

Updated crosswalks of the revised EUNIS Habitat Classification with the European Vegetation Classification and the European Red List Habitats for EUNIS coastal habitats and wetlands

Formal query routines and indicator species



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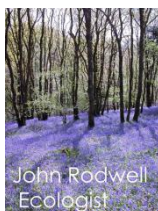
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In 2003 Alterra implemented a management system, according to 9001:2008.

Since 2006 Alterra works with a certification system according to the standard ISO 14001:2004.

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1 Introduction

1.1 The context of the Specific Contract

To underpin the EU2020 Biodiversity Strategy adopted in 2011, the European Council has committed itself to a long-term vision and mid-term headline target: "To halt the loss of biodiversity and the degradation of ecosystem services in the European Union by 2020, restore them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss". It is impossible to measure progress to this target without reliable and timely information on the status and trends of biodiversity across Europe. Within the European Union indicators on status and trends of species and habitats are reported under the Birds Directive (BD), the Habitats Directive (HD), the Water Framework Directive (WFD) and the Marine Strategy Framework Directive (MSFD). Additional information is needed, however, to establish a more comprehensive assessment of the state of ecosystems and their trends, covering the whole territory of Europe and the whole range of natural and semi-natural landscapes.

The EUNIS habitat classification, developed by the European Topic Centre for Biodiversity (TEC/BD) for the European Environment Agency (EEA) at the end of the last century (Davies & Moss 1999; see Davies et al. 2004; Moss 2008), is covering both the marine and terrestrial realm. In recent years, this classification has been revised at Level 3 (terrestrial) and 4 (marine), aiming at establishing more hierarchical consistency, removing ambiguity and overlap in definitions of types, and extending the typology for the whole European continent and seas. A preliminary, 2014 revised classification has been used in the DG ENV project Red List of European Habitat (Janssen et al. 2016). For the proposed revisions in previous EEA projects, we would refer to the relevant passages in the research reports (Schaminée et al. 2012, 2013, 2014, 2016a, 2016b, 2018).

One of the main aims of the EEA Framework contract is to support EEA and other European institutions with data and tools for assessment of ecosystem status and trends, including their provided services and functions. In a specific contract, the focus is on contributions to EUNIS habitat classification and ecosystem assessment. Thus by using *in situ* vegetation data, which are brought together in the European Vegetation Archive (EVA), coordinated by the European Vegetation Survey (EVS).

1.2 The aim and objective of the Specific Contract

The support to EUNIS habitat classification revision comprises three specific tasks: (1) an update of crosswalks of the EUNIS Habitat Classification with EuroVegChecklist 2016, (2) a provision of formal query routines and indicator

species lists, and (3) a provision of crosswalks between the European Red List of Habitats and revised EUNIS habitats.

An updated version of EuroVegChecklist was published in 2016 (Mucina et al. 2016). All EUNIS groups that have been under revision through the European Vegetation Survey (EVS) projects were cross-walked with older versions of EuroVegChecklist. Further to this, the final EUNIS review is based on the public consultation, and some revised habitat types differ from the ones proposed from the European Vegetation Survey (EVS) projects. Therefore, there is a need for an update of the crosswalk with EuroVegChecklist 2016 (Task 1). In an earlier project to support the EUNIS classification revision (carried out in 2018), the habitat groups that were revised by the end of 2017 (forests, heathlands, grasslands) were considered. The present project focuses on coastal habitats and wetlands. The development of the crosswalks will be done in close communication with ETC/BD. This task is a prerequisite to the following subtask on identification of indicator species and to the production of maps (the maps will be produced by ETC/BD).

In line with the phytosociological tradition, small-scale plot data on plant species composition and cover are applied to define indicator species for the individual habitat types (Task 2). The in situ data are used for 'bottom-up' fine-grained delimitation and characterisation of so-called plant associations (Braun-Blanquet 1928). Estimates suggest that the total number of such plots exceeds 4.3 million (Schaminée et al. 2009) and there is an enormous amount of phytosociological publications describing and classifying vegetation types from many countries in the EU and beyond. Making use of the capacity of in situ vegetation recording is part of the on-going review of information relating to habitat types and ecosystems by the EEA, anticipating a revision of the existing scientific basis for the EUNIS Habitat Classification.

Indicator species lists and formal query routines (that define the habitats based on a combination of coverage of species) were developed for the revised habitat groups through the EVS projects. The updated European Vegetation Archive (EVA; Chytrý et al. 2016) database includes an increased number of plot data, including Scandinavia and Macaronesia, where data were previously scarce. The updated EVA database will be used to provide the lists of indicator species and the query routines for coastal habitats and wetlands, in line with the procedures applied for the habitat groups forests, shrublands and grasslands in the 2018 project.

Task 3 is to provide the crosswalk between the Red List of terrestrial habitats and the final revised EUNIS classification for coastal habitats and wetlands. The European Red List of Habitats was finalised by the end of 2016 and a preliminary crosswalk from revised EUNIS to Red List was done by ETC/BD as preparation for the 2018 Eionet consultation for some habitat groups. This work will be taken into consideration. The crosswalks include relation qualifiers in both directions. The task has been developed in close communication with ETC/BD and follow the final revised classification.

2 Update of crosswalks of the revised EUNIS Habitat Classification for coastal habitats and wetlands with EuroVegChecklist 2016

2.1 Background

The update of crosswalks of EUNIS with *EuroVegChecklist* 2016 will replace earlier crosswalks based on previous versions of both classification systems. The updated version is presented in Appendix C. Almost all habitat types of the new categories N and Q could be crosswalked. For the coastal habitat types (N), the only exception is habitat type N1k (Machair grasslands). Concerning the wetlands (Q), the exceptions are the habitat types Q13 (Ombrotrophic percolation mire) and Q32 (Aapa mire). For the motivation of removal of these habitat types see Paragraph 2.3.

The changes in the EUNIS habitat classification over the years were for a long time relatively modest, but more substantial revisions took place as a result of the work carried out through a number of European Vegetation Survey projects for the EEA (Schaminée et al. 2012, 2013, 2014, 2016a, 2016b, 2018), the DG-ENV analysis of the European Red List of Habitats (Janssen et al. 2016), further meetings and consultation by the EEA and ETC-BD of the vegetation experts involved, e.g. at meetings of the European vegetation Survey in Wrocław (23-25 May 2018) and Madrid (3-6 September 2019), and public consultation in the EU Member States.

The overview of European syntaxa has undergone substantial expert revision after the publication of *The Diversity of European Vegetation* in 2002, which was a first attempt to achieve a respectable level of stability in the classification of European vegetation (Rodwell et al. 2002), based on a list of European vegetation classes by Mucina, published in 1997 in a bundle of case studies by the EVS (Mucina in Rodwell et al. 1997). This major enterprise, an initiative of the EVS, was carried out by a team under the leadership of Ladislav Mucina, resulting in a new overview, the so-called *EuroVegChecklist*, which was published in 2016. Compared to the 2002 overview, *EuroVegChecklist* is geographically more comprehensive, scientifically more robust, and better grounded within current phytosociological understanding and data.

2.2 EuroVegChecklist 2016

The published version of *EuroVegChecklist* (see Figure 2.1) provides floristic hierarchical classification systems of vascular plant, bryophyte, lichen, and algal communities. The vascular plant communities include 109 classes, 300 orders, and 1108 alliances. It offers “The first comprehensive and critical account of European syntaxa and synthesizes more than a hundred years of classification effort by European phytosociologists. It aims to document and stabilize the concepts and nomenclature of the syntaxa for practical use, such as calibration of habitat classification used by the European Union, standardization of terminology for environmental assessment, management and conservation of natural areas, landscape planning and education. The presented classification systems provide a baseline for future development and revision of European syntaxonomy”, as stated in the summary of the paper (Mucina et al. 2016). The new overview not only gives the lists of syntaxa, but it also briefly characterizes – in ecological and geographic terms – the accepted syntaxonomic concepts, links available synonyms to the accepted syntaxonomic concepts, and provides lists of diagnostic species for all classes.

The plant communities of the “conspectus of the high ranked syntaxa of the European vegetation dominated by vascular plants” are divided into three main groups (Zonal and intrazonal vegetation, Azonal vegetation and Anthropogenic vegetation), which are further ordered along the main geographic zones. The group of the Zonal and intrazonal vegetation, for instance, comprises seven subgroups of vegetation types for respectively the arctic zone, boreal zone, nemoral forest zone, steppe zone, continental desert zone, Mediterranean zone, and the Canary Islands, Madeira and Azores.

EuroVegChecklist is also published on the web (<https://www.synbiosys.alterra.nl/evc>), where the publication can be downloaded and comments can be posted. Within the EVS, the European Vegetation Classification Committee was established and procedures formulated and approved by the EVS Business Meeting in Bilbao on 14 September 2017, to guide and harmonize proposals for future changes to the European vegetation classification.



Figure 2.1. EuroVegChecklist was published in 2016 as a special issue of Applied Vegetation Science, a journal of the International Association for Vegetation Science (IAVS).

2.3 Some remarks on the EUNIS Habitat Classification for coastal habitats and wetlands

For updating the crosswalks of the revised EUNIS Habitat Classification for coastal habitats and wetlands with EuroVegChecklist 2016 the latest version of the EUNIS list of habitat types at level 3 for coastal habitats (Group B) and wetlands (Group E) was provided by EEA as a “working list”. During the process of crosswalking this list proved to be very stable. It was only slightly modified, leading to the final classification as presented in Appendix A. Appendix B comprises the descriptions of the revised habitat types.

