soils
Number of relevés: 2331

Diagnostic species (13):

Centaurea cyanus	C	33.0
Spergula arvensis	C	26.7
Apera spica-venti	C, Dm	25.5
Viola arvensis	C	25.2
Myosotis arvensis	C	24.2
Aphanes arvensis		23.3
Vicia hirsuta	C	22.4
Raphanus raphanistrum		22.1
Scleranthus annuus		21.7
Fallopia convolvulus	C	19.9
Vicia angustifolia		19.4
Stellaria media agg.	C	19.3
Papaver argemone		18.5

Constant species (13):

Centaurea cyanus	Dg	68.0
Viola arvensis	Dg	66.0
Fallopia convolvulus	Dg	58.0
Stellaria media agg.	Dg	56.0
Equisetum arvense		56.0
Cirsium arvense		54.0
Apera spica-venti	Dg, Dm	54.0
Chenopodium album agg.		51.0
Elymus repens		49.0
Myosotis arvensis	Dg	46.0
Matricaria maritima subsp. *inodora*		45.0
Vicia hirsuta	Dg	41.0
Spergula arvensis	Dg	41.0

Dominant species (1):

Apera spica-venti	Dg, C	3.0

XBD Alliance
Arnoseridion minimae
Weed vegetation of cereal fields on nutrient-poor acidic soils
Number of relevés: 439

Diagnostic species (11):		
Arnoseris minima	C	62.9
Scleranthus annuus	C	45.2
Anthoxanthum aristatum	C, Dm	42.6
Teesdalia nudicaulis		37.5
Centaurea cyanus	C	33.1
Spergula arvensis	C	30.0
Apera spica-venti	C	28.0
Viola arvensis	C	24.5
Rumex acetosella s. l.	C	20.4
Fallopia convolvulus	C	19.6
Vicia angustifolia		18.5
Constant species (10):		
Scleranthus annuus	Dg	79.0
Rumex acetosella s. l.	Dg	74.0
Centaurea cyanus	Dg	68.0
Arnoseris minima	Dg	68.0
Viola arvensis	Dg	64.0
Apera spica-venti	Dg	59.0
Fallopia convolvulus	Dg	57.0
Equisetum arvense		48.0
Spergula arvensis	Dg	46.0
Anthoxanthum aristatum	Dg, Dm	41.0
Dominant species (1):		
Anthoxanthum aristatum	Dg, C	7.0

XBE Alliance
Oxalidion fontanae
Weed vegetation of cereal and root-crop fields in cool areas
Number of relevés: 357

Diagnostic species (14):		
Galinsoga ciliata		36.3
Galinsoga parviflora	C, Dm	26.4
Erysimum cheiranthoides		26.4
Chenopodium album agg.	C	25.4
Stellaria media agg.	C	25.3
Oxalis fontana s. l.		24.5
Echinochloa crus-galli	C	23.6
Capsella bursa-pastoris	C	21.3
Veronica persica		19.2
Chenopodium polyspermum		18.9
Matricaria maritima subsp. *inodora*	C	18.2

Myosotis arvensis		18.2
Fallopia convolvulus	C	18.2
Sinapis arvensis		18.0
Constant species (13):		
Chenopodium album agg.	Dg	78.0
Stellaria media agg.	Dg	72.0
Cirsium arvense		63.0
Elymus repens		59.0
Fallopia convolvulus	Dg	54.0
Equisetum arvense		54.0
Capsella bursa-pastoris	Dg	50.0
Polygonum aviculare agg.		49.0
Viola arvensis		46.0
Matricaria maritima subsp. *inodora*	Dg	46.0
Galinsoga parviflora	Dg, Dm	46.0
Polygonum lapathifolium s. l.		43.0
Echinochloa crus-galli	Dg	42.0
Dominant species (1):		
Galinsoga parviflora	Dg, C	3.0

XBF Alliance
Spergulo arvensis-Erodion cicutariae
Weed vegetation of dry sandy soils
Number of relevés: 431

Diagnostic species (9):		
Echinochloa crus-galli	C	44.7
Setaria pumila	C	42.0
Setaria viridis	C	34.3
Digitaria ischaemum		28.3
Galinsoga parviflora	C	26.5
Chenopodium album agg.	C	26.2
Spergula arvensis		23.0
Erodium cicutarium		22.3
Raphanus raphanistrum		19.9
Constant species (10):		
Chenopodium album agg.	Dg	80.0
Echinochloa crus-galli	Dg	78.0
Equisetum arvense		61.0
Setaria pumila	Dg	60.0
Elymus repens		54.0
Fallopia convolvulus		52.0
Galinsoga parviflora	Dg	46.0
Setaria viridis	Dg	45.0
Cirsium arvense		45.0
Viola arvensis		44.0
Dominant species (0):		

XBG Alliance
Atriplicion
Ruderal vegetation of tall annual herbs
Number of relevés: 307

Diagnostic species (2):		
Chenopodium album agg.	C, Dm	27.1
Sisymbrium officinale		21.5
Constant species (5):		
Chenopodium album agg.	Dg, Dm	82.0
Elymus repens		57.0
Artemisia vulgaris		50.0
Matricaria maritima subsp. *inodora*		45.0
Stellaria media agg.		41.0
Dominant species (2):		
Apera spica-venti		4.0
Chenopodium album agg.	Dg, C	3.0

XBH Alliance
Sisymbrion officinalis
Ruderal vegetation of winter-annual grasses
Number of relevés: 59

Diagnostic species (3):		
Hordeum murinum	Dm	47.6
Bromus tectorum	C, Dm	44.4
Bromus sterilis	Dm	29.9
Constant species (1):		
Bromus tectorum	Dg, Dm	66.0
Dominant species (4):		
Hordeum murinum	Dg	10.0
Bromus tectorum	Dg, C	5.0
Ceratodon purpureus		3.0
Bromus sterilis	Dg	3.0

XBI Alliance
Malvion neglectae
Ruderal vegetation of prostrate annual herbs on nutrient-rich soils
Number of relevés: 60

Diagnostic species (12):		
Malva neglecta	C, Dm	77.2
Urtica urens	C	72.4
Sisymbrium officinale	C	40.1
Chenopodium murale		31.0
Amaranthus retroflexus		30.0

Anthemis cotula		25.6
Leonurus cardiaca		23.8
Chenopodium vulvaria		22.3
Chamomilla suaveolens		21.9
Galinsoga parviflora		21.7
Descurainia sophia		20.6
Ballota nigra		19.1

Constant species (5):

Malva neglecta	Dg, Dm	92.0
Urtica urens	Dg	77.0
Sisymbrium officinale	Dg	57.0
Polygonum aviculare agg.		45.0
Urtica dioica		42.0

Dominant species (2):

Malva neglecta	Dg, C	17.0
Datura stramonium		5.0

XBJ Alliance

Salsolion ruthenicae

Annual ruderal vegetation of disturbed gravelly and sandy soils

Number of relevés: 43

Diagnostic species (12):

Plantago arenaria	C	71.7
Corispermum hyssopifolium		51.4
Bromus tectorum	C	29.4
Sisymbrium altissimum		26.1
Corispermum leptopterum		23.9
Salsola kali		22.9
Oenothera biennis s. l.		22.8
Setaria viridis		22.6
Conyza canadensis	C	21.3
Corynephorus canescens	C	20.4
Herniaria glabra		19.4
Artemisia campestris	C	18.6

Constant species (5):

Artemisia campestris	Dg	58.0
Plantago arenaria	Dg	56.0
Conyza canadensis	Dg	56.0
Bromus tectorum	Dg	44.0
Corynephorus canescens	Dg	42.0

Dominant species (0):

XBK Alliance
Eragrostion cilianensi-minoris
Late-summer thermophilous ruderal and weed vegetation of sandy soils
Number of relevés: 80

Diagnostic species (6):

Portulaca oleracea		41.4
Digitaria sanguinalis		40.6
Setaria viridis		21.5
Digitaria ischaemum		20.8
Eragrostis minor		20.4
Conyza canadensis	C	18.9

Constant species (3):

Conyza canadensis	Dg	50.0
Chenopodium album agg.		49.0
Convolvulus arvensis		44.0

Dominant species (1):

Calamagrostis epigejos		5.0

XBL Alliance
Lolio-Linion
Central European flaxfield weed communities
Number of relevés: 6

Diagnostic species (25):

Linum usitatissimum	C, Dm	96.6
Spergula arvensis subsp. *maxima*	C	91.2
Lolium remotum	C	81.6
Scleranthus annuus	C	57.2
Anthemis arvensis	C	56.5
Vicia angustifolia	C	53.6
Spergularia rubra	C	48.5
Raphanus raphanistrum	C	42.9
Polygonum lapathifolium s. l.	C	42.3
Crepis tectorum		42.0
Centaurea cyanus	C	40.9
Avena nuda		40.6
Apera spica-venti	C	40.2
Polygonum persicaria	C	38.2
Setaria pumila	C	34.8
Arnoseris minima		30.4
Galeopsis tetrahit s. l.	C	26.9
Convolvulus arvensis	C	26.1
Viola arvensis	C	25.6
Rumex acetosella s. l.	C	23.2
Fallopia convolvulus	C	23.0
Agrostis stolonifera	C	22.3
Chenopodium album agg.	C	21.5

Bromus hordeaceus		20.4
Polygonum aviculare agg.	C	18.1
Constant species (24):		
Vicia angustifolia	Dg	100.0
Scleranthus annuus	Dg	100.0
Polygonum lapathifolium s. l.	Dg	100.0
Linum usitatissimum	Dg, Dm	100.0
Spergula arvensis subsp. *maxima*	Dg	83.0
Rumex acetosella s. l.	Dg	83.0
Polygonum persicaria	Dg	83.0
Convolvulus arvensis	Dg	83.0
Centaurea cyanus	Dg	83.0
Apera spica-venti	Dg	83.0
Anthemis arvensis	Dg	83.0
Viola arvensis	Dg	67.0
Spergularia rubra	Dg	67.0
Raphanus raphanistrum	Dg	67.0
Lolium remotum	Dg	67.0
Galeopsis tetrahit s. l.	Dg	67.0
Fallopia convolvulus	Dg	67.0
Elymus repens		67.0
Chenopodium album agg.	Dg	67.0
Agrostis stolonifera	Dg	67.0
Setaria pumila	Dg	50.0
Polygonum aviculare agg.	Dg	50.0
Cirsium arvense		50.0
Achillea millefolium agg.		50.0
Dominant species (1):		
Linum usitatissimum	Dg, C	83.0

XC Class
ARTEMISIETEA VULGARIS

Xerophilous ruderal vegetation with biennial and perennial species

Number of relevés: 814

Diagnostic species (8):		
Convolvulus arvensis		27.3
Artemisia vulgaris	C	26.6
Elymus repens	C, Dm	23.2
Cirsium arvense		22.9
Tanacetum vulgare		22.3
Bromus inermis		21.5
Melilotus alba		18.3
Melandrium album		18.2
Constant species (4):		
Artemisia vulgaris	Dg	51.0
Elymus repens	Dg, Dm	44.0
Achillea millefolium agg.		44.0

Cirsium arvense	Dg	43.0
Dominant species (2):		
Elymus repens	Dg, C	6.0
Calamagrostis epigejos		3.0

XCA Alliance
Onopordion acanthii
Thermophilous archaeophyte-rich ruderal vegetation with biennial and perennial herbs
Number of relevés: 16

Diagnostic species (8):		
Artemisia absinthium	C, Dm	64.8
Onopordon acanthium	Dm	40.6
Carduus acanthoides		23.4
Berteroa incana		23.1
Descurainia sophia		20.6
Oenothera biennis s. l.		20.4
Potentilla argentea	C	20.0
Lepidium ruderale		19.7
Constant species (5):		
Artemisia absinthium	Dg, Dm	100.0
Achillea millefolium agg.		62.0
Artemisia vulgaris		50.0
Potentilla argentea	Dg	44.0
Plantago lanceolata		44.0
Dominant species (3):		
Artemisia absinthium	Dg, C	25.0
Onopordon acanthium	Dg	6.0
Calamagrostis epigejos		6.0

XCB Alliance
Dauco carotae-Melilotion
Ruderal vegetation with biennial and perennial herbs on stony and gravelly soils
Number of relevés: 370

Diagnostic species (1):		
Tanacetum vulgare		19.6
Constant species (3):		
Artemisia vulgaris		54.0
Achillea millefolium agg.		52.0
Cirsium arvense		41.0
Dominant species (3):		
Solidago gigantea		6.0
Calamagrostis epigejos		5.0
Poa compressa		3.0

XCC Alliance

Convolvulo arvensis-Elytrigion repentis

Ruderal vegetation with perennial herbs on dry or intermittently dry soils

Number of relevés: 328

Diagnostic species (2):		
Bromus inermis	Dm	21.7
Convolvulus arvensis	C	19.1
Constant species (3):		
Elymus repens	Dm	64.0
Convolvulus arvensis	Dg	62.0
Poa pratensis s. l.		46.0
Dominant species (2):		
Elymus repens	C	14.0
Bromus inermis	Dg	5.0

XCE Alliance

Arction lappae

Nitrophilous ruderal vegetation with biennial and perennial species in man made habitats

Number of relevés: 100

Diagnostic species (6):		
Arctium tomentosum	C, Dm	42.9
Ballota nigra	C, Dm	39.7
Leonurus cardiaca		28.7
Arctium lappa		23.5
Chenopodium bonus-henricus		20.5
Artemisia vulgaris	C	19.9
Constant species (6):		
Urtica dioica	Dm	76.0
Artemisia vulgaris	Dg	72.0
Ballota nigra	Dg, Dm	64.0
Arctium tomentosum	Dg, Dm	51.0
Elymus repens		47.0
Cirsium arvense		42.0
Dominant species (4):		
Urtica dioica	C	7.0
Ballota nigra	Dg, C	7.0
Heracleum sosnowskyi		4.0
Arctium tomentosum	Dg, C	4.0

XD Class
GALIO-URTICETEA
Nitrophilous perennial vegetation of wet to mesic habitats
Number of relevés: 1219

Diagnostic species (6):		
Urtica dioica	C, Dm	28.0
Aegopodium podagraria		24.3
Petasites hybridus	Dm	21.5
Galium aparine	C	20.8
Heracleum mantegazzianum		19.1
Anthriscus sylvestris		19.1
Constant species (2):		
Urtica dioica	Dg, Dm	76.0
Galium aparine	Dg	41.0
Dominant species (2):		
Urtica dioica	Dg, C	7.0
Petasites hybridus	Dg	7.0

XDA Alliance
Senecionion fluviatilis
Nitrophilous herbaceous fringes of floodplain forests
Number of relevés: 216

Diagnostic species (4):		
Impatiens glandulifera	Dm	34.5
Calystegia sepium	C, Dm	26.0
Epilobium hirsutum		23.1
Urtica dioica	C, Dm	18.9
Constant species (4):		
Urtica dioica	Dg, Dm	91.0
Calystegia sepium	Dg, Dm	52.0
Phalaris arundinacea		49.0
Galium aparine		49.0
Dominant species (3):		
Impatiens glandulifera	Dg	10.0
Urtica dioica	Dg, C	7.0
Calystegia sepium	Dg, C	6.0

XDB Alliance
Petasition hybridi
Vegetation of montane and submontane floodplains with *Petasites*
Number of relevés: 117

Diagnostic species (4):		
Petasites hybridus	C, Dm	70.2

Aegopodium podagraria	C	25.5
Ficaria verna		20.6
Anthriscus sylvestris		18.3
Constant species (3):		
Petasites hybridus	Dg, Dm	91.0
Aegopodium podagraria	Dg	73.0
Urtica dioica		68.0
Dominant species (2):		
Petasites hybridus	Dg, C	68.0
Petasites kablikianus		4.0

XDC Alliance

Impatienti noli-tangere-Stachyion sylvaticae

Nitrophilous vegetation of forest fringes, canopy openings and clearings with perennial herbs

Number of relevés: 93

Diagnostic species (1):		
Geranium robertianum	C	23.3
Constant species (3):		
Geranium robertianum	Dg	65.0
Urtica dioica	Dm	60.0
Geum urbanum s. l.		43.0
Dominant species (3):		
Urtica dioica	C	9.0
Corylus avellana		4.0
Eupatorium cannabinum		3.0

XDD Alliance

Geo urbani-Alliarion petiolatae

Nitrophilous vegetation of disturbed forest fringes with annual and biennial herbs

Number of relevés: 227

Diagnostic species (4):		
Alliaria petiolata	C	34.2
Chaerophyllum temulum	C	30.9
Torilis japonica		22.1
Geum urbanum s. l.	C	20.9
Constant species (5):		
Urtica dioica	Dm	63.0
Geum urbanum s. l.	Dg	57.0
Alliaria petiolata	Dg	44.0
Galium aparine		43.0
Chaerophyllum temulum	Dg	43.0
Dominant species (1):		
Urtica dioica	C	4.0

XDE Alliance
Aegopodion podagrariae
Nitrophilous ruderal vegetation with broad-leaved perennial herbs
Number of relevés: 527

Diagnostic species (2):		
Reynoutria japonica	Dm	19.8
Heracleum mantegazzianum		18.9
Constant species (4):		
Urtica dioica	Dm	79.0
Dactylis glomerata		47.0
Aegopodium podagraria	Dm	47.0
Galium aparine		41.0
Dominant species (3):		
Urtica dioica	C	9.0
Reynoutria japonica		4.0
Aegopodium podagraria	C	3.0

XDF Alliance
Rumicion alpini
Montane nitrophilous vegetation of broad-leaved herbs
Number of relevés: 39

Diagnostic species (8):		
Rumex alpinus	C, Dm	74.6
Carduus personata		37.5
Orobanche pallidiflora		22.6
Chaerophyllum hirsutum	C	19.4
Hypericum maculatum	C, Dm	18.9
Alnus viridis		18.7
Rumex alpestris	C	18.4
Myrrhis odorata		18.3
Constant species (11):		
Rumex alpinus	Dg, Dm	82.0
Deschampsia caespitosa	Dm	64.0
Hypericum maculatum	Dg, Dm	56.0
Urtica dioica		54.0
Agrostis capillaris		54.0
Veronica chamaedrys		46.0
Dactylis glomerata		46.0
Rumex alpestris	Dg	44.0
Chaerophyllum hirsutum	Dg	44.0
Ranunculus repens		41.0
Alchemilla vulgaris s. l.		41.0
Dominant species (4):		
Rumex alpinus	Dg, C	28.0

Deschampsia caespitosa	C	13.0
Doronicum austriacum		8.0
Hypericum maculatum	Dg, C	5.0

XE Class
EPILOBIETEA ANGUSTIFOLII
Herbaceous vegetation of forest clearings and disturbed habitats in forest environments
Number of relevés: 137

Diagnostic species (7):

Digitalis purpurea		33.7
Pteridium aquilinum	Dm	26.6
Agrostis capillaris	C	24.9
Calamagrostis epigejos		23.2
Chamaenerion angustifolium		21.1
Rubus idaeus	C	19.6
Holcus mollis	Dm	18.3

Constant species (2):

Agrostis capillaris	Dg	55.0
Rubus idaeus	Dg	47.0

Dominant species (4):

Pteridium aquilinum	Dg	5.0
Nardus stricta		4.0
Holcus mollis	Dg	4.0
Deschampsia caespitosa		4.0

XEA Alliance
Epilobion angustifolii
Herbaceous forest-clearing communities on nutrient-poor soils
Number of relevés: 134

Diagnostic species (2):

Digitalis purpurea		29.5
Pteridium aquilinum	Dm	19.7

Constant species (2):

Agrostis capillaris		57.0
Rubus idaeus		47.0

Dominant species (4):

Pteridium aquilinum	Dg	5.0
Nardus stricta		4.0
Holcus mollis		4.0
Deschampsia caespitosa		4.0

XEB Alliance
Fragarion vescae
Herbaceous forest-clearing communities on nutrient-rich soils
Number of relevés: 3

Diagnostic species (4):

Arctium nemorosum	C	89.8
Angelica sylvestris	C	40.3
Stachys sylvatica	C	33.0
Festuca gigantea	C	32.7

Constant species (8):

Arctium nemorosum	Dg	100.0
Angelica sylvestris	Dg	100.0
Urtica dioica		67.0
Stachys sylvatica	Dg	67.0
Ranunculus repens		67.0
Poa trivialis		67.0
Festuca gigantea	Dg	67.0
Artemisia vulgaris		67.0

Dominant species (0):

Appendix 3

Alphabetical index of diagnostic, constant and dominant species of vegetation units of Poland

Appendix 3 presents an alphabetical index of diagnostic, constant and dominant species followed by abbreviations of authors of plant names. For each species, the indicative value for a particular vegetation unit is given. Abbreviation of indicative value of species conforms to the scheme presented in previous parts of this paper: **Dg** – diagnostic species, **C** – constant species, **Dm** – dominant species. Abbreviations of classes (capital letters) and alliances (small letters) are given next to the unique codes for syntaxa.

Abies alba Mill.
Dg: LB *CAR-FAG*, LBE *Luz-Fag*
Dm: LBC *Fag syl*, LBE *Luz-Fag*

Abietinella abietina (Hedw.) Fleisch
Dg: SC *THL ROT*
Dm: LE *ERI-PIN*, LEA *Pul-Pin*

Acer campestre L.
Dg: LCA *Que pub*

Acer negundo L.
Dg: KD *ROBINI*, KDA *Che-Rob*

Acer platanoides L.
Dg: KD *ROBINI*, LB *CAR-FAG*, LBD *Sor-Fag*, LBF *Til-Ace*
C: LBD *Sor-Fag*, LBF *Til-Ace*

Acer pseudoplatanus L.
Dg: LB *CAR-FAG*, LBC *Fag syl*, LBD *Sor-Fag*, LBF *Til-Ace*
C: LB *CAR-FAG*, LBC *Fag syl*, LBD *Sor-Fag*, LBF *Til-Ace*
Dm: LBF *Til-Ace*

Achillea millefolium agg.
Dg: AF *CAR-KOB*
C: AF *CAR-KOB*, AFA *Fes ver*, KAB *Sal ela*, LCA *Que pub*, TD *MOL-ARR*, TDA *Arr ela*, TDB *Pol-Tri*, TDC *Cyn cri*, TDD *Mol cae*, TDH *Alo pra*, TE *CAL-ULI*, TEB *Nar-Agr*, TEC *Vio can*, TEE *Eup-Cal*, TFC *Arm elo*, TFD *Hyp-Scl*, TFE *Ara tha*, TFG *Koe alb*, TH *FES-BRO*, THA *Aly-Fes*, THF *Bro ere*, THI *Tri med*, THJ *Mel pra*, XBL *Lol-Lin*, XC *ART VUL*, XCA *Ono aca*, XCB *Dau-Mel*

Achillea pannonica Scheele
Dg: KBA *Pru fru*, TH *FES-BRO*, THD *Fes val*, THG *Koe-Phl*
C: KBA *Pru fru*, THD *Fes val*

Achillea ptarmica L.
Dg: TD *MOL-ARR*

Acinos arvensis (Lam.) Dandy
Dg: SC *THL ROT*, TFF *Aly-Sed*, TH *FES-BRO,* THA *Aly-Fes*, THC *Dia-Ses*
C: TFF *Aly-Sed*, THA *Aly-Fes*, THC *Dia-Ses*

Aconitum firmum Rchb.
Dg: AD *MUL-ACO*, ADC *Sal sil*, ADG *Tri fus*, AE *SAL HER*, AEB *Fes pic*
C: ADG *Tri fus*
Dm: ADG *Tri fus*, RAD *Swe-Dic*

Aconitum plicatum Kőhler ex Rchb.
Dg: RAD *Swe-Dic*

Aconitum variegatum L.
Dg: LE *ERI-PIN*, LEA *Pul-Pin*

Acorus calamus L.
Dg: MCA *Phr aus*
Dm: MCA *Phr aus*

Actaea spicata L.
Dg: LBC *Fag syl*, LBD *Sor-Fag*, LBF *Til-Ace*, LE *ERI-PIN*, LEA *Pul-Pin*

Adenophora lilifolia (L.) Besser.
Dg: LC *QUE PUB*

Adenostyles alliariae (Gouan) A. Kern
Dg: AD *MUL-ACO*, ADC *Sal sil*, ADD *Ade all*, ADE *Dry-Ath*, AE *SAL HER*
C: ADC *Sal sil*, ADD *Ade all*
Dm: ADC *Sal sil*, ADD *Ade all*

Adonis aestivalis L.
Dg: XBA *Caucal*

Aegopodium podagraria L.
Dg: LB *CAR-FAG*, LBF *Til-Ace*, XD *GAL-URT*, XDB *Pet hyb*
C: LBA *Aln inc*, LBF *Til-Ace*, XDB *Pet hyb*, XDE *Aeg pod*
Dm: XDE *Aeg pod*

Aethusa cynapium s. l.
Dg: XBA *Caucal*

Agrimonia eupatoria L.
Dg: LCA *Que pub*, TH *FES-BRO*, THI *Tri med*
C: LCA *Que pub*, THE *Cir-Bra*, THI *Tri med*

Agrostemma githago L.
Dg: XB *STE MED*

Agrostis canina L.
Dg: RAC *Epi-Mon*, RB *SCH-CAR*, RBD *Sph-Car*
C: RAC *Epi-Mon*, RBD *Sph-Car*

Agrostis capillaris L.
Dg: TDB *Pol-Tri*, TE *CAL-ULI*, TEB *Nar-Agr*, TEC *Vio can*, THJ *Mel pra*, XE *EPI ANG*
C: TDA *Arr ela*, TDB *Pol-Tri*, TDC *Cyn cri*, TE *CAL-ULI*, TEA *Nar str*, TEB *Nar-Agr*, TEC *Vio can*, TED *Nar-Jun*, TEE *Eup-Cal*, TEF *Gen-Vac*, TFB *The-Air*, TFC *Arm elo*, TFD *Hyp-Scl*, THJ *Mel pra*, XDF *Rum alp*, XE *EPI ANG*, XEA *Epi ang*
Dm: AE *SAL HER*, AEB *Fes pic*, TDB *Pol-Tri*

Agrostis rupestris All.
Dg: AA *LOI-VAC*, AB *JUN TRI*, ABA *Jun tri*, AC *ELY-SES*, ACB *Car fir*, AE *SAL HER*, AEA *Sal her*
C: ABA *Jun tri*, ACB *Car fir*, AEA *Sal her*

Agrostis stolonifera L.
Dg: DAC *Jun bal*, TC *FES-PUC*, TCB *Jun ger*, TDK *Pot ans*, XBL *Lol-Lin*
C: DAC *Jun bal*, MCB *Mel-Bol*, TC *FES-PUC*, TCB *Jun ger*, TDK *Pot ans*, XBL *Lol-Lin*
Dm: TC *FES-PUC*, TCB *Jun ger*, TDK *Pot ans*

Agrostis vinealis Schreb.
Dg: TEE *Eup-Cal*

Ahnfeltia plicata (Huds.) E.M.Fries
Dg: VE *ZOS MAR,* VEA *Zos mar*

Aira caryophyllea L.
Dg: TFB *The-Air*

Aira praecox L.
Dg: TF *KOE-COR*, TFB *The-Air*
C: TFB *The-Air*
Dm: TFB *The-Air*

Ajuga reptans L.
Dg: LC *QUE PUB*

Alchemilla pyrenaica Dyfour.
Dg: AE *SAL HER*, AF *CAR-KOB*

Alchemilla vulgaris s. l.
Dg: AE *SAL HER*, AEB *Fes pic*, TD *MOL-ARR*, TDB *Pol-Tri*
C: ADG *Tri fus*, AEB *Fes pic*, RAD *Swe-Dic*, TDA *Arr ela*, TDB *Pol-Tri*, TEB *Nar-Agr*, TEC *Vio can*, XDF *Rum alp*
Dm: ADA *Cal vil*

Aldrovanda vesiculosa L.
Dg: VCA *Nit fle*

Alectoria ochroleuca (Hoffm.) A. Massal.
Dg: AB *JUN TRI*, ABA *Jun tri*

Alisma plantago-aquatica L.
Dg: MCC *Ele-Sag*, VBD *Ran aqu*, VD *LIT UNI*
C: MCC *Ele-Sag*, VBD *Ran aqu*

Alliaria petiolata (M. Bieb.) Cavara & Grande
Dg: XDD *Geo-All*
C: XDD *Geo-All*

Allium angulosum L.
Dg: TDI *Cni ven*

C: TDI *Cni ven*

Allium montanum Schmidt.
Dg: LE *ERI-PIN*, THA *Aly-Fes*, THB *Bro-Fes*, THC *Dia-Ses*
C: THC *Dia-Ses*

Allium oleraceum L.
Dg: SC *THL ROT*

Allium sibiricum L.
Dg: RA *MON-CAR*, RAD *Swe-Dic*
C: RAD *Swe-Dic*
Dm: RAD *Swe-Dic*

Allium victorialis L.
Dg: TEB *Nar-Agr*

Alnus glutinosa (L.) Gaertn.
Dg: LA *ALN GLU*, LAA *Aln glu*, LBA *Aln inc*
C: KAC *Sal alb*, LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*, LBA *Aln inc*
Dm: LA *ALN GLU*, LAA *Aln glu*, LB *CAR-FAG*, LBA *Aln inc*, VBD *Ran aqu*

Alnus incana (L.) Moench
Dg: KA *SAL PUR*, KAB *Sal ela*
C: KAB *Sal ela*
Dm: LBA *Aln inc*, RAB *Lyc-Cra*

Alnus viridis (Chaix) DC. in Lam. & DC.
Dg: XDF *Rum alp*

Alopecurus aequalis Sobol.
Dg: MB *BID TRI*, MBA *Bid tri*
Dm: MBA *Bid tri*

Alopecurus geniculatus L.
Dg: TDK *Pot ans*
Dm: TDK *Pot ans*

Alopecurus pratensis L.
Dg: TD *MOL-ARR*, TDI *Cni ven*, TDH *Alo pra*
C: TDI *Cni ven*, TDH *Alo pra*
Dm: TDH *Alo pra*

Alyssum alyssoides (L.) L.
Dg: TFF *Aly-Sed*

Alyssum saxatile L.
Dg: LE *ERI-PIN*, LEA *Pul-Pin*, THC *Dia-Ses*

Amaranthus retroflexus L.
Dg: XBI *Mal neg*

Ammophila arenaria (L.) Link
Dg: DA *AMM ARE*, DAA *Amm are*, DAB *Agr-Min*, DAC *Jun bal*, DB *CAK MAR*, DBA *Atr lit*
C: DA *AMM ARE*, DAA *Amm are*, DAB *Agr-Min*, DAC *Jun bal*, DB *CAK MAR*, DBA *Atr lit*
Dm: DAB *Agr-Min*

Anagallis arvensis L.
Dg: XB *STE MED*, XBA *Caucal*, XBB *Ver-Eup*
C: XBA *Caucal*