The moderations comprise:

- We consider Machair as a habitat complex, to be listed in Group X. It would be possible to focus on Machair grassland (as was proposed in the draft crosswalk list that was sent for consultation), but in that case, there are no differences with N15 (Atlantic and Baltic coastal dune grassland, grey dune). Likewise, we propose to move Aapa mire (listed as Q32 in the working list) to Group X, as it is also a habitat complex; this was suggested by Doug

Evans (personal communication). As a consequence, Polygon mire (Q33) should be renumbered into Q32.

- To our opinion, the “Ombrotrophic percolation mire” (Q13), which was proposed as a new habitat type (not distinguished in the old EUNIS Habitat Classification), is not sufficiently supported by data. This habitat type was mentioned to occur in Georgia, but its status as a separate habitat type is questionable. The habitat type is still mentioned in the working list (Appendix A) as well as in Appendix B and C, but not in Appendix E as indicator species cannot be provided.
- To Group Q4 we propose to add a new habitat type (Q46; Carpathian travertine fen with halophytes). It includes the old EUNIS type D6.14 (Swards of Carpathian travertine concretions), which is a bit narrower. The old type was a part of the Level 3 habitat type ‘Inland saltmarshes’ (D6.1), but the occurrence of halophytes is rather low.
- As Palsa and Polygon mires cannot be distinguished on floristic criteria, we define them jointly in the expert system, using the code Q3132. We propose to keep them as separate habitat types, as they will continue to exist as separate in the revised EUNIS classification.
- We propose to change the name Mires into Wetlands (Level 1, Group Q) and to transfer four habitat types from Group C to Group Q (Q51 t/m Q54). This was a suggestion from the EVS group, accepted by Doug Evans. For level 2, we propose the name “Helophyte beds” (Q4). These types also occur isolated, not connected to rivers and lakes. The remaining wetland types from Group C will need a revision in the near future. As an example: within Group Q, it will be important to distinguish between “ephemeral wetlands” (class *Isoeto-Nanojuncetea*) and “soft-water wetlands” (class *Littorelletea*).

3 Indicator species and distribution maps of the revised coastal and wetland habitats of the EUNIS classification

3.1 Background

In our previous report (Schaminée et al. 2018), we produced lists of indicator species and distribution maps for the revised EUNIS habitat types of grasslands (habitat group R), shrublands (group S) and forests (group T) based on a large set of European vegetation plots. Here we use the same methods as in Schaminée et al. (2018) and focus on another two habitat groups that were revised in the meantime: coastal habitats (group N) and wetlands (group Q).

3.2 Data sources

The primary data source for producing lists of indicator species and maps for the EUNIS habitats were European vegetation-plot records (henceforth 'vegetation plots' or 'plots'). Such plots typically contain a full list of vascular plant species, often also a list of bryophytes and lichens, estimates of cover-abundance of each species, location and various additional information on vegetation structure and environmental features in the plot (Schaminée et al. 2009; Dengler et al. 2011). These plots were extracted from the EVA database (Chytrý et al. 2016), accessed on 21 July 2019, and several other databases not included in EVA (see a list of all databases in Appendix F). The geographical scope was defined as the whole of Europe (including the European part of Russia), Azores, Madeira, Canary Islands, Anatolia, Cyprus, Georgia, Armenia and Azerbaijan. The dataset contained plots representing both the target coastal and wetland habitats, but also all the other European terrestrial, freshwater and vegetated marine habitats. We excluded the plots that reported only species composition without cover-abundance information for individual species.

Further, we excluded plots smaller than 1 m², larger than 1000 m², and plots without geographic coordinates or with reported uncertainty of the coordinates larger than 10 km. The resulting refined dataset contained a total of 1,183,986 georeferenced plots. The dataset was prepared using the Turboveg 3 program (Hennekens 2015) and analysed using the Juice 7 program (Tichý 2002).

The taxon names in this dataset originated from various national and thematic international databases, most of them managed in Turboveg 2 (Hennekens & Schaminée 2001), which use different taxon lists with partly inconsistent taxon concepts and names. Taxonomy and nomenclature were unified using Turboveg 3 in two steps. Firstly, the names from the original databases were interpreted by regional botanists, considering the taxonomic

concepts and nomenclature used in the focal region of each database. This step was important because it solved regional differences in the use and meaning of some taxon names. In this step, taxon lists of most of the European vegetation-plot databases were matched in the SynBioSys Taxon Database, an unpublished working database of taxon names and concepts used in the EVA project (Chytrý et al. 2016). Secondly, the names of vascular plants from the SynBioSys Taxon Database and the names from the original databases that did not match any name in the SynBioSys Taxon Database were translated to the nomenclature of the Euro+Med PlantBase (Euro+Med 2006–2018; ww2.bgbm.org/EuroPlusMed), using a complete list of accepted names and synonyms of European and Mediterranean vascular plant taxa provided by the Botanischer Garten und Botanisches Museum Berlin-Dahlem in March 2018. A small proportion of the vascular plant taxon names present in the vegetation plots used in this study did not match any valid name or synonym of the Euro+Med PlantBase. Many of these names were names of hybrids or taxonomically problematic taxa used in the source databases, and we retained them in the dataset. All of these names had very few occurrences in the dataset as a result of local use of these names, indicating their negligible effect on the classification. The names of bryophytes and lichens followed the SynBioSys Taxon Database.

The covers of individual species were, in most vegetation plots, recorded using cover-abundance scales (70% of plots were recorded using the Braun-Blanquet scale; Westhoff & van der Maarel 1973). We transformed all these scales to the mid-percentage values corresponding to individual cover-abundance classes following the default conversion of the Turboveg 2 program (Hennekens & Schaminée 2001). For the seven-grade Braun-Blanquet scale the transformation was $r + 1\ 2\ 3\ 4\ 5 \rightarrow 1\% \ 2\% \ 3\% \ 13\% \ 38\% \ 63\% \ 88\%$, for the nine-grade Braun-Blanquet scale $r + 1\ 2m\ 2a\ 2b\ 3\ 4\ 5 \rightarrow 1\% \ 2\% \ 3\% \ 4\% \ 8\% \ 18\% \ 38\% \ 63\% \ 88\%$, and for the Domin scale $+ 1\ 2\ 3\ 4\ 5\ 6\ 7\ 8\ 9\ 10 \rightarrow 1\% \ 2\% \ 3\% \ 4\% \ 13\% \ 23\% \ 29\% \ 42\% \ 63\% \ 88\% \ 99\%$.

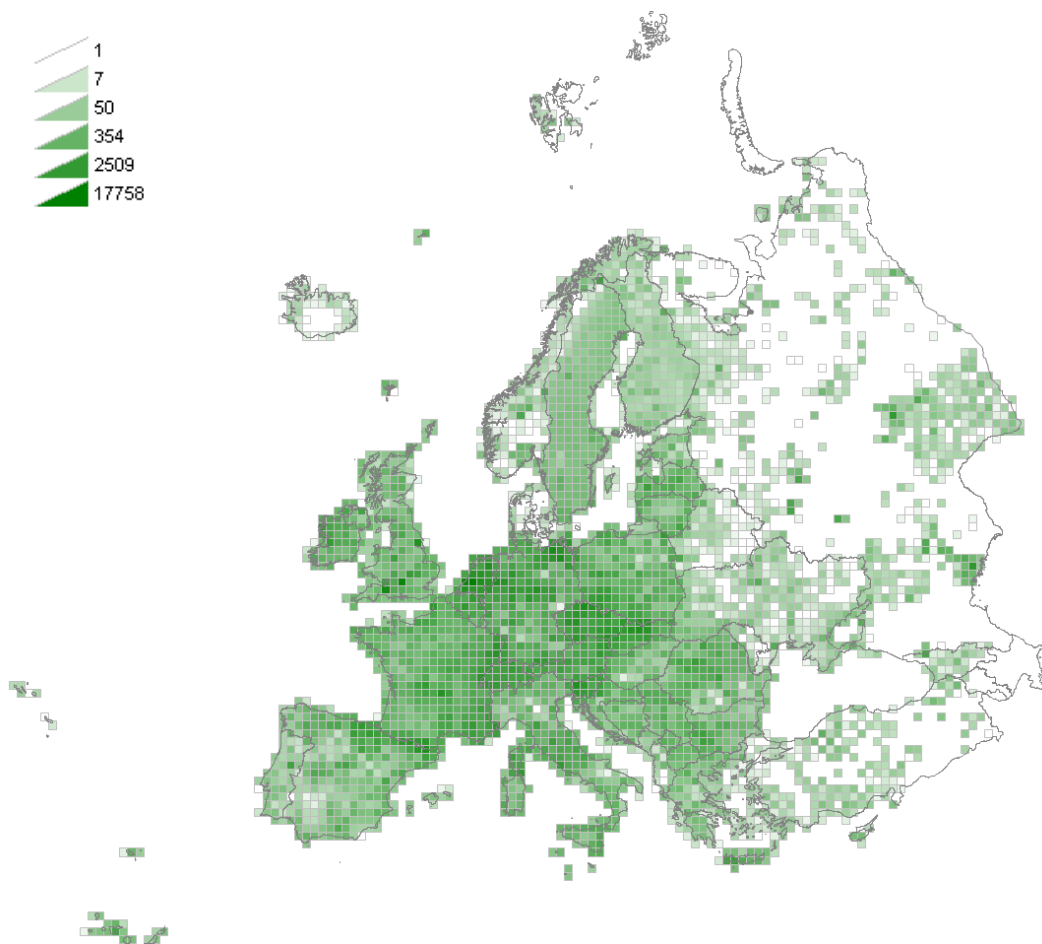


Figure 3.1. Density of 1,183,986 georeferenced plots in EVA and other plots provided for this project in 50 x 50 km grid cells (accessed on 11 November 2019).

3.3 Expert system for identifying EUNIS habitats in vegetation-plot databases

The purpose of the expert system is to identify EUNIS coastal and wetland based on species composition and cover-abundances of particular species or species groups, which are, in some cases, combined with the plot location criteria (if the habitat is difficult to distinguish based on purely floristic criteria).

The expert system is based on formal definitions of habitats written as logical formulas in an editable script stored as a TXT file (Appendix D). The computer program that runs the expert system evaluates all the plots of a vegetation database, and checks for each of them whether it meets the conditions of one or more of the formal definitions of habitats included in this script. If a plot

matches a definition of one habitat, it is assigned to this habitat. In an ideal case, the habitats should be mutually exclusive, and each plot should be assigned to one and only one habitat. However, in reality, some plant communities have a transitional composition indicating two or more habitats. The plots from such places can match the definitions of two or more habitats defined in the expert system. Other plant communities can be untypical (e.g. due to idiosyncratic or depauperated species composition), so they cannot be assigned to any habitat and remain unclassified by the expert system. Nevertheless, the expert system was prepared in such a way that it allowed a large majority of plots to be assigned unequivocally to a single habitat.

The expert system script is divided into three sections. Section 1 merges selected taxon names. In most cases, we merged subspecies, varieties or forms at the species level. We did so in order to improve the consistency of taxonomic concepts across the dataset because some authors recorded only species and others also intraspecific taxa. Further, we merged taxonomically difficult groups of species containing many misidentifications into species aggregates (Appendix D). Section 2 defines species groups used further in the formal definitions of habitats by listing the species belonging to each of them (one species can belong to more than one group). Section 3 comprises logical definitions of habitats written as formulas consisting of relational operators, which define individual assignment criteria, and logical operators AND, OR and NOT, which combine these criteria. Technical description of the syntax of the expert system is provided by Tichý et al. (2019: Appendix S1).

The expert system approach to habitat identification has several advantages: (i) It enables identification of vegetation plots even if they have not been labelled by the name of a habitat or a syntaxon; (ii) it applies habitat classification consistently across the whole of Europe and adjacent areas, unlike assignments by human experts, which may differ from place to place depending on varying regional traditions; (iii) it provides explicit qualitative and quantitative criteria used for the assignment of plots to particular habitats, which help the users understand the meaning and delimitation each habitat; (iv) it can be used to identify any vegetation plot obtained in the future using the same criteria; (v) it can be modified or improved by adding new types or adjusting definitions of already included types.

The expert system contains two types of criteria to assign vegetation-plot records to habitats:

- Species-based assignment criteria: plant species composition or cover-abundances of plant species in vegetation plots, often applied to functional (e.g. dwarf shrubs, trees), biogeographical (e.g. western Mediterranean species) or ecological (e.g. calcareous fen) species groups (internal classification criteria according to De Cáceres et al. 2015).
- Location-based assignment criteria: information about plot location, such as geographical coordinates, which can be used for assigning plots to biogeographical regions (e.g. boreal vs. temperate) or habitat complexes (e.g. coastal vs. inland), or altitudinal zones (external classification criteria according to De Cáceres et al. 2015).

3.3.1 Species-based assignment criteria

Species-based assignment criteria are either qualitative or quantitative and can be applied either to single species or species groups. The qualitative criterion is the presence or absence of a species or a species group in a plot. The quantitative criteria are based on the percentage cover of specific species or species groups occurring in a plot; they assess whether their cover is greater than (or equal to) a specified percentage threshold or greater than (or equal to) the cover of another species or species group occurring in the same plot. These assignment criteria are applied using the relational operators GR (= greater than) or GE (= greater than or equal to). The examples in the following text use GR, but GE can be used instead of GR if appropriate.

When applied to a single species, the script defines the qualitative criterion as "Species name GR 00", meaning that the cover of this species is greater than zero. To define a quantitative criterion, a non-zero percentage value should be given: for example, "Fagus sylvatica GR 50" denotes that the cover of *Fagus sylvatica* in the plot should be greater than 50%. Optionally, the cover of a species can be compared with the total cover of all the other species occurring in the plot, for example, "Erica tetralix GE #\$\$" means that the cover of *Erica tetralix* should be greater than the cover of any other species in the plot, or "Erica tetralix GR \$50" means that the cover of *Erica tetralix* should be greater than 50% of the total percentage cover of all species in the plot.

When applied to species groups, the qualitative criterion assesses whether the number of species of the target group in the plot exceeds a pre-selected threshold, or whether the number of species of one group is greater than the number of species of another group (or several other groups). The quantitative criterion for species groups assesses whether the total cover-abundance of the species of the group is greater or less than the threshold, or whether it is greater or less than the total cover-abundance of species of another group (or other groups, taking them either separately or as a unification of several groups). The total cover of a species group is computed by combining percentage covers of individual species of the group that occur in a plot, using an algorithm that assumes random overlap of covers of individual species, as proposed by Chytrý et al. (2005) and formally described by Fischer (2015). In contrast to the simple sum of percentage covers of individual species, the total cover of all species in the plot calculated using this algorithm cannot exceed 100%.

The species groups included in the expert system comprise species that characterize a particular habitat and enable its identification. The initial lists of species included in the groups were compiled from relevant phytosociological literature, national habitat handbooks, personal field experience, data from previous EUNIS reports (Schaminée et al. 2013, 2014, 2016a, b, 2018), fact sheets of the European Red List of Habitats (<https://forum.eionet.europa.eu/european-red-list-habitats/library/terrestrial-habitats>; see Janssen et al. 2016) and other sources. These initial lists were critically revised and extensively modified based on multiple classification trials with successive versions of the expert system (see below the section Iterative optimization).

The expert system contains two basic types of species groups called 'functional species groups' and 'discriminating species groups'. All the groups of both types are defined in Section 2 of the expert system script by listing species belonging to them. A functional group is indicated by the symbols ###,

whereas ##D designates a group that can be used as either functional or discriminating.

Functional species groups

The concept of the functional species groups follows Landucci et al. (2015). These groups comprise species with similar functional traits (e.g. life form, morphology or phenology), but also groups with similar distribution ranges, affinity to the same habitat, or species characterized by a combination of these properties. In the expert-system script (Appendix D), these groups are used in Section 3 to define both the qualitative and quantitative assignment rules.

The qualitative assignment rules, using the information on presence/absence of species, are as follows:

- A plot should contain at least n species of the group (“#nn Group-name” in the script, where nn is a two-digit number of required species; for example, “#03 Dwarf-shrubs” means that at least three species of the functional group Dwarf-shrubs should be present in the plot).
- A plot should contain more species from one group than from another group (“### Group-name1 GR ### Group-name2” in the script; for example, “### Fen-species GR ### Bog-species” means that the plot should contain more species of fens than those of bogs).

The quantitative assignment rules for functional species groups, using the information on total covers of species groups, are as follows:

- The total cover of a species group in the plot should be greater than a threshold (“#TC Group-name GR nn” in the script, where #TC means the total cover of the species of the group and GR nn means greater than a percentage threshold; for example, “#TC Dwarf-shrubs GR 50” means that the total cover of dwarf shrubs in the plot should be greater than 50%).
- The total cover of a species group should be greater than that of another group (“#TC Group-name1 GR #TC Group-name2” in the script; for example, “#TC Fen-species GR #TC Bog-species” means that the plot should contain a greater total cover of fen species than that of bog species).
- The total cover of a species group should be greater than that of another group, excluding the species of the former group from the latter group (“#TC Group-name1 GR #TC Group-name2 EXCEPT #TC Group-name1” in the script; for example, “#TC Dark-taiga-trees GR #TC Trees EXCEPT #TC Dark-taiga-trees” means that the total cover of the dark taiga trees in the plot should be greater than that of other trees). This formula can also be used for comparing the cover of a single species with the total cover of a group, e.g. “#TC Picea abies GR #TC Trees EXCEPT #TC Picea abies” means that *Picea abies* should have a greater cover than the total cover of the other trees. Formally, a functional species group containing the single species *Picea abies* has to be created in this case.
- The total cover of a species group in a plot should be greater than $n\%$ of the total cover of all the species in a plot (“#TC Group-name GR \$50” in the script, where \$50 means 50% of the total cover of all species; for example, “#TC Dwarf-shrubs GR \$50” means that the total cover of dwarf shrubs should be greater than 50% of the total cover of all species in the plot).
- Finally, a general group containing all the species occurring in a plot can be created, and its total cover computed using the #T\$ notation in the script. Such a group can be used to identify whether the total cover in the plots is

greater than a given threshold (e.g. “#T\$ GR 30” means that the total vegetation cover in the plot should be greater than 30%). Alternatively, this group can be used to introduce a rule that the total cover of a species group should be greater than the total cover of all species in the plot except the total cover of species belonging to the particular group (“#TC Group-name GR #T\$” in the script; in this case, #T\$ means the total cover of all the other species in the plot, excluding the species of the particular group involved in the comparison, and unlike in a previous case, EXCEPT does not need to be specified as it is introduced automatically).