Anagallis foemina Mill.
Dg: XBA *Caucal*

Anastrophyllum minutum (Schreb.) R.M. Schust.
Dg: TEA *Nar str*

Anchusa arvensis (L.) M. Bieb.
Dg: XB *STE MED*

Andromeda polifolia L.
Dg: RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*
C: RC *OXY-SPH*, RCB *Oxy-Eri*, RCC *Oxy-Emp*

Androsace chamaejasme Wulfen
Dg: AC *ELY-SES*, ACB *Car fir*
C: AC *ELY-SES*, ACB *Car fir*

Androsace lactea L.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*

Androsace septentrionalis L.
Dg: TFE *Ara tha*

Anemone narcissiflora L.
Dg: AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*
C: AF *CAR-KOB*, AFA *Fes ver*

Anemone nemorosa L.
Dg: LB *CAR-FAG*, LBB *Car bet*, LC *QUE PUB*, LD *QUE ROB*
C: LB *CAR-FAG*, LBA *Aln inc*, LBB *Car bet*, LBC *Fag syl*

Anemone sylvestris L.
Dg: KBA *Pru fru*, THE *Cir-Bra*

Angelica sylvestris L.
Dg: TD *MOL-ARR*, XEB *Fra ves*
C: TDF *Cal pal*, XEB *Fra ves*

Antennaria carpatica (Wahlenb.) Bluff & Fingerh.
Dg: AC *ELY-SES*, ACB *Car fir*

Antennaria dioica (L.) Gaertn.
Dg: AC *ELY-SES*, ADF *Cal var*

Anthemis arvensis L.
Dg: XB *STE MED*, XBL *Lol-Lin*
C: XBL *Lol-Lin*

Anthemis cotula L.
Dg: XBI *Mal neg*

Anthemis ruthenica M. Bieb.
Dg: TFE *Ara tha*

Anthemis tinctoria L.
Dg: ADF *Cal var*, SC *THL ROT*, SCA *Sti cal*

Anthericum liliago L.
Dg: LCA *Que pub*, THD *Fes val*

Anthericum ramosum L.
Dg: LC *QUE PUB*, LCC *Que pet*
C: LCC *Que pet*
Dm: THF *Bro ere*

Anthoceros agrestis Paton
Dg: MA *ISO-JUN*, MAB *Rad lin*
C: MAB *Rad lin*

Anthoxanthum aristatum Boiss.
Dg: XBD *Arn min*
C: XBD *Arn min*
Dm: XBD *Arn min*

Anthoxanthum odoratum s. l.
Dg: AE *SAL HER*, AEB *Fes pic*, TE *CAL-ULI*, THJ *Mel pra*
C: ADG *Tri fus*, AE *SAL HER*, AEA *Sal her*, AEB *Fes pic*, KBH *Sal are*, RBB *Sph-Tom*, TD *MOL-ARR*, TDA *Arr ela*, TDB *Pol-Tri*, TDD *Mol cae*, TDH *Alo pra*, TE *CAL-ULI*, TEA *Nar str*, TEB *Nar-Agr*, TEC *Vio can*, TED *Nar-Jun*, TEE *Eup-Cal*, TFG *Koe alb*, THJ *Mel pra*

Anthriscus sylvestris (L.) Hoffm.
Dg: KD *ROBINI*, XD *GAL-URT*, XDB *Pet hyb*

Anthyllis vulneraria s. l.
Dg: TH *FES-BRO*, THC *Dia-Ses*, THF *Bro ere*, TI *VIO CAL*
C: THF *Bro ere*

Anthyllis vulneraria L. subsp. *maritima* (Schweigg.) Corb.
Dg: TFG *Koe alb*
C: TFG *Koe alb*
Dm: TFG *Koe alb*

Apera spica-venti (L.) P. Beauv.
Dg: XB *STE MED*, XBA *Caucal*, XBC *Scl ann*, XBD *Arn min*, XBL *Lol-Lin*
C: XBA *Caucal*, XBC *Scl ann*, XBD *Arn min*, XBL *Lol-Lin*
Dm: XBA *Caucal*, XBC *Scl ann*, XBG *Atrpli*

Aphanes arvensis L.
Dg: XB *STE MED*, XBC *Scl ann*

Aposeris foetida (L.) Less.
Dg: ADB *Cal aru*

Aquilegia vulgaris L.
Dg: LBD *Sor-Fag*, LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*

Arabidopsis thaliana (L.) Heynh.
Dg: XB *STE MED*

Arabis hirsuta (L.) Scop.
Dg: THA *Aly-Fes*

Arabis recta Vill.
Dg: TFF *Aly-Sed*

Arctium lappa L.
Dg: XCE *Arc lap*

Arctium minus (Hill) Bernh.
Dg: KD *ROBINI*, KDA *Che-Rob*

Arctium nemorosum Lej.
Dg: XEB *Fra ves*
C: XEB *Fra ves*

Arctium tomentosum Mill.
Dg: XCE *Arc lap*
C: XCE *Arc lap*
Dm: XCE *Arc lap*

Arenaria serpyllifolia agg.
Dg: TF *KOE-COR*,TFF *Aly-Sed*, TFH *Koe gla*
C: KAB *Sal ela*, TFE *Ara tha*, TFF *Aly-Sed*, TFH *Koe gla*

Armeria maritima s. l.
Dg: TFC *Arm elo*, TI *VIO CAL*, TIA *Arm hal*
C: TFC *Arm elo*, TI *VIO CAL*, TIA *Arm hal*

Arnica montana L.
Dg: AB *JUN TRI*, ABB *Nar-Car*

Arnoseris minima (L.) Schweigg. & Körte
Dg: XB *STE MED*, XBD *Arn min*, XBL *Lol-Lin*
C: XBD *Arn min*

Arrhenatherum elatius (L.) P. Beauv. ex J. Presl et C. Presl
Dg: TDA *Arr ela*, KD *ROBINI*
C: TDA *Arr ela*, THI *Tri med*
Dm: KD *ROBINI*, KDA *Che-Rob*, TDA *Arr ela*

Artemisia absinthium L.
Dg: SC *THL ROT*, XCA *Ono aca*
C: XCA *Ono aca*
Dm: XCA *Ono aca*

Artemisia austriaca Jacq.
Dg: TFE *Ara tha*

Artemisia campestris L.
Dg: TF *KOE-COR*, TFC *Arm elo*, TFE *Ara tha*, TFH *Koe gla*, TH *FES-BRO,* THD *Fes val*, THG *Koe-Phl*, XBJ *Sal rut*
C: TF *KOE-COR*, TFA *Cor can*, TFC *Arm elo*, TFE *Ara tha*, TFF *Aly-Sed*, TFH *Koe gla*, THD *Fes val*, THG *Koe-Phl*, XBJ *Sal rut*

Artemisia campestris L. subsp. *sericea* (Fr.) Lemke & Rothm.
Dg: DA *AMM ARE*, DAA *Amm are*, TFG *Koe alb*
C: TFG *Koe alb*

Artemisia vulgaris L.
Dg: KD *ROBINI*, SB *CYM-PAR*, XC *ART VUL*, XCE *Arc lap*
C: KD *ROBINI*, KDA *Che-Rob*, SB *CYM-PAR*, SBA *Cym-Asp*, XBG *Atrpli*, XC *ART VUL*, XCA *Ono aca*, XCB *Dau-Mel*, XCE *Arc lap*, XEB *Fra ves*

Aruncus sylvestris Kostel.
Dg: ADF *Cal var*
C: ADF *Cal var*
Dm: ADD *Ade all*

Asarum europaeum L.
Dg: ADF *Cal var*, LB *CAR-FAG*, LBF *Til-Ace*
C: ADF *Cal var*, LBF *Til-Ace*

Asparagus officinalis L.
Dg: LCA *Que pub*

Asperula cynanchica L.
Dg: KBA *Pru fru*, TH *FES-BRO*, THC *Dia-Ses*, THF *Bro ere*

Asperula tinctoria L.
Dg: LC *QUE PUB*

Asplenium adulterinum Milde
Dg: SAB *Asp cun*

Asplenium cuneifolium Viv.
Dg: SA *ASP TRI*, SAB *Asp cun*
C: SAB *Asp cun*
Dm: SAB *Asp cun*

Asplenium ruta-muraria L.
Dg: AC *ELY-SES*, ACA *Ses tat*, SA *ASP TRI*, SAA *Cystop*, SB *CYM-PAR*, SBA *Cym-Asp*, THA *Aly-Fes*, THB *Bro-Fes*, THC *Dia-Ses*
C: ACA *Ses tat*, SAA *Cystop*, THA *Aly-Fes*, THB *Bro-Fes*, THC *Dia-Ses*

Asplenium septentrionale (L.) Hoffm.
Dg: SA *ASP TRI*, SAB *Asp cun*, SAC *Asp sep*

Asplenium trichomanes L.
Dg: SA *ASP TRI*, SAA *Cystop*
C: SAA *Cystop*

Asplenium viride Huds.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*
C: ADF *Cal var*

Aster alpinus L.
Dg: AC *ELY-SES*, ACA *Ses tat*, LE *ERI-PIN*, THB *Bro-Fes*, THC *Dia-Ses*

Aster amellus L.
Dg: SC *THL ROT*, THE *Cir-Bra*

Aster novi-belgii s. l.
Dg: TDJ *Ver-Lys*
Dm: TDJ *Ver-Lys*

Aster tripolium L.
Dg: TB *THE-SAL*, TBA *Sal pro*, TCA *Puc lim*
Dm: TCA *Puc lim*

Astragalus arenarius L.
Dg: TF *KOE-COR*, TFE *Ara tha*

Astragalus australis (L.) Lam.
Dg: LE *ERI-PIN*, LEA *Pul-Pin*, THC *Dia-Ses*

Astragalus danicus Retz.
Dg: THC *Dia-Ses*

Astragalus glycyphyllos L.
Dg: LC *QUE PUB*, LCA *Que pub*

Astrantia major L.
Dg: ADB *Cal aru*

Athyrium distentifolium Tausch ex Opiz
Dg: AD *MUL-ACO*, ADC *Sal sil*, ADE *Dry-Ath*, KC *ROS-PIN*, KCA *Pin mug*
C: ADC *Sal sil*, ADE *Dry-Ath*, KC *ROS-PIN*, KCA *Pin mug*
Dm: AD *MUL-ACO*, ADC *Sal sil*, ADE *Dry-Ath*, AE *SAL HER*, AEB *Fes pic*, LFC *Pic abi*

Athyrium filix-femina (L.) Roth
Dg: ADB *Cal aru*, LA *ALN GLU*, LAA *Aln glu*, LB *CAR-FAG*, LBC *Fag syl*, RA *MON-CAR*, RAA *Car rem*
C: ADB *Cal aru*, LAA *Aln glu*, LBC *Fag syl*, RA *MON-CAR*, RAA *Car rem*

Atrichum tenellum (Röhling) Bruch & Schimper
Dg: MAB *Rad lin*

Atriplex litoralis L.
Dg: DB *CAK MAR*, DBA *Atr lit*

Atriplex nitens Schkuhr
Dg: TB *THE-SAL*, TBA *Sal pro*

Atriplex prostrata s. l.
Dg: DB *CAK MAR*, MBB *Che rub*, TB *THE-SAL*, TBA *Sal pro*, TC *FES-PUC*, TCA *Puc lim*
C: MBB *Che rub*, TB *THE-SAL*, TBA *Sal pro*, TC *FES-PUC*, TCA *Puc lim*
Dm: MB *BID TRI*, MBB *Che rub*, TCA *Puc lim*

Atriplex tatarica L.
Dg: TDK *Pot ans*

Aulacomnium palustre (Hedw.) Schwägr.
Dg: RB *SCH-CAR*, RBB *Sph-Tom*, RC *OXY-SPH*, RCB *Oxy-Eri*
C: RBB *Sph-Tom*

Avena fatua L.
Dg: XB *STE MED*, XBA *Caucal*
C: XBA *Caucal*

Avena nuda L. emend. Mansf.
Dg: XBL *Lol-Lin*

Avenula pratensis (L.) Dumort
Dg: THG *Koe-Phl*

Avenula versicolor (Vill.) M. Lainz
Dg: AB *JUN TRI*, ABA *Jun tri*
C: ABA *Jun tri*

Bacidia bagliettoana (A. Massal. & De Not.) Jatta
Dg: TI *VIO CAL*, TIA *Arm hal*
C: TI *VIO CAL*, TIA *Arm hal*

Bacidina phacodes (Körb.) Vězda
Dg: TI *VIO CAL*, TIA *Arm hal*

Baeomyces rufus (Hudson) Rebent.
Dg: TI *VIO CAL*, TIA *Arm hal*

Baeothryon cespitosum (L.) A. Dietr.
Dg: RC *OXY-SPH*, RCB *Oxy-Eri*, RCC *Oxy-Emp*

Dm: RCC *Oxy-Emp*

Ballota nigra L.
Dg: KD *ROBINI*, KDA *Che-Rob*, XBI *Mal neg*, XCE *Arc lap*
C: XCE *Arc lap*
Dm: XCE *Arc lap*

Barbarea vulgaris R. Br.
Dg: KAB *Sal ela*

Barbula unguiculata Hedw.
Dg: TFG *Koe alb*

Bartsia alpina L.
Dg: AC *ELY-SES*, ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*
C: ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*

Batrachium aquatile s. l.
Dg: VBC *Bat flu,* VCA *Nit fle*

Batrachium circinatum (Sibth.) Fr.
Dg: VB *POTAME*, VBA *Nym alb*

Batrachium fluitans (Lam.) Wimm.
Dg: VBC *Bat flu*

Bazzania trilobata (L.) Gray
Dg: LFC *Pic abi*

Bellidiastrum michelii Cass.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*
C: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*

Bellis perennis L.
Dg: TDC *Cyn cri*

Berberis vulgaris L.
Dg: SC *THL ROT*, THB *Bro-Fes*

Berteroa incana (L.) DC.
Dg: XCA *Ono aca*

Berula erecta (Huds.) Coville
Dg: MCE *Gly-Spa*

Betonica officinalis L.
Dg: LC *QUE PUB*, LCC *Que pet*, TDD *Mol cae*
C: LC *QUE PUB*, LCC *Que pet*

Betula pendula Roth
Dg: KBH *Sal are*, LD *QUE ROB*, LF *VAC-PIC*
C: KBH *Sal are*, LD *QUE ROB*, LDB *Que rob*, LF *VAC-PIC*, LFB *Dic-Pin*, LFD *Vac-Pin*
Dm: LDB *Que rob*

Betula pubescens Ehrh.
Dg: LA *ALN GLU*, LAB *Sal cin*, LFD *Vac-Pin*, RC *OXY-SPH*, RCA *Sph mag*
C: LAB *Sal cin*, LFD *Vac-Pin*, RC *OXY-SPH*, RCA *Sph mag*
Dm: LFD *Vac-Pin*

Bidens cernua L.
Dg: MAC *Ver sup*, MB *BID TRI*, MBA *Bid tri*
C: MBA *Bid tri*

Bidens connata H.L. Mühl.
Dg: MB *BID TRI*, MBA *Bid tri*

Bidens frondosa L.
Dg: MAA *Ele ova*, MB *BID TRI*, MBA *Bid tri*, MBB *Che rub*

Bidens radiata Thuill.
Dg: MB *BID TRI*

Bidens tripartita L.
Dg: MA *ISO-JUN*, MAC *Ver sup*, MB *BID TRI*, MBA *Bid tri*
C: MAC *Ver sup*, MB *BID TRI*, MBA *Bid tri*

Biscutella laevigata L.
Dg: TI *VIO CAL*, TIA *Arm hal*
C: TI *VIO CAL*, TIA *Arm hal*

Blasia pusilla L.
Dg: MAB *Rad lin*

Blindia acuta (Hedwig) Bruch & Schimper
Dg: RAD *Swe-Dic*

Blysmus compressus (L.) Panz. ex Link
Dg: TC *FES-PUC*

Bolboschoenus maritimus (L.) Palla
Dg: MCB *Mel-Bol*, TC *FES-PUC*
C: MCB *Mel-Bol*
Dm: MCB *Mel-Bol*, TCA *Puc lim*

Bothriochloa ischaemum (L.) Keng
Dg: THD *Fes val*

Botrychium lunaria (L.) Sw.
Dg: AC *ELY-SES*, ACB *Car fir*, LE *ERI-PIN*

Brachypodium pinnatum (L.) P. Beauv.
Dg: LC *QUE PUB*, LCA *Que pub*, TH *FES-BRO*, THE *Cir-Bra*, THF *Bro ere*, THH *Ger san*
C: LCA *Que pub*, TH *FES-BRO*, THE *Cir-Bra*, THF *Bro ere*, THH *Ger san*
Dm: KBA *Pru fru*, LCA *Que pub*, TH *FES-BRO*, THD *Fes val*, THE *Cir-Bra*, THF *Bro ere*, THH *Ger san*, THI *Tri med*

Brachypodium sylvaticum (Huds.) P. Beauv.
Dg: LBD *Sor-Fag*
C: LBD *Sor-Fag*

Brachythecium albicans (Hedw.) Schimp.
Dg: TF *KOE-COR*,TFE *Ara tha*
C: TFE *Ara tha*

Brachythecium geheebii Milde
Dg: THC *Dia-Ses*

Brachythecium rivulare Schimp.
Dg: RA *MON-CAR*
C: RAC *Epi-Mon*

Brachythecium rutabulum (Hedw.) Schimp.
Dg: LA *ALN GLU*

Briza media L.
Dg: RBA *Car dav*, TE *CAL-ULI*, TEC *Vio can*, TH *FES-BRO*, THF *Bro ere*
C: RBA *Car dav*, RBB *Sph-Tom*, TDD *Mol cae*, TEC *Vio can*, THF *Bro ere*

Bromus erectus Huds.
Dg: TH *FES-BRO*, THF *Bro ere*
Dm: THF *Bro ere*

Bromus hordeaceus L.
Dg: XBL *Lol-Lin*

Bromus inermis Leyss.
Dg: XC *ART VUL*, XCC *Con-Ely*
Dm: XCC *Con-Ely*

Bromus sterilis L.
Dg: KD *ROBINI*, KDA *Che-Rob*, XBH *Sis off*
Dm: KD *ROBINI*, KDA *Che-Rob*, XBH *Sis off*

Bromus tectorum L.
Dg: XBH *Sis off*, XBJ *Sal rut*
C: XBH *Sis off*, XBJ *Sal rut*
Dm: XBH *Sis off*

Bryoerythrophyllum recurvirostrum (Huds.) P.C. Chen
Dg: SB *CYM-PAR*

Bryum argenteum Hedw.
Dg: MA *ISO-JUN*, MAB *Rad lin*

Bryum bicolor Dicks.
Dg: AE *SAL HER*, AEA *Sal her*

Bryum caespiticium Hedw.
Dg: SB *CYM-PAR*, TI *VIO CAL*, TIA *Arm hal*

Bryum capillare s. l.
Dg: SB *CYM-PAR*

Bryum pseudotriquetrum (Hedw.) P. Gaertn.
Dg: RAB *Lyc-Cra*, RB *SCH-CAR*, RBA *Car dav*, RBB *Sph-Tom*
C: RAB *Lyc-Cra*, RBA *Car dav*

Bryum schleicheri Schwägr.
Dg: RAD *Swe-Dic*
C: RAD *Swe-Dic*

Buckiella undulata (Hedw.) Ireland
Dg: LFC *Pic abi*

Bucklandiella microcarpa (Hedw.) Bednarek-Ochyra & Ochyra
Dg: ADC *Sal sil*

Bupleurum falcatum L.
Dg: ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*
C: LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*

Bupleurum longifolium L.
Dg: LE *ERI-PIN*, LEA *Pul-Pin*

Bupleurum ranunculoides L.
Dg: AC *ELY-SES*, ACA *Ses tat*

Butomus umbellatus L.
Dm: MCC *Ele-Sag*

Cakile maritima Scop.
Dg: DAB *Agr-Min*, DB *CAK MAR*, DBA *Atr lit*
C: DB *CAK MAR*, DBA *Atr lit*
Dm: DB *CAK MAR*, DBA *Atr lit*

Calamagrostis arundinacea (L.) Roth
Dg: ADB *Cal aru*, LC *QUE PUB*, LCC *Que pet*, LD *QUE ROB*
C: ADB *Cal aru*, LC *QUE PUB*, LCC *Que pet*, LDA *Gen-Que*
Dm: AD *MUL-ACO*, ADB *Cal aru*, LDA *Gen-Que*

Calamagrostis canescens (Weber) Roth
Dg: LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*
C: LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*
Dm: MCG *Car ela*

Calamagrostis epigejos (L.) Roth
Dg: XE *EPI ANG*
C: TEE *Eup-Cal*
Dm: KBC *Sam-Sal*, XBK *Era cil*, XC *ART VUL*, XCA *Ono aca*, XCB *Dau-Mel*

Calamagrostis pseudophragmites (Haller f.) Koeler
Dg: KAB *Sal ela*

Calamagrostis varia (Schrad.) Host
Dg: ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*
C: ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*
Dm: AD *MUL-ACO*, ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*

Calamagrostis villosa (Chaix) J. F. Gmel.
Dg: AD *MUL-ACO*, ADC *Sal sil*, ADE *Dry-Ath*, KC *ROS-PIN*, KCA *Pin mug*, LFC *Pic abi*
C: ADC *Sal sil*, ADE *Dry-Ath*, KC *ROS-PIN*, KCA *Pin mug*, LFC *Pic abi*
Dm: AD *MUL-ACO*, ADA *Cal vil*, LDB *Que rob*, LF *VAC-PIC*, LFC *Pic abi*

×*Calammophila baltica* (Flüggé ex Schrad.) Brand
Dg: DA *AMM ARE*, DAA *Amm are*, DAB *Agr-Min*, DB *CAK MAR*, DBA *Atr lit*
C: DAB *Agr-Min*, DB *CAK MAR*, DBA *Atr lit*

Calla palustris L.
Dg: LA *ALN GLU*, MCF *Car-Rum*
Dm: MCF *Car-Rum*

Calliergon cordifolium (Hedw.) Kindb.
Dg: LA *ALN GLU*, LAB *Sal cin*

Calliergonella cuspidata (Hedw.) Loeske
Dg: LA *ALN GLU*, RB *SCH-CAR*, RBA *Car dav*, RBB *Sph-Tom*
C: LA *ALN GLU*, LAB *Sal cin*, MCG *Car ela*, RAC *Epi-Mon*, RBA *Car dav*, RBB *Sph-Tom*
Dm: MCB *Mel-Bol*, MCG *Car ela*, MCH *Car gra*, RBA *Car dav*, RBC *Car can*

Callitriche hamulata Kütz. ex W.D.J. Koch
Dg: VBC *Bat flu*
C: VBC *Bat flu*

Callitriche palustris s. l.
Dg: VBC *Bat flu*, VBD *Ran aqu*, VD *LIT UNI*, VDB *Ele aci*
Dm: VBD *Ran aqu*

Calluna vulgaris (L.) Hull.
Dg: LF *VAC-PIC*, LFD *Vac-Pin*, RC *OXY-SPH*, RCB *Oxy-Eri*, RCC *Oxy-Emp*, TE *CAL-ULI*, TEE *Eup-Cal*
C: ABB *Nar-Car*, DAC *Jun bal*, LFB *Dic-Pin*, LFD *Vac-Pin*, RC *OXY-SPH*, RCB *Oxy-Eri*, RCC *Oxy-Emp*, TEE *Eup-Cal*, TEF *Gen-Vac*
Dm: DAC *Jun bal*, TE *CAL-ULI*, TEE *Eup-Cal*, TEF *Gen-Vac*

Caltha laeta Schott, Nyman & Kotschy
Dg: RA *MON-CAR*, RAD *Swe-Dic*

Caltha palustris L.
Dg: LA *ALN GLU*, LAA *Aln glu*
C: LAA *Aln glu*, RBA *Car dav*

Calypogeia azurea Stotler & Crotz
Dg: LFC *Pic abi*

Calystegia sepium (L.) R. Br.
Dg: KA *SAL PUR*, KAA *Sal tri*, KAC *Sal alb*, XDA *Sen flu*
C: KA *SAL PUR*, KAA *Sal tri*, KAC *Sal alb*, XDA *Sen flu*

Dm: XDA *Sen flu*

Camelina microcarpa Andrz.
Dg: XBA *Caucal*

Campanula alpina Jacq.
Dg: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABA *Jun tri*
C: ABA *Jun tri*

Campanula bohemica Hruby in Polivka, Domin & Podp.
Dg: TEA *Nar str*

Campanula bononiensis L.
Dg: LCA *Que pub*

Campanula cochleariifolia Lam.
Dg: AC *ELY-SES*, ACA *Ses tat*
C: ACA *Ses tat*

Campanula glomerata L.
Dg: ADF *Cal var*, LC *QUE PUB*

Campanula latifolia L.
Dg: SB *CYM-PAR*

Campanula patula L.
Dg: TD *MOL-ARR*, TDA *Arr ela*, TDB *Pol-Tri*, TE *CAL-ULI*, TEB *Nar-Agr*, TEC *Vio can*
C: TDA *Arr ela*, TDB *Pol-Tri*, TEB *Nar-Agr*

Campanula persicifolia L.
Dg: LBD *Sor-Fag*, LC *QUE PUB*, LCC *Que pet*
C: LBD *Sor-Fag*, LC *QUE PUB*, LCC *Que pet*

Campanula polymorpha Witasek
Dg: AA *LOI-VAC*, AAA *Loi-Vac*, AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, AE *SAL HER*, AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*
C: AA *LOI-VAC*, AAA *Loi-Vac*, AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, AE *SAL HER*, AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*

Campanula rapunculoides L.
Dg: LC *QUE PUB*, LE *ERI-PIN*, LEA *Pul-Pin*

Campanula rotundifolia (L.)
Dg: LE *ERI-PIN*, TI *VIO CAL*

Campanula serrata (Kit.) Hendrych
Dg: ADB *Cal aru*

Campanula sibirica L.
Dg: KBA *Pru fru*, LCA *Que pub*, SC *THL ROT*, TH *FES-BRO*, THD *Fes val*, THE *Cir-Bra*
C: THD *Fes val*

Campanula trachelium L.
Dg: LBD *Sor-Fag*, LC *QUE PUB*

Campylium polygamum (Schimp.) Lange & C.E.O. Jensen
Dg: VDC *Sph-Utr*

Campylium stellatum (Hedw.) Lange & C.E.O. Jensen
Dg: RBA *Car dav*, RBB *Sph-Tom*
C: RBB *Sph-Tom*

Capsella bursa-pastoris (L.) Medik.
Dg: XA *POL-POË*, XB *STE MED*, XBB *Ver-Eup*, XBE *Oxa fon*
C: XBB *Ver-Eup*, XBE *Oxa fon*

Cardamine amara L. subsp. *amara*
Dg: LA *ALN GLU*, LAA *Aln glu*, RA *MON-CAR*, RAA *Car rem*,
C: RA *MON-CAR*, RAA *Car rem*
Dm: RA *MON-CAR*, RAA *Car rem*

Cardamine amara L. subsp. *opizii* (J. Presl & C. Presl) Čelak.
Dg: RAD *Swe-Dic*

Cardamine flexuosa With.
Dg: RA *MON-CAR*

Cardamine trifolia L.
Dg: ADF *Cal var*

Cardaminopsis arenosa (L.) Hayek
Dg: AF *CAR-KOB*, AFA *Fes ver*, TI *VIO CAL*, TIA *Arm hal*
C: AF *CAR-KOB*, AFA *Fes ver*, TI *VIO CAL*, TIA *Arm hal*

Cardaminopsis halleri (L.) Hayek
Dg: TDB *Pol-Tri*, TEB *Nar-Agr*
C: TDB *Pol-Tri*

Carduus acanthoides L.
Dg: XCA *Ono aca*

Carduus collinus Waldst. & Kit.
Dg: ADF *Cal var*, LE *ERI-PIN*

Carduus glaucus Baumg.
Dg: AC *ELY-SES*, ACA *Ses tat*, ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*
C: ACA *Ses tat*

Carduus personata (L.) Jacq.
Dg: XDF *Rum alp*

Carex acutiformis Ehrh.
Dg: LA *ALN GLU*, LAA *Aln glu*, MC *PHR-CAR*, MCH *Car gra*
C: LA *ALN GLU*, LAA *Aln glu*
Dm: LAA *Aln glu*, MC *PHR-CAR*, MCH *Car gra*

Carex alba Scop.
Dg: LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*

Carex appropinquata Schumach.
Dg: LAB *Sal cin*, MCG *Car ela*
Dm: MCG *Car ela*

Carex arenaria L.
Dg: DA *AMM ARE*, DAC *Jun bal*, KBH *Sal are*, TFG *Koe alb*
C: DA *AMM ARE*, DAC *Jun bal*, KBH *Sal are*, TFG *Koe alb*

Carex atrata L.
Dg: AF *CAR-KOB*, AFA *Fes ver*

Carex bigelowii Torr. ex Schwein. subsp. *rigida* W. Schultze-Motel
Dg: ABB *Nar-Car*, AB *JUN TRI*
C: ABB *Nar-Car*

Carex brachystachys Schrank & K. Moll
Dg: AC *ELY-SES*, ACA *Ses tat*

Carex buekii Wimm.
Dg: MCD *Pha aru*

Carex canescens L.
Dg: RAC *Epi-Mon*, RB *SCH-CAR*
C: RAC *Epi-Mon*

Carex caryophyllea Latourr.
Dg: THF *Bro ere*, TI *VIO CAL*, TIA *Arm hal*
C: THF *Bro ere*, TI *VIO CAL*, TIA *Arm hal*

Carex davalliana Sm.
Dg: RB *SCH-CAR*, RBA *Car dav*
Dm: RBA *Car dav*

Carex diandra Schrank
Dg: RB *SCH-CAR*, RBB *Sph-Tom*
Dm: RBB *Sph-Tom*, RBC *Car can*

Carex digitata L.
Dg: ADF *Cal var*, LBD *Sor-Fag*, LC *QUE PUB*, LE *ERI-PIN*, LEA *Pul-Pin*
C: ADF *Cal var*, LBD *Sor-Fag*, LE *ERI-PIN*, LEA *Pul-Pin*

Carex dioica L.
Dg: RB *SCH-CAR*, RBB *Sph-Tom*

Carex distans L.
Dg: TC *FES-PUC*, TCB *Jun ger*

Carex disticha Huds.
Dg: TC *FES-PUC*, TCB *Jun ger*
Dm: MCH *Car gra*

Carex echinata Murray
Dg: RB *SCH-CAR*, RBA *Car dav*, RBB *Sph-Tom*
C: RBB *Sph-Tom*