In all cases, two or more functional species groups can be merged in the logical formulas of habitat definitions, e.g. “#TC Trees|#TC Shrubs|#TC Dwarf-shrubs” represents the total cover of all woody plants in the plot.

An example of a habitat definition based on functional species groups (T18 Fagus forest on acid soils):

```
<#TC Macaronesian-coastal-dune-scrub GR 15>
```

This means that the total cover of the functional species group of Macaronesian coastal dune scrub species should be larger than 15%.

Discriminating species groups

The concept of discriminating species groups follows the proposals of Dengler et al. (2006) and Willner (2011), and the principles of the expert system developed by L. Tichý for European vegetation classes (Mucina et al. 2016: Appendix S12). If this type of species groups is used, one discriminating species group is compiled for each habitat. Such a group includes a subset of diagnostic species of this habitat that can be, as a group, used for the reliable identification of this habitat. A species can be assigned to more than one of these groups. A plot is assigned to the habitat whose discriminating species group is most represented in this plot. The degree of representation is measured either as the sum of square-rooted percentage covers of individual species of the group (##Q), which is an intermediate solution between a measure based on the total percentage cover with an upper boundary of 100% according to Fischer (2015) and a measure based on species numbers (Tichý et al. 2019).

The expert system includes several independent sets of discriminating species groups, which are identified by a two-digit number after the + sign at the beginning of the group name. Any comparison of species covers is made only among the groups with the same number. In the current version of the expert system, groups marked as +01 are compared only among Atlantic and Baltic coastal habitats, +02 among Mediterranean and Black Sea coastal habitats, +03 among inland sparsely vegetated habitats, +04 among all other non-forest habitats, +05 among a few specific habitats of temperate broadleaved deciduous forests, +06 to +09 among different groups of mire habitats, and +10 among broad habitat groups. For example, the expression ##Q +01 N11-Atlantic-Baltic-and-Arctic-sand-beach in the expert system script means that the sum of square-rooted percentage covers of the species belonging to the discriminating species group of Atlantic, Baltic and Arctic sand beaches in the plot should be greater than the sum of square-rooted percentage covers of the species of the discriminating species group of any other habitat which has a discriminating group with a name starting with +01.

The relative importance of functional and discriminating species groups for habitat classification varies among habitat groups. In the habitats defined by the presence of certain dominant species, especially forest and shrubland habitats, the use of functional groups in combination with quantitative assignment criteria is often sufficient and most effective to define the particular habitat (e.g. heath is a habitat determined by the dominance of ericoid or genistoid dwarf-shrub species). Therefore, the thresholds of the total covers of functional groups or single-species covers are used to define forest and shrubland habitats. However, for the habitats characterized by a weak or irregular dominance of specific species, such as most grassland and coastal habitats, this method of habitat definition rarely provides satisfactory classification. For such habitats, we based the classification primarily on the discriminating species groups.

An example of a definition based on discriminating species groups (Q22 Poor fen):

```
((<##Q +10 Mire-species> AND <##Q +04 Fen-species>) AND (<##Q +09 Acidophilous-fen-species> AND (<##Q +07 Poor-fen> AND <#TC +09 Acidophilous-fen-species GR 25>))) NOT (<#TC Trees GR 15> OR <#TC Shrubs GR 15>)
```

This means that sum of square-rooted percentage covers of the discriminating species group of all mire habitats should be greater than that of any other broad habitat group, and at the same time the sum of square-rooted percentage covers of the discriminating species groups of fens, acidophilous fens and poor fens should be greater than those of their contrasting group with the same number at the beginning of their name, and the cover of acidophilous fen species should be greater than 25% (note that here the same group is used again as a functional species group and the cover of neither trees nor shrubs should be greater than 15%).

3.3.2 Location-based assignment criteria

Some habitats in the EUNIS classification are defined partly by their occurrence in vegetation zones, altitudinal belts or habitat complexes. For example, specific groups of coniferous forests are divided into boreal and temperate types, or some habitat types are defined by their occurrence on coastal dunes, although similar habitats also occur on inland dunes. It may be impossible to distinguish such habitats only by plant species composition or cover, especially if they are species-poor, because at least in some places their species composition can be identical in the boreal and temperate zones, or in coastal and inland dunes. Therefore, we included several location-based assignment criteria into the formal definitions of habitats in the expert system, complementing the species-based assignment criteria. Nevertheless, we could define most of the habitats purely on the basis of species composition, and we added the location-based criteria only when the species-based classification was not able to separate some types or would have required very complex definitions.

The location-based criteria are either qualitative or quantitative: in the expert-system script, they are indicated as \$\$C (C stands for "character") or \$\$N (N stands for "numeric"). The qualitative criteria are defined using the

relational operator EQ (equal to), e.g. "\$\$C Country EQ Belgium" (the plot occurs in Belgium), while the quantitative criteria use the operator GR (greater than) or GE (greater than or equal to), e.g. "\$\$N Altitude (m) GR 1000" (altitude of the plot is higher than 1000 m a.s.l.). The range of quantitative criteria can be defined by a combination of two statements, e.g. "<\$\$N Altitude (m) GE 500> NOT <\$\$N Altitude (m) GR 1000>" defines an altitude from 500 to 1000 m a.s.l.

The location-based criteria have to be provided for each vegetation plot in a specific database field ("header data" in the terminology implemented in Turboveg and Juice). The following variables were used in the EUNIS expert system to define the location-based assignment criteria:

- Country – a qualitative variable containing country names.
- ECOREG_WWF – a qualitative variable containing the codes of the WWF ecoregions (Olson et al. 2001, see <https://www.worldwildlife.org/biome-categories/terrestrial-ecoregions>). Of a larger number of European ecoregions, only the following were used in the expert system:
 - PA0402 Atlantic mixed forests
 - PA0406 Cantabrian mixed forests
 - PA0433 Pyrenees conifer and mixed forests
 - PA0436 Sarmatic mixed forests
 - PA0445 Western European broadleaf forests
 - PA0503 Caledon conifer forests
 - PA0520 Scandinavian coastal conifer forests
 - PA0608 Scandinavian and Russian taiga
 - PA0610 Urals montane forests and taiga
 - PA1110 Scandinavian Montane Birch forest and grasslands
- COAST_EEA – a qualitative variable containing information as to whether the location is on the sea coast, including a buffer distance of up to 5000 m from the coast. A digital coast map provided by the European Environment Agency (<https://www.eea.europa.eu/data-and-maps/data/eea-coastline-for-analysis-1/gis-data/europe-coastline-shapefile>) was used to identify coastal plots based on their geographic coordinates. The coast was divided into five categories:
 - ARC Arctic
 - ATL Atlantic
 - BAL Baltic
 - BLA Black Sea
 - MED Mediterranean
- DUNES_BOHN – a qualitative variable containing information whether the location is on coastal dunes. A digital version of the Map of Natural Vegetation of Europe (Bohn et al. 2003) was used, and the plots with geographic coordinates corresponding to the mapping units from P1 to P16 (coastal dune vegetation) were given the code Y (= yes) for this variable.
- DEG_LAT – a quantitative variable containing the degrees of latitude of the plot in the coordinate system WGS 84, format DD.DDDD.
- DEG_LON – a quantitative variable containing the degrees of longitude of the plot in the coordinate system WGS 84, format DD.DDDD. Western longitudes are indicated by numbers with a minus sign.
- Altitude (m) – a quantitative variable containing the altitude of the plot in metres above sea level.

An example of a definition containing location-based assignment criteria (F12 Moss and lichen tundra):

```
(((<#TC +01 N13-Atlantic-and-Baltic-shifting-coastal-dune GR #T$> AND  
<##Q +01 N13-Atlantic-and-Baltic-shifting-coastal-dune>) NOT <#TC  
Trees|#TC Shrubs GR 15>) AND ((<$$C Coast_EEA EQ ATL_COAST> OR  
<$$C Coast_EEA EQ BAL_COAST>) NOT ((<$$N DEG_LON GR -50> NOT  
<$$N DEG_LON GR -11>) AND (<$$N DEG_LAT GR 0> NOT <$$N DEG_LAT  
GR 40>))))
```

This means that the total cover of the functional group of Atlantic and Baltic shifting coastal dune should be larger than all other species in the plot and the discriminating group of the same name has a higher cover any other discriminating species group and at the same time the plot should be located on the Atlantic or Baltic coast but not in the area between the longitudes 50°W and 11°W and latitudes 0° and 40°N, i.e. not in Macaronesia.

3.3.3 The hierarchical structure of the expert system

The expert system was developed hierarchically. Each habitat definition was assigned a priority degree. When the expert system is running, the definitions with the highest priority are applied to the dataset first, resulting in habitat assignment of the plots that meet the requirements of these definitions, while other plots remain unclassified. Then, the definitions with lower priority are applied only to the unclassified plots.

The current study deals only with the EUNIS habitat groups that were revised so far, i.e. N, Q, R, S and T. However, the hierarchy of the expert system has been designed to include the vegetation habitats from the other groups (A, C, H, I) once they are revised in the future. Preliminary definitions of these habitats were developed and included in the expert system, which is important for separation of the target habitat groups from the non-target groups. However, these preliminary definitions were not tested and therefore, not included in the results.

In some cases, we created two definitions with different priority levels to define a single habitat. The definition applied at a higher level is usually based on the occurrence or a high total cover of species from a functional group that comprises species narrowly specialized to this habitat. This definition classifies the plots that are very typical examples of the particular habitat, but it leaves many less typical plots of this habitat unclassified. Subsequently, a definition at a lower priority level, based on discriminating species groups, is applied to the unclassified plots. This definition classifies plots that are less typical examples of the habitat but still exhibit a higher affinity to this habitat than to any other habitat. Such a two-step approach is needed for habitats in which an occurrence of narrowly specialized species is a sufficient criterion for habitat assignment even if these species have a relatively low cover. If only definitions based on discriminating species groups were used, some of the plots of these habitats could be misclassified.

For example, the habitat R11 Pannonian and Pontic sandy steppe is defined by two formulas. First, this formula on a higher priority level is applied:

- <#TC R11-Pannonian-and-Pontic-sandy-steppe-specialists GR 15> NOT <#TC Trees|#TC Shrubs GR 15>

This means that the total cover of the functional species group R11-Pannonian-and-Pontic-sandy-steppe-specialists, including a selection of narrow specialists of this habitat, should have a cover greater than 15% and the total cover of trees and shrubs should be greater than 15%. Then, the following formula with a lower priority level defining the same habitat is applied to the plots that were not yet classified by any formula with the higher priority level:

- (<##Q +04 R11-Pannonian-and-Pontic-sandy-steppe> AND <#03 +04 R11-Pannonian-and-Pontic-sandy-steppe>) NOT <#TC Trees|#TC Shrubs GR 15>

This means that the sum of square-rooted percentage covers of a discriminating species group of the Pannonian and Pontic sandy steppe (including both the narrow specialists and frequently occurring less-specialized species) should be higher than the sum of square-rooted percentage covers of the discriminating species groups of any other habitat, and the plot should contain at least three species of this group, and the total cover of trees and shrubs should not exceed 15%.

The expert system contains habitat definitions assigned to seven priority levels (Fig. 1). The definitions at the highest priority level (7) are applied first in the classification, while the definitions at the lowest priority level (1) are applied last:

- Level 7: Coastal habitats dominated by woody plants (i.e. coastal heaths, dune scrub and dune forests; habitats N18 to N1G) and Macaronesian heath (habitat S43) are defined based on a high cover of dominant species or a high total cover of functional groups of dominant species (dwarf shrubs, shrubs and trees) in combination with an occurrence on the coast, on coastal dunes, or in Macaronesia, respectively.
- Level 6: Other (i.e. herbaceous) coastal habitats (N11–N17 and N1H–N1K) and marine habitats of the tidal zone dominated by vascular plants (A25a–A25d) are defined based on the discriminating species groups of habitats within these two groups, in combination with occurrence on the coast or coastal dunes.
- Level 5: The habitat group H (inland sparsely vegetated habitats) is defined based on a cover not greater than 30% in combination with the occurrence of at least one species specialized to the habitats of this group. Individual habitats within this group are preliminarily defined based on their preliminary discriminating species groups.
- Level 4: Some coastal herbaceous (group N), some grassland (group R), some anthropogenic (group I), all shrubland except the Macaronesian heath (group S) and all forest (group T) habitats are classified using definitions based on a high cover of characteristic dominant species or functional groups of characteristic dominant species, or the presence of a specified minimum number of species narrowly specialized to individual habitats.
- Level 3: Habitat groups of shrublands (group S) and forests (group T) are defined based on the dominance of shrubs, dwarf-shrubs or trees. Vegetation plots that have not been previously classified to specific habitats within these groups are classified directly to these broad groups.
- Level 2: All the non-shrubland and non-forest habitat that were not defined before are defined based on the discriminating species groups.

- Level 1: Habitat groups of mire (Qa), marsh (Qb), grassland (R), freshwater (C), sparsely vegetated (H) or anthropogenic (I) habitats, without assignment to any specific habitat, are defined based on discriminating species groups. Vegetation plots that have not been previously classified to specific habitats within these groups are classified directly to these habitat groups.

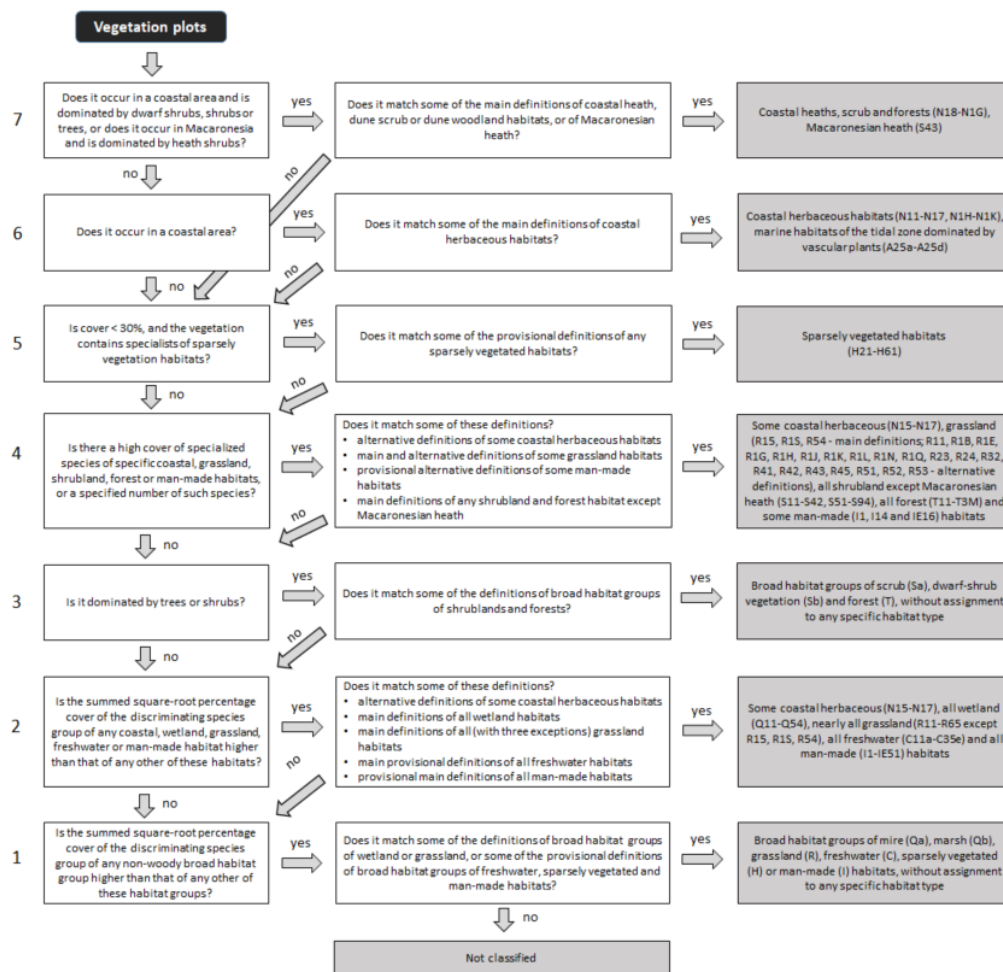


Figure 3.2. A scheme of the EUNIS classification expert system with seven hierarchical levels indicated by the number on the left side.

3.4 Iterative optimization and evaluation of the expert system

A preliminary version of the expert system was prepared, containing logical formulas defining individual habitats. This version was applied to the dataset of all 1,183,986 vegetation plots. The plots assigned to individual habitats by the expert system were checked by several experts from different countries, who were specialists in different habitats. These plots were also mapped, and the experts paid special attention to geographically outlying plots. If the experts identified misclassified plots, the expert system was modified to avoid such

misclassifications. The modifications were done either in the species groups or in the formal definitions. In the case of species groups, the species that contributed to misidentifications were identified in the source dataset and removed from the groups, while other species that might contribute to the correct habitat identification were added to individual groups. In the case of formal definitions, the structure of the formulas or thresholds used in the formulas were changed. These decisions were always made by experts based on a detailed inspection of the expert system classification of the vegetation-plot dataset. This process was modified many times until misclassification identifiable by the experts were eliminated.

3.5 Results of the expert system

We developed formal definitions for 25 coastal (group N) and 18 wetland (Q) habitats (Table 2.1) and included them in the expert system (Appendix D). Based on the floristic criteria, we were not able to formally define the habitats N23 Shingle and gravel beach with scrub and N24 Shingle and gravel beach forest, because they cannot be separated from other forest types found in the coastal areas. Consequently, these habitat types do not appear in Appendix C and E. Further, we were not able to separate the habitats Q31 Palsa mire and Q32 Polygon mire, nevertheless we were able to create a common definition for these two types, which we coded as Q3132 in the expert system and its outputs.

In addition, the expert system contains 144 habitats of grasslands (R), shrublands (S) and forests (T) defined in our previous work (Schaminée et al. 2018) and 52 preliminary definitions of the habitats of other habitat groups (A – marine, C – freshwater, H – sparsely vegetated and I – unvegetated man-made), which however have not been tested and require a considerable revision in the future. Of all 1,183,986 vegetation plots in the dataset, 154,103 were classified to one of the two target habitat groups N or Q and its habitats.