Carex elata All.
Dg: LA *ALN GLU*, MCG *Car ela*
Dm: MCG *Car ela*

Carex elongata L.
Dg: LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*
C: LA *ALN GLU*, LAA *Aln glu*

Carex ericetorum Pollich
Dg: TEE *Eup-Cal*

Carex firma Host
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*
C: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*
Dm: AC *ELY-SES*, ACB *Car fir*

Carex flacca Schreb.
Dg: LE *ERI-PIN*, LEA *Pul-Pin*, RBA *Car dav*

Carex flava agg.
Dg: RB *SCH-CAR*, RBA *Car dav*, RBB *Sph-Tom*
C: RBA *Car dav*, RBB *Sph-Tom*

Carex gracilis Curtis
Dg: MC *PHR-CAR*, MCH *Car gra*, TDJ *Ver-Lys*
C: MCH *Car gra*
Dm: MC *PHR-CAR*, MCH *Car gra*

Carex hartmanii Cajander
Dg: TDD *Mol cae*

Carex hirta L.
Dg: TI *VIO CAL*
C: TI *VIO CAL*, TIA *Arm hal*

Carex humilis Leyss.
Dg: THC *Dia-Ses*

Carex lasiocarpa Ehrh.
Dm: RBD *Sph-Car*

Carex lepidocarpa Tausch
Dg: RBA *Car dav*

Carex limosa L.
Dg: RB *SCH-CAR*, RBB *Sph-Tom*, RBE *Sph cus*
Dm: RBE *Sph cus*

Carex michelii Host
Dg: LCA *Que pub*

Carex montana L.
Dg: LC *QUE PUB*, LCC *Que pet*

Carex contigua s. l.
Dg: ADF *Cal var*, TC *FES-PUC*, TCB *Jun ger*

Carex nigra Reichard
Dg: RB *SCH-CAR*, RBC *Car can*
C: RAC *Epi-Mon*, RB *SCH-CAR*, RBA *Car dav*, RBB *Sph-Tom*, RBC *Car can*, RBD *Sph-Car*, TDG *Jun eff*, TED *Nar-Jun*
Dm: RBC *Car can*

Carex ornithopoda Willd.
Dg: LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*

Carex ovalis Gooden.
Dg: TED *Nar-Jun*
C: RAC *Epi-Mon*

Carex pallescens L.
Dg: TE *CAL-ULI*

Carex panicea L.
Dg: RB *SCH-CAR*, RBA *Car dav*, RBB *Sph-Tom*, TD *MOL-ARR*, TDD *Mol cae*
C: RBA *Car dav*, RBB *Sph-Tom*, TDD *Mol cae*

Carex paniculata L.
Dg: LA *ALN GLU*
Dm: MCF *Car-Rum*, MCH *Car gra*

Carex pilulifera L.
Dg: LD *QUE ROB*, TE *CAL-ULI*, TEB *Nar-Agr*, TEF *Gen-Vac*
C: TEB *Nar-Agr*, TEF *Gen-Vac*

Carex praecox Schreb.
Dg: LCA *Que pub*

Carex pseudocyperus L.
Dg: LA *ALN GLU*, LAB *Sal cin*, MCF *Car-Rum*
C: MCF *Car-Rum*

Carex remota L.
Dg: RA *MON-CAR*, RAA *Car rem*
C: RAA *Car rem*
Dm: RA *MON-CAR*, RAA *Car rem*

Carex riparia Curtis
Dm: MCH *Car gra*

Carex rostrata Stokes
Dg: RB *SCH-CAR*, RBB *Sph-Tom*, RBC *Car can*, RBE *Sph cus*
C: MCG *Car ela*, RB *SCH-CAR*, RBB *Sph-Tom*, RBC *Car can*, RBD *Sph-Car*, RBE *Sph cus*
Dm: MCG *Car ela*, RB *SCH-CAR*, RBD *Sph-Car*

Carex secalina Wahlenb.
Dg: TC *FES-PUC*, TCB *Jun ger*

Carex sempervirens Vill.
Dg: AA *LOI-VAC*, ABA *Jun tri*, AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*
C: ABA *Jun tri*, AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*

Carex supina Wahlenb.
Dg: THC *Dia-Ses*

Carex sylvatica Huds.
Dg: LB *CAR-FAG*, LBC *Fag syl*, RA *MON-CAR*

Carex vesicaria L.
Dg: LA *ALN GLU*
Dm: MCH *Car gra*

Carlina acaulis L.
Dg: AC *ELY-SES*, ACA *Ses tat*, ADB *Cal aru*, TE *CAL-ULI*, TEB *Nar-Agr*, THF *Bro ere*
C: ADB *Cal aru*, THF *Bro ere*

Carlina vulgaris L.
Dg: LE *ERI-PIN*, LEA *Pul-Pin*, TI *VIO CAL*
C: LE *ERI-PIN*, LEA *Pul-Pin*

Carpinus betulus L.
Dg: LB *CAR-FAG*, LBB *Car bet*, LBF *Til-Ace*, LC *QUE PUB*, LD *QUE ROB*
C: LBB *Car bet*, LBF *Til-Ace*, LCC *Que pet*
Dm: LB *CAR-FAG*, LBA *Aln inc*, LBB *Car bet*, LBC *Fag syl*, LBF *Til-Ace*

Centaurea cyanus L.
Dg: XB *STE MED*, XBA *Caucal*, XBC *Scl ann*, XBD *Arn min*, XBL *Lol-Lin*
C: XB *STE MED*, XBA *Caucal*, XBC *Scl ann*, XBD *Arn min*, XBL *Lol-Lin*

Centaurea jacea s. l.
Dg: TD *MOL-ARR*, TDD *Mol cae*
C: TDD *Mol cae*

Centaurea pannonica (Heuff.) Hayek
Dg: LCA *Que pub*, THE *Cir-Bra*

Centaurea scabiosa L.
Dg: TH *FES-BRO*, THF *Bro ere*, THH *Ger san*
C: THF *Bro ere*, THH *Ger san*

Centaurea stoebe L.
Dg: TF *KOE-COR*, TFF *Aly-Sed*, TFH *Koe gla*, TH *FES-BRO*, THD *Fes val*, THG *Koe-Phl*
C: TFF *Aly-Sed*, TFH *Koe gla*, THD *Fes val*, THG *Koe-Phl*

Centaurea triumfetti All.
Dg: THB *Bro-Fes*, THC *Dia-Ses*

Centaurium pulchellum (Sw.) Druce
Dg: TC *FES-PUC*

Centunculus minimus L.
Dg: MA *ISO-JUN*, MAB *Rad lin*

Cephalanthera damasonium (Mill.) Druce
Dg: LBD *Sor-Fag*
C: LBD *Sor-Fag*

Cephalanthera longifolia (L.) Fritsch
Dg: LC *QUE PUB*, LCC *Que pet*

Cephalanthera rubra (L.) Rich.
Dg: LBD *Sor-Fag*

Cephalozia bicuspidata (L.) Dumort
Dg: DAC *Jun bal*

Cephalozia connivens (Dicks.) Lindb.
Dg: DAC *Jun bal*

Cephaloziella divaricata (Sm.) Schiffn.
Dg: DA *AMM ARE*, DAA *Amm are*

Ceramium diaphanum (Lightf.) Roth
Dg: VE *ZOS MAR*, VEA *Zos mar*
C: VE *ZOS MAR*, VEA *Zos mar*

Ceramium rubrum C. Agardh
Dg: VCC *Cha can*

Ceramium strictum Harv.
Dg: VE *ZOS MAR*, VEA *Zos mar*

Cerastium alpinum L.
Dg: AC *ELY-SES*, ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*

Cerastium cerastoides (L.) Britton
Dg: AE *SAL HER*, AEA *Sal her*

Cerastium glomeratum Thuill.
Dg: MAC *Ver sup*

Cerastium holosteoides Fr. emend. Hyl.
Dg: TD *MOL-ARR*
C: TDC *Cyn cri*, TDH *Alo pra*, TFG *Koe alb*

Cerastium semidecandrum L.
Dg: TF *KOE-COR,* TFE *Ara tha*, TFH *Koe gla*
C: TFE *Ara tha*, TFH *Koe gla*

Cerasus fruticosa Pall.
Dg: KB *RHA-PRU*, KBA *Pru fru*
C: KBA *Pru fru*
Dm: KBA *Pru fru*

Cerasus vulgaris Mill.
Dg: LC *QUE PUB*

Ceratodon purpureus (Hedw.) Brid.
Dg: TF *KOE-COR*, TFE *Ara tha*
C: TFA *Cor can*, TFE *Ara tha*, TFG *Koe alb*, TFH *Koe gla*
Dm: TFH *Koe gla*, XBH *Sis off*

Ceratophyllum demersum L.
Dg: VA *LEMNET*, VAC *Hyd mor*, VB *POTAME*, VBA *Nym alb*, VBB *Potami*
C: VAC *Hyd mor*, VBA *Nym alb*
Dm: VA *LEMNET*, VAC *Hyd mor*

Cerinthe minor L.
Dg: SC *THL ROT*

Cetraria aculeata (Schreb.) Ach.
Dg: TF *KOE-COR*, TFA *Cor can*, TFH *Koe gla*, TI *VIO CAL*, TIA *Arm hal*

Cetraria islandica (L.) Ach.
Dg: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABA *Jun tri*, AF *CAR-KOB*, AFA *Fes ver*
C: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABA *Jun tri*, AF *CAR-KOB*, AFA *Fes ver*
Dm: AB *JUN TRI*, ABA *Jun tri*, AF *CAR-KOB*, AFA *Fes ver*

Cetraria muricata (Ach.) Eckfeldt
Dg: RCB *Oxy-Eri*

Chaerophyllum hirsutum L.
Dg: ADG *Tri fus*, RA *MON-CAR*, RAB *Lyc-Cra*, XDF *Rum alp*
C: ADG *Tri fus*, RAB *Lyc-Cra*, XDF *Rum alp*
Dm: ADD *Ade all*, AE *SAL HER*, AEB *Fes pic*, RAB *Lyc-Cra*

Chaerophyllum temulum L.
Dg: KD *ROBINI*, KDA *Che-Rob*, XDD *Geo-All*
C: XDD *Geo-All*

Chamaenerion angustifolium (L.) Scop.
Dg: KC *ROS-PIN*, LE *ERI-PIN*, XE *EPI ANG*

Chamomilla recutita (L.) Rauschert
Dg: XB *STE MED*

Chamomilla suaveolens (Pursh) Rydb.
Dg: XA *POL-POË*, XAA *Cor-Pol*, XAB *Sag pro*, XBI *Mal neg*

Chamorchis alpina (L.) Rich.
Dg: AC *ELY-SES*, ACB *Car fir*
C: ACB *Car fir*

Chara aculeolata Kütz.
Dg: VC *CHARET*, VCA *Nit fle*

Chara aspera Willd.
Dg: VCC *Cha can*

Chara baltica Bruz.
Dg: VCC *Cha can*

Chara canescens J.L.A. Loiseleur-Deslong
Dg: VCC *Cha can*

Chara contraria Braun ex Kütz.
Dg: VC *CHARET*, VCB *Cha glo*

Chara coronata J.B. Ziz ex H.W. Bisch.
Dg: VC *CHARET*, VCB *Cha glo*
Dm: VC *CHARET*, VCB *Cha glo*

Chara crassicaulis Schleich.
Dg: VC *CHARET*, VCB *Cha glo*
Dm: VC *CHARET*, VCB *Cha glo*

Chara delicatula Desv.
Dg: VC *CHARET*, VCA *Nit fle*, VCC *Cha can*
Dm: VCA *Nit fle*

Chara fragilis Desv.
Dg: VC *CHARET*, VCA *Nit fle*, VCB *Cha glo*
C: VCA *Nit fle*
Dm: VC *CHARET*, VCB *Cha glo*

Chara hispida L.
Dg: VC *CHARET*
Dm: VC *CHARET*, VCB *Cha glo*

Chara jubata Braun ex Kütz.
Dg: VC *CHARET*, VCB *Cha glo*

Chara polyacantha Braun
Dg: MCB *Mel-Bol*
Dm: VC *CHARET*, VCB *Cha glo*

Chara rudis (Braun) Leonh.
Dg: VC *CHARET*, VCB *Cha glo*
Dm: VC *CHARET*, VCB *Cha glo*

Chara tenuispina A.Braun
Dg: VC *CHARET*, VCB *Cha glo*

Chara tomentosa L.
Dg: VC *CHARET*, VCB *Cha glo*
Dm: VC *CHARET*, VCB *Cha glo*

Chara vulgaris L.
Dg: VC *CHARET*, VCA *Nit fle*
Dm: VCA *Nit fle*

Chelidonium majus L.
Dg: KD *ROBINI*, KDA *Che-Rob*, SB *CYM-PAR*
C: KD *ROBINI*, KDA *Che-Rob*
Dm: KD *ROBINI*, KDA *Che-Rob*

Chenopodium album agg.
Dg: XB *STE MED*, XBB *Ver-Eup*, XBE *Oxa fon*, XBF *Spe-Ero*, XBG *Atrpli*, XBL *Lol-Lin*
C: XB *STE MED*, XBA *Caucal*, XBB *Ver-Eup*, XBC *Scl ann*, XBE *Oxa fon*, XBF *Spe-Ero*, XBG *Atrpli*, XBK *Era cil*, XBL *Lol-Lin*
Dm: XBG *Atrpli*

Chenopodium bonus-henricus L.
Dg: XCE *Arc lap*

Chenopodium glaucum L.
Dg: MB *BID TRI*, MBB *Che rub*
C: MBB *Che rub*
Dm: MB *BID TRI*, MBB *Che rub*

Chenopodium murale L.
Dg: XBI *Mal neg*

Chenopodium polyspermum L.
Dg: XBE *Oxa fon*

Chenopodium rubrum L.
Dg: MB *BID TRI*, MBB *Che rub*
C: MBB *Che rub*
Dm: MBB *Che rub*

Chenopodium vulvaria L.
Dg: XBI *Mal neg*

Chimaphila umbellata (L.) W.P.C. Barton
Dg: LF *VAC-PIC*, LFB *Dic-Pin*

Chondrilla juncea L.
Dg: TFH *Koe gla*

Chorda filum (L.) Stackh.
Dg: VE *ZOS MAR*, VEA *Zos mar*

Chrysosplenium alternifolium L.
Dg: RA *MON-CAR*, RAA *Car rem*
C: RA *MON-CAR*, RAA *Car rem*

Chrysosplenium oppositifolium L.
Dg: RA *MON-CAR*, RAA *Car rem*
Dm: RA *MON-CAR*, RAA *Car rem*

Cicerbita alpina (L.) Wallr.
Dg: AD *MUL-ACO*, ADC *Sal sil*, ADD *Ade all*, ADE *Dry-Ath*
C: ADD *Ade all*
Dm: AD *MUL-ACO*, ADD *Ade all*

Cicuta virosa L.
Dg: MCF *Car-Rum*

Circaea lutetiana L.
Dg: LBA *Aln inc*, RA *MON-CAR*

Cirsium acaule Scop.
Dg: THE *Cir-Bra*

Cirsium arvense (L.) Scop.
Dg: XB *STE MED*, XBB *Ver-Eup*, XC *ART VUL*
C: KAB *Sal ela*, MCD *Pha aru*, XB *STE MED*, XBA *Caucal*, XBB *Ver-Eup*, XBC *Scl ann*, XBE *Oxa fon*, XBF *Spe-Ero*, XBL *Lol-Lin*, XC *ART VUL*, XCB *Dau-Mel*, XCE *Arc lap*

Cirsium erisithales (Jacq.) Scop.
Dg: ADF *Cal var*

Cirsium oleraceum (L.) Scop.
Dg: LA *ALN GLU*

Cirsium palustre (L.) Scop.
Dg: LA *ALN GLU*, RB *SCH-CAR*
C: TDG *Jun eff*

Cirsium rivulare (Jacq.) All.
Dg: RAB *Lyc-Cra*, RB *SCH-CAR*, RBA *Car dav*, RBB *Sph-Tom*, TD *MOL-ARR*, TDF *Cal pal*
C: RBA *Car dav*

Cirsium waldsteinii Rouy
Dg: ADB *Cal aru*

Cladium mariscus (L.) Pohl
Dg: MCG *Car ela*
Dm: MCG *Car ela*

Cladonia arbuscula s. l.
Dg: TF *KOE-COR*, TFA *Cor can*

Cladonia bellidiflora (Ach.) Schaer.
Dg: AA *LOI-VAC*, AAA *Loi-Vac*

Cladonia cervicornis (Ach.) Flot. subsp. *verticillata* (Hoffm.) Ahti
Dg: TF *KOE-COR*, TFA *Cor can*

Cladonia chlorophaea (Flörke ex Sommerf.) Spreng.
Dg: DA *AMM ARE*, DAA *Amm are*, TFG *Koe alb*, TFH *Koe gla*

Cladonia fimbriata (L.) Fr.
Dg: TF *KOE-COR*, TFG *Koe alb*

Cladonia foliacea (Huds.) Schrad.
Dg: TI *VIO CAL*, TIA *Arm hal*
C: TI *VIO CAL*, TIA *Arm hal*

Cladonia furcata (Huds.) Schrad.
Dg: TI *VIO CAL*, TIA *Arm hal*
C: TI *VIO CAL*, TIA *Arm hal*

Cladonia glauca Flörke
Dg: TI *VIO CAL*, TIA *Arm hal*
C: TI *VIO CAL*, TIA *Arm hal*

Cladonia grayi Merrill ex Sandst.
Dg: ABA *Jun tri*

Cladonia macilenta s. l.
Dg: DA *AMM ARE*, DAA *Amm are*

Cladonia pleurota s. l.
Dg: DA *AMM ARE*, DAA *Amm are*

Cladonia pocillum (Ach.) O.J. Rich
Dg: TI *VIO CAL*, TIA *Arm hal*
C: TI *VIO CAL*, TIA *Arm hal*

Cladonia portentosa (Dufour) Coem.
Dg: DA *AMM ARE*, DAA *Amm are*

Cladonia pyxidata (L.) Hoffm.
Dg: TFH *Koe gla*, TI *VIO CAL*, TIA *Arm hal*
C: TI *VIO CAL*, TIA *Arm hal*

Cladonia rangiferina (L.) Weber ex F.H. Wigg.
Dg: AB *JUN TRI*, ABA *Jun tri*
C: ABA *Jun tri*

Cladonia scabriuscula (Delise) Nyl.
Dg: DA *AMM ARE*, DAA *Amm are*, TFG *Koe alb*

Cladonia stellaris (Opiz) Pouzar & Vězda
Dg: AB *JUN TRI*, ABB *Nar-Car*

Cladonia subrangiformis Sandst.
Dg: TFH *Koe gla*

Cladonia subulata (L.) Weber ex F.H. Wigg.
Dg: TI *VIO CAL*

Cladonia uncialis (L.) F.H. Wigg.
Dg: TF *KOE-COR*, TFA *Cor can*

Cladophora fracta (Müll. ex Vahl) Kütz.
Dg: VCC *Cha can*

Cladophora glaucescens (Griffith. ex Harv.) Harv.
Dg: VE *ZOS MAR*, VEA *Zos mar*

Cladophora gracilis (Griffith.) Kütz.
Dg: VE *ZOS MAR*, VEA *Zos mar*

Cladophora rupestris (L.) Kütz.
Dg: VE *ZOS MAR*, VEA *Zos mar*

Cladophora sericea (Huds.) Kütz.
Dg: VE *ZOS MAR*, VEA *Zos mar*

Clematis alpina (L.) Mill.
Dg: ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*

Clematis vitalba L.
Dg: KD *ROBINI*, KDA *Che-Rob*

Climacium dendroides (Hedw.) F. Weber & D. Mohr
Dg: LA *ALN GLU*, RBB *Sph-Tom*
C: RBB *Sph-Tom*
Dm: RAB *Lyc-Cra*

Clinopodium vulgare L.
Dg: ADF *Cal var*, LC *QUE PUB*, LCA *Que pub*, LE *ERI-PIN*, THB *Bro-Fes*
C: ADF *Cal var*, LCA *Que pub*, THB *Bro-Fes*

Cnidium dubium (Schkuhr) Thell.
Dg: TDI *Cni ven*
C: TDI *Cni ven*

Collema tenax (Sw.) Ach. emend. Degel.
Dg: TFH *Koe gla*

Comarum palustre L.
Dg: LA *ALN GLU*, LAB *Sal cin*, RB *SCH-CAR*, RBD *Sph-Car*, VDC *Sph-Utr*
C: LAB *Sal cin*, MCG *Car ela*, RBD *Sph-Car*, VDC *Sph-Utr*

Consolida regalis Gray
Dg: XB *STE MED*, XBA *Caucal*
C: XBA *Caucal*

Convallaria majalis L.
Dg: LBD *Sor-Fag*, LC *QUE PUB*, LCC *Que pet*, LD *QUE ROB*, LDA *Gen-Que*
C: LBD *Sor-Fag*, LC *QUE PUB*, LCC *Que pet*, LD *QUE ROB*, LDA *Gen-Que*

Convolvulus arvensis L.
Dg: XB *STE MED*, XBA *Caucal*, XBL *Lol-Lin*, XC *ART VUL*, XCC *Con-Ely*
C: XBA *Caucal*, XBB *Ver-Eup*, XBK *Era cil*, XBL *Lol-Lin*, XCC *Con-Ely*

Conyza canadensis (L.) Cronquist
Dg: XBJ *Sal rut*, XBK *Era cil*
C: XBJ *Sal rut*, XBK *Era cil*

Corallorhiza trifida Châtel.
Dg: LBD *Sor-Fag*

Corispermum hyssopifolium L.
Dg: XBJ *Sal rut*

Corispermum leptopterum (Asch.) Iljin
Dg: XBJ *Sal rut*

Cornus sanguinea L.
Dg: LC *QUE PUB*, THB *Bro-Fes*
C: LBD *Sor-Fag*, THB *Bro-Fes*

Coronilla varia L.
Dg: LE *ERI-PIN*, TH *FES-BRO*, THB *Bro-Fes*
C: ADF *Cal var*, LCA *Que pub*, LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*, THC *Dia-Ses*, THF *Bro ere*, THH *Ger san*

Corylus avellana L.
Dg: LE *ERI-PIN*
C: LBB *Car bet*, LBF *Til-Ace*, LE *ERI-PIN*, LEA *Pul-Pin*
Dm: KB *RHA-PRU*, KBC *Sam-Sal*, LBB *Car bet*, XDC *Imp-Sta*

Corynephorus canescens (L.) P. Beauv
Dg: DA *AMM ARE*, DAA *Amm are*, DAC *Jun bal*, TF *KOE-COR*, TFA *Cor can*, TFG *Koe alb*, XBJ *Sal rut*
C: DA *AMM ARE*, DAA *Amm are*, DAC *Jun bal*, TF *KOE-COR*, TFA *Cor can*, TFG *Koe alb*, XBJ *Sal rut*
Dm: TFA *Cor can*

Cotoneaster integerrimus Medik.
Dg: THB *Bro-Fes*, THC *Dia-Ses*
C: THB *Bro-Fes*

Cotoneaster niger (Thunb.) Fr.
Dg: THB *Bro-Fes*

Crataegus laevigata (Poir.) DC.
Dg: LCA *Que pub*

Crataegus monogyna s. l.
Dg: KBB *Ber vul*, LC *QUE PUB*, LCA *Que pub*
Dm: KBB *Ber vul*

Crataegus xmacrocarpa Hegetschw.
Dg: LBD *Sor-Fag*

Cratoneuron filicinum (Hedw.) Spruce
Dg: RAB *Lyc-Cra*

Crepis biennis L.
Dg: KAB *Sal ela*

Crepis conyzifolia (Gouan) Dalla Torre
Dg: ADB *Cal aru*

Crepis jacquinii Tausch
Dg: AC *ELY-SES*, ACA *Ses tat*
C: AC *ELY-SES*, ACA *Ses tat*

Crepis mollis (Jacq.) Asch.
Dg: TDB *Pol-Tri*, TEB *Nar-Agr*

Crepis paludosa (L.) Moench
Dg: RA *MON-CAR*, RBA *Car dav*, RBB *Sph-Tom*
C: RBA *Car dav*, RBB *Sph-Tom*

Crepis tectorum L.
Dg: XBL *Lol-Lin*

Cruciata glabra (L.) Ehrend.
Dg: ADF *Cal var*, KAB *Sal ela*, LE *ERI-PIN*, LEA *Pul-Pin*, TEB *Nar-Agr*
C: ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*, TEB *Nar-Agr*

Ctenidium molluscum (Hedw.) Mitt.
Dg: THC *Dia-Ses*

Cucubalus baccifer L.
Dg: KA *SAL PUR*, KAA *Sal tri*

Cymbalaria muralis P. Gaertn., B. Mey. & Scherb.
Dg: SB *CYM-PAR*, SBA *Cym-Asp*
C: SB *CYM-PAR*, SBA *Cym-Asp*

Cynosurus cristatus L.
Dg: TD *MOL-ARR*, TDC *Cyn cri*

Cyperus flavescens L.
Dg: MAC *Ver sup*

Cyperus fuscus L.
Dg: MA *ISO-JUN*, MAA *Ele ova*
C: MA *ISO-JUN*, MAA *Ele ova*
Dm: MA *ISO-JUN*, MAA *Ele ova*

Cypripedium calceolus L.
Dg: LCA *Que pub*

Cystopteris fragilis (L.) Bernh.
Dg: SA *ASP TRI*, SAA *Cystop*, SB *CYM-PAR*
C: SAA *Cystop*

Dactylis glomerata L.
C: KAB *Sal ela*, LCA *Que pub*, TDA *Arr ela*, TDB *Pol-Tri*, TDC *Cyn cri*, THI *Tri med*, XDE *Aeg pod*, XDF *Rum alp*

Dactylis polygama Horv.
Dg: LBB *Car bet*

Dactylorhiza majalis s. l.
Dg: RB *SCH-CAR*, RBA *Car dav*, RBB *Sph-Tom*
C: RBA *Car dav*

Danthonia decumbens DC.
Dg: TE *CAL-ULI*, TEC *Vio can*
C: TEC *Vio can*

Daphne mezereum L.
Dg: LBD *Sor-Fag*, LE *ERI-PIN*
C: LBD *Sor-Fag*

Datura stramonium L.
Dm: XBI *Mal neg*

Dendranthema zawadskii (Herbich) Tzvelev
Dg: THB *Bro-Fes*, THC *Dia-Ses*

Dentaria bulbifera L.
Dg: LB *CAR-FAG*, LBC *Fag syl*, LBF *Til-Ace*

Dentaria glandulosa Waldst. & Kit.
Dg: LBC *Fag syl*

Deschampsia caespitosa (L.) P. Beauv.
Dg: AE *SAL HER*, LA *ALN GLU*, TD *MOL-ARR*
C: ABB *Nar-Car*, ADA *Cal vil*, ADG *Tri fus*, AE *SAL HER*, AEA *Sal her*, AEB *Fes pic*, LA *ALN GLU*, LAA *Aln glu*, LBA *Aln inc*, RAB *Lyc-Cra*, RAC *Epi-Mon*, RAD *Swe-Dic*, TD *MOL-ARR*, TDB *Pol-Tri*, TDD *Mol cae*, TDI *Cni ven*, TDF *Cal pal*, TDG *Jun eff*, TDH *Alo pra*, XDF *Rum alp*
Dm: AD *MUL-ACO*, ADA *Cal vil*, ADG *Tri fus*, KAA *Sal tri*, TDB *Pol-Tri*, TDG *Jun eff*, TDH *Alo pra*, XDF *Rum alp*, XE *EPI ANG*, XEA *Epi ang*

Deschampsia flexuosa (L.) Trin.
Dg: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABB *Nar-Car*, AE *SAL HER*, AEA *Sal her*, KC *ROS-PIN*, KCA *Pin mug*
C: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABA *Jun tri*, ABB *Nar-Car*, ADC *Sal sil*, AE *SAL HER*, AEA *Sal her*, AEB *Fes pic*, KBH *Sal are*, KC *ROS-PIN*, KCA *Pin mug*, LFC *Pic abi*, TEA *Nar str*, TEF *Gen-Vac*
Dm: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABB *Nar-Car*, AE *SAL HER*, AEB *Fes pic*, TEF *Gen-Vac*

Descurainia sophia (L.) Webb ex Prantl
Dg: XBI *Mal neg*, XCA *Ono aca*

Dianthus carthusianorum L.
Dg: TH *FES-BRO*, THC *Dia-Ses*, THD *Fes val*, THG *Koe-Phl*, TI *VIO CAL*, TIA *Arm hal*
C: THC *Dia-Ses*, THD *Fes val*, THG *Koe-Phl*, TI *VIO CAL*, TIA *Arm hal*

Dianthus compactus Kit.
Dg: ADB *Cal aru*

Dianthus deltoides L.
Dg: TE *CAL-ULI,* TEC *Vio can*, TFC *Arm elo*

Dianthus plumarius L.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*
C: ACB *Car fir*

Dianthus superbus L.
Dg: AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*
C: AF *CAR-KOB*, AFA *Fes ver*

Dichostylis micheliana (L.) Nees
Dg: MAA *Ele ova*

Dicranella rufescens (Dicks.) Schimp
Dg: MA *ISO-JUN*, MAB *Rad lin*

Dicranella varia (Hedw.) Schimp
Dg: TFG *Koe alb*

Dicranum bonjeanii De Not.
Dg: RBB *Sph-Tom*

Dicranum polysetum Sw. ex anon
Dg: LF *VAC-PIC*, LFD *Vac-Pin*, THJ *Mel pra,* LFB *Dic-Pin*
C: LFB *Dic-Pin*

Dictyosiphon hippuroides (Lyn.) Kütz.
Dg: VE *ZOS MAR*, VEA *Zos mar*

Didymodon acutus (Brid.) K. Saito
Dg: SC *THL ROT*

Didymodon fallax (Hedw.) R.H. Zander
Dg: TFG *Koe alb*

Digitalis grandiflora Mill.
Dg: ADF *Cal var*, LC *QUE PUB*, LCC *Que pet*, LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*
C: ADF *Cal var*, LCC *Que pet*, THB *Bro-Fes*

Digitalis purpurea L.
Dg: XE *EPI ANG*, XEA *Epi ang*

Digitaria ischaemum (Schreb.) H.L. Mühl.
Dg: XBF *Spe-Ero*, XBK *Era cil*

Digitaria sanguinalis (L.) Scop.
Dg: XBK *Era cil*

Diobelonella palustris (Dicks.) Ochyra
Dg: RAD *Swe-Dic*
Dm: RAD *Swe-Dic*

Diphasiastrum alpinum (L.) Holub
Dg: AA *LOI-VAC*, AAA *Loi-Vac*

Diploschistes muscorum (Scop.) R. Sant.
Dg: TI *VIO CAL*, TIA *Arm hal*
C: TI *VIO CAL*, TIA *Arm hal*