3.6 Indicator species of the revised EUNIS coastal and wetland habitats

Indicator species of each habitat were obtained through statistical analysis of the groups of vegetation plots classified by the expert system to this habitat. Three types of indicator species were established following Chytrý & Tichý (2003): diagnostic species, constant species and dominant species. Each of these types of indicator species has a different meaning, and together they provide a comprehensive characterization of the habitat through its species. Diagnostic species are species with occurrences concentrated in a particular habitat, being absent or rare in other habitats. As such, they are good positive indicators of the habitat. However, diagnostic species may be absent from the habitat at many sites. Constant species are species that occur frequently but not exclusively in a particular habitat: some of them may be generalist species that are also frequent in other habitats. Dominant species are those that often reach high cover in a particular habitat, thus determining the habitat physiognomy.

For the purposes of computing indicator species, we removed all the plots that were not classified by the expert system or were classified to more than one habitat. This dataset was geographically stratified (Knollová et al. 2005). This step was necessary to account for the effect of geographically unbalanced sampling effort across Europe, i.e. a high concentration of vegetation plots in relatively small areas contrasting with low density or absence of vegetation plots in other, often rather large area, although the habitat may be quite common there. Geographical stratification was performed on the dataset of vegetation plots classified by the expert system, using a grid of 3×5 minutes of latitude \times longitude (corresponding to approximately 5.5×6.0 km at 50° N). If a cell of this grid contained more than one plot belonging to the same habitat, one plot was selected randomly, while the others were deleted. If such resampling resulted in less than 20 plots per habitat across the whole dataset, some randomly selected plots were returned to the dataset so that the total number of plots of this habitat in the dataset was 20. The resampled dataset contained 458,640 plots, i.e. 39% of the dataset of all classified plots, but it was more balanced and more representative. Plots classified to other habitat groups than coastal and wetlands were retained in the dataset to provide background for calculating the degree of concentration of species occurrences within the target vegetation type for establishing diagnostic species.

Diagnostic species were determined based on the degree of concentration of their occurrences in the groups of plots representing each EUNIS habitat. This degree of concentration, also called fidelity, was calculated using the phi coefficient of association (Sokal & Rohlf 1995; Chytrý et al. 2002) standardized as if each habitat was represented by the same number of plots (Tichý & Chytrý 2006). The species with a value of phi greater than 0.15 for a particular habitat were considered as diagnostic for this habitat. This threshold was selected arbitrarily as a compromise between a stringent selection of few species with high diagnostic value (if phi was higher) and a lax selection of many species with weak diagnostic value (if phi was lower). However, the concentration of species occurrences in the habitat, even if expressed by a high value of the phi coefficient, may not be statistically significant for some habitats represented by a low number of plots in the dataset. Therefore, the statistical significance of

the species-habitat association was tested using Fisher's exact test (Sokal & Rohlf 1995), and if not significant at $P < 0.05$, the species was excluded from the list of diagnostic species (Tichý & Chytrý 2006).

Constant species were defined as those with a constancy (= percentage occurrence frequency) of at least 10% in the target habitat. This threshold is much lower than usually used for constant species of vegetation types in phytosociology. However, a lower value is needed for habitats, because many of them consist of several vegetation types occurring across broad geographic ranges with varying species composition, and as a result, few species have higher constancy across the whole habitat.

Dominant species were defined as those that occurred with a cover greater than 25% in at least 5% of vegetation plots classified to the target habitat. This means that a species is considered as dominant even if it does not belong to the highest vegetation layer, and a single plot can have more than one dominant species. Conversely, a habitat can have no dominant, especially if it has sparse vegetation with low cover of all species occurring at most sites.

Records of taxa identified only to the genus level and records of epiphytic lichen species were removed from the lists of indicator species. Records of other non-vascular plants (bryophytes and non-epiphytic lichens) were retained in the lists of indicator species because many of these species are important ecological indicators. However, as they were not recorded in all plots, their frequency values were likely underestimated. Their fidelity can be both underestimated (if they were sampled only in some proportion of plots of the habitat) or overestimated (if bryophytes and lichens were more often sampled in some habitat than in others). A solution would be to compute frequency values only for plots where bryophytes and lichens were recorded (or would have been recorded if present). However, this was not possible because vegetation plots without records of bryophytes and lichens in most cases do not contain information whether these species were really absent or just not recorded (such as an indication of the total cover of bryophytes and lichens).

The lists of indicator species were checked by experts from the author team. If we found species that are untypical of the habitat according to the expert knowledge, primary data were checked, in some cases resulting in the detection of errors in the source data which were corrected, and the indicator species lists recalculated.

The resulting lists of indicator species for the EUNIS coastal and wetland habitats, including diagnostic, constant and dominant species, are in Appendix E.

New code	Habitat name	No. of plots
N	Coastal habitats	
N1	Coastal dunes and sandy shores	
N11	Atlantic, Baltic and Arctic sand beach	507
N12	Mediterranean and Black Sea sand beach	647
N13	Atlantic and Baltic shifting coastal dune	4050
N14	Mediterranean, Macaronesian and Black Sea shifting coastal dune	6582
N15	Atlantic and Baltic coastal dune grassland (grey dune)	3033
N16	Mediterranean and Macaronesian coastal dune grassland (grey dune)	5629
N17	Black Sea coastal dune grassland (grey dune)	1006
N18	Atlantic and Baltic coastal Empetrum heath	180
N19	Atlantic coastal Calluna and Ulex heath	143
N1A	Atlantic and Baltic coastal dune scrub	1429
N1B	Mediterranean and Black Sea coastal dune scrub	310
N1C	Macaronesian coastal dune scrub	71
N1D	Atlantic and Baltic broad-leaved coastal dune forest	693
N1E	Black Sea broad-leaved coastal dune forest	16
N1F	Baltic coniferous coastal dune forest	482
N1G	Mediterranean coniferous coastal dune forest	163
N1H	Atlantic and Baltic moist and wet dune slack	3997
N1J	Mediterranean and Black Sea moist and wet dune slack	351
N2	Coastal shingle	
N21	Atlantic, Baltic and Arctic coastal shingle beach	520
N22	Mediterranean and Black Sea coastal shingle beach	257
N23	*Shingle and gravel beach with scrub	
N24	*Shingle and gravel beach forest	
N3	Rock cliffs, ledges and shores, including the supralittoral	
N31	Atlantic and Baltic rocky sea cliff and shore	1038
N32	Mediterranean and Black Sea rocky sea cliff and shore	1346
N33	Macaronesian rocky sea cliff and shore	61
N34	Atlantic and Baltic soft sea cliff	56
N35	Mediterranean and Black Sea soft sea cliff	89
Q	Wetlands	31577
Q1	Raised and blanket bogs	
Q11	Raised bog	5158
Q12	Blanket bog	1118
Q2	Valley mires, poor fens and transition mires	
Q21	Oceanic valley mire	2033
Q22	Poor fen	6516
Q23	Relict mire of Mediterranean mountains	165
Q24	Intermediate fen and soft-water spring mire	7871

Q25	Non-calcareous quaking mire	6903
Q3	Palsa and polygon mires	
Q31	Palsa mire	
Q32	Polygon mire	
Q3132	Palsa and polygon mires	321
Q4	Base-rich fens and calcareous spring mires	
Q41	Alkaline, calcareous, carbonate-rich small-sedge spring fen	5283
Q42	Extremely rich moss-sedge fen	3434
Q43	Tall-sedge base-rich fen	1880
Q44	Calcareous quaking mire	2080
Q45	Arctic-alpine rich fen	969
Q46	Carpathian travertine fen with halophytes	33
Q5	Helophyte beds	
Q51	Tall-helophyte bed	24843
Q52	Small-helophyte bed	12627
Q53	Tall-sedge bed	7911
Q54	Inland saline or brackish helophyte bed	725

Table 3.1. Overview of the EUNIS habitat types, with their new codes and the number of plots assigned to each of them by the expert system; habitats marked by an asterisk could not be defined in the expert system.

4 Provision of crosswalks between European Red List of Habitats and revised EUNIS Habitat Classification for coastal habitat types and wetlands

4.1 Background

The European Red List of habitats was finalised by the end of 2016 (Gubbay et al. 2016; Janssen et al. 2016). Task 3 is to provide the crosswalk between the Red List of terrestrial habitats and the final revised EUNIS classification for coastal habitats and wetlands. The main aim of this task is to make all information that has been compiled for the Red List project available for the new EUNIS habitat types.

4.2 European Red List of Habitats

The European Red List of Habitats project has been carried out during the period 2014-2016 on behalf of the European Commission DG Environment. The project aimed at providing a Red List assessment of all natural and semi-natural terrestrial, freshwater and marine habitats in the EU28 and beyond. For the Red List, the EUNIS typology was applied, with some adaptations. These adaptations followed the proposed new EUNIS which were published in the same period for forest, scrub and grassland habitats (Schaminée et al. 2018), as well as proposals for other habitat groups. The latter formed the basis for the revised EUNIS in the following years.

For terrestrial habitats, the Red List of European Habitats was organised in seven expert groups according to EUNIS main types (coastal habitats, freshwater types, mires and bogs, grasslands, heathland and scrub, forests, and sparsely vegetated habitats). The Red List applied the criteria and categories according to the IUCN guidelines (with some slight adaptations), and was based on data sources and expert knowledge of about 300 experts from 33 countries. In total for 235 terrestrial and freshwater habitats and 257 marine habitats a Red List assessment was carried out. The information made public through factsheets contains much more information for these habitat types, including crosswalks to other classifications, lists of characteristic species, photos, distribution maps, pressures and threats, conservation measures, and data on occurrences in individual countries.