Distichium capillaceum (Hedw.) Bruch & Schimp
Dg: AF *CAR-KOB*, AFA *Fes ver*

Ditrichum flexicaule (Schwägr.) Hampe
Dg: AC *ELY-SES*

Ditrichum heteromallum (Hedw.) E. Britton
Dg: AE *SAL HER*, AEA *Sal her*

Doronicum austriacum Jacq.
Dg: AD *MUL-ACO*, ADD *Ade all*, ADE *Dry-Ath*, AE *SAL HER*

C: ADD *Ade all*
Dm: ADD *Ade all*, ADE *Dry-Ath*, XDF *Rum alp*

Doronicum clusii (All.) Tausch
Dg: AA *LOI-VAC*, ABA *Jun tri*

Draba aizoides L.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*

Drosera anglica Huds.
Dg: DAC *Jun bal*

Drosera intermedia Hayne
Dg: VDC *Sph-Utr*

Drosera rotundifolia L.
Dg: RB *SCH-CAR*, RBB *Sph-Tom*, RBE *Sph cus*, RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*
C: RBB *Sph-Tom*, RBE *Sph cus*, RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*

Dryas octopetala L.
Dg: AC *ELY-SES*, ACB *Car fir*
C: AC *ELY-SES*, ACB *Car fir*
Dm: AC *ELY-SES*, ACB *Car fir*

Dryopteris cristata (L.) A. Gray
Dg: LA *ALN GLU*, LAB *Sal cin*

Dryopteris carthusiana s. l.
Dg: ADC *Sal sil*, KC *ROS-PIN*, KCA *Pin mug*, LA *ALN GLU*, LAA *Aln glu*, LBE *Luz-Fag*, LFC *Pic abi*
C: ADC *Sal sil*, KC *ROS-PIN*, KCA *Pin mug*, LA *ALN GLU*, LAA *Aln glu*, LBE *Luz-Fag*, LDB *Que rob*, LFC *Pic abi*

Dryopteris filix-mas s. l.
Dg: LB *CAR-FAG*, LBC *Fag syl*, LBF *Til-Ace*, SA *ASP TRI*
C: LBC *Fag syl*, LBF *Til-Ace*

Echinochloa crus-galli (L.) P. Beauv.
Dg: MB *BID TRI*, XB *STE MED*, XBE *Oxa fon*, XBF *Spe-Ero*
C: XBE *Oxa fon*, XBF *Spe-Ero*

Echium vulgare L.
Dg: SC *THL ROT*, TFF *Aly-Sed*

Ectocarpus siliculosus (Dillw.) Lyn.
Dg: VCC *Cha can*, VE *ZOS MAR*, VEA *Zos mar*
Dm: VE *ZOS MAR*, VEA *Zos mar*

Elachista fucicola (Vall.) Aresch.
Dg: VE *ZOS MAR*, VEA *Zos mar*

Elatine hexandra (Lapierre) DC.
Dg: VD *LIT UNI*, VDB *Ele aci*

Elatine hydropiper L. emend. Oeder
Dg: MAA *Ele ova*, VDB *Ele aci*

Eleocharis acicularis (L.) Roem. & Schult.
Dg: MA *ISO-JUN*, MAA *Ele ova*, VD *LIT UNI*, VDB *Ele aci*
C: VDB *Ele aci*
Dm: VD *LIT UNI*, VDB *Ele aci*

Eleocharis ovata (Roth) Roem. & Schult.
Dg: MA *ISO-JUN*, MAA *Ele ova*, VD *LIT UNI*, VDB *Ele aci*

Eleocharis palustris agg.
Dg: TC *FES-PUC*, TCB *Jun ger*, MCB *Mel-Bol*, VDA *Lit uni*
C: MCB *Mel-Bol*, TCB *Jun ger*, VDA *Lit uni*
Dm: MCC *Ele-Sag*

Eleocharis quinqueflora (Hartmann) O. Schwarz
Dg: RBA *Car dav*

Elodea canadensis Michx.
Dg: VA *LEMNET*, VB *POTAME*, VBB *Potami*, VBC *Bat flu*
Dm: VB *POTAME*, VBB *Potami*

Elymus caninus (L.) L.
Dg: KA *SAL PUR*, KAB *Sal ela*
C: KAB *Sal ela*

Elymus farctus (Viv.) Runemark ex Melderis
Dg: DAB *Agr-Min*, DB *CAK MAR*
C: DAB *Agr-Min*

Elymus repens (L.) Gould
Dg: XB *STE MED*, XC *ART VUL*
C: XB *STE MED*, XBA *Caucal*, XBB *Ver-Eup*, XBC *Scl ann*, XBE *Oxa fon*, XBF *Spe-Ero*, XBG *Atrpli*, XBL *Lol-Lin*, XC *ART VUL*, XCC *Con-Ely*, XCE *Arc lap*

Dm: XC *ART VUL*, XCC *Con-Ely*

Empetrum nigrum s. l.
Dg: AA *LOI-VAC*, DA *AMM ARE*, DAC *Jun bal*
C: DAC *Jun bal*

Encalypta streptocarpa Hedw.
Dg: THA *Aly-Fes*, THC *Dia-Ses*

Enteromorpha compressa (L.) Nees
Dg: VE *ZOS MAR*, VEA *Zos mar*

Enteromorpha crinita Nees
Dg: VE *ZOS MAR*, VEA *Zos mar*

Enteromorpha intestinalis (L.) Nees
Dg: VE *ZOS MAR*, VEA *Zos mar*

Enteromorpha lingulata Agardh.
Dg: VE *ZOS MAR*, VEA *Zos mar*

Enteromorpha linza (L.) Agardh.
Dg: VE *ZOS MAR*, VEA *Zos mar*

Enteromorpha spp.
Dg: VE *ZOS MAR*, VEA *Zos mar*
Dm: VE *ZOS MAR*, VEA *Zos mar*

Ephemerum serratum (Schreb. ex Hedw.) Hampe.
Dg: MAB *Rad lin*

Epilobium alpestre (Jacq.) Krock.
Dg: AD *MUL-ACO*, ADD *Ade all*, ADE *Dry-Ath*

Epilobium alsinifolium Vill.
Dg: RA *MON-CAR*, RAB *Lyc-Cra*, RAD *Swe-Dic*
C: RAB *Lyc-Cra*, RAD *Swe-Dic*

Epilobium anagallidifolium Lam.
Dg: AE *SAL HER*, RAD *Swe-Dic*

Epilobium collinum C.C. Gmel.
Dg: SB *CYM-PAR*

Epilobium hirsutum L.
Dg: XDA *Sen flu*

Epilobium nutans F.W. Schmidt
Dg: RAD *Swe-Dic*

Epilobium palustre L.
Dg: RAC *Epi-Mon*, TDG *Jun eff*
C: RAC *Epi-Mon*, TDG *Jun eff*

Epipactis atrorubens (Hoffm.) Besser
Dg: ACA *Ses tat*, ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*
C: LE *ERI-PIN*, LEA *Pul-Pin*

Epipactis helleborine s. l.
Dg: LBD *Sor-Fag*
C: LBD *Sor-Fag*

Epipactis palustris (L.) Crantz
Dg: RB *SCH-CAR*, RBA *Car dav*, RBB *Sph-Tom*
C: RBB *Sph-Tom*

Equisetum arvense L.
Dg: XB *STE MED*
C: XB *STE MED*, XBB *Ver-Eup*, XBC *Scl ann*, XBD *Arn min*, XBE *Oxa fon*, XBF *Spe-Ero*

Equisetum fluviatile L.
Dg: LA *ALN GLU*, MC *PHR-CAR*, RBB *Sph-Tom*
C: RBB *Sph-Tom*
Dm: MCA *Phr aus*

Equisetum palustre L.
Dg: RAB *Lyc-Cra*, RB *SCH-CAR*, RBA *Car dav*, TD *MOL-ARR*,
C: RAB *Lyc-Cra*, RAC *Epi-Mon*, RBA *Car dav*, TDF *Cal pal*
Dm: RBA *Car dav*

Equisetum sylvaticum L.
Dg: ADG *Tri fus*, RA *MON-CAR*

Equisetum variegatum Schleich.
Dg: KAB *Sal ela*

Eragrostis minor Host
Dg: XBK *Era cil*

Erica tetralix L.
Dg: RC *OXY-SPH*, RCB *Oxy-Eri*, RCC *Oxy-Emp*
C: RCB *Oxy-Eri*
Dm: RCB *Oxy-Eri*

Eriophorum angustifolium Honck.
Dg: RB *SCH-CAR*, RBD *Sph-Car*, RBE *Sph cus*, RC *OXY-SPH*, RCB *Oxy-Eri*
C: RB *SCH-CAR*, RBD *Sph-Car*, RBE *Sph cus*, RCB *Oxy-Eri*
Dm: RBD *Sph-Car*, RBE *Sph cus*

Eriophorum latifolium Hoppe
Dg: RB *SCH-CAR*, RBA *Car dav*, RBB *Sph-Tom*
C: RBA *Car dav*, RBB *Sph-Tom*

Eriophorum vaginatum L.
Dg: LFD *Vac-Pin*, RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*
C: LFD *Vac-Pin*, RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*
Dm: RC *OXY-SPH*, RCA *Sph mag*, RCC *Oxy-Emp*

Erodium cicutarium (L.) L'Hér.
Dg: XB *STE MED*, XBF *Spe-Ero*

Erophila verna (L.) Chevall.
Dg: TFE *Ara tha*, TFH *Koe gla*

Eryngium maritimum L.
Dg: DA *AMM ARE*, DAA *Amm are*

Eryngium planum L.
Dg: SC *THL ROT*

Erysimum cheiranthoides L.
Dg: XB *STE MED*, XBE *Oxa fon*

Erysimum odoratum Ehrh.
Dg: THA *Aly-Fes*

Erysimum wittmannii Zaw.
Dg: THB *Bro-Fes*, THC *Dia-Ses*
C: THB *Bro-Fes*

Euonymus europaea L.
Dg: LBA *Aln inc*

Euonymus verrucosa Scop.
Dg: LC *QUE PUB*, LCC *Que pet*

Eupatorium cannabinum L.
Dg: LA *ALN GLU*
Dm: XDC *Imp-Sta*

Euphorbia amygdaloides L.
Dg: LE *ERI-PIN*, LEA *Pul-Pin*

Euphorbia cyparissias L.
Dg: LCA *Que pub*, LE *ERI-PIN*, TFF *Aly-Sed*, TH *FES-BRO*, THB *Bro-Fes*, THC *Dia-Ses*
C: ADF *Cal var*, KBA *Pru fru*, LCA *Que pub*, LE *ERI-PIN*, LEA *Pul-Pin*, TEE *Eup-Cal*, TFF *Aly-Sed*, TFH *Koe gla*, TH *FES-BRO*, THA *Aly-Fes*, THB *Bro-Fes*, THC *Dia-Ses*, THD *Fes val*, THE *Cir-Bra*, THF *Bro ere*, THG *Koe-Phl*, THH *Ger san*

Euphorbia exigua L.
Dg: XBA *Caucal*

Euphorbia falcata L.
Dg: XBA *Caucal*

Euphorbia helioscopia L.
Dg: XB *STE MED*, XBA *Caucal*, XBB *Ver-Eup*
C: XBA *Caucal*, XBB *Ver-Eup*

Euphorbia serrulata Thuill.
Dg: KAB *Sal ela*

Euphrasia picta Wimm.
Dg: AE *SAL HER*, AEB *Fes pic*

Euphrasia rostkoviana Hayne
Dg: LE *ERI-PIN*, LEA *Pul-Pin*, TEC *Vio can*

Euphrasia salisburgensis Hoppe
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*
C: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*

Euphrasia stricta D. Wolff ex J.F. Lehm.
Dg: TFG *Koe alb*, TI *VIO CAL*, TIA *Arm hal*
C: TI *VIO CAL*, TIA *Arm hal*

Fagus sylvatica L.
Dg: LB *CAR-FAG*, LBC *Fag syl*, LBD *Sor-Fag*, LBE *Luz-Fag*
C: LB *CAR-FAG*, LBC *Fag syl*, LBD *Sor-Fag*, LBE *Luz-Fag*, LBF *Til-Ace*
Dm: LB *CAR-FAG*, LBB *Car bet*, LBC *Fag syl*, LBD *Sor-Fag*, LBE *Luz-Fag*, LBF *Til-Ace*

Falcaria vulgaris Bernh.
Dg: LCA *Que pub*, TH *FES-BRO*, THD *Fes val*

Fallopia convolvulus (L.) Á. Löve
Dg: KD *ROBINI*, XB *STE MED*, XBA *Caucal*, XBB *Ver-Eup*, XBC *Scl ann*, XBD *Arn min*, XBE *Oxa fon*, XBL *Lol-Lin*
C: XB *STE MED*, XBA *Caucal*, XBB *Ver-Eup*, XBC *Scl ann*, XBD *Arn min*, XBE *Oxa fon*, XBF *Spe-Ero*, XBL *Lol-Lin*

Festuca airoides Lam.
Dg: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABA *Jun tri*, ABB *Nar-Car*, AF *CAR-KOB*, AFA *Fes ver*
C: AB *JUN TRI*, ABA *Jun tri*, ABB *Nar-Car*
Dm: AB *JUN TRI*, ABB *Nar-Car*

Festuca altissima All.
Dg: LBC *Fag syl*

Festuca arundinacea Schreb.
Dg: TC *FES-PUC*, TCB *Jun ger*
Dm: TCB *Jun ger*

Festuca carpatica F. Dietr.
Dg: ADE *Dry-Ath*

Festuca gigantea (L.) Vill.
Dg: XEB *Fra ves*
C: XEB *Fra ves*

Festuca heterophylla Lam.
Dg: LC *QUE PUB*, LCC *Que pet*

Festuca ovina s. l.
Dg: LC *QUE PUB*, TFD *Hyp-Scl*, THJ *Mel pra*, TI *VIO CAL*, TIA *Arm hal*
C: LC *QUE PUB*, LCC *Que pet*, LDA *Gen-Que*, TEE *Eup-Cal*, TFD *Hyp-Scl*, THJ *Mel pra*, TI *VIO CAL*, TIA *Arm hal*
Dm: TI *VIO CAL*, TIA *Arm hal*

Festuca pallens Host
Dg: LE *ERI-PIN*, LEA *Pul-Pin*, THA *Aly-Fes*, THB *Bro-Fes*, THC *Dia-Ses*
C: LE *ERI-PIN*, LEA *Pul-Pin*, THA *Aly-Fes*, THB *Bro-Fes*, THC *Dia-Ses*

Festuca picta Kit
Dg: AE *SAL HER*, AEB *Fes pic*
C: AE *SAL HER*, AEB *Fes pic*
Dm: AE *SAL HER*, AEB *Fes pic*

Festuca polesica Zapał.
Dg: DA *AMM ARE*, DAA *Amm are*

Festuca pratensis Huds.
Dg: TD *MOL-ARR*, TDH *Alo pra*
C: TDA *Arr ela*, TDH *Alo pra*

Festuca psammophila (Hack. ex Čelak.) Fritsch
Dg: TF *KOE-COR*
Dm: TFH *Koe gla*

Festuca rubra agg.
Dg: DB *CAK MAR*, TD *MOL-ARR*, TE *CAL-ULI*
C: DA *AMM ARE*, DAA *Amm are*, DAB *Agr-Min*, DB *CAK MAR*, DBA *Atr lit*, KAB *Sal ela*, RBB *Sph-Tom*, RBC *Car can*, TD *MOL-ARR*, TDA *Arr ela*, TDB *Pol-Tri*, TDD *Mol cae*, TDG *Jun eff*, TDH *Alo pra*, TE *CAL-ULI*, TEB *Nar-Agr*, TEC *Vio can*, TEF *Gen-Vac*, TFE *Ara tha*, TFG *Koe alb*, THH *Ger san*, THJ *Mel pra*
Dm: TDB *Pol-Tri*, TEB *Nar-Agr*, TEC *Vio can*

Festuca rupicola Heuff.
Dg: KBA *Pru fru*
C: KBA *Pru fru*

Festuca tatrae (Czakó) Degen
Dg: AC *ELY-SES*, ACA *Ses tat*
C: ACA *Ses tat*

Festuca trachyphylla s. l.
Dg: TFH *Koe gla*, TH *FES-BRO*, THD *Fes val*
C: TFH *Koe gla*, THD *Fes val*

Festuca valesiaca Schleich. ex Gaudin
Dg: THD *Fes val*

Festuca versicolor Tausch
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*
C: AC *ELY-SES*, ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*
Dm: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*

Ficaria verna Huds.
Dg: LB *CAR-FAG*, LBA *Aln inc*, XDB *Pet hyb*
C: LBA *Aln inc*

Filago minima (Sm.) Pers.
Dg: TF *KOE-COR*, TFB *The-Air*

Filipendula ulmaria (L.) Maxim.
Dg: LA *ALN GLU*, TD *MOL-ARR*, TDF *Cal pal*, TDJ *Ver-Lys*
C: TDF *Cal pal*, TDJ *Ver-Lys*
Dm: TDF *Cal pal*, TDJ *Ver-Lys*

Filipendula vulgaris Moench
Dg: LCA *Que pub*, TH *FES-BRO*, THG *Koe-Phl*

Fissidens dubius P. Beauv.
Dg: ACA *Ses tat*

Flavocetraria cucullata (Bellardi) Kärnefelt & Thell
Dg: AB *JUN TRI*, ABA *Jun tri*

Flavocetraria nivalis (L.) Kärnefelt & Thell
Dg: AB *JUN TRI*, ABA *Jun tri*

Fontinalis antipyretica Hedw.
Dg: VC *CHARET*, VCA *Nit fle*

Fossombronia wondraczekii (Corda) Lindb.
Dg: MA *ISO-JUN*, MAB *Rad lin*

Fragaria moschata Duchesne
Dg: LBD *Sor-Fag*, LC *QUE PUB*
C: LBD *Sor-Fag*

Fragaria vesca L.
Dg: ADF *Cal var*, KBH *Sal are*, LC *QUE PUB*, LE *ERI-PIN*, LEA *Pul-Pin*
C: ADF *Cal var*, KBH *Sal are*, LC *QUE PUB*, LCC *Que pet*, LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*, THJ *Mel pra*

Fragaria viridis Duchesne
Dg: LCA *Que pub*, TH *FES-BRO*, THF *Bro ere*, THH *Ger san*
C: LCA *Que pub*, THF *Bro ere*, THH *Ger san*

Frangula alnus Mill.
Dg: LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*, LD *QUE ROB*, LDB *Que rob*
C: KBH *Sal are*, LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*, LD *QUE ROB*, LDB *Que rob*, LFD *Vac-Pin*
Dm: LDB *Que rob*

Fraxinus excelsior L.
Dg: LB *CAR-FAG*, LBA *Aln inc*, LBF *Til-Ace*
C: LBA *Aln inc*, LBD *Sor-Fag*, LBF *Til-Ace*
Dm: LB *CAR-FAG*, LBA *Aln inc*, LBF *Til-Ace*

Frullania tamarisci (L.) Dumortier
Dg: AC *ELY-SES*, ACA *Ses tat*

Fucus vesiculosus L.
Dg: VE *ZOS MAR*, VEA *Zos mar*
Dm: VE *ZOS MAR*, VEA *Zos mar*

Fulgensia fulgens (Sw.) Elenkin
Dg: TFH *Koe gla*

Fumaria officinalis L.
Dg: XBB *Ver-Eup*

Fumaria vaillantii Loisel.
Dg: XBA *Caucal*

Furcellaria fastigiata (Turner) J.V. Lamour.
Dg: VE *ZOS MAR*, VEA *Zos mar*

Gagea lutea (L.) Ker Gawl.
Dg: LBA *Aln inc*

Galeobdolon luteum s. l.
Dg: LB *CAR-FAG*, LBB *Car bet*, LBC *Fag syl*, LBF *Til-Ace*, RA *MON-CAR*
C: LB *CAR-FAG*, LBB *Car bet*, LBC *Fag syl*, LBF *Til-Ace*

Galeopsis angustifolia (Ehrh.) Hoffm.
Dg: SC *THL ROT*, SCA *Sti cal*

Galeopsis pubescens Besser
Dg: KD *ROBINI*

Galeopsis tetrahit s. l.
Dg: XB *STE MED*, XBL *Lol-Lin*
C: XBL *Lol-Lin*

Galinsoga ciliata (Raf.) S.F. Blake
Dg: XB *STE MED*, XBE *Oxa fon*

Galinsoga parviflora Cav.
Dg: XB *STE MED*, XBB *Ver-Eup*, XBE *Oxa fon*, XBF *Spe-Ero*, XBI *Mal neg*
C: XBE *Oxa fon*, XBF *Spe-Ero*
Dm: XBE *Oxa fon*

Galium anisophyllum Vill.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*
C: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*

Galium aparine L.
Dg: KA *SAL PUR*, KAC *Sal alb*, KD *ROBINI*, XBA *Caucal*, XD *GAL-URT*
C: KA *SAL PUR*, KAA *Sal tri*, KAC *Sal alb*, KBD *Aeg-Sam*, KD *ROBINI*, KDA *Che-Rob*, LBA *Aln inc*, XBA *Caucal*, XBB *Ver-Eup*, XD *GAL-URT*, XDA *Sen flu*, XDD *Geo-All*, XDE *Aeg pod*
Dm: KAA *Sal tri*, KBD *Aeg-Sam*, KD *ROBINI*, KDA *Che-Rob*, TDJ *Ver-Lys*

Galium boreale L.
Dg: LC *QUE PUB*, LCC *Que pet*, TDD *Mol cae*, TDI *Cni ven*, TI *VIO CAL*
C: TDI *Cni ven*

Galium cracoviense Ehrend.
Dg: THA *Aly-Fes*, THC *Dia-Ses*

Galium mollugo agg.
Dg: ADF *Cal var*, KBH *Sal are*, LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*, TI *VIO CAL*
C: ADF *Cal var*, KBH *Sal are*, LC *QUE PUB*, LCC *Que pet*, LE *ERI-PIN*, LEA *Pul-Pin*, SC *THL ROT*, SCA *Sti cal*, TDA *Arr ela*, TFG *Koe alb*, THA *Aly-Fes*, THB *Bro-Fes*, THC *Dia-Ses*, THF *Bro ere*, THI *Tri med*, THJ *Mel pra*, TI *VIO CAL*, TIA *Arm hal*

Galium odoratum (L.) Scop.
Dg: LB *CAR-FAG*, LBC *Fag syl*, LBD *Sor-Fag*, LBF *Til-Ace*
C: LBC *Fag syl*, LBD *Sor-Fag*, LBF *Til-Ace*

Galium palustre agg.
Dg: LA *ALN GLU*, LAA *Aln glu*, MC *PHR-CAR*, MCG *Car ela*
C: LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*, MC *PHR-CAR*, MCF *Car-Rum*, MCG *Car ela*, MCH *Car gra*, RAC *Epi-Mon*, TDG *Jun eff*

Galium schultesii Vest
Dg: LC *QUE PUB*, LCC *Que pet*, LD *QUE ROB*, LDA *Gen-Que*
C: LC *QUE PUB*, LCC *Que pet*

Galium spurium L.
Dg: XBA *Caucal*

Galium uliginosum L.
Dg: RB *SCH-CAR*, RBB *Sph-Tom*, TD *MOL-ARR*, TDD *Mol cae*
C: RBB *Sph-Tom*

Galium verum L.
Dg: KBA *Pru fru*, LCA *Que pub*, TH *FES-BRO*, THD *Fes val*, THH *Ger san*, THJ *Mel pra*
C: KBA *Pru fru*, LCA *Que pub*, TH *FES-BRO*, THD *Fes val*, THE *Cir-Bra*, THG *Koe-Phl*, THH *Ger san*, THI *Tri med*, THJ *Mel pra*

Genista tinctoria L.
Dg: LC *QUE PUB*, LCC *Que pet*, TEE *Eup-Cal*

Gentiana asclepiadea L.
Dg: AD *MUL-ACO*, ADA *Cal vil*, ADB *Cal aru*, ADC *Sal sil*, ADE *Dry-Ath*
C: AD *MUL-ACO*, ADA *Cal vil*, ADB *Cal aru*, ADC *Sal sil*, ADE *Dry-Ath*, TEB *Nar-Agr*
Dm: ADA *Cal vil*

Gentiana clusii J.O.E. Perrier & Songeon
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*
C: ACA *Ses tat*, ACB *Car fir*, AC *ELY-SES*

Gentiana pneumonanthe L.
Dg: TDD *Mol cae*
Gentiana punctata L.
Dg: ADE *Dry-Ath*, AE *SAL HER*, AEB *Fes pic*

Gentiana verna L.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*
C: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*

Gentianella germanica s. l.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, TI *VIO CAL*, TIA *Arm hal*
C: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*

Gentianella uliginosa (Willd.) Börner
Dg: RBA *Car dav*

Geranium columbinum L.
Dg: ADF *Cal var*

Geranium pusillum Burm. f. ex L.
Dg: XB *STE MED*

Geranium robertianum Burm. f. ex L.
Dg: SA *ASP TRI*, XDC *Imp-Sta*
C: ADF *Cal var*, SAA *Cystop*, XDC *Imp-Sta*
Dm: KAA *Sal tri*

Geranium sanguineum L.
Dg: LC *QUE PUB*, LCC *Que pet*, THH *Ger san*

Geranium sylvaticum L.
Dg: ADC *Sal sil*, AE *SAL HER*, AEB *Fes pic*
C: ADC *Sal sil*, AEB *Fes pic*

Geum montanum L.
Dg: ABA *Jun tri*, AE *SAL HER*, AEB *Fes pic*, TEA *Nar str*
C: ABA *Jun tri*, AE *SAL HER*, AEB *Fes pic*, TEA *Nar str*

Geum rivale L.
Dg: TD *MOL-ARR*

Geum urbanum s. l.
Dg: KBD *Aeg-Sam*, KD *ROBINI*, XDD *Geo-All*
C: KBD *Aeg-Sam*, KD *ROBINI*, KDA *Che-Rob*, LBA *Aln inc*, XDC *Imp-Sta*, XDD *Geo-All*

Glaux maritima L.
Dg: TC *FES-PUC*, TCA *Puc lim*, TCB *Jun ger*
Dm: TCA *Puc lim*

Glechoma hederacea s. l.
Dg: KA *SAL PUR*, KAC *Sal alb*
C: KA *SAL PUR*, KAC *Sal alb*

Glyceria fluitans (L.) R. Br.
Dg: MCE *Gly-Spa*, VBD *Ran aqu*
C: MCE *Gly-Spa*, VBD *Ran aqu*
Dm: MCE *Gly-Spa*

Glyceria maxima (Hartm.) Holmb.
Dg: MC *PHR-CAR*, MCA *Phr aus*
Dm: MC *PHR-CAR*, MCA *Phr aus*

Gnaphalium norvegicum Gunnerus
Dg: ADG *Tri fus*, AE *SAL HER*, AEB *Fes pic*

Gnaphalium supinum L.
Dg: AE *SAL HER*, AEA *Sal her*
C: AE *SAL HER*, AEA *Sal her*

Gnaphalium uliginosum L.
Dg: MA *ISO-JUN*, MAA *Ele ova*, MAB *Rad lin*, MAC *Ver sup*, VD *LIT UNI*
C: MA *ISO-JUN*, MAA *Ele ova*, MAB *Rad lin*, MAC *Ver sup*

Gratiola officinalis L.
Dg: TDI *Cni ven*

Gymnadenia conopsea (L.) R. Br.
Dg: AC *ELY-SES*

Gymnadenia odoratissima (L.) Rich.
Dg: AC *ELY-SES*, ACB *Car fir*

Gymnocarpium dryopteris (L.) Newman
Dg: KC *ROS-PIN*

Gymnocarpium robertianum (Hoffm.) Newman
Dg: ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*, SC *THL ROT*, SCA *Sti cal*
C: ADF *Cal var*

Gymnocolea inflata (Huds.) Dumort.
Dg: DAC *Jun bal*

Gypsophila fastigiata L.
Dg: TI *VIO CAL*, TIA *Arm hal*
C: TI *VIO CAL*, TIA *Arm hal*

Gypsophila muralis L.
Dg: MA *ISO-JUN*, MAB *Rad lin*

Gypsophila repens L.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, THC *Dia-Ses*

Hamatocaulis vernicosus (Mitt.) Hedenäs
Dg: RBB *Sph-Tom*

Hammarbya paludosa (L.) Kuntze
Dg: RBB *Sph-Tom*

Hedera helix L.
Dg: LBD *Sor-Fag*, SB *CYM-PAR*

Helianthemum nummularium s. l.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, THF *Bro ere*
C: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, THF *Bro ere*

Helianthemum alpestre (Jacq.) Dunal subsp. *rupifragum* (A. Kern.) Jáv.
Dg: THC *Dia-Ses*

Helianthus annuus L.
Dg: DB *CAK MAR*, DBA *Atr lit*

Helianthus tuberosus L.
Dg: KAA *Sal tri*

Helichrysum arenarium (L.) Moench
Dg: TF *KOE-COR*, TFC *Arm elo*, TFH *Koe gla*
C: TFH *Koe gla*

Heliosperma quadridentatum (Murray) Schinz & Thell.
Dg: KAB *Sal ela*

Helleborus purpurascens Waldst. & Kit.
Dg: ADB *Cal aru*

Helodium blandowii (F. Weber & D.Mohr) Warnst
Dg: RBB *Sph-Tom*

Hepatica nobilis Schreb.
Dg: LBB *Car bet*, LBD *Sor-Fag*, LC *QUE PUB*
C: LBD *Sor-Fag*

Heracleum mantegazzianum Sommier & Levier
Dg: XD *GAL-URT*, XDE *Aeg pod*

Heracleum sosnowskyi Manden.
Dm: XCE *Arc lap*

Herniaria glabra L.
Dg: TF *KOE-COR*, TFE *Ara tha*, XBJ *Sal rut*

Hieracium alpinum agg.
Dg: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABA *Jun tri*, ABB *Nar-Car*
C: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABA *Jun tri*, ABB *Nar-Car*

Hieracium atratum Fr. (alpinum < murorum)
Dg: TEA *Nar str*

Hieracium aurantiacum L.
Dg: ADB *Cal aru*

Hieracium bifidum Kit. ex Hornem.
Dg: AF *CAR-KOB*, AFA *Fes ver*

Hieracium bupleuroides C.C. Gmel.
Dg: AC *ELY-SES*, ACA *Ses tat*
C: ACA *Ses tat*

Hieracium floribundum Wimm. & Grab.
Dg: KD *ROBINI*, KDA *Che-Rob*

Hieracium laevigatum Willd. (lachenalii - umbellatum)
Dg: ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*

Hieracium murorum L.
Dg: ADF *Cal var*, LBD *Sor-Fag*, LC *QUE PUB*, LD *QUE ROB*, LDA *Gen-Que*, LE *ERI-PIN*, LEA *Pul-Pin*
C: ADF *Cal var*, LBD *Sor-Fag*, LDA *Gen-Que*, LE *ERI-PIN*, LEA *Pul-Pin*

Hieracium pilosella s. l.
Dg: SC *THL ROT*, TE *CAL-ULI,* TEE *Eup-Cal*, TF *KOE-COR*, TFD *Hyp-Scl*
C: KAB *Sal ela*, TEC *Vio can*, TEE *Eup-Cal*, TF *KOE-COR*, TFA *Cor can*, TFC *Arm elo*, TFD *Hyp-Scl*, TFE *Ara tha*, THG *Koe-Phl*, THJ *Mel pra*
Dm: TFE *Ara tha*

Hieracium sabaudum s. l.
Dg: LC *QUE PUB*, LCC *Que pet*, LD *QUE ROB*, LDA *Gen-Que*

Hieracium schmidtii Tausch
Dg: THC *Dia-Ses*

Hieracium umbellatum L.
Dg: DA *AMM ARE*, DAA *Amm are*, KBH *Sal are*, LC *QUE PUB*, TFG *Koe alb*
C: DAA *Amm are*, KBH *Sal are*, TFG *Koe alb*

Hieracium villosum Jacq.
Dg: AC *ELY-SES*, ACA *Ses tat*
C: ACA *Ses tat*

Hieracium lachenalii s. l.
Dg: AC *ELY-SES*, ACA *Ses tat*, LE *ERI-PIN*, TEB *Nar-Agr*
C: ACA *Ses tat*, TEB *Nar-Agr*

Hierochloë australis (Schrad.) Roem. & Schult.
Dg: LC *QUE PUB*, LCC *Que pet*

Hippophaë rhamnoides L.
Dg: KBH *Sal are*, TFG *Koe alb*

Hippuris vulgaris L.
Dm: MCC *Ele-Sag*

Holcus lanatus L.
Dg: TD *MOL-ARR*, TDG *Jun eff*, TDH *Alo pra*
C: TD *MOL-ARR*, TDA *Arr ela*, TDD *Mol cae*, TDF *Cal pal*, TDG *Jun eff*, TDH *Alo pra*
Dm: TDH *Alo pra*

Holcus mollis L.
Dg: LD *QUE ROB*, XE *EPI ANG*
Dm: TEB *Nar-Agr*, XE *EPI ANG*, XEA *Epi ang*

Holosteum umbellatum L.
Dg: TFH *Koe gla*

Homalothecium lutescens (Hedw.) H. Rob.
Dg: LCA *Que pub*, SC *THL ROT*

Homalothecium sericeum (Hedw.) Schimp.
Dg: SB *CYM-PAR,* THC *Dia-Ses*

Homogyne alpina (L.) Cass.
Dg: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABA *Jun tri*, ADE *Dry-Ath*, AE *SAL HER*, AEB *Fes pic*, KC *ROS-PIN*, KCA *Pin mug*, TEA *Nar str*
C: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABA *Jun tri*, ACB *Car fir*, ADB *Cal aru*, ADC *Sal sil*, ADE *Dry-Ath*, AEB *Fes pic*, KC *ROS-PIN*, KCA *Pin mug*, TEA *Nar str*

Honckenya peploides (L.) Ehrh.
Dg: DAB *Agr-Min*, DB *CAK MAR*, DBA *Atr lit*
C: DAB *Agr-Min*, DB *CAK MAR*, DBA *Atr lit*

Hordeum murinum L.
Dg: XBH *Sis off*
Dm: XBH *Sis off*

Hottonia palustris L.
Dg: VBD *Ran aqu*
C: VBD *Ran aqu*
Dm: VB *POTAME*, VBD *Ran aqu*

Humulus lupulus L.
Dg: KA *SAL PUR*, KAA *Sal tri*, KAC *Sal alb*, LA *ALN GLU*, TDJ *Ver-Lys*
C: KAA *Sal tri*, KAC *Sal alb*

Huperzia selago (L.) Bernh. ex Schrank & Mart.
Dg: AA *LOI-VAC*, AAA *Loi-Vac*, ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*
C: AA *LOI-VAC*, AAA *Loi-Vac*, ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*

Hydrocharis morsus-ranae L.
Dg: VA *LEMNET*, VAC *Hyd mor*, VB *POTAME*, VBA *Nym alb*
C: VAC *Hyd mor*
Dm: VA *LEMNET*, VAC *Hyd mor*

Hydrocotyle vulgaris L.
Dg: TDG *Jun eff*, VD *LIT UNI*

Hylocomiastrum umbratum (Ehrh. ex Hedw.) M. Fleisch. ex Broth
Dg: ADC *Sal sil*, KC *ROS-PIN*
Dm: ADC *Sal sil*

Hylocomium splendens (Hedw.) Schimp.
Dg: AF *CAR-KOB*, AFA *Fes ver*
C: AF *CAR-KOB*, AFA *Fes ver*
Dm: ADF *Cal var*, AF *CAR-KOB*, AFA *Fes ver*

Hypericum hirsutum L.
Dg: ADF *Cal var*

Hypericum humifusum L.
Dg: MA *ISO-JUN*, MAB *Rad lin*

Hypericum maculatum Crantz.
Dg: AD *MUL-ACO*, TDB *Pol-Tri*, TE *CAL-ULI*, TEB *Nar-Agr*, XDF *Rum alp*
C: ADA *Cal vil*, TDB *Pol-Tri*, TEB *Nar-Agr*, TEC *Vio can*, TEF *Gen-Vac*, XDF *Rum alp*
Dm: ADA *Cal vil*, XDF *Rum alp*

Hypericum montanum L.
Dg: LBD *Sor-Fag*, LC *QUE PUB*, LCC *Que pet*

Hypericum perforatum L.
Dg: LC *QUE PUB*, LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*
C: LC *QUE PUB*, LCA *Que pub*, LCC *Que pet*, LE *ERI-PIN*, LEA *Pul-Pin*, TEE *Eup-Cal*, THB

Bro-Fes, THG *Koe-Phl*, THI *Tri med*, THJ *Mel pra*

Hypnum cupressiforme agg.
Dg: AF *CAR-KOB*, SA *ASP TRI*, SAB *Asp cun*, SAC *Asp sep*, THJ *Mel pra*
C: SAB *Asp cun*, SAC *Asp sep*, THJ *Mel pra*
Dm: SAC *Asp sep*, SB *CYM-PAR*, SBA *Cym-Asp*, TFG *Koe alb*

Hypnum jutlandicum Holmen & E. Warncke
Dg: LF *VAC-PIC*, RCB *Oxy-Eri*
Dm: TEE *Eup-Cal*

Hypnum pratense W.D.J. Koch ex Spruce
Dg: RBB *Sph-Tom*

Hypochaeris glabra L.
Dg: KAB *Sal ela*

Hypochaeris radicata L.
Dg: TF *KOE-COR*, TFB *The-Air*

Hypochoeris uniflora Vill.
Dg: AB *JUN TRI*, ABA *Jun tri*, ADB *Cal aru*

Hypogymnia physodes (L.) Nyl.
Dg: DA *AMM ARE*, DAA *Amm are*

Illecebrum verticillatum L.
Dg: MAB *Rad lin*

Impatiens glandulifera Royle
Dg: KA *SAL PUR*, KAC *Sal alb*, XDA *Sen flu*
Dm: XDA *Sen flu*

Impatiens noli-tangere L.
Dg: LA *ALN GLU*, LAA *Aln glu*, LBA *Aln inc*, RA *MON-CAR*, RAA *Car rem*
C: LAA *Aln glu*, LBA *Aln inc*, RA *MON-CAR*, RAA *Car rem*
Dm: LBA *Aln inc*

Impatiens parviflora DC.
Dm: KD *ROBINI*, KDA *Che-Rob*

Inula britannica L.
Dg: MCB *Mel-Bol*

Inula conyza DC.
Dg: THB *Bro-Fes*
C: THB *Bro-Fes*

Inula ensifolia L.
Dg: TH *FES-BRO*, THE *Cir-Bra*
Dm: THE *Cir-Bra*

Inula germanica L.
Dg: LCA *Que pub*

Inula salicina L.
Dg: LC *QUE PUB*

Iris pseudacorus L.
Dg: LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*, MC *PHR-CAR*
C: LA *ALN GLU*, LAA *Aln glu*

Isoëtes lacustris L.
Dg: VD *LIT UNI*, VDA *Lit uni*
C: VDA *Lit uni*
Dm: VDA *Lit uni*

Jasione montana L.
Dg: DA *AMM ARE*, DAA *Amm are*, TF *KOE-COR*, TFA *Cor can*, TFD *Hyp-Scl*

Jovibarba hirta (L.) Opiz
Dg: AC *ELY-SES*, ACA *Ses tat*, LE *ERI-PIN*, THA *Aly-Fes*, THB *Bro-Fes*, THC *Dia-Ses*
C: THA *Aly-Fes*, THB *Bro-Fes*, THC *Dia-Ses*

Juncus articulatus L. emend. K. Richt.
Dg: RAC *Epi-Mon*, RBA *Car dav*, VD *LIT UNI*
C: RAC *Epi-Mon*, RBA *Car dav*

Juncus articulatus L. emend. K. Richt. subsp. *litoralis* (Patze, Mey. et Elkan) Lemke
Dg: DA *AMM ARE*, DAC *Jun bal*

Juncus balticus Willd.
Dg: DA *AMM ARE*, DAC *Jun bal*
C: DAC *Jun bal*

Juncus bufonius L.
Dg: MA *ISO-JUN*, MAA *Ele ova*, MAB *Rad lin*, MAC *Ver sup*
C: MA *ISO-JUN*, MAB *Rad lin*, MAC *Ver sup*
Dm: MAB *Rad lin*

Juncus bulbosus L.
Dg: VD *LIT UNI,* VDA *Lit uni,* VDB *Ele aci,*

VDC *Sph-Utr*
C: VD *LIT UNI*, VDA *Lit uni*, VDB *Ele aci*
Dm: VD *LIT UNI*, VDA *Lit uni*, VDB *Ele aci*

Juncus capitatus Weigel
Dg: MAB *Rad lin*

Juncus compressus Jacq.
Dg: TC *FES-PUC*, TCA *Puc lim*, TCB *Jun ger*
C: TC *FES-PUC*, TCB *Jun ger*
Dm: MAC *Ver sup*

Juncus effusus L.
Dg: LA *ALN GLU*, RAC *Epi-Mon*, TDG *Jun eff*
C: RAC *Epi-Mon*, TDG *Jun eff*
Dm: TDG *Jun eff*, TDJ *Ver-Lys*

Juncus gerardi Loisel.
Dg: TC *FES-PUC*, TCA *Puc lim*

Juncus ranarius J.O.E. Perrier & Songeon
Dg: TC *FES-PUC*

Juncus squarrosus L.
Dg: TED *Nar-Jun*
C: TED *Nar-Jun*

Juncus trifidus L.
Dg: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABA *Jun tri*
C: ABA *Jun tri*
Dm: AB *JUN TRI*, ABA *Jun tri*

Jungermannia obovata Nees
Dg: RAD *Swe-Dic*

Jungermannia sphaerocarpa Hook.
Dg: AE *SAL HER*, AEA *Sal her*
Dm: AE *SAL HER*, AEA *Sal her*

Juniperus communis L.
Dg: LC *QUE PUB*, LCA *Que pub*, LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*
C: LC *QUE PUB*, LCA *Que pub*, LCC *Que pet*, LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*
Dm: TEE *Eup-Cal*

Juniperus communis L. subsp. *alpina* (Sm.) Čelak.
Dg: AA *LOI-VAC*, AAA *Loi-Vac*

Kernera saxatilis (L.) Rchb.
Dg: AC *ELY-SES*, ACA *Ses tat*

Kiaeria starkei (Web. & Mohr) I. Hagen
Dg: AE *SAL HER*, AEA *Sal her*
C: AEA *Sal her*

Knautia arvensis agg.
Dg: TH *FES-BRO*, THJ *Mel pra*
C: TEC *Vio can*, TFG *Koe alb*, THF *Bro ere*, THI *Tri med*, THJ *Mel pra*

Knautia dipsacifolia Kreutzer
Dg: ADB *Cal aru*

Koeleria glauca (Spreng.) DC.
Dg: TF *KOE-COR*, TFA *Cor can*,

Koeleria grandis Besser ex Gorski
Dg: LC *QUE PUB*, LCC *Que pet*

Koeleria macrantha (Ledeb.) Schult.
Dg: TH *FES-BRO*, THD *Fes val*, THG *Koe-Phl*
C: THD *Fes val*

Koeleria pyramidata (Lam.) P. Beauv.
Dg: THF *Bro ere*

Lamium amplexicaule L.
Dg: XB *STE MED*, XBA *Caucal*, XBB *Ver-Eup*

Lamium maculatum L.
Dg: KA *SAL PUR*

Lamium purpureum L.
Dg: KD *ROBINI*, XB *STE MED*, XBB *Ver-Eup*

Laserpitium latifolium L.
Dg: ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*, THC *Dia-Ses*
C: ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*

Laserpitium prutenicum L.
Dg: LC *QUE PUB*

Lathyrus japonicus Willd. subsp. *maritimus* (L.) P.W. Ball
Dg: DA *AMM ARE*, DAA *Amm are*

Lathyrus montanus Bernh.
Dg: THJ *Mel pra*

Lathyrus niger Bernh.
Dg: LC *QUE PUB*, LCC *Que pet*
C: LCC *Que pet*

Lathyrus pratensis L.
Dg: ADF *Cal var*, TD *MOL-ARR*, TDI *Cni ven*
C: ADF *Cal var*, TDI *Cni ven*, TDF *Cal pal*

Lathyrus tuberosus L.
Dg: XBA *Caucal*
C: XBA *Caucal*

Lathyrus vernus (L.) Bernh.
Dg: LBB *Car bet*, LBD *Sor-Fag*, LC *QUE PUB*
C: LBD *Sor-Fag*

Lavatera thuringiaca L.
Dg: KBA *Pru fru*

Ledum palustre L.
Dg: LFD *Vac-Pin*, RC *OXY-SPH*, RCA *Sph mag*, RCC *Oxy-Emp*
C: LFD *Vac-Pin*, RC *OXY-SPH*, RCA *Sph mag*

Leersia oryzoides (L.) Sw.
Dg: MA *ISO-JUN*, MAA *Ele ova*, MCE *Gly-Spa*

Lembotropis nigricans (L.) Griseb.
Dg: KBA *Pru fru*

Lemna gibba L.
Dg: VA *LEMNET*, VAA *Lem min*

Lemna minor L.
Dg: VA *LEMNET*, VAA *Lem min*, VAB *Utr vul*, VAC *Hyd mor*, VB *POTAME*
C: VA *LEMNET*, VAA *Lem min*, VAB *Utr vul*, VAC *Hyd mor*
Dm: VA *LEMNET*, VAA *Lem min*

Lemna trisulca L.
Dg: VA *LEMNET*, VAA *Lem min*, VAC *Hyd mor*
C: VA *LEMNET*, VAA *Lem min*, VAC *Hyd mor*
Dm: VA *LEMNET*, VAA *Lem min*

Leontodon autumnalis L.
Dg: TDC *Cyn cri*
C: TDC *Cyn cri*

Leontodon hispidus L.
Dg: TI *VIO CAL*
C: ADF *Cal var*, RBB *Sph-Tom*, TEB *Nar-Agr*, TEC *Vio can*, THF *Bro ere*, TI *VIO CAL*, TIA *Arm hal*

Leontodon incanus (L.) Schrank
Dg: AC *ELY-SES*, ACA *Ses tat*, LE *ERI-PIN*
C: ACA *Ses tat*

Leontodon pseudotaraxaci Schur
Dg: AC *ELY-SES*, ACB *Car fir*

Leonurus cardiaca L.
Dg: XBI *Mal neg*, XCE *Arc lap*

Lepidium campestre (L.) R. Br.
Dg: SC *THL ROT*

Lepidium ruderale L.
Dg: TB *THE-SAL*, XCA *Ono aca*

Lepraria incana (L.) Ach.
Dg: THC *Dia-Ses*

Leptogium lichenoides (L.) Zahlbr.
Dg: THA *Aly-Fes*

Leucanthemopsis alpina (L.) Heywood
Dg: AB *JUN TRI*, ABA *Jun tri*
C: ABA *Jun tri*

Leucanthemum vulgare Lam.
Dg: AF *CAR-KOB*, LE *ERI-PIN*
C: AF *CAR-KOB*, AFA *Fes ver*, LE *ERI-PIN*, LEA *Pul-Pin*, TDA *Arr ela*, TEC *Vio can*

Leucobryum glaucum (Hedw.) Ångstr.
Dg: LF *VAC-PIC*, LFD *Vac-Pin*, RCB *Oxy-Eri*

Leymus arenarius (L.) Hochst.
Dg: DA *AMM ARE*, DAA *Amm are*, DAB *Agr-Min*, DB *CAK MAR*, DBA *Atr lit*
C: DAA *Amm are*, DAB *Agr-Min*, DB *CAK MAR*, DBA *Atr lit*
Dm: DAB *Agr-Min*

Libanotis pyrenaica (L.) Bourg.
Dg: THB *Bro-Fes*, THC *Dia-Ses*
C: THB *Bro-Fes*, THC *Dia-Ses*
Dm: THC *Dia-Ses*

Ligustrum vulgare L.
Dg: LCA *Que pub*
C: LCA *Que pub*

Lilium martagon L.
Dg: LC *QUE PUB*, LCC *Que pet*

Limosella aquatica L.
Dg: MA *ISO-JUN*, MAA *Ele ova*
C: MAA *Ele ova*

Limprichtia revolvens s. l.
Dg: RB SCH-CAR, RBA *Car dav,* RBB *Sph-Tom*

Linaria odora (M. Bieb.) Fisch.
Dg: DA *AMM ARE*, DAA *Amm are*

Linaria vulgaris Mill.
Dg: LC *QUE PUB*

Lindernia procumbens (Krock.) Borbás
Dg: MA *ISO-JUN*, MAA *Ele ova*

Linosyris vulgaris Cass.
Dg: LCA *Que pub*

Linum catharticum L.
Dg: LE *ERI-PIN*, LEA *Pul-Pin*, THE *Cir-Bra*, TI *VIO CAL*
C: ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*, THE *Cir-Bra*, THF *Bro ere*

Linum usitatissimum L.
Dg: XBL *Lol-Lin*
C: XBL *Lol-Lin*
Dm: XBL *Lol-Lin*

Liparis loeselii (L.) Rich.
Dg: RBA *Car dav*

Listera cordata (L.) R. Br.
Dg: KC *ROS-PIN*, KCA *Pin mug*

Lithospermum arvense L.
Dg: XB *STE MED*, XBA *Caucal*

Lithospermum officinale L.
Dg: LCA *Que pub*

Littorella uniflora (L.) Asch.
Dg: VD *LIT UNI*, VDA *Lit uni*

Lobelia dortmanna L.
Dg: VD *LIT UNI*, VDA *Lit uni*
C: VDA *Lit uni*

Lolium perenne L.
Dg: TDC *Cyn cri*, XA *POL-POË*, XAA *Cor-Pol*
C: TDC *Cyn cri*, XAA *Cor-Pol*
Dm: TDC *Cyn cri*

Lolium remotum Schrank
Dg: XBL *Lol-Lin*
C: XBL *Lol-Lin*

Lonicera nigra L.
Dg: ADC *Sal sil*, ADF *Cal var*, KC *ROS-PIN*
C: ADC *Sal sil*

Lonicera periclymenum L.
Dg: KBH *Sal are*
C: KBH *Sal are*

Lonicera tatarica L.
Dg: KD *ROBINI*, KDA *Che-Rob*

Lonicera xylosteum L.
Dg: KBH *Sal are*, LBD *Sor-Fag*, LC *QUE PUB*
C: LBD *Sor-Fag*

Lophozia capitata Hook. Macoun
Dg: DAC *Jun bal*

Lophozia longidens (Lindb.) Macoun
Dg: ADC *Sal sil*

Lophozia lycopodioides (Wallr.) Cogn.
Dg: AB *JUN TRI*, ABA *Jun tri*

Lophozia sudetica (Nees ex Huebener) Grolle
Dg: AA *LOI-VAC*, AE *SAL HER*, AEA *Sal her*
C: AEA *Sal her*

Lotus corniculatus L.
Dg: TEC *Vio can*, THF *Bro ere*, TI *VIO CAL*
C: TEC *Vio can*, THF *Bro ere*, TI *VIO CAL*, TIA *Arm hal*

Lotus tenuis Waldst. & Kit. ex Willd.
Dg: TC *FES-PUC*, TCA *Puc lim*

Lotus uliginosus Schkuhr
Dg: RB *SCH-CAR*, TD *MOL-ARR*, TDD *Mol cae*, TDF *Cal pal*, TDG *Jun eff*
C: TDF *Cal pal*

Lunaria rediviva L.
Dg: LBF *Til-Ace*
Dm: LBF *Til-Ace*

Luronium natans (L.) Raf.
Dg: VD *LIT UNI*, VDB *Ele aci*

Luzula alpino-pilosa (Chaix) Breistr.
Dg: AA *LOI-VAC*, AAA *Loi-Vac*, ABA *Jun tri*, AE *SAL HER*, AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*
C: AA *LOI-VAC*, AAA *Loi-Vac*, ABA *Jun tri*, AE *SAL HER*, AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*
Dm: AA *LOI-VAC*, AAA *Loi-Vac*

Luzula campestris agg.
Dg: TE *CAL-ULI*, TEC *Vio can*
C: TDB *Pol-Tri*, TE *CAL-ULI*, TEB *Nar-Agr*, TEC *Vio can*, TED *Nar-Jun*, TEF *Gen-Vac*

Luzula luzulina (Vill.) Dalla Torre & Sarnth.
Dg: LFC *Pic abi*

Luzula luzuloides (Lam.) Dandy & Wilmott
Dg: ADB *Cal aru*, AE *SAL HER*, AEB *Fes pic*, TEA *Nar str*, TEB *Nar-Agr*
C: ADB *Cal aru*, AE *SAL HER*, AEB *Fes pic*, TEA *Nar str*, TEB *Nar-Agr*

Luzula pilosa (L.) Willd.
Dg: LC *QUE PUB*, LD *QUE ROB*, LDB *Que rob*, LF *VAC-PIC*
C: LBE *Luz-Fag*, LD *QUE ROB*, LDA *Gen-Que*, LDB *Que rob*

Luzula sylvatica (Huds.) Gaudin
Dg: AD *MUL-ACO*, ADB *Cal aru*, ADC *Sal sil*, ADG *Tri fus*, KC *ROS-PIN*
C: ADB *Cal aru*, ADC *Sal sil*, ADG *Tri fus*

Lychnis flos-cuculi L.
Dg: TD *MOL-ARR*, TDF *Cal pal*, TDH *Alo pra*
C: RBB *Sph-Tom*, TDD *Mol cae*, TDI *Cni ven*, TDF *Cal pal*, TDH *Alo pra*

Lycium barbarum L.
Dg: KBD *Aeg-Sam*
Dm: KBD *Aeg-Sam*, SB *CYM-PAR*, SBA *Cym-Asp*

Lycopodiella inundata (L.) Holub
Dg: DAC *Jun bal*

Lycopodium annotinum L.
Dg: LF *VAC-PIC*, LFC *Pic abi*

Lycopus europaeus L.
Dg: LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*
C: KAB *Sal ela,* LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*, MCF *Car-Rum*

Lysimachia nemorum L.
Dg: ADG *Tri fus*, RA *MON-CAR*, RAA *Car rem*
C: ADG *Tri fus*

Lysimachia nummularia L.
Dg: KA *SAL PUR*

Lysimachia thyrsiflora L.
Dg: LA *ALN GLU*

Lysimachia vulgaris L.
Dg: LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*, TDJ *Ver-Lys*
C: LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*, LDB *Que rob*, MCF *Car-Rum*, MCG *Car ela*, TDG *Jun eff*, TDJ *Ver-Lys*

Lythrum salicaria L.
Dg: LA *ALN GLU*, MC *PHR-CAR*, TDJ *Ver-Lys*
C: LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*, MCG *Car ela*, MCH *Car gra*, TDG *Jun eff*, TDJ *Ver-Lys*

Maianthemum bifolium (L.) F.W. Schmidt
Dg: LB *CAR-FAG*, LBB *Car bet*, LBE *Luz-Fag*, LC *QUE PUB*, LD *QUE ROB*, LDB *Que rob*
C: LBB *Car bet*, LBC *Fag syl*, LBE *Luz-Fag*, LDB *Que rob*
Dm: LBD *Sor-Fag*

Malaxis monophyllos (L.) Sw.
Dg: TI *VIO CAL*, TIA *Arm hal*

Malva neglecta Wallr.
Dg: XBI *Mal neg*

C: XBI *Mal neg*
Dm: XBI *Mal neg*

Marchantia aquatica (Nees) Burgeff
Dg: RAB *Lyc-Cra*

Matricaria maritima L. subsp. *inodora* (L.) Dostál
Dg: XB *STE MED*, XBA *Caucal*, XBE *Oxa fon*
C: XBA *Caucal*, XBB *Ver-Eup*, XBC *Scl ann*, XBE *Oxa fon*, XBG *Atrpli*

Medicago falcata L.
Dg: LCA *Que pub*, TH *FES-BRO*, THB *Bro-Fes*, THD *Fes val*, THE *Cir-Bra*
C: KBA *Pru fru*, LCA *Que pub*, TFF *Aly-Sed*, TH *FES-BRO*, THB *Bro-Fes*, THD *Fes val*, THE *Cir-Bra*, THF *Bro ere*, THG *Koe-Phl*, THH *Ger san*

Medicago lupulina L.
Dg: LE *ERI-PIN*
C: ADF *Cal var*, KAB *Sal ela*

Medicago minima (L.) L.
Dg: TFH *Koe gla*

Meesia triquetra (L. ex Jolycl) Ångstr.
Dg: RAD *Swe-Dic*

Melampyrum arvense L.
Dg: TH *FES-BRO*

Melampyrum cristatum L.
Dg: LCA *Que pub*, THH *Ger san*

Melampyrum nemorosum L.
Dg: LC *QUE PUB*, LCC *Que pet*

Melampyrum pratense L.
Dg: KBH *Sal are*, LC *QUE PUB*, LD *QUE ROB*, LDA *Gen-Que*, LF *VAC-PIC*, LFB *Dic-Pin*, THJ *Mel pra*
C: LDA *Gen-Que*, THJ *Mel pra*

Melandrium album (Mill.) Garcke
Dg: XC *ART VUL*

Melandrium noctiflorum (L.) Fr.
Dg: XB *STE MED*, XBA *Caucal*
C: XBA *Caucal*

Melandrium rubrum (Weigel) Garcke
Dg: ADD *Ade all*

Melica nutans L.
Dg: ADF *Cal var*, LBB *Car bet*, LBD *Sor-Fag*, LC *QUE PUB*, LCC *Que pet*, LE *ERI-PIN*
C: ADF *Cal var*, LBB *Car bet*, LBD *Sor-Fag*, LC *QUE PUB*, LCC *Que pet*

Melica transsilvanica Schur
Dg: THB *Bro-Fes*
C: THB *Bro-Fes*
Dm: THA *Aly-Fes*

Melilotus alba Medik.
Dm: XC *ART VUL*

Melilotus dentata (Waldst. & Kit.) Pers.
Dg: TC *FES-PUC*

Melittis melissophyllum L.
Dg: LBD *Sor-Fag*, LC *QUE PUB*, LCC *Que pet*
C: LC *QUE PUB*, LCC *Que pet*

Mentha aquatica L.
Dg: MCB *Mel-Bol*
C: MCB *Mel-Bol*

Mentha longifolia (L.) L.
Dg: KAB *Sal ela*
C: KAB *Sal ela*

Menyanthes trifoliata L.
Dg: RB *SCH-CAR*, RBB *Sph-Tom*
C: RBB *Sph-Tom*
Dm: RAB *Lyc-Cra*

Mercurialis perennis L.
Dg: LB *CAR-FAG*, LBC *Fag syl*, LBD *Sor-Fag*, LBF *Til-Ace*
C: LBD *Sor-Fag*, LBF *Til-Ace*
Dm: LBF *Til-Ace*

Meum athamanticum Jacq.
Dg: TDB *Pol-Tri*

Milium effusum L.
Dg: ADC *Sal sil*, ADD *Ade all*, LB *CAR-FAG*, LBB *Car bet*
C: ADC *Sal sil*

Minuartia kitaibelii (Nyman) Pwał.
Dg: AC *ELY-SES*, ACA *Ses tat*
C: ACA *Ses tat*

Minuartia sedoides (L.) Hiern
Dg: AC *ELY-SES*, ACB *Car fir*

Minuartia verna (L.) Hiern
Dg: AC *ELY-SES*, ACB *Car fir*

Minuartia viscosa (Schreb.) Schinz & Thell.
Dg: TFH *Koe gla*

Mnium hornum Hedw.
Dg: LA *ALN GLU*, LAA *Aln glu*

Moehringia trinervia (L.) Clairv.
Dg: KBH *Sal are*, LD *QUE ROB*
C: KBH *Sal are*

Molinia caerulea s. l.
Dg: LFD *Vac-Pin*, RC *OXY-SPH*, TDD *Mol cae*
C: LDB *Que rob*, LFD *Vac-Pin*, RCA *Sph mag*, RCB *Oxy-Eri*, TDD *Mol cae*
Dm: LD *QUE ROB*, LDB *Que rob*, LFD *Vac-Pin*, RB *SCH-CAR*, RBA *Car dav*, RBD *Sph-Car*, TD *MOL-ARR*, TDD *Mol cae*

Montia fontana s. l.
Dg: RAC *Epi-Mon*
C: RAC *Epi-Mon*

Mutellina purpurea (Poir.) Thell.
Dg: AA *LOI-VAC*, ABA *Jun tri*, AE *SAL HER*, AEA *Sal her*, AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*
C: AA *LOI-VAC*, AAA *Loi-Vac*, ABA *Jun tri*, ADA *Cal vil*, AE *SAL HER*, AEA *Sal her*, AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*
Dm: ADG *Tri fus*, AE *SAL HER*, AEB *Fes pic*

Mycelis muralis (L.) Dumort.
Dg: LBD *Sor-Fag*
C: LBC *Fag syl*, LBD *Sor-Fag*

Mycobilimbia sabuletorum (Schreb.) Hafellner
Dg: TI *VIO CAL*, TIA *Arm hal*
C: TI *VIO CAL*, TIA *Arm hal*