4.3 Some remarks on the crosswalk

The crosswalk has been compiled in the form of an Excel-file, which is delivered as a separate file and has been added to this report in Appendix G. The crosswalk is given in both directions, using the following qualifiers:

=	EUNIS type and Red List type are identical
≈	EUNIS type and Red List type are more or less identical
>	the type left of the qualifier is defined as a broader than and completely including the type right of the qualifier
<	the type left of the qualifier is defined as a part of the type right of the qualifier
#	both types have a large part that overlaps
NA	the type has not been assessed in the Red List
MOV	the type is moved to a different main group in the Red List compared to EUNIS

As the revised EUNIS classification for wetlands and coastal habitats is strongly based on the habitat typology of the Red List, the differences between both typologies are few. The most important differences are the following:

- Two habitat types (Machair; Aapa mire) were moved to the main groups of mosaic or complex habitats (landscape types) in the new EUNIS proposal;
- As a consequence of the previous change, there is a small difference in content between the Coastal Habitats (B; dune grassland, dune slack) and Mires and bogs (D) in the Red List and the newly proposed EUNIS typology;
- The scrub on shingle beach and the forest on shingle beach are respectively considered in the Red List under broader, temperate scrub and forest types; the same is proposed for the new EUNIS typology; therefore they are listed in the crosswalks but with no type being assessed in the Red List;
- Polygon mire (Q32 in EUNIS, there is no Red List code) was considered as a separate habitat in the Red List, but was out of the geographical scope and therefore not assessed;
- The Red List type D4.1a (Small-sedge base-rich fen and calcareous spring mire) has been split in the new EUNIS proposal in three types (Q41, Q42, Q46), based on different species composition.

Besides, four habitats of helophyte beds were considered under the Freshwater habitats (group C) in the Red List, but are included in the "wetlands" group in the new EUNIS proposal. These are the EUNIS habitats Q51, Q52, Q53, Q54.

And finally, a slight change of the name (but not of content) was proposed for the following EUNIS habitats:

- N14 Mediterranean, Macaronesian and Black Sea shifting coastal dune (Red List B1.3b);
- N21 Atlantic, Baltic and Arctic coastal shingle beach (Red List B2.1a);
- N22 Mediterranean and Black Sea coastal shingle beach (Red List B2.1b);
- Q21 Oceanic valley mire (Red List D2.1).

5 References

- Bohn, U., Neuhäusl, R., Gollub, G., Hettwer, C., Neuhäuslová, Z., Schlüter, H. & Weber, H. (eds.) (2003). *Karte der natürlichen Vegetation Europas / Map of the Natural Vegetation of Europe. Maßstab / Scale 1:2.500.000. Teil 1: Erläuterungstext*. Landwirtschaftsverlag, Münster, Germany.
- Bruelheide, H. (1995). Die Grünlandgesellschaften des Harzes und ihre Standortsbedingungen. Mit einem Beitrag zum Gliederungsprinzip auf der Basis von statistisch ermittelten Artengruppen. *Dissertationes Botanicae* 244 1–338.
- Bruelheide, H. (1997). Using formal logic to classify vegetation. *Folia Geobotanica et Phytotaxonomica* 32: 41–46.
- Bruelheide, H. (2000). A new measure of fidelity and its application to defining species groups. *Journal of Vegetation Science* 11: 167–178.
- Chytrý, M. (ed.) (2007). *Vegetace České republiky 1. Travinná a keříčková vegetace. Vegetation of the Czech Republic 1. Grassland and heathland vegetation*. Academia. Praha, Czech Republic.
- Chytrý, M., Pyšek, P., Tichý, L., Knollová, I. & Danihelka, J. (2005). Invasions by alien plants in the Czech Republic: a quantitative assessment across habitats. *Preslia* 77: 339–354.
- Chytrý M., Hennekens S.M., Jiménez-Alfaro, B., Knollová, I., Dengler, J., Jansen, F., Landucci, F., Schaminée, J.H.J. et al. (2016). European Vegetation Archive (EVA): an integrated database of European vegetation plots. *Applied Vegetation Science* 19: 173–180.
- Davies, C. & Moss, D. (1999). *EUNIS Habitats Classification*. Final report to the European Topic Centre on Nature Conservation, European Environment Agency. Institute of Terrestrial Ecology, Huntingdon, UK.
- Davies, C.E., Moss, D. & Hill, M.O. (2004). *EUNIS Habitat Classification*. European Environment Agency, Copenhagen.
- De Cáceres M., Chytrý M., Agrillo E., Attorre F., Botta-Dukát Z., Capelo J., ... Wisser, S.K. (2015). A comparative framework for broad-scale plot-based vegetation classification. *Applied Vegetation Science* 18: 543–560.
- Dengler J., Růsiņa, S., Boch, S., Bruun, H. H., Diekmann, M., Dierßen, K., ... Zobel, M. (2006). Working group on dry grasslands in the Nordic and Baltic region – outline of the project and first results for the class Festuco-Brometea. *Annali di Botanica, nuova serie* 6: 1–28.
- Dengler J., Jansen F., Glöckler F., Peet R.K., De Cáceres M., Chytrý M., ... & Spencer, N. (2011). The Global Index of Vegetation-Plot Databases (GIVD): a new resource for vegetation science. *Journal of Vegetation Science* 22: 582–597.
- Euro+Med (2006–2018). *Euro+Med PlantBase – the information resource for Euro-Mediterranean plant diversity*. Published on the Internet <http://ww2.bgbm.org/EuroPlusMed/>.

- Fischer, H.S. (2015). On the combination of species cover values from different vegetation layers. *Applied Vegetation Science* 18: 169–170.
- Hennekens, S.M. (2015). Turboveg v.3 - A gateway to EVA and other databases. In: Chytrý, M., Zelený, D. & Hettenbergerová, E. 58th Annual Symposium of the International Association for Vegetation Science: Understanding broad-scale vegetation patterns – Abstracts. Masaryk University (p. 152). CZ: Brno.
- Hennekens S. M. & Schaminée, J. H. J. (2001). TURBOVEG, a comprehensive data base management system for vegetation data. *Journal of Vegetation Science* 12: 589–591.
- Janssen, J.A.M., Rodwell, J.S., García Criado, M., Gubbay, S., Haynes, T., Nieto, A., ... Valachovič, M. (2016). European Red List of Habitats – Part 2. Terrestrial and freshwater habitats. Luxembourg: Publications Office of the European Union.
- Knollová, I., Chytrý, M., Tichý, L. & Hájek, O. (2005). Stratified resampling of phytosociological databases: some strategies for obtaining more representative data sets for classification studies. *Journal of Vegetation Science* 16: 479–486.
- Landucci, F., Tichý, L., Šumberová, K. & Chytrý, M. (2015). Formalized classification of species-poor vegetation: a proposal of a consistent protocol for aquatic vegetation. *Journal of Vegetation Science* 26: 791–803.
- Moss, D. (2008). *EUNIS Habitat Classification – a guide for users*. European Topic Centre on Biological Diversity, Paris, and European Environment Agency, Copenhagen.
- Mucina, L., Bültmann, H., Dierßen, K., Theurillat, J.-P., Raus, T., Čarni, A., ... & Tichý, L. (2016). Vegetation of Europe. Hierarchical floristic classification system of vascular plant, bryophyte, lichen, and algal communities. *Applied Vegetation Science* 19, Suppl. 1: 3–264.
- Olson, D.M., Dinerstein, E., Wikramanayake, E.D., Burgess, N.D., Powell, G. V., Underwood, E.C., ... & Loucks, C.J. (2001). Terrestrial Ecoregions of the World: A New Map of Life on Earth. A new global map of terrestrial ecoregions provides an innovative tool for conserving biodiversity. *BioScience* 51 (11): 933–938.
- Rodwell, J.S., Mucina, L., Pignatti, S., Schaminée, J.H.J. & Chytrý, M. (1997, red.). *European Vegetation Survey: Case Studies*. Special features in vegetation science 14. Opulus Press, Uppsala, 238 pp.
- Rodwell, J.S., Schaminée, J.H.J., Mucina, L., Pignatti, S., Dring, J. & Moss, D. (2002). *The Diversity of European Vegetation. An overview of phytosociological alliances and their relationships to EUNIS habitats*. Rapport EC-LNV 2000/054, Wageningen, 168 pp.
- Schaminée, J.H.J., Hennekens, S.M., Chytrý, M. & Rodwell, J.S. (2009). Vegetation-plot data and databases in Europe: an overview. *Preslia* 81: 173–185.
- Schaminée, J.H.J., Chytrý, M., Hennekens, S.M., Mucina, L., Rodwell, J.S. & Tichý, L. (2012). *Development of vegetation syntaxa crosswalks to EUNIS habitat classification and related data sets*. Report to the European Environmental Agency. Alterra WUR, Wageningen, the Netherlands.

- Schaminée, J.H.J., Chytrý, M., Hennekens, S.M., Jiménez-Alfaro, B., Mucina, L., Rodwell, J.S. & Tichý, L. (2013). *Review of EUNIS forest habitat classification*. Report to the European Environmental Agency. Alterra WUR, Wageningen, the Netherlands.
- Schaminée, J.H.J., Chytrý, M., Hennekens, S.M., Janssen, J.A.M., Jiménez-Alfaro, B., Knollová, I., Mucina, L., Rodwell, J.S. & Tichý, L. (2014). *Vegetation analysis and distribution maps for EUNIS habitats*. Report to the European Environmental Agency (EEA/NSV/14/006). Alterra WUR, Wageningen, the Netherlands.
- Schaminée, J.H.J., Chytrý, M., Hennekens, S.M., Janssen, J.A.M., Jiménez-Alfaro, B., Knollová, I., Marcenò, C., Mucina, L., Rodwell, J.S., Tichý, L. & data providers (2016a). *Review of grassland habitats and development of distribution maps of heathland, scrub and tundra habitats of EUNIS habitats classification*. Report to the European Environmental Agency. Alterra WUR, Wageningen, the Netherlands.
- Schaminée, J.H.J., Chytrý, M., Dengler, J., Hennekens, S.M., Janssen, J.A.M., Jiménez-Alfaro, B., Knollová, I., Landucci, F., Marcenò, C., Rodwell, J.S., Tichý, L. & data-providers (2016b). *Development of distribution maps of grassland habitats of EUNIS habitat classification*. Report to the European Environmental Agency (EEA/NSV/16/005). Alterra WUR, Wageningen, the Netherlands.
- Schaminée, J.H.J., Chytrý, M., Hennekens, S.M., Janssen, J.A.M., Knollová, I., Rodwell, J.S., Tichý, L. & data-providers (2018). *Updated crosswalk of the revised EUNIS Habitat Classification with the European vegetation classification and indicator species for the EUNIS grassland, shrubland and forest types*. Report to the European Environmental Agency (EEA/NSS/17/002/Lot 1). Alterra WUR, Wageningen, the Netherlands.
- Sokal, R.R. & Rohlf, F.J. (1995). *Biometry*. 3rd ed. Freeman, New York, USA.
- Tichý, L. (2002). JUICE, software for vegetation classification. *Journal of Vegetation Science* 13: 451–453.
- Tichý, L. & Chytrý, M. (2006). Statistical determination of diagnostic species for site groups of unequal size. *Journal of Vegetation Science* 17: 809–818.
- Willner, W. (2011). Unambiguous assignment of relevés to vegetation units: the example of the Festuco-Brometea and Trifolio-Geranietea sanguinei. *Tuexenia* 31: 271–282.

Appendix A: List of the revised EUNIS Habitat Classification for coastal habitats and wetlands, including indication of the availability of distribution maps and EUNIS-syntaxon crosswalk

New code	EUNIS 2012 code	RL code	Habitat name	Map & Indicators species	EUNIS-Syntaxon crosswalk
N	B		Coastal habitats		
N1	B1		Coastal dunes and sandy shores		
N11	B1.1; B1.2	B1.1a	Atlantic, Baltic and Arctic sand beach	x	x
N12	B1.1; B1.2	B1.1b	Mediterranean and Black Sea sand beach	x	x
N13	B1.31; B1.311; B1.321	B1.3a	Atlantic and Baltic shifting coastal dune	x	x
N14	B1.3	B1.3b	Mediterranean, Macaronesian and Black Sea shifting coastal dune	x	x
N15	B1.4	B1.4a	Atlantic and Baltic coastal dune grassland (grey dune)	x	x
N16	B1.4	B1.4b	Mediterranean and Macaronesian coastal dune grassland (grey dune)	x	x
N17	B1.4	B1.4c	Black Sea coastal dune grassland (grey dune)	x	x
N18	B1.5; B1.51	B1.5a	Atlantic and Baltic coastal Empetrum heath	x	x
N19	B1.5	B1.5b	Atlantic coastal Calluna and Ulex heath	x	x
N1A	B1.6	B1.6a	Atlantic and Baltic coastal dune scrub	x	x
N1B	B1.6	B1.6b	Mediterranean and Black Sea coastal dune scrub	x	x
N1C	B1.6	B1.6c	Macaronesian coastal dune scrub	x	x
N1D	B1.7; B1.72	B1.7a	Atlantic and Baltic broad-leaved coastal dune forest	x	x
N1E	B1.7	B1.7b	Black Sea broad-leaved coastal dune forest	x	x
N1F	B1.7; B1.71	B1.7c	Baltic coniferous coastal dune forest	x	x
N1G	B1.7; B1.74	B1.7d	Mediterranean coniferous coastal dune forest	x	x
N1H	B1.8	B1.8a	Atlantic and Baltic moist and wet dune slack	x	x
N1J	B1.8	B1.8b	Mediterranean and Black Sea moist and wet dune slack	x	x
N2	B2		Coastal shingle		
N21	B2.1; B2.2; B2.3; B2.4	B2.1a	Atlantic, Baltic and Arctic coastal shingle beach	x	x
N22	B2.1; B2.2; B2.3; B2.4	B2.1b	Mediterranean and Black Sea coastal shingle beach	x	x
N23	B2.5	-	Shingle and gravel beach with scrub	-	-
N24	B2.6	-	Shingle and gravel beach forest	-	-
N3	B3		Rock cliffs, ledges and shores, including the supralittoral		

N31	B3.2; B3.3	B3.1a	Atlantic and Baltic rocky sea cliff and shore	x	x
N32	B3.2; B3.3	B3.1b	Mediterranean and Black Sea rocky sea cliff and shore	x	x
N33	B3.2; B3.3	B3.1c	Macaronesian rocky sea cliff and shore	x	x
N34	B3.4	B3.4a	Atlantic and Baltic soft sea cliff	x	x
N35	B3.4	B3.4b	Mediterranean and Black Sea soft sea cliff	x	x
Q	D		Wetlands		
Q1	D1		Raised and blanket bogs		
Q11	D1.1	D1.1	Raised bog	x	x
Q12	D1.2	D1.2	Blanket bog	x	x
Q13			Ombrotrophic percolation mire	-	-
Q2	D2		Valley mires, poor fens and transition mires		
Q21	D2.1	D2.1	Oceanic valley mire	x	x
Q22	D2.2	D2.2a	Poor fen	x	x
Q23	D2.2	D2.2b	Relict mire of Mediterranean mountains	x	x
Q24	D2.2	D2.2c	Intermediate fen and soft-water spring mire	x	x
Q25	D2.3	D2.3a	Non-calcareous quaking mire	x	x
Q3	D3		Palsa and polygon mires		
Q31	D3.1	D3.1	Palsa mire		
Q32	D3.3		Polygon mire		
Q3132	D3.1; D3.3	D3.1	Palsa and polygon mires	x	x
Q4	D4		Base-rich fens and calcareous spring mires		
Q41	D4.1	D4.1a	Alkaline, calcareous, carbonate-rich small-sedge spring fen	x	x
Q42	D4.1	D4.1a	Extremely rich moss-sedge fen	x	x
Q43	D4.1	D4.1b	Tall-sedge base-rich fen	x	x
Q44	D4.1	D4.1c	Calcareous quaking mire	x	x
Q45	D4.2	D4.2	Arctic-alpine rich fen	x	x
Q46	D6.14	-	Carpathian travertine fen with halophytes	x	x
Q5			Helophyte beds		
Q51	C3.2; C5.1	C5.1a	Tall-helophyte bed	x	x
Q52	C3.1; C3.4	C5.1b	Small-helophyte bed	x	x
Q53	D5.2	C5.2	Tall-sedge bed	x	x
Q54	D6.2	C5.4	Inland saline or brackish helophyte bed	x	x

Appendix B: Descriptions of the revised EUNIS habitat classification for Coastal habitats (N) and Wetlands (Q)

N – COASTAL HABITATS

N1 – Coastal dunes and sandy shores

N11 – Atlantic, Baltic and Arctic sand beach

Atlantic, Baltic and Arctic sandy beach is a linear habitat, occurring on sandy shores of the Atlantic and Arctic Oceans and the North and Baltic Seas. It is mainly an unvegetated habitat with low species diversity. Annual halophytes are the typical plant species, appearing temporarily on strandline sediments. On less dynamic beaches, as around the Baltic, perennials including some brackish and freshwater marsh plants are characteristic. Volcanic sediments can provide a distinctive character around Icelandic shores. Distinctive invertebrates characterise beaches and their driftlines, providing food for some wading birds.

N12 – Mediterranean and Black Sea sand beach

A largely unvegetated linear feature of sheltered coastlines around the Mediterranean and Black Seas, with fragmentary and sporadic vegetation cover developing on the accumulated sand, gravel and decaying plant material. Typically, the vegetation cover comprises scattered annual halophytes, although pioneer dune perennials can appear where sand ridges get pushed by storms beyond the normal tidal limit.

N13 – Atlantic and Baltic shifting coastal dune

Primary, shifting (so-called 'white') dunes of dynamic coastal sands along the Atlantic, North Sea and Baltic coasts. Early pioneers upshore from the strandline catch sand blown from the beach and initiate foredune, then embryo dune, development stages. They may come and go with subsequent storms, or continue to build higher, mobile dunes that move inland, sometimes to enormous size and in distinct ridges with intervening valleys. *Ammophila arenaria* is the widespread dominant in the middle to later stages. This grass is especially well-equipped to cope with rapid upbuild and continually shifting sands. *Leymus arenarius* and *×Ammocalamagrostis baltica* play a similar role in colder regions. The vegetation cover on the sharply-draining, nutrient-poor sand is typically open with few, but distinctive, associates, some indicative of the regional temperature contrasts, and some striking fungi