Mylia anomala (Hook.) Gray
Dg: RC *OXY-SPH*

Myosotis arvensis (L.) Hill
Dg: XB *STE MED*, XBA *Caucal*, XBB *Ver-Eup*, XBC *Scl ann*, XBE *Oxa fon*
C: XBA *Caucal*, XBC *Scl ann*

Myosotis palustris agg.
Dg: LA *ALN GLU*, RA *MON-CAR*, RAC *Epi-Mon*
C: ADD *Ade all*, ADG *Tri fus*, MCE *Gly-Spa*, RAB *Lyc-Cra*, RAC *Epi-Mon*, TDF *Cal pal*

Myosotis sparsiflora Pohl
Dg: KD *ROBINI*, KDA *Che-Rob*

Myosotis stricta Link ex Roem. & Schult.
Dg: TFE *Ara tha*, TFH *Koe gla,* XB *STE MED*

Myosotis sylvatica Ehrh. ex Hoffm.
Dg: KAB *Sal ela*

Myosoton aquaticum (L.) Moench
Dg: MB *BID TRI*, MCD *Pha aru*

Myosurus minimus L.
Dg: MA *ISO-JUN*, MAC *Ver sup*
C: MAC *Ver sup*

Myrica gale L.
Dg: LAB *Sal cin*
Dm: LAB *Sal cin*

Myricaria germanica (L.) Desv.
Dg: KA *SAL PUR*, KAB *Sal ela*
C: KAB *Sal ela*
Dm: KAB *Sal ela*

Myriophyllum alternifolium DC.
Dg: VD *LIT UNI*, VDA *Lit uni*
C: VDA *Lit uni*

Myriophyllum spicatum L.
Dg: VB *POTAME*, VBA *Nym alb*, VBB *Potami*, VC *CHARET*

Myriophyllum verticillatum L.
Dg: VB *POTAME*, VBA *Nym alb*, VBB *Potami*, VBC *Bat flu*
Dm: VB *POTAME*, VBB *Potami*

Myrrhis odorata (L.) Scop.
Dg: XDF *Rum alp*

Najas marina L.
Dg: VC *CHARET*, VCA *Nit fle*

Najas minor All.
Dg: VBB *Potami*

Nardia scalaris Gray
Dg: AE *SAL HER*, AEA *Sal her*

Nardus stricta L.
Dg: AB *JUN TRI*, ADB *Cal aru*, AE *SAL HER*, TE *CAL-ULI*, TEA *Nar str*, TEB *Nar-Agr*, TEC *Vio can*, TED *Nar-Jun*
C: ABB *Nar-Car*, ADB *Cal aru*, AEA *Sal her*, TE *CAL-ULI*, TEA *Nar str*, TEB *Nar-Agr*, TEC *Vio can*, TED *Nar-Jun*, TEF *Gen-Vac*
Dm: AA *LOI-VAC*, AAA *Loi-Vac*, AE *SAL HER*, AEB *Fes pic*, TE *CAL-ULI*, TEA *Nar str*, TEB *Nar-Agr*, TEC *Vio can*, TED *Nar-Jun*, TEF *Gen-Vac*, XE *EPI ANG*, XEA *Epi ang*

Nasturtium officinale R. Br.
Dg: MCE *Gly-Spa*
Dm: MCE *Gly-Spa*

Neckera crispa Hedw.
Dg: AC *ELY-SES*, ACA *Ses tat*, THC *Dia-Ses*

Neckera pumila Hedw.
Dg: THC *Dia-Ses*

Neottia nidus-avis (L.) Rich.
Dg: LBD *Sor-Fag*

Neslia paniculata (L.) Desv.
Dg: XB *STE MED*, XBA *Caucal*

Niphotrichum canescens (Hedw.) Bednarek-Ochyra & Ochyra
Dg: AF *CAR-KOB*, AFA *Fes ver*, TFH *Koe gla*
C: AF *CAR-KOB*, AFA *Fes ver*, TFH *Koe gla*

Niphotrichum elongatum (Ehrh. ex Frisvoll) Bednarek-Ochyra & Ochyra
Dg: AE *SAL HER*, AEA *Sal her*

Niphotrichum ericoides (Brid.) Bednarek-Ochyra & Ochyra
Dg: AE *SAL HER*, AEA *Sal her*

Nitella mucronata (Braun) Miq.
Dg: VC *CHARET*, VCB *Cha glo*

Nitella syncarpa (Thuill.) Kütz.
Dg: VC *CHARET*, VCA *Nit fle*
C: VCA *Nit fle*
Dm: VC *CHARET*, VCA *Nit fle*

Nitellopsis obtusa (Desv.) J. Groves
Dg: VC *CHARET*, VCB *Cha glo*
Dm: VC *CHARET*, VCB *Cha glo*

Nuphar lutea (L.) Sibth. & Sm.
Dg: VA *LEMNET*, VAC *Hyd mor*, VB *POTAME*, VBA *Nym alb*, VBC *Bat flu*
C: VAC *Hyd mor*, VBA *Nym alb*
Dm: VB *POTAME*, VBA *Nym alb*

Nymphaea alba L.
Dg: VB *POTAME*, VBA *Nym alb*, VCA *Nit fle*
C: VBA *Nym alb*
Dm: VB *POTAME*, VBA *Nym alb*

Nymphoides peltata (S.G. Gmel.) Kuntze
Dg: VBA *Nym alb*
Dm: VBA *Nym alb*

Odontites verna s. l.
Dg: XBA *Caucal*

Odontoschisma sphagni (Dicks.) Dumort.
Dg: RCB *Oxy-Eri*

Oenanthe aquatica (L.) Poir.
Dg: MB *BID TRI*, MCC *Ele-Sag*
Dm: MCC *Ele-Sag*

Oenothera biennis s. l.
Dg: XBJ *Sal rut*, XCA *Ono aca*

Oligotrichum hercynicum (Hedw.) Lam. & DC.
Dg: AE *SAL HER*, AEA *Sal her*
C: AEA *Sal her*

Ononis repens L.
Dg: TFG *Koe alb*

Ononis spinosa L.
Dg: TH *FES-BRO*, THE *Cir-Bra*

Onopordon acanthium L.
Dg: XCA *Ono aca*
Dm: XCA *Ono aca*

Ophioglossum vulgatum L.
Dg: TDD *Mol cae*

Oreochloa disticha (Wulfen) Link
Dg: AA *LOI-VAC*, AB *JUN TRI*, ABA *Jun tri*
C: ABA *Jun tri*

Oreopteris limbosperma (Bellardi ex All.) Holub
Dg: ADC *Sal sil*, ADG *Tri fus*

Origanum vulgare L.
Dg: ADF *Cal var*, KBA *Pru fru*, LC *QUE PUB*, LE *ERI-PIN*
C: ADF *Cal var*, KBA *Pru fru*

Orobanche alba Stephan ex Willd.
Dg: THC *Dia-Ses*

Orobanche pallidiflora Wimm. & Grab.
Dg: XDF *Rum alp*

Orthilia secunda (L.) House
Dg: KBH *Sal are,* LBD *Sor-Fag,* LF *VAC-PIC*

Oxalis acetosella L.
Dg: ADC *Sal sil*, ADD *Ade all*, KC *ROS-PIN*, LB *CAR-FAG*, LBC *Fag syl,* LBE *Luz-Fag*, RA *MON-CAR*
C: ADC *Sal sil*, ADD *Ade all*, ADE *Dry-Ath*, KC *ROS-PIN*, KCA *Pin mug*, LB *CAR-FAG*, LBB *Car bet*, LBC *Fag syl*, LBE *Luz-Fag*, LBF *Til-Ace*, LFC *Pic abi*, RA *MON-CAR,* RAA *Car rem*

Oxalis fontana s. l.
Dg: SB *CYM-PAR*, XBE *Oxa fon*

Oxycoccus palustris s. l.
Dg: LFD *Vac-Pin*, RB *SCH-CAR*, RBE *Sph cus*, RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*
C: LFD *Vac-Pin*, RBE *Sph cus*, RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*
Dm: RBD *Sph-Car*, RBE *Sph cus*, RC *OXY-SPH*, RCA *Sph mag*, RCC *Oxy-Emp*

Oxyria digyna (L.) Hill
Dg: AF *CAR-KOB*, AFA *Fes ver*

Oxyrrhynchium hians (Hedw.) Loeske
Dg: KA *SAL PUR*

Oxystegus tenuirostris (Hook & Taylor) Lindb.
Dg: AE *SAL HER*, AEB *Fes pic*

Oxytropis pilosa (L.) DC.
Dg: THD *Fes val*

Pachypleurum simplex (L.) Rchb.
Dg: AC *ELY-SES*, ACB *Car fir*

Padus avium Mill.
Dg: LA *ALN GLU*, LBA *Aln inc*
C: LBA *Aln inc*
Dm: KAC *Sal alb*

Paludella squarrosa (Hedw.) Brid.
Dg: RBB *Sph-Tom*
Dm: RBB *Sph-Tom*

Palustriella commutata (Hedw.) Ochyra
Dg: RAB *Lyc-Cra*
C: RAB *Lyc-Cra*
Dm: ADG *Tri fus*, RAB *Lyc-Cra*, RAD *Swe-Dic*

Palustriella decipiens (De Not.) Ochyra
Dm: RAB *Lyc-Cra*, RAD *Swe-Dic*

Papaver argemone L.
Dg: XB *STE MED*, XBC *Scl ann*

Papaver rhoeas L.
Dg: XB *STE MED*, XBA *Caucal*
C: XBA *Caucal*

Parietaria officinalis L.
Dg: SB *CYM-PAR*

Paris quadrifolia L.
Dg: LB *CAR-FAG*, LBF *Til-Ace*

Parnassia palustris L.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*
C: AC *ELY-SES*, ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*

Pedicularis hacquetii Graf
Dg: AE *SAL HER*, AEB *Fes pic*

Pedicularis oederi Vahl
Dg: AC *ELY-SES*, ACB *Car fir*

Pedicularis palustris L.
Dg: RBB *Sph-Tom*

Pedicularis sudetica L.
Dg: RAD *Swe-Dic*

Pedicularis sylvatica L.
Dg:TED *Nar-Jun*

Pedicularis verticillata L.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*
C: AC *ELY-SES*, ACA *Ses tat*

Pellia endiviifolia (Dicks.) Dumort.
Dg: RAB *Lyc-Cra*

Pellia epiphylla (L.) Corda
Dg: ADE *Dry-Ath*, ADG *Tri fus*

Pellia neesiana (Gottsche) Limpr.
Dg: RAB *Lyc-Cra*

Peltigera canina (L.) Willd.
Dg: TFG *Koe alb*

Peltigera rufescens (Weiss) Humb.
Dg: TFH *Koe gla*

Peplis portula L.
Dg: MA *ISO-JUN*, MAA *Ele ova*, MAB *Rad lin*, MAC *Ver sup*
Dm: MAC *Ver sup*

Petasites albus (L.) Gaertn.
Dg: ADD *Ade all*, RA *MON-CAR*, RAA *Car rem*
Dm: ADD *Ade all*, RA *MON-CAR*, RAA *Car rem*

Petasites hybridus (L.) P. Gaertn., B. Mey. & Scherb.
Dg: KA *SAL PUR*, KAB *Sal ela*, XD *GAL-URT*, XDB *Pet hyb*
C: XDB *Pet hyb*
Dm: XD *GAL-URT*, XDB *Pet hyb*

Petasites kablikianus Tausch ex Bercht.
Dm: XDB *Pet hyb*

Petasites spurius (Retz.) Rchb.
Dg: DAB *Agr-Min*, DB *CAK MAR*, DBA *Atr lit*
C: DAB *Agr-Min*, DB *CAK MAR*, DBA *Atr lit*

Petrorhagia prolifera (L.) P.W. Ball & Heywood
Dg: SC *THL ROT,* TFF *Aly-Sed*, TFH *Koe gla*

Peucedanum cervaria (L.) Lapeyr.
Dg: LC *QUE PUB*, THH *Ger san*
C: THH *Ger san*

Peucedanum oreoselinum (L.) Moench
Dg: LC *QUE PUB*, LCC *Que pet*
C: LCC *Que pet*

Peucedanum palustre (L.) Moench
Dg: LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*
C: LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*

Phaeoceros laevis (L.) Prosk.
Dg: MA *ISO-JUN*, MAB *Rad lin*

Phalaris arundinacea L.
Dg: KA *SAL PUR*, KAA *Sal tri*, KAC *Sal alb*, MC *PHR-CAR*, MCD *Pha aru*
C: KA *SAL PUR*, KAA *Sal tri*, KAC *Sal alb*, MCD *Pha aru*, TDJ *Ver-Lys*, XDA *Sen flu*
Dm: MC *PHR-CAR*, MCD *Pha aru*, MCH *Car gra*

Phegopteris connectilis (Michx.) Watt
Dg: ADE *Dry-Ath*

Philonotis caespitosa Jur.
Dg: RAC *Epi-Mon*
C: RAC *Epi-Mon*

Philonotis fontana (Hedw.) Brid.
Dg: RAC *Epi-Mon*
C: RAC *Epi-Mon*
Dm: RAC *Epi-Mon*

Philonotis marchica (Hedw.) Brid.
Dg: MAC *Ver sup*

Philonotis seriata Mitt.
Dg: RAD *Swe-Dic*

Phleum phleoides (L.) H. Karst.
Dg: TFH *Koe gla*, TH *FES-BRO*, THD *Fes val*, THG *Koe-Phl*

C: KBA *Pru fru*, TFH *Koe gla*, THD *Fes val*, THG *Koe-Phl*
Dm: TFH *Koe gla*, THA *Aly-Fes*, THG *Koe-Phl*

Phleum pratense L.
Dg: TD *MOL-ARR*

Phleum rhaeticum (Humphries) Rauschert
Dg: AD *MUL-ACO*, ADG *Tri fus*, AE *SAL HER*, AEB *Fes pic*, TEA *Nar str*
C: ADG *Tri fus*

Phragmites australis (Cav.) Trin. ex Steud.
Dg: MC *PHR-CAR*, TC *FES-PUC*
C: MCA *Phr aus*, MCB *Mel-Bol*, MCF *Car-Rum*, TC *FES-PUC*, TCA *Puc lim*, TCB *Jun ger*
Dm: MC *PHR-CAR*, MCA *Phr aus*, MCB *Mel-Bol*, MCF *Car-Rum*, TCB *Jun ger*

Phyllitis scolopendrium (L.) Newman
Dg: LBF *Til-Ace*

Phyllophora brodiaei L.
Dg: VE *ZOS MAR*, VEA *Zos mar*

Phyteuma orbiculare L.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*
C: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*

Phyteuma spicatum L.
Dg: AD *MUL-ACO*, ADB *Cal aru*, ADG *Tri fus*, AE *SAL HER*, AEB *Fes pic*, TDB *Pol-Tri*, TEB *Nar-Agr*
C: ADB *Cal aru*, ADG *Tri fus*, AEB *Fes pic*, TDB *Pol-Tri*, TEB *Nar-Agr*

Picea abies(L.) H.Karst.
Dg: KC *ROS-PIN*, LE *ERI-PIN*, LEA *Pul-Pin*, LF *VAC-PIC*, LFC *Pic abi*
C: ADC *Sal sil*, KC *ROS-PIN*, KCA *Pin mug*, LBE *Luz-Fag*, LE *ERI-PIN*, LEA *Pul-Pin*, LF *VAC-PIC*, LFB *Dic-Pin*, LFC *Pic abi*
Dm: LBE *Luz-Fag*, LF *VAC-PIC*, LFC *Pic abi*

Picris hieracioides L.
Dg: SC *THL ROT*, TEB *Nar-Agr*

Pilaiella littoralis (L.) Kjellm.
Dg: VCC *Cha can*, VE *ZOS MAR*, VEA *Zos mar*
Dm: VE *ZOS MAR*, VEA *Zos mar*

Pilularia globulifera L.
Dg: VDB *Ele aci*

Pimpinella major (L.) Huds.
Dg: ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*,
C: ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*

Pimpinella saxifraga L.
Dg: TH *FES-BRO*, TI *VIO CAL*
C: ACA *Ses tat*, ADF *Cal var*, TDA *Arr ela*, TEC *Vio can*, TH *FES-BRO*, THB *Bro-Fes*, THE *Cir-Bra*, THF *Bro ere*, THG *Koe-Phl*, THI *Tri med*, TI *VIO CAL*, TIA *Arm hal*

Pinguicula alpina L.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*

Pinguicula vulgaris L.
Dg: RB *SCH-CAR*, RBA *Car dav*, RBB *Sph-Tom*

Pinus mugo Turra
Dg: ADC *Sal sil*, KC *ROS-PIN*, KCA *Pin mug*
C: ADC *Sal sil*, KC *ROS-PIN*, KCA *Pin mug*
Dm: ADC *Sal sil*, KC *ROS-PIN*, KCA *Pin mug*, RCA *Sph mag*

Pinus sylvestris L.
Dg: LE *ERI-PIN*, LEA *Pul-Pin*, LF *VAC-PIC*, LFB *Dic-Pin*, LFD *Vac-Pin*, RC *OXY-SPH*, RCB *Oxy-Eri*
C: KBH *Sal are*, LC *QUE PUB*, LCA *Que pub*, LDB *Que rob*, LE *ERI-PIN*, LEA *Pul-Pin*, LF *VAC-PIC*, LFB *Dic-Pin*, LFD *Vac-Pin*, RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*, TFG *Koe alb*, TI *VIO CAL*, TIA *Arm hal*
Dm: KBH *Sal are*, LC *QUE PUB*, LCA *Que pub*, LD *QUE ROB*, LDA *Gen-Que*, LDB *Que rob*, LE *ERI-PIN*, LEA *Pul-Pin*, LF *VAC-PIC*, LFB *Dic-Pin*, LFC *Pic abi*, LFD *Vac-Pin*, RC *OXY-SPH*, RCA *Sph mag*, TEE *Eup-Cal*

Placidium squamulosum (Ach.) O. Breuss
Dg: TFH *Koe gla*

Plagiochila porelloides (Torrey ex Nees) Lindenb.
Dg: RAB *Lyc-Cra*

Plagiomnium affine s. l.
Dg: THJ *Mel pra*

C: RBB *Sph-Tom*, THJ *Mel pra*

Plagiomnium undulatum (Hedw.) T.J. Kop
Dg: LA *ALN GLU*, RA *MON-CAR*

Plagiopus oederiana (Sw.) Limpr.
Dg: AC *ELY-SES*, ACA *Ses tat*

Plagiothecium curvifolium Schlieph. ex Limpr.
Dg: LF *VAC-PIC*, LFC *Pic abi*

Plagiothecium ruthei Limpr.
Dg: LA *ALN GLU*

Plantago arenaria Waldst. & Kit.
Dg: XBJ *Sal rut*
C: XBJ *Sal rut*

Plantago intermedia Gilib.
Dg: MA *ISO-JUN*, MAA *Ele ova*, MB *BID TRI*, TC *FES-PUC*, TCA *Puc lim*
C: MA *ISO-JUN*, MAA *Ele ova*

Plantago lanceolata L.
Dg: TD *MOL-ARR*, TDA *Arr ela*, TE *CAL-ULI*, TEC *Vio can*
C: KAB *Sal ela*, TD *MOL-ARR*, TDA *Arr ela*, TDB *Pol-Tri*, TDC *Cyn cri*, TDH *Alo pra*, TEC *Vio can*, TFC *Arm elo*, TFD *Hyp-Scl*, THF *Bro ere*, XCA *Ono aca*

Plantago major s. l.
Dg: TDC *Cyn cri*, XA *POL-POË*, XAA *Cor-Pol*, XAB *Sag pro*
C: TDC *Cyn cri*, XA *POL-POË*, XAA *Cor-Pol*, XAB *Sag pro*

Plantago maritima L.
Dg: TC *FES-PUC*, TCA *Puc lim*

Plantago media L.
Dg: TH *FES-BRO*, THE *Cir-Bra*, THF *Bro ere*
C: THE *Cir-Bra*, THF *Bro ere*

Platanthera bifolia (L.) Rich.
Dg: LC *QUE PUB*

Platismatia glauca (L.) W.L. Culb. & C.F. Culb.
Dg: DA *AMM ARE*, DAA *Amm are*

Pleurochaete squarrosa (Brid.) Lindb
Dg: THD *Fes val*

Pleurozium schreberi (Willd ex Brid.) Mitt.
Dg: LF *VAC-PIC*, LFB *Dic-Pin*, LFD *Vac-Pin*, THJ *Mel pra*
C: KBH *Sal are*, LF *VAC-PIC*, LFB *Dic-Pin*, LFD *Vac-Pin*, TEF *Gen-Vac*, THJ *Mel pra*
Dm: LDA *Gen-Que*, LF *VAC-PIC*, LFB *Dic-Pin*, LFD *Vac-Pin*, TE *CAL-ULI*, TEE *Eup-Cal*, TEF *Gen-Vac*, THJ *Mel pra*

Poa alpina L.
Dg: AC *ELY-SES*, ACA *Ses tat*

Poa annua s. l.
Dg: XA *POL-POË*, XAA *Cor-Pol*, XAB *Sag pro*
C: XA *POL-POË*, XAA *Cor-Pol*, XAB *Sag pro*
Dm: XA *POL-POË*, XAB *Sag pro*

Poa chaixii Vill.
Dg: AD *MUL-ACO*, ADB *Cal aru*, ADG *Tri fus*, TEB *Nar-Agr*
C: TEB *Nar-Agr*

Poa compressa L.
C: THA *Aly-Fes*
Dm: LE *ERI-PIN*, LEA *Pul-Pin*, XCB *Dau-Mel*

Poa laxa Haenke
Dg: AA *LOI-VAC*, AAA *Loi-Vac*

Poa nemoralis L.
Dg: LBD *Sor-Fag*, LC *QUE PUB*, LD *QUE ROB*, SA *ASP TRI*
C: ADF *Cal var*, LBB *Car bet*, LBD *Sor-Fag*, LC *QUE PUB*, LCC *Que pet*, LDA *Gen-Que*, SAC *Asp sep*

Poa pratensis s. l.
Dg: TH *FES-BRO*, THJ *Mel pra*
C: KBH *Sal are*, LC *QUE PUB*, LCA *Que pub*, LCC *Que pet*, TDA *Arr ela*, TDI *Cni ven*, TDH *Alo pra*, TFC *Arm elo*, TFG *Koe alb*, TFH *Koe gla*, TH *FES-BRO*, THD *Fes val*, THF *Bro ere*, THG *Koe-Phl*, THH *Ger san*, THI *Tri med*, THJ *Mel pra*, XCC *Con-Ely*

Poa subcaerulea Sm.
Dg: TC *FES-PUC*, TCB *Jun ger*

Poa trivialis L.
Dg: KA *SAL PUR*
C: KA *SAL PUR*, KAC *Sal alb*, TDH *Alo pra*, XEB *Fra ves*

Pogonatum urnigerum (Hedw.) P. Beauv.
Dg: AE *SAL HER*, AEA *Sal her*
C: AEA *Sal her*

Pohlia annotina (Hedw.) Lindb
Dg: MAB *Rad lin*

Pohlia melanodon (Brid.) A.J. Shaw
Dg: MA *ISO-JUN*

Pohlia nutans (Hedw.) Lindb
Dg: DA *AMM ARE*, DAC *Jun bal*
C: DAC *Jun bal*
Dm: DAC *Jun bal*

Pohlia wahlenbergii (F. Weber & D. Mohr)
Dg: RAD *Swe-Dic*, RBA *Car dav*

Polygala amara L. subsp. *brachyptera* (Chodat) Hayek
Dg: AC *ELY-SES*, ACA *Ses tat*, LE *ERI-PIN*, LEA *Pul-Pin*
C: ACA *Ses tat*

Polygala comosa Schkuhr
Dg: THB *Bro-Fes*, THF *Bro ere*

Polygala vulgaris s. l.
Dg: TE *CAL-ULI*, TEC *Vio can*
C: TEC *Vio can*

Polygonatum multiflorum (L.) All.
Dg: LB *CAR-FAG*, LBB *Car bet*, LBF *Til-Ace*

Polygonatum odoratum (Mill.) Druce
Dg: LC *QUE PUB*, LCC *Que pet*, LE *ERI-PIN*, THB *Bro-Fes*, THC *Dia-Ses*
C: LC *QUE PUB*, LCC *Que pet*, THB *Bro-Fes*

Polygonatum verticillatum (L.) All.
Dg: AD *MUL-ACO*, ADC *Sal sil*, ADD *Ade all*

Polygonum amphibium s. l.
Dg: MC *PHR-CAR*

Polygonum aviculare agg.
Dg: XA *POL-POË*, XAA *Cor-Pol*, XB *STE MED*, XBL *Lol-Lin*
C: XA *POL-POË*, XAA *Cor-Pol*, XBA *Caucal*, XBE *Oxa fon*, XBI *Mal neg*, XBL *Lol-Lin*
Dm: XAA *Cor-Pol*

Polygonum bistorta L.
Dg: AB *JUN TRI*, ABB *Nar-Car*, AF *CAR-KOB*, AFA *Fes ver*,
C: AB *JUN TRI*, ABA *Jun tri*, ABB *Nar-Car*, ADC *Sal sil*, AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*

Polygonum hydropiper L.
Dg: MA *ISO-JUN*, MAC *Ver sup*, MB *BID TRI*, MBA *Bid tri*
C: MAC *Ver sup*, MB *BID TRI*, MBA *Bid tri*
Dm: MB *BID TRI*, MBA *Bid tri*

Polygonum lapathifolium s. l.
Dg: MB *BID TRI*, MBB *Che rub*, XB *STE MED*, XBL *Lol-Lin*
C: MB *BID TRI*, MBA *Bid tri*, MBB *Che rub*, XBE *Oxa fon*, XBL *Lol-Lin*
Dm: MBA *Bid tri*

Polygonum minus Huds.
Dg: MB *BID TRI*, MBA *Bid tri*

Polygonum mite Schrank
Dg: MB *BID TRI*, MBA *Bid tri*

Polygonum persicaria L.
Dg: MA *ISO-JUN*, MB *BID TRI*, XB *STE MED*, XBL *Lol-Lin*
C: XBL *Lol-Lin*

Polygonum viviparum L.
Dg: AC *ELY-SES*, ACB *Car fir*
C: ACB *Car fir*

Polypodium vulgare L.
Dg: KBH *Sal are*, SA *ASP TRI*, SAB *Asp cun*, SAC *Asp sep*
C: KBH *Sal are*, SA *ASP TRI*, SAB *Asp cun*, SAC *Asp sep*
Dm: SAC *Asp sep*

Polysiphonia nigrescens (Huds.) Grev. ex Harv.
Dg: VCC *Cha can*, VE *ZOS MAR*, VEA *Zos mar*

C: VE *ZOS MAR*, VEA *Zos mar*

Polysiphonia violacea (Roth) Spreng.
Dg: VE *ZOS MAR*, VEA *Zos mar*

Polystichum aculeatum (L.) Roth
Dg: LBF *Til-Ace*

Polystichum lonchitis (L.) Roth
Dg: ADC *Sal sil*

Polytrichastrum alpinum (Hedwig) G.L. Smith, Mem.
Dg: AA *LOI-VAC*, AAA *Loi-Vac*, AF *CAR-KOB*, AFA *Fes ver*
C: AA *LOI-VAC*, AAA *Loi-Vac*, AF *CAR-KOB*, AFA *Fes ver*
Dm: AA *LOI-VAC*, AAA *Loi-Vac*

Polytrichastrum formosum s. l.
Dg: LBE *Luz-Fag*, LD *QUE ROB*, LF *VAC-PIC*, LFC *Pic abi*
C: LBE *Luz-Fag*, LFC *Pic abi*
Dm: LFC *Pic abi*

Polytrichastrum pallidisetum (Hedwig) G.L. Sm., Mem.
Dg: AE *SAL HER*, AEA *Sal her*

Polytrichum commune Hedw.
Dg: DAC *Jun bal*, LFD *Vac-Pin*
C: DAC *Jun bal*, LFD *Vac-Pin*
Dm: DA *AMM ARE*, DAC *Jun bal*

Polytrichum juniperinum Hedw.
Dg: TEE *Eup-Cal*

Polytrichum piliferum Hedw.
Dg: AA *LOI-VAC*, ABA *Jun tri*, TF *KOE-COR*, TFA *Cor can*, TFB *The-Air*
C: ABA *Jun tri*, TFA *Cor can*

Polytrichum strictum Menzies ex Bird.
Dg: RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*
C: RCA *Sph mag*

Populus alba L.
Dg: KAC *Sal alb*

Populus nigra L.
Dg: KA *SAL PUR*, KAC *Sal alb*
Dm: KA *SAL PUR*, KAC *Sal alb*

Populus tremula L.
Dg: KBH *Sal are*
C: KBH *Sal are*

Populus xcanadensis Moench
Dg: TDJ *Ver-Lys*

Portulaca oleracea L.
Dg: XBK *Era cil*

Potamogeton alpinus Balb.
Dg: VBB *Potami*

Potamogeton crispus L.
Dg: VB *POTAME*, VBA *Nym alb*, VBB *Potami*

Potamogeton gramineus L.
Dg: VCA *Nit fle*

Potamogeton lucens L.
Dg: VB *POTAME*, VBB *Potami*, VC *CHARET*, VCB *Cha glo*
Dm: VB *POTAME*, VBB *Potami*

Potamogeton natans L.
Dg: VB *POTAME*, VBA *Nym alb*, VBC *Bat flu*, VC *CHARET*, VCA *Nit fle*
Dm: VB *POTAME*, VBB *Potami*

Potamogeton nodosus Poir.
Dg: VBC *Bat flu*
C: VBC *Bat flu*
Dm: VBC *Bat flu*

Potamogeton obtusifolius Mert. & W.D.J. Koch
Dm: VBB *Potami*

Potamogeton pectinatus L.
Dg: VCC *Cha can*, VE *ZOS MAR*, VEA *Zos mar*

Potamogeton perfoliatus L.
Dg: VB *POTAME*, VDA *Lit uni*
Dm: VDA *Lit uni*

Potamogeton praelongus Wulfen
Dg: VDA *Lit uni*

Potamogeton pusillus agg.
Dg: VBB *Potami*

Potamogeton rutilus Wolfg.
Dg: VAB *Utr vul*
Dm: VAB *Utr vul*

Potentilla alba L.
Dg: LC *QUE PUB*, LCC *Que pet*

Potentilla anserina L.
Dg: TC *FES-PUC*, TCB *Jun ger*
C: MAC *Ver sup*, TC *FES-PUC*, TCB *Jun ger*, TDK *Pot ans*
Dm: TC *FES-PUC*, TCB *Jun ger*, TDK *Pot ans*, XAB *Sag pro*

Potentilla arenaria Borkh.
Dg: TH *FES-BRO*, THD *Fes val*, THG *Koe-Phl*, TI *VIO CAL*
C: THD *Fes val*, THG *Koe-Phl*, TI *VIO CAL*, TIA *Arm hal*

Potentilla argentea L.
Dg: TF *KOE-COR*, TFD *Hyp-Scl*, TFE *Ara tha*, XCA *Ono aca*
C: TFE *Ara tha*, XCA *Ono aca*

Potentilla aurea L.
Dg: AA *LOI-VAC*, AB *JUN TRI*, ACB *Car fir*, AE *SAL HER*, AEA *Sal her*, AEB *Fes pic*, TEA *Nar str*, TEB *Nar-Agr*
C: ACB *Car fir*, AE *SAL HER*, AEA *Sal her*, AEB *Fes pic*, TEA *Nar str*, TEB *Nar-Agr*

Potentilla collina Wibel
Dg: SC *THL ROT*, SCA *Sti cal*

Potentilla crantzii (Crantz) Beck ex Fritsch
Dg: AC *ELY-SES*, ACB *Car fir*
C: ACB *Car fir*

Potentilla erecta (L.) Raeusch.
Dg: RB *SCH-CAR*, RBA *Car dav*, TE *CAL-ULI*, TEB *Nar-Agr*, TEC *Vio can*, TED *Nar-Jun*
C: ADB *Cal aru*, ADG *Tri fus*, RBA *Car dav*, RBB *Sph-Tom*, TDB *Pol-Tri*, TDD *Mol cae*, TE *CAL-ULI*, TEB *Nar-Agr*, TEC *Vio can*, TED *Nar-Jun*, TEF *Gen-Vac*

Potentilla heptaphylla L.
Dg: THF *Bro ere*

Potentilla neumanniana Rchb.
Dg: TFF *Aly-Sed*

Potentilla pusilla Host
Dg: THA *Aly-Fes*, THB *Bro-Fes*

Potentilla reptans L.
Dg: TDI *Cni ven*
C: TDI *Cni ven*

Potentilla supina L.
Dg: MA *ISO-JUN*, MAA *Ele ova*, MBB *Che rub*

Prenanthes purpurea L.
Dg: ADC *Sal sil*

Primula auricula L.
Dg: AC *ELY-SES*, ACA *Ses tat*
C: AC *ELY-SES*, ACA *Ses tat*

Primula elatior (L.) Hill
Dg: ADD *Ade all*, AE *SAL HER*, AEB *Fes pic*
C: ADD *Ade all*, AEB *Fes pic*

Primula minima L.
Dg: AC *ELY-SES*, ACB *Car fir*
C: ACB *Car fir*

Primula veris L.
Dg: LC *QUE PUB*

Prunella grandiflora (L.) Scholler
Dg: TH *FES-BRO*, THE *Cir-Bra*, THH *Ger san*

Prunella vulgaris L.
Dg: RBA *Car dav*
C: KAB *Sal ela*, RBA *Car dav*

Prunus cerasifera Ehrh.
Dg: KD *ROBINI*, KDA *Che-Rob*

Prunus serotina (Ehrh.) Borkh.
Dg: KAB *Sal ela*

Prunus spinosa L.
Dg: KB *RHA-PRU*, KBB *Ber vul*, LCA *Que pub*
C: KBB *Ber vul*, LCA *Que pub*, THH *Ger san*
Dm: KB *RHA-PRU*, KBB *Ber vul*

Pseudoleskea incurvata (Hedw.) Loeske
Dg: AE *SAL HER*, AEB *Fes pic*

Pseudorchis albida (L.) Á. Löve & D. Löve
Dg: AC *ELY-SES*, ACB *Car fir*

Pseudoscleropodium purum (Hedw.) M. Fleisch. ex Broth
Dg: KBH *Sal are*, THJ *Mel pra*
C: KBH *Sal are*, THJ *Mel pra*
Dm: KBH *Sal are*

Psora decipiens (Hedw.) Hoffm.
Dg: TFH *Koe gla*

Pteridium aquilinum (L.) Kuhn
Dg: LC *QUE PUB*, LCC *Que pet*, LD *QUE ROB*, LDA *Gen-Que*, LDB *Que rob*, XE *EPI ANG*, XEA *Epi ang*
C: LD *QUE ROB*, LDB *Que rob*
Dm: LD *QUE ROB*, LDB *Que rob*, XE *EPI ANG*, XEA *Epi ang*

Pterygoneurum subsessile (Brid.) Jur.
Dg: THD *Fes val*

Ptilidium pulcherrimum (Weber) Vain
Dg: AB *JUN TRI*, ABB *Nar-Car*

Puccinellia distans (Jacq.) Parl.
Dg: TB *THE-SAL*, TBA *Sal pro*, TC *FES-PUC*, TCA *Puc lim*
C: TB *THE-SAL*, TBA *Sal pro*, TC *FES-PUC*, TCA *Puc lim*
Dm: TB *THE-SAL*, TBA *Sal pro*, TC *FES-PUC*, TCA *Puc lim*

Pulicaria vulgaris Gaertn.
Dg: MA *ISO-JUN*, MAC *Ver sup*, MB *BID TRI*
C: MAC *Ver sup*
Dm: MAC *Ver sup*

Pulmonaria angustifolia L.
Dg: LC *QUE PUB*, LCC *Que pet*

Pulmonaria officinalis s. l.
Dg: LB *CAR-FAG*, LBB *Car bet*, LBF *Til-Ace*
C: LBF *Til-Ace*

Pulsatilla alba Rchb.
Dg: AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*
C: AF *CAR-KOB*, AFA *Fes ver*

Pyrola chlorantha Sw.
Dg: LBD *Sor-Fag*, THJ *Mel pra*

Pyrus communis L.
Dg: LC *QUE PUB*, LCA *Que pub*

Pyrus pyraster (L.) Burgsd.
Dg: LCA *Que pub*

Quercus petraea (Matt.) Liebl.
Dg: LC *QUE PUB*, LCC *Que pet*, LD *QUE ROB*, LDA *Gen-Que*, THJ *Mel pra*
C: LC *QUE PUB*, LCC *Que pet*, LD *QUE ROB*, LDA *Gen-Que*, THJ *Mel pra*
Dm: LBB *Car bet*, LC *QUE PUB*, LCC *Que pet*, LD *QUE ROB*, LDA *Gen-Que*, LDB *Que rob*

Quercus pubescens Willd.
Dg: LCA *Que pub*

Quercus robur L.
Dg: LC *QUE PUB*, LCA *Que pub*, LD *QUE ROB*, LDB *Que rob*, LF *VAC-PIC*, THJ *Mel pra*
C: KBC *Sam-Sal*, KBH *Sal are*, LBA *Aln inc*, LBB *Car bet*, LC *QUE PUB*, LCA *Que pub*, LCC *Que pet*, LD *QUE ROB*, LDB *Que rob*, LF *VAC-PIC*, LFB *Dic-Pin*, LFD *Vac-Pin*, THJ *Mel pra*
Dm: KBC *Sam-Sal*, KBH *Sal are*, LB *CAR-FAG*, LBA *Aln inc*, LBB *Car bet*, LC *QUE PUB*, LCA *Que pub*, LCC *Que pet*, LD *QUE ROB*, LDA *Gen-Que*, LDB *Que rob*

Radiola linoides Roth.
Dg: MA *ISO-JUN*, MAB *Rad lin*

Ranunculus acris L.
Dg: TD *MOL-ARR,* TDB *Pol-Tri,* TDH *Alo pra*
C: RBA *Car-dav,* RBB *Sph-Tom,* TD *MOL-ARR,* TDA *Arr ela,* TDB *Pol-Tri,* TDD *Mol cae,* TDI *Cni ven,* TDF *Cal pal,* TDH *Alo pra,* TEB *Nar-Agr,* TEC *Vio can*

Ranunculus alpestris L.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*
C: ACB *Car fir*

Ranunculus auricomus agg.
Dg: TD *MOL-ARR*

Ranunculus bulbosus L.
Dg: SC *THL ROT*

Ranunculus flammula L.
Dg: VD *LIT UNI*, VDB *Ele aci*

Ranunculus oreophilus M. Bieb
Dg: ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*
C: AF *CAR-KOB*, AFA *Fes ver*

Ranunculus platanifolius L.
Dg: AD *MUL-ACO*, ADC *Sal sil*, ADD *Ade all*, ADE *Dry-Ath*, AE *SAL HER*
C: ADC *Sal sil*, ADD *Ade all*

Ranunculus polyanthemos s. l.
Dg: LC *QUE PUB*, LCC *Que pet*

Ranunculus pseudomontanus Schur
Dg: ABA *Jun tri*, AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*
C: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*

Ranunculus repens L.
Dg: RA *MON-CAR*, TD *MOL-ARR*
C: KAB *Sal ela*, RAA *Car rem*, RAC *Epi-Mon*, TDC *Cyn cri*, TDI *Cni ven*, TDF *Cal pal*, TDG *Jun eff*, TDH *Alo pra*, TDK *Pot ans*, XDF *Rum alp*, XEB *Fra ves*

Ranunculus sardous Crantz.
Dg: MAC *Ver sup*

Ranunculus sceleratus L.
Dg: MA *ISO-JUN*, MAA *Ele ova*, MB *BID TRI*, MBA *Bid tri*

Raphanus raphanistrum L.
Dg: XB *STE MED*, XBC *Scl ann*, XBF *Spe-Ero*, XBL *Lol-Lin*
C: XBL *Lol-Lin*

Reynoutria japonica Houtt.
Dg: XDE *Aeg pod*
Dm: XDE *Aeg pod*

Rhamnus cathartica L.
Dg: LC *QUE PUB*, LCA *Que pub*, LE *ERI-PIN*, LEA *Pul-Pin*
C: LCA *Que pub*

Rhinanthus alpinus Baumg.
Dg: AE *SAL HER*, AEB *Fes pic*

Rhinanthus minor L.
Dg: TI *VIO CAL*, TIA *Arm hal*
C: TI *VIO CAL*, TIA *Arm hal*

Rhizomnium punctatum s. l.
Dg: RA *MON-CAR*, RAA *Car rem*, RAB *Lyc-Cra*, RAD *Swe-Dic*
C: RAD *Swe-Dic*

Rhodiola rosea L.
Dg: AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*
C: AF *CAR-KOB*, AFA *Fes ver*

Rhodomela subfusca (Woodward) Agardh
Dg: VE *ZOS MAR*, VEA *Zos mar*

Rhynchospora alba (L.) Vahl
Dg: RB *SCH-CAR*, RBE *Sph cus*, RC *OXY-SPH*
C: RBE *Sph cus*
Dm: RB *SCH-CAR*, RBE *Sph cus*

Rhytidiadelphus squarrosus (Hedw.) Warnst.
Dm: AB *JUN TRI*, ABB *Nar-Car*, ADC *Sal sil*

Rhytidiadelphus triquetrus (Hedw.) Warnst.
Dg: AF *CAR-KOB*, AFA *Fes ver*

Rhytidium rugosum (Ehrh. ex Hedw.) Kindb.
Dg: THC *Dia-Ses*

Ribes alpinum L.
Dg: KBH *Sal are*
C: KBH *Sal are*

Ribes nigrum L.
Dg: LA *ALN GLU*, LAA *Aln glu*

Ribes petraeum Wulfen in Jacq.
Dg: ADC *Sal sil*, KC *ROS-PIN*, KCA *Pin mug*
C: ADC *Sal sil*

Ribes spicatum s. l.
Dg: KBH *Sal are*

Riccardia multifida (L.) Gray
Dg: RAB *Lyc-Cra*

Riccia cavernosa Hoffm.
Dg: MAA *Ele ova*, VD *LIT UNI*, VDB *Ele aci*

Riccia ciliata Hoffm.
Dg: MAB *Rad lin*

Riccia fluitans L. emend. Lorb.
Dg: VA *LEMNET*, VAA *Lem min*

Riccia glauca L.
Dg: MA *ISO-JUN*, MAB *Rad lin*
C: MAB *Rad lin*

Riccia sorocarpa Bisch.
Dg: MA *ISO-JUN*, MAB *Rad lin*

Ricciocarpos natans (L.) Corda
Dg: VA *LEMNET*

Rivularia atra Roth ex Bornet & Flahault
Dg: VE *ZOS MAR*, VEA *Zos mar*

Robinia pseudacacia L.
Dg: KD *ROBINI*, KDA *Che-Rob*
C: KD *ROBINI*, KDA *Che-Rob*
Dm: KD *ROBINI*, KDA *Che-Rob*

Rorippa amphibia (L.) Besser
Dg: MB *BID TRI*, MCC *Ele-Sag*
Dm: MCC *Ele-Sag*

Rorippa palustris (L.) Besser
Dg: MA *ISO-JUN*, MAA *Ele ova*, MB *BID TRI*, MBA *Bid tri*
C: MAA *Ele ova*, MBA *Bid tri*

Rorippa sylvestris (L.) Besser
Dg: KAB *Sal ela*

Rosa canina L.
Dg: KB *RHA-PRU*, KBH *Sal are*, LC *QUE PUB*
C: KBA *Pru fru*, KBB *Ber vul*, KBH *Sal are*

Rosa pendulina L.
Dg: ADC *Sal sil*

Rosa rubiginosa s. l.
Dg: SC *THL ROT*

Rosa rugosa Thunb.
Dg: TFG *Koe alb*

Rosa sherardii Davies
Dg: LCA *Que pub*

Rubus caesius L.
Dg: KA *SAL PUR*, KAA *Sal tri*, KAC *Sal alb*
C: KA *SAL PUR*, KAA *Sal tri*, KAC *Sal alb*, KBH *Sal are*, LCA *Que pub*
Dm: KAC *Sal alb*

Rubus fruticosus agg.
Dg: LD *QUE ROB*, LDB *Que rob*
C: LDB *Que rob*

Rubus idaeus L.
Dg: ADC *Sal sil*, KC *ROS-PIN*, XE *EPI ANG*
C: ADB *Cal aru*, ADC *Sal sil*, ADD *Ade all*, ADE *Dry-Ath*, KBC *Sam-Sal*, KC *ROS-PIN*, KCA *Pin mug*, XE *EPI ANG*, XEA *Epi ang*
Dm: ADA *Cal vil*, TEB *Nar-Agr*

Rubus saxatilis L.
Dg: ADF *Cal var*, LC *QUE PUB*, LCA *Que pub*, LE *ERI-PIN*, LEA *Pul-Pin*

Rumex acetosa L.
Dg: TD *MOL-ARR*, TDB *Pol-Tri*, TDH *Alo pra*, TE *CAL-ULI*
C: RAC *Epi-Mon*, TD *MOL-ARR*, TDA *Arr ela*, TDB *Pol-Tri*, TDD *Mol cae*, TDI *Cni ven*, TDF *Cal pal*, TDH *Alo pra*, TEB *Nar-Agr*, TEC *Vio can*

Rumex acetosella s. l.
Dg: TF *KOE-COR*, TFB *The-Air,* XBD *Arn min*, XBL *Lol-Lin*
C: TEE *Eup-Cal*, TF *KOE-COR*, TFA *Cor can*, TFB *The-Air*, TFC *Arm elo*, TFD *Hyp-Scl*, TFE *Ara tha*, TFG *Koe alb*, XBD *Arn min*, XBL *Lol-Lin*

Rumex alpestris Jacq.
Dg: AD *MUL-ACO*, ADC *Sal sil*, ADE *Dry-Ath*, AE *SAL HER*, AEB *Fes pic*, XDF *Rum alp*
C: ADC *Sal sil*, ADE *Dry-Ath*, ADG *Tri fus*, AEB *Fes pic*, XDF *Rum alp*

Rumex alpinus L.
Dg: XDF *Rum alp*
C: XDF *Rum alp*
Dm: XDF *Rum alp*

Rumex hydrolapathum Huds.
Dg: MC *PHR-CAR*

Rumex maritimus L.
Dg: MA *ISO-JUN*, MAA *Ele ova*, MB *BID TRI*, MBA *Bid tri*, MBB *Che rub*
C: MAA *Ele ova*
Dm: MB *BID TRI*, MBA *Bid tri*, MBB *Che rub*

Rumex obtusifolius L.
Dg: KAB *Sal ela*

Rumex palustris Sm.
Dg: TDJ *Ver-Lys*

Rumex scutatus L.
Dg: ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*

Rumex thyrsiflorus Fingerh.
Dg: TI *VIO CAL*, TIA *Arm hal*
C: TI *VIO CAL*, TIA *Arm hal*

Sagina procumbens L.
Dg: MA *ISO-JUN*, MAB *Rad lin*

Salicornia europaea L.
Dg: TB *THE-SAL*, TBA *Sal pro*
C: TB *THE-SAL*, TBA *Sal pro*
Dm: TB *THE-SAL*, TBA *Sal pro*, TCA *Puc lim*

Salix alba L.
Dg: KA *SAL PUR*, KAA *Sal tri*, KAC *Sal alb*
C: KAC *Sal alb*
Dm: KA *SAL PUR*, KAC *Sal alb*

Salix alpina Scop.
Dg: AC *ELY-SES*, ACB *Car fir*
C: ACB *Car fir*

Salix aurita L.
Dg: DAC *Jun bal*

Salix caprea L.
Dg: KBH *Sal are*

Salix cinerea L.
Dg: LA *ALN GLU*, LAB *Sal cin*
C: LA *ALN GLU*, LAB *Sal cin*
Dm: LA *ALN GLU*, LAB *Sal cin*

Salix fragilis L.
Dg: KA *SAL PUR*, KAA *Sal tri*, KAC *Sal alb*
C: KA *SAL PUR*, KAA *Sal tri*, KAC *Sal alb*
Dm: KA *SAL PUR*, KAA *Sal tri*, KAC *Sal alb*

Salix herbacea L.
Dg: ABA *Jun tri*, AEA *Sal her*

Salix lapponum L.
Dg: RAD *Swe-Dic*

Salix pentandra L.
Dg: LA *ALN GLU*, LAB *Sal cin*

Salix purpurea L.
Dg: KA *SAL PUR*, KAA *Sal tri*, KAB *Sal ela*
C: KAA *Sal tri*, KAB *Sal ela*
Dm: KAA *Sal tri*

Salix repens s. l.
Dg: DA *AMM ARE*, DAC *Jun bal*
C: DAC *Jun bal*

Salix reticulata L.
Dg: AC *ELY-SES*, ACB *Car fir*
C: ACB *Car fir*

Salix retusa L.
Dg: AC *ELY-SES*, ACB *Car fir*

Salix silesiaca Willd.
Dg: ADC *Sal sil*, AF *CAR-KOB*, AFA *Fes ver*, KC *ROS-PIN*, KCA *Pin mug*, LE *ERI-PIN*, LEA *Pul-Pin*
C: ADC *Sal sil*, AF *CAR-KOB*, AFA *Fes ver*, KC *ROS-PIN*, KCA *Pin mug*

Salix triandra L.
Dg: KA *SAL PUR*, KAA *Sal tri*
C: KAA *Sal tri*
Dm: KA *SAL PUR*, KAA *Sal tri*

Salix viminalis L.
Dg: KA *SAL PUR*, KAA *Sal tri*
C: KAA *Sal tri*
Dm: KAA *Sal tri*

Salsola kali L.
Dg: DB *CAK MAR*, DBA *Atr lit*, XBJ *Sal rut*
C: DB *CAK MAR*, DBA *Atr lit*

Salvia pratensis L.
Dg: KBA *Pru fru*, TH *FES-BRO*, THD *Fes val*, THE *Cir-Bra*, THG *Koe-Phl*, THH *Ger san*
C: KBA *Pru fru*, THD *Fes val*, THE *Cir-Bra*, THG *Koe-Phl*, THH *Ger san*

Salvia verticillata L.
Dg: ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*, SC *THL ROT*, THB *Bro-Fes*, THE *Cir-Bra*
C: ADF *Cal var*, THB *Bro-Fes*, THE *Cir-Bra*

Salvinia natans (L.) All.
Dg: VA *LEMNET*, VAA *Lem min*, VAC *Hyd mor*
Dm: VA *LEMNET*, VAA *Lem min*

Sambucus ebulus L.
Dg: KAB *Sal ela*

Sambucus nigra L.
Dg: KB *RHA-PRU*, KBD *Aeg-Sam*, KD *ROBI-NI*, KDA *Che-Rob*
C: KBD *Aeg-Sam*, KD *ROBINI*, KDA *Che-Rob*
Dm: KB *RHA-PRU*, KBD *Aeg-Sam*, KD *ROBI-NI*, KDA *Che-Rob*

Sambucus racemosa L.
Dg: SB *CYM-PAR*

Sanguisorba minor Scop.
Dg: LE *ERI-PIN*, SC *THL ROT*, TH *FES-BRO*, THB *Bro-Fes*, THF *Bro ere*
C: THB *Bro-Fes*, THE *Cir-Bra*, THF *Bro ere*

Sanguisorba officinalis L.
Dg: TD *MOL-ARR*, TDD *Mol cae*, TDI *Cni ven*
C: TDD *Mol cae*, TDI *Cni ven*

Sanicula europaea L.
Dg: LB *CAR-FAG*, LBC *Fag syl,* LBD *Sor-Fag*

Sanionia uncinata (Hedw.) Loeske
Dg: AE *SAL HER*, AEA *Sal her*

Saxifraga adscendens L.
Dg: ADF *Cal var*

Saxifraga aizoides L.
Dg: AC *ELY-SES*, ACB *Car fir*
C: ACB *Car fir*

Saxifraga caesia L.
Dg: AC *ELY-SES*, ACB *Car fir*

Saxifraga paniculata Mill.
Dg: AC *ELY-SES*, ACA *Ses tat*, AF *CAR-KOB*, AFA *Fes ver*, THC *Dia-Ses*
C: AF *CAR-KOB*, AFA *Fes ver*, THC *Dia-Ses*

Saxifraga tridactylites L.
Dg: TFE *Ara tha*

Scabiosa canescens Waldst. & Kit
Dg: THD *Fes val*

Scabiosa columbaria L.
Dg: SC *THL ROT*

Scabiosa lucida Vill.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, LE *ERI-PIN*, THB *Bro-Fes*
C: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*

Scabiosa ochroleuca L.
Dg: SC*THL ROT,* TH *FES-BRO*, THA *Aly-Fes*, THB *Bro-Fes*, THE *Cir-Bra*, THF *Bro ere*, TI *VIO CAL*
C: THA *Aly-Fes*, THB *Bro-Fes*, THE *Cir-Bra*, THF *Bro ere*, TI *VIO CAL*, TIA *Arm hal*

Scapania nemorea (L.) Grolle
Dg: RAC *Epi-Mon*
C: RAC *Epi-Mon*

Scapania parvifolia Warnst.
Dg: AA *LOI-VAC*, AAA *Loi-Vac*

Scapania subalpina (Nees ex Lindenb.) Dumort.
Dg: RAD *Swe-Dic*

Scapania uliginosa (Sw. ex Lindenb.) Dumort.
Dg: RAD *Swe-Dic*
C: RAD *Swe-Dic*

Scapania undulata (L.) Dumort
Dg: RA *MON-CAR*

Scheuchzeria palustris L.
Dg: RBE *Sph cus*
Dm: RBE *Sph cus*

Schoenoplectus lacustris (L.) Palla
Dg: VAB *Utr vul*
Dm: MCA *Phr aus*

Schoenoplectus tabernaemontani (C.C. Gmel.) Palla
Dg: MCB *Mel-Bol*, TC *FES-PUC*, TCB *Jun ger*
C: MCB *Mel-Bol*

Schoenus nigricans L.
Dg: RBA *Car dav*

Scilla bifolia L.
Dg: ADB *Cal aru*

Scirpus radicans Schkuhr
Dg: MCC *Ele-Sag*
Dm: MCC *Ele-Sag*

Scirpus sylvaticus L.
Dg: LA *ALN GLU*, TDF *Cal pal*
C: RAC *Epi-Mon*, TDF *Cal pal*
Dm: TDF *Cal pal*

Sciuro-hypnum oedipodium (Mitt.) Ignatov & Huttunen
Dg: THJ *Mel pra*

Sciuro-hypnum populeum (Hedw.) Ignatov & Huttunen
Dg: SB *CYM-PAR*

Scleranthus annuus L.
Dg: XB *STE MED*, XBC *Scl ann*, XBD *Arn min*, XBL *Lol-Lin*
C: XBD *Arn min*, XBL *Lol-Lin*

Scleranthus perennis L.
Dg: TF *KOE-COR*, TFA *Cor can*, TFE *Ara tha*

Scleranthus polycarpos L.
Dg: TF *KOE-COR*, TFB *The-Air*

Scorpidium scorpioides (Hedw.) Limpr.
Dg: VD *LIT UNI*, VDC *Sph-Utr*
Dm: VD *LIT UNI*, VDC *Sph-Utr*

Scorzonera humilis L.
Dg: LC *QUE PUB*, LCC *Que pet*

Scutellaria galericulata L.
Dg: LA *ALN GLU*, LAA *Aln glu*
C: LA *ALN GLU*, LAA *Aln glu*

Scutellaria hastifolia L.
Dg: TDI *Cni ven*

Sedum acre L.
Dg: TF *KOE-COR*, TFE *Ara tha*, TFF *Aly-Sed*, TFG *Koe alb*, TFH *Koe gla*
C: TFC *Arm elo*, TFE *Ara tha*, TFF *Aly-Sed*, TFG *Koe alb*, TFH *Koe gla*, THA *Aly-Fes*, THB *Bro-Fes*
Dm: TFF *Aly-Sed*, TFH *Koe gla*

Sedum album L.
Dg: SAB *Asp cun*, SB *CYM-PAR*

Sedum alpestre Vill.
Dg: AE *SAL HER*, AEA *Sal her*, AEB *Fes pic*
C: AEA *Sal her*

Sedum fabaria W.D.J. Koch
Dg: AD *MUL-ACO*, ADC *Sal sil*, KC *ROS-PIN*

Sedum maximum (L.) Hoffm.
Dg: LC *QUE PUB*, LCC *Que pet*
C: LC *QUE PUB*, LCC *Que pet*

Sedum reflexum L.
Dg: TFH *Koe gla*

Sedum sexangulare L.
Dg: SC *THL ROT,* TF *KOE-COR*, TFF *Aly-Sed*, TFH *Koe gla,*

Sedum spurium M. Bieb.
Dg: T HC *Dia-Ses*

Selaginella selaginoides (L.) P. Beauv. ex Schrank & Mart.
Dg: AC *ELY-SES*, ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*
C: AC *ELY-SES*, ACB *Car fir*

Selinum carvifolia (L.) L.
Dg: TD *MOL-ARR*, TDD *Mol cae*
C: TDD *Mol cae*

Sempervivum tectorum L.
Dg: SC *THL ROT*, SCA *Sti cal*

Senecio carniolicus Willd.
Dg: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABA *Jun tri*
C: ABA *Jun tri*

Senecio fluviatilis Wallr.
Dg: KA *SAL PUR*, KAA *Sal tri*

Senecio nemorensis agg.
C: ADC *Sal sil*

Senecio subalpinus W.D.J. Koch
Dg: AD *MUL-ACO*, ADG *Tri fus*
C: ADG *Tri fus*

Senecio vernalis Waldst. & Kit
Dg: TFH *Koe gla*

Serratula tinctoria L.
Dg: LC *QUE PUB*, LCC *Que pet*, TDD *Mol cae*, TDI *Cni ven*
C: LCC *Que pet*

Seseli annuum L.
Dg: TH *FES-BRO*, THF *Bro ere*
C: THF *Bro ere*

Sesleria tatrae (Degen) Deyl
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*
C: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*

Sesleria varia (Jacq.) Wettst.
Dg: LE *ERI-PIN*, LEA *Pul-Pin*, THC *Dia-Ses*
C: THC *Dia-Ses*
Dm: AC *ELY-SES*, LE *ERI-PIN*, LEA *Pul-Pin*, THC *Dia-Ses*

Setaria pumila (Poir.) Roem. & Schult.
Dg: XB *STE MED*, XBF *Spe-Ero*, XBL *Lol-Lin*
C: XBF *Spe-Ero*, XBL *Lol-Lin*

Setaria viridis (L.) P. Beauv.
Dg: XB *STE MED*, XBF *Spe-Ero*, XBJ *Sal rut*, XBK *Era cil*
C: XBF *Spe-Ero*

Sherardia arvensis L.
Dg: XBA *Caucal*

Sibbaldia procumbens L.
Dg: AE *SAL HER*, AEA *Sal her*

Silaum silaus (L.) Schinz & Thell.
Dg: TDD *Mol cae*, TDI *Cni ven*

Silene acaulis (L.) Jacq.
Dg: AC *ELY-SES*, ACB *Car fir*
C: ACB *Car fir*

Silene chlorantha (Willd.) Ehrh.
Dg: TFH *Koe gla*

Silene nemoralis Waldst. & Kit.
Dg: ADF *Cal var*, LE *ERI-PIN*, THB *Bro-Fes*, THC *Dia-Ses*

Silene nutans L.
Dg: LC *QUE PUB*, LCC *Que pet*, THA *Aly-Fes*
C: LC *QUE PUB*, LCC *Que pet*

Silene otites s. l.
Dg: TF *KOE-COR*,TFH *Koe gla*
C: TFH *Koe gla*

Silene vulgaris (Moench) Garcke
Dg: SAB *Asp cun*, TI *VIO CAL*, TIA *Arm hal*
C: SAB *Asp cun*, TI *VIO CAL*, TIA *Arm hal*

Sinapis arvensis L.
Dg: XB *STE MED*, XBA *Caucal*, XBB *Ver-Eup*, XBE *Oxa fon*
C: XBA *Caucal*, XBB *Ver-Eup*

Sisymbrium altissimum L.
Dg: XBJ *Sal rut*

Sisymbrium loeselii L.
Dg: KD *ROBINI*, KDA *Che-Rob*

Sisymbrium officinale (L.) Scop.
Dg: XBG *Atrpli*, XBI *Mal neg*
C: XBI *Mal neg*

Sium latifolium L.
Dg: VBD *Ran aqu*

Solanum dulcamara L.
Dg: KA *SAL PUR*, KAA *Sal tri*, LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*
C: LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*

Soldanella carpatica Vierh.
Dg: AA *LOI-VAC*, AC *ELY-SES*, ACB *Car fir*, AE *SAL HER*, AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*
C: ACB *Car fir*, AE *SAL HER*, AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*

Solidago alpestris Waldst. & Kit.
Dg: ADB *Cal aru*

Solidago canadensis s. l.
Dg: KD *ROBINI*, KDA *Che-Rob*

Solidago gigantea Aiton
Dg: KD *ROBINI*
Dm: KAA *Sal tri*, XCB *Dau-Mel*

Solidago virgaurea
Dg: AA *LOI-VAC*, AE *SAL HER*, AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*, LC *QUE PUB*
C: AA *LOI-VAC*, AAA *Loi-Vac*, ADC *Sal sil*, AE *SAL HER*, AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*, KBH *Sal are*, LC *QUE PUB*, LCC *Que pet*, TFG *Koe alb*

Sonchus arvensis L.
Dg: XB *STE MED*, XBB *Ver-Eup*
C: XBB *Ver-Eup*

Sonchus asper (L.) Hill.
Dg: XBB *Ver-Eup*

Sonchus oleraceus L.
Dg: TB *THE-SAL,* TBA *Sal pro*

Sorbus aira (L.) Crantz
Dg: ADF *Cal var*, LE *ERI-PIN*, LEA *Pul-Pin*

Sorbus aucuparia L. emend. Hedl.
Dg: ADC *Sal sil*, KBH *Sal are*, KC *ROS-PIN*, LBD *Sor-Fag*, LD *QUE ROB*, LDB *Que rob*
C: ADC *Sal sil*, KBC *Sam-Sal*, KBH *Sal are*, KC *ROS-PIN*, KCA *Pin mug*, LAA *Aln glu*, LBB *Car bet*, LBD *Sor-Fag*, LBE *Luz-Fag*, LC *QUE PUB*, LCC *Que pet*, LD *QUE ROB*, LDA *Gen-Que*, LDB *Que rob*, LF *VAC-PIC*, LFB *Dic-Pin*, LFC *Pic abi*, THJ *Mel pra*
Dm: ADC *Sal sil*

Sorbus torminalis (L.) Crantz
Dg: LC *QUE PUB*, LCC *Que pet*

Sparganium angustifolium F. Michx
Dg: VDA *Lit uni*

Sparganium emersum Rehmann
Dg: MCC *Ele-Sag*
Dm: MCC *Ele-Sag*

Sparganium erectum Rehmann
Dm: MCA *Phr aus*

Spergula arvensis L.
Dg: MAB *Rad lin*, XB *STE MED*, XBC *Scl ann*, XBD *Arn min*, XBF *Spe-Ero*
C: XBC *Scl ann*, XBD *Arn min*

Spergula arvensis L. subsp. *maxima* (Weihe) Schwarz
Dg: XBL *Lol-Lin*
C: XBL *Lol-Lin*

Spergula morisonii Boreau
Dg: TF *KOE-COR*, TFA *Cor can*, TFB *The-Air*

Spergularia rubra (L.) J. Presl & C. Presl
Dg: MA *ISO-JUN*, XBL *Lol-Lin*
C: XBL *Lol-Lin*

Spergularia salina J. Presl & C. Presl
Dg: TB *THE-SAL*, TBA *Sal pro*, TC *FES-PUC*, TCA *Puc lim*
C: TB *THE-SAL*, TBA *Sal pro*, TCA *Puc lim*
Dm: TCA *Puc lim*

Sphacelaria cirrosa (Roth) Agardh
Dg: VCC *Cha can*

Sphagnum capillifolium s. l.
Dg: AF *CAR-KOB*, AFA *Fes ver*, LFD *Vac-Pin*, RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*
C: RCB *Oxy-Eri*, RCC *Oxy-Emp*
Dm: RCB *Oxy-Eri*

Sphagnum compactum Lam. & DC.
Dg: RC *OXY-SPH*, RCB *Oxy-Eri*

Sphagnum contortum Schultz
Dg: RBB *Sph-Tom*

Sphagnum cuspidatum Ehrh. ex Hoffm.
Dg: RBE *Sph cus*, RC *OXY-SPH*, RCB *Oxy-Eri*

Dm: MCF *Car-Rum*, RBE *Sph cus*, RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*

Sphagnum denticulatum Brid.
Dg: RC *OXY-SPH*, RCB *Oxy-Eri*
Dm: RBE *Sph cus*, RCB *Oxy-Eri*, VDC *Sph-Utr*

Sphagnum fimbriatum Wilson in Hook.
Dg: RC *OXY-SPH*

Sphagnum fuscum (Schimp.) H.Klinggr.
Dg: RCB *Oxy-Eri*

Sphagnum girgensohnii Russow
Dg: LFC *Pic abi*

Sphagnum magellanicum Brid.
Dg: LFD *Vac-Pin*, RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*
C: RCC *Oxy-Emp*
Dm: RBE *Sph cus*, RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*

Sphagnum molle Sull.
Dg: RCB *Oxy-Eri*

Sphagnum obtusum Warnst.
Dg: RBB *Sph-Tom*

Sphagnum palustre s. l.
Dg: LA *ALN GLU*, LAB *Sal cin*, RC *OXY-SPH*

Sphagnum papillosum Lindb.
Dg: RC *OXY-SPH*, RCB *Oxy-Eri*
Dm: RBE *Sph cus*

Sphagnum recurvum agg.
Dg: LFD *Vac-Pin*, RB *SCH-CAR*, RBD *Sph-Car*, RBE *Sph cus*, RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*
C: LFD *Vac-Pin*, RAC *Epi-Mon*, RBD *Sph-Car*, RBE *Sph cus*, RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*
Dm: ADA *Cal vil*, LAB *Sal cin*, LFD *Vac-Pin*, MCF *Car-Rum*, RB *SCH-CAR*, RBC *Car can*, RBD *Sph-Car*, RBE *Sph cus*, RC *OXY-SPH*, RCA *Sph mag*, RCB *Oxy-Eri*, RCC *Oxy-Emp*, VDC *Sph-Utr*

Sphagnum squarrosum Crome in Hoppe
Dg: LA *ALN GLU*, LAB *Sal cin*, RAD *Swe-Dic*

Sphagnum subsecundum Mees in J.W. Sturm
Dg: RAD *Swe-Dic*
Dm: VDC *Sph-Utr*

Sphagnum tenellum (Brid.) Pers. ex Brid.
Dg: RC *OXY-SPH*, RCB *Oxy-Eri*

Sphagnum teres (Schimp.) Ångstr.
Dg: RB *SCH-CAR*, RBB *Sph-Tom*
C: RBB *Sph-Tom*

Sphagnum warnstorfii Russow
Dg: RBB *Sph-Tom*
Dm: RBB *Sph-Tom*

Spirodela polyrhiza (L.) Schleid.
Dg: VA *LEMNET*, VAA *Lem min*, VAC *Hyd mor*, VB *POTAME*, VBA *Nym alb*
C: VA *LEMNET*, VAA *Lem min*, VAC *Hyd mor*
Dm: VA *LEMNET*, VAA *Lem min*

Spirulina subsalsa Oersted
Dg: VE *ZOS MAR*, VEA *Zos mar*

Squamarina lentigera (Weber) Poelt
Dg: TFH *Koe gla*

Stachys alpina L.
Dg: ADF *Cal var*

Stachys annua (L.) L.
Dg: XBA *Caucal*

Stachys germanica L.
Dg: ADF *Cal var*, THB *Bro-Fes*

Stachys palustris L.
Dg: KA *SAL PUR*

Stachys recta L.
Dg: KBA *Pru fru*, TH *FES-BRO*, THD *Fes val*

Stachys sylvatica L.
Dg: LB *CAR-FAG*, LBA *Aln inc*, RA *MON-CAR*, XEB *Fra ves*
C: LBA *Aln inc*, XEB *Fra ves*

Steinia geophana (Nyl.) Stein
Dg: TI *VIO CAL*, TIA *Arm hal*

Stellaria graminea L.
Dg: TD *MOL-ARR*, TDB *Pol-Tri*, TE *CAL-ULI*, TEC *Vio can*
C: TDB *Pol-Tri*, TEC *Vio can*

Stellaria holostea L.
Dg: LB *CAR-FAG*, LBB *Car bet*

Stellaria media agg.
Dg: XB *STE MED*, XBA *Caucal*, XBB *Ver-Eup*, XBC *Scl ann*, XBE *Oxa fon*
C: XB *STE MED*, XBA *Caucal*, XBB *Ver-Eup*, XBC *Scl ann*, XBE *Oxa fon*, XBG *Atrpli*

Stellaria nemorum L.
Dg: ADC *Sal sil*, ADD *Ade all*, RA *MON-CAR*, RAA *Car rem*
C: ADC *Sal sil*, ADD *Ade all*, RA *MON-CAR*, RAA *Car rem*

Stellaria uliginosa Murray
Dg: RA *MON-CAR*, RAB *Lyc-Cra*
C: RAC *Epi-Mon*

Stipa capillata L.
Dg: TH *FES-BRO*, THD *Fes val*
C: THD *Fes val*
Dm: TFF *Aly-Sed*, TH *FES-BRO*, THD *Fes val*, THG *Koe-Phl*

Stipa joanni Čelak
Dg: THG *Koe-Phl*
Dm: THG *Koe-Phl*

Stipa pulcherrima K. Koch
Dg: THD *Fes val*

Straminergon stramineum (Dicks. ex Brid.) Hedenäs
Dg: RB *SCH-CAR*, RC *OXY-SPH*
C: RAC *Epi-Mon*

Stratiotes aloides L.
Dg: VA *LEMNET*, VAB *Utr vul*, VAC *Hyd mor*, VB *POTAME*
C: VAC *Hyd mor*
Dm: VA *LEMNET*, VAC *Hyd mor*

Streptopus amplexifolius (L.) DC.
Dg: AD *MUL-ACO*, ADC *Sal sil*, ADG *Tri fus*

Succisa pratensis Moench
Dg: TDD *Mol cae*
C: TDD *Mol cae*

Swertia perennis L.
Dg: AC *ELY-SES*, ACB *Car fir*, RAD *Swe-Dic*
C: RAD *Swe-Dic*

Symphytum cordatum Waldst. & Kit. ex Willd.
Dg: LBF *Til-Ace*

Symphytum officinale L.
Dg: KA *SAL PUR*, KAA *Sal tri*, TDJ *Ver-Lys*
C: KAA *Sal tri*, TDJ *Ver-Lys*

Syntrichia ruralis (Hedw.) F. Weber & D. Mohr
Dg: TFH *Koe gla*

Tanacetum corymbosum (L.) Sch. Bip. subsp. *clusii* (Fisch.) Hand.-Mazz.
Dg: ADB *Cal aru*, LE *ERI-PIN*, LEA *Pul-Pin*

Tanacetum vulgare L.
Dg: XC *ART VUL*, XCB *Dau-Mel*

Taraxacum laevigatum (Willd.) DC.
Dg: THA *Aly-Fes*

Taraxacum nigricans (Kit) Rchb.
Dg: AE *SAL HER*, AEB *Fes pic*

Taraxacum sect. *Palustria*
Dg: TC *FES-PUC*

Taraxacum sect. *Ruderalia*
Dg: KD *ROBINI*, XA *POL-POË*
C: KBH *Sal are*, KD *ROBINI*, KDA *Che-Rob*, LBD *Sor-Fag*, SB *CYM-PAR*, SBA *Cym-Asp*, TDA *Arr ela*, TDC *Cyn cri*, TDH *Alo pra*, XA *POL-POË*, XAA *Cor-Pol*, XAB *Sag pro*

Teesdalia nudicaulis (L.) R. Br.
Dg: TF *KOE-COR*, TFA *Cor can*, XBD *Arn min*

Teucrium botrys L.
Dg: TFF *Aly-Sed*

Teucrium chamaedrys L.
Dg: LCA *Que pub*, SC *THL ROT*, SCA *Sti cal*, THE *Cir-Bra*

Teucrium montanum L.
Dg: LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*, THC *Dia-Ses*
C: THB *Bro-Fes*

Teucrium scordium L.
Dg: MCB *Mel-Bol*

Thalictrum aquilegiifolium L.
Dg: ADD *Ade all*, AE *SAL HER*, AEB *Fes pic*

Thalictrum flavum L.
Dg: TDJ *Ver-Lys*

Thalictrum lucidum L.
Dg: TDJ *Ver-Lys*
C: TDJ *Ver-Lys*

Thalictrum minus L.
Dg: KBA *Pru fru*, TH *FES-BRO*

Thalictrum simplex L.
Dg: THC *Dia-Ses*

Thelypteris palustris Schott.
Dg: LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*, MCF *Car-Rum*
C: LA *ALN GLU*, LAA *Aln glu*, LAB *Sal cin*, MCF *Car-Rum*
Dm: LAB *Sal cin*, MCF *Car-Rum*, VAB *Utr vul*

Thesium alpinum L.
Dg: AC *ELY-SES*, ACA *Ses tat*

Thesium linophyllon L.
Dg: TH *FES-BRO*, THE *Cir-Bra*, THH *Ger san*

Thlaspi arvense L.
Dg: XB *STE MED*, XBB *Ver-Eup*

Thymus alpestris Tausch ex A. Kern.
Dg: AE *SAL HER*, AEB *Fes pic*

Thymus carpathicus Čelak
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*, THC *Dia-Ses*
C: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*

Thymus marschallianus Willd.
Dg: KBA *Pru fru*

Thymus pulegioides L.
Dg: LE *ERI-PIN*, TE *CAL-ULI*, TEC *Vio can*, TH *FES-BRO*, THA *Aly-Fes*, THF *Bro ere*, TI *VIO CAL*
C: TEC *Vio can*, THA *Aly-Fes*, THF *Bro ere*, THG *Koe-Phl*, TI *VIO CAL*, TIA *Arm hal*

Thymus serpyllum L. emend. Fr.
Dg: TF *KOE-COR*, TFC *Arm elo*, TFH *Koe gla*
C: TFC *Arm elo*, TFH *Koe gla*

Tilia cordata Mill.
Dg: LB *CAR-FAG*, LBB *Car bet*, LBF *Til-Ace*, LC *QUE PUB*
C: LBB *Car bet*
Dm: LBB *Car bet*, LBF *Til-Ace*

Tilia platyphyllos Scop.
Dg: LBF *Til-Ace*

Tofieldia calyculata (L.) Wahlenb.
Dg: AC *ELY-SES*, ACA *Ses tat*
C: ACA *Ses tat*

Tolypella nidifica (O.F. Müll.) Leonh.
Dg: VCC *Cha can*
C: VCC *Cha can*

Tomentypnum nitens (Hedw.) Loeske
Dg: RB *SCH-CAR*, RBB *Sph-Tom*
C: RBB *Sph-Tom*

Toninia sedifolia (Scop.) Timdal
Dg: TFH *Koe gla*

Torilis japonica (Houtt.) DC.
Dg: XDD *Geo-All*

Tortella inclinata (R. Hedw.) Limpr.
Dg: TFF *Aly-Sed*,

Tortella tortuosa (Hedw.) Limpr.
Dg: AF *CAR-KOB*, AFA *Fes ver*, THA *Aly-Fes*, TI *VIO CAL*, TIA *Arm hal*
C: AF *CAR-KOB*, AFA *Fes ver*, TI *VIO CAL*, TIA *Arm hal*

Tortula acaulon (With.) R.H. Zander, Bull.
Dg: MAB *Rad lin*

Tortula muralis Hedw.
Dg: SB *CYM-PAR*, SC *THL ROT*

Tortula subulata Hedw.
Dg: SB *CYM-PAR*

Tortula truncata (Hedwig) Mitt.
Dg: MA *ISO-JUN*, MAB *Rad lin*

Trapa natans L. s. l.
Dg: VB *POTAME*, VBA *Nym alb*
Dm: VBA *Nym alb*

Trapeliopsis flexuosa (Fr.) Coppins & James
Dg: TI *VIO CAL*, TIA *Arm hal*

Trapeliopsis granulosa (Hoffm.) Lumbsch
Dg: TFH *Koe gla*

Traunsteinera globosa (L.) Rchb.
Dg: AEB *Fes pic*

Trichodon cylindricus (Hedw.) Schimp.
Dg: MA *ISO-JUN*, MAB *Rad lin*

Trichostomum crispulum Bruch in F.A. Müll
Dg: AC *ELY-SES*, ACA *Ses tat*

Trientalis europaea L.
Dg: LD *QUE ROB*, LDB *Que rob*, LF *VAC-PIC*, LFC *Pic abi*
C: LDB *Que rob*

Trifolium alpestre L.
Dg: LC *QUE PUB*, LCC *Que pet*
C: LC *QUE PUB*, LCC *Que pet*

Trifolium arvense L.
Dg: TF *KOE-COR*, TFC *Arm elo*,TFD *Hyp-Scl*, TFH *Koe gla*
C: TFH *Koe gla*

Trifolium aureum Pollich
Dg: THJ *Mel pra*

Trifolium fragiferum L.
Dg: TC *FES-PUC*, TCB *Jun ger*
Dm: TCB *Jun ger*

Trifolium hybridum L.
Dg: KAB *Sal ela*

Trifolium medium L.
Dg: THI *Tri med*, THJ *Mel pra*
C: THI *Tri med*
Dm: THI *Tri med*

Trifolium montanum L.
Dg:TH *FES-BRO*, THF *Bro ere*

Trifolium pratense s. l.
Dg: TD *MOL-ARR*
C: KAB *Sal ela*, TDA *Arr ela*,TDH *Alo pra*, TFG *Koe alb*

Trifolium repens L.
Dg: TDC *Cyn cri*, XA *POL-POË*
C: KAB *Sal ela*, RAC *Epi-Mon*, TDC *Cyn cri*, TDH *Alo pra*, TEC *Vio can*

Trifolium rubens L.
Dg: LC *QUE PUB*, LCC *Que pet*

Triglochin maritimum L.
Dg: TC *FES-PUC*, TCA *Puc lim*, TCB *Jun ger*
C: TC *FES-PUC*, TCB *Jun ger*

Triglochin palustre L.
Dg: RBA *Car dav*, TC *FES-PUC*

Trisetum alpestre (Host) P. Beauv.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*
C: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*

Trisetum flavescens (L.) P. Beauv.
Dg: TD *MOL-ARR*, TDA *Arr ela*, TDB *Pol-Tri*

Tussilago farfara L.
Dg: KAB *Sal ela*
C: KAB *Sal ela*

Typha angustifolia L.
Dg: MCB *Mel-Bol*
Dm: MCA *Phr aus*

Typha latifolia L.
Dg: MC *PHR-CAR*
Dm: MCA *Phr aus*

Ulmus glabra Huds.
Dg: KD *ROBINI*, LBD *Sor-Fag*, LBF *Til-Ace*

Ulmus minor Mill. emend. Richens
Dg: LCA *Que pub*,

Ulva clathrata (Roth) C. Agardh
Dg: VE *ZOS MAR*, VEA *Zos mar*

Urtica dioica L.
Dg: KA *SAL PUR*, KD *ROBINI*, MCD *Pha aru*, XD *GAL-URT*, XDA *Sen flu*
C: KA *SAL PUR*, KAA *Sal tri*, KAC *Sal alb*, KB *RHA-PRU*, KBC *Sam-Sal*, KBD *Aeg-Sam*, KD *ROBINI*, KDA *Che-Rob*, LA *ALN GLU*, LAA *Aln glu*, LBA *Aln inc*, LBF *Til-Ace*, MCD *Pha aru*, RA *MON-CAR*, RAA *Car rem*, XBI *Mal neg*, XCE *Arc lap*, XD *GAL-URT*, XDA *Sen flu*, XDB *Pet hyb*, XDC *Imp-Sta*, XDD *Geo-All*, XDE *Aeg pod*, XDF *Rum alp*, XEB *Fra ves*
Dm: KA *SAL PUR*, KAA *Sal tri*, KAC *Sal alb*, KBD *Aeg-Sam*, MCD *Pha aru*, XCE *Arc lap*, XD *GAL-URT*, XDA *Sen flu*, XDC *Imp-Sta*, XDD *Geo-All*, XDE *Aeg pod*

Urtica urens L.
Dg: XBI *Mal neg*
C: XBI *Mal neg*

Utricularia australis R. Br.
Dg: VAB *Utr vul*

Utricularia intermedia Hayne
Dg: VD *LIT UNI*, VDC *Sph-Utr*,

Utricularia minor L.
Dg: VD *LIT UNI*, VDC *Sph-Utr*
C: VDC *Sph-Utr*

Utricularia ochroleuca R.W. Hartm.
Dg: VD *LIT UNI*, VDC *Sph-Utr*
Dm: VDC *Sph-Utr*

Utricularia vulgaris L.
Dg: VA *LEMNET*, VAB *Utr vul*, VC *CHARET*, VCA *Nit fle*
C: VAB *Utr vul*
Dm: VAB *Utr vul*

Vaccinium myrtillus L.
Dg: AA *LOI-VAC*, AB *JUN TRI*, AF *CAR-KOB*, AFA *Fes ver*, KC *ROS-PIN*, KCA *Pin mug*, LF *VAC-PIC*, LFC *Pic abi*
C: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABA *Jun tri*, ABB *Nar-Car*, ACB *Car fir*, ADA *Cal vil*, ADB *Cal aru*, ADC *Sal sil*, AE *SAL HER*, AEA *Sal her*, AEB *Fes pic*, AF *CAR-KOB*, AFA *Fes ver*, KC *ROS-PIN*, KCA *Pin mug*, LBE *Luz-Fag*, LD *QUE ROB*, LDA *Gen-Que*, LDB *Que rob*, LF *VAC-PIC*, LFB *Dic-Pin*, LFC *Pic abi*, LFD *Vac-Pin*, TEA *Nar str*, TEB *Nar-Agr*, TEF *Gen-Vac*, THJ *Mel pra*
Dm: AA *LOI-VAC*, AAA *Loi-Vac,* ADB *Cal aru*, ADC *Sal sil*, KC *ROS-PIN*, KCA *Pin mug*, LBE *Luz-Fag*, LD *QUE ROB*, LDA *Gen-Que*, LDB *Que rob*, LF *VAC-PIC*, LFB *Dic-Pin*, LFC *Pic abi*, LFD *Vac-Pin*, TE *CAL-ULI*, TEA *Nar str*, TEF *Gen-Vac*

Vaccinium uliginosum s. l.
Dg: AA *LOI-VAC*, LFD *Vac-Pin*, RC *OXY-SPH*, RCA *Sph mag*, RCC *Oxy-Emp*
C: LFD *Vac-Pin*, RCC *Oxy-Emp*
Dm: AA *LOI-VAC*, AAA *Loi-Vac*, RCB *Oxy-Eri*

Vaccinium vitis-idaea L.
Dg: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABA *Jun tri*, AC *ELY-SES*, ACB *Car fir*, AF *CAR-KOB*, FA *Fes ver*, KC *ROS-PIN*, KCA *Pin mug*, LF *VAC-PIC*, LFB *Dic-Pin*, LFD *Vac-Pin*
C: AA *LOI-VAC*, AAA *Loi-Vac*, AB *JUN TRI*, ABA *Jun tri*, ABB *Nar-Car*, AC *ELY-SES*, ACB *Car fir*, AF *CAR-KOB*, AFA *Fes ver*, KC *ROS-PIN*, KCA *Pin mug*, LF *VAC-PIC*, LFB *Dic-Pin*, LFD *Vac-Pin*

Valeriana dioica L.
Dg: RB *SCH-CAR*,

Valeriana simplicifolia Kabath
Dg: RAB *Lyc-Cra*, RBA *Car dav*, RBB *Sph-Tom*

Valeriana tripteris L.
Dg: ADF *Cal var*, AF *CAR-KOB*, AFA *Fes ver*, LE *ERI-PIN*, LEA *Pul-Pin*
C: ADF *Cal var*

Valerianella dentata (L.) Pollich
Dg: XBA *Caucal*

Veratrum lobelianum Bernh.
Dg: AD *MUL-ACO*, ADA *Cal vil*, ADC *Sal sil*, ADD *Ade all*, ADE *Dry-Ath*, KC *ROS-PIN*
C: ADA *Cal vil*, ADC *Sal sil*, ADD *Ade all*, ADE *Dry-Ath*
Dm: AD *MUL-ACO*, ADA *Cal vil*

Verbascum chaixii Vill. subsp. *austriacum* (Schott ex Roem. & Schult.) Hayek
Dg: SC *THL ROT*, SCA *Sti cal*

Verbascum nigrum L.
Dg: KAB *Sal ela*

Verbena officinalis L.
Dg: KAB *Sal ela*

Veronica alpina L.
Dg: AC *ELY-SES*, ACB *Car fir*

Veronica anagallis-aquatica L.
Dg: MA *ISO-JUN*, MAA *Ele ova*, MAC *Ver sup*

Veronica aphylla L.
Dg: AC *ELY-SES*, ACA *Ses tat*, ACB *Car fir*

Veronica arvensis L.
Dg: XB *STE MED*

Veronica austriaca L.
Dg: THC *Dia-Ses*

Veronica beccabunga L.
C: RAC *Epi-Mon*

Veronica chamaedrys L.
Dg: LC *QUE PUB*
C: ADF *Cal var,* KBH *Sal are*, LC *QUE PUB*, LCC *Que pet*, TDA *Arr ela*, TDB *Pol-Tri*, TEB *Nar-Agr*, TEC *Vio can*, THI *Tri med*, THJ *Mel pra*, XDF *Rum alp*

Veronica dillenii Crantz
Dg: TF *KOE-COR*, TFA *Cor can*, TFE *Ara tha*, TFH *Koe gla*
C: TFE *Ara tha*, TFH *Koe gla*

Veronica fruticans Jacq.
Dg: AC *ELY-SES*, ACA *Ses tat*, LE *ERI-PIN*

Veronica hederifolia L.
Dg: KD *ROBINI*, KDA *Che-Rob*

Veronica longifolia L.
Dg: TDJ *Ver-Lys*
C: TDJ *Ver-Lys*

Veronica montana L.
Dg: RA *MON-CAR*

Veronica officinalis L.
Dg: LC *QUE PUB*, LCC *Que pet*, TE *CAL-ULI*, TEB *Nar-Agr*, THJ *Mel pra*
C: LC *QUE PUB*, LCC *Que pet*, TEB *Nar-Agr*, HJ *Mel pra*

Veronica persica Poir.
Dg: XB *STE MED*, XBA *Caucal*, XBB *Ver-Eup*, XBE *Oxa fon*
C: XBA *Caucal*, XBB *Ver-Eup*

Veronica polita Fr.
Dg: XBA *Caucal*

Veronica serpyllifolia L.
Dg: MA *ISO-JUN*

Veronica spicata L.
Dg: TH *FES-BRO*, THG *Koe-Phl*
C: THG *Koe-Phl*

Veronica teucrium L.
Dg: LC *QUE PUB*, LCA *Que pub*, THH *Ger san*

Veronica triphyllos L.
Dg: XB *STE MED*

Veronica verna L.
Dg: TFE *Ara tha*
C: TFE *Ara tha*

Viburnum opulus L.
Dg: LBD *Sor-Fag*

Vicia angustifolia L.
Dg: XB *STE MED*, XBC *Scl ann*, XBD *Arn min*, XBL *Lol-Lin*
C: XBL *Lol-Lin*

Vicia cassubica L.
Dg: LC *QUE PUB*, LCC *Que pet*,

Vicia cracca L.
Dg: LE *ERI-PIN*, TD *MOL-ARR*, TDI *Cni ven*
C: LE *ERI-PIN*, LEA *Pul-Pin*, TDA *Arr ela*, TDB *Pol-Tri*, TDD *Mol cae*, TDI *Cni ven*

Vicia hirsuta (L.) Gray
Dg: XB *STE MED*, XBC *Scl ann*
C: XBC *Scl ann*

Vicia lathyroides L.
Dg: TFH *Koe gla*

Vicia sylvatica L.
Dg: ADF *Cal var*

Vicia tenuifolia Roth
Dg: THH *Ger san*
Dm: THH *Ger san*

Vicia tetrasperma (L.) Schreb
Dg: XB *STE MED*

Vicia villosa Roth
Dg: XB *STE MED*,

Vincetoxicum hirundinaria Medik.
Dg: LC *QUE PUB*, LCA *Que pub*, LCC *Que pet*, LE *ERI-PIN*, LEA *Pul-Pin*, THA *Aly-Fes*, THB *Bro-Fes*, THC *Dia-Ses*
C: ADF *Cal var*, LC *QUE PUB*, LCA *Que pub*, LCC *Que pet*, LE *ERI-PIN*, LEA *Pul-Pin*, THA *Aly-Fes*, THB *Bro-Fes*, THC *Dia-Ses*

Viola alpina Jacq.
Dg: AC *ELY-SES*, ACB *Car fir*

Viola arvensis Murray
Dg: XB *STE MED*, XBA *Caucal*, XBC *Scl ann*, XBD *Arn min*, XBL *Lol-Lin*
C: XB *STE MED*, XBA *Caucal*, XBB *Ver-Eup*, XBC *Scl ann*, XBD *Arn min*, XBE *Oxa fon*, XBF *Spe-Ero*, XBL *Lol-Lin*

Viola biflora L.
Dg: ADG *Tri fus*, AF *CAR-KOB*, AFA *Fes ver*, RAB *Lyc-Cra*, RAD *Swe-Dic*
C: ADG *Tri fus*, RAB *Lyc-Cra*, RAD *Swe-Dic*

Viola canina L.
Dg: TE *CAL-ULI*, TEC *Vio can*

Viola collina Besser
Dg: SC *THL ROT*

Viola hirta L.
Dg: LCA *Que pub*, LE *ERI-PIN*, LEA *Pul-Pin*, THB *Bro-Fes*
C: LCA *Que pub*, THB *Bro-Fes*

Viola mirabilis L.
Dg: LCA *Que pub*

Viola palustris L.
Dg: LA *ALN GLU*, RAC *Epi-Mon*, RB *SCH-CAR*
C: RAC *Epi-Mon*

Viola reichenbachiana Jord. ex Boreau
Dg: LB *CAR-FAG*, LBB *Car bet*, LBC *Fag syl*, LD *QUE ROB*
C: LBB *Car bet*, LBC *Fag syl*

Viola riviniana Rchb.
Dg: LC *QUE PUB*, LCA *Que pub*, LCC *Que pet*

Viola rupestris F.W. Schmidt.
Dg: THC *Dia-Ses*

Viola stagnina Kit.
Dg: TDI *Cni ven*

Viola tricolor s. l.
Dg: SC *THL ROT*

Viscaria vulgaris Röhl.
Dg: LC *QUE PUB*, LCC *Que pet*, SAB *Asp cun*

Viscum album L.
Dg: LCA *Que pub*

Vulpia myuros (L.) C.C. Gmel.
Dg: TFB *The-Air*

Warnstorfia fluitans (Hedw.) Loeske
Dg: RBE *Sph cus*

Warnstorfia sarmentosa (Wahlenb.) Hedenäs
Dg: RAD *Swe-Dic*

Weissia controversa Hedw.
Dg: TI *VIO CAL*, TIA *Arm hal*

Wolffia arrhiza (L.) Horkel ex Wimm.
Dg: VA *LEMNET*, VAA *Lem min*
Dm: VA *LEMNET*, VAA *Lem min*

Zannichellia palustris L.
Dg: VCC *Cha can*

Zostera marina L.
Dg: VCC *Cha can*, VE *ZOS MAR*, VEA Zos ma

Professor Krzysztof Rostański (1930–2012)

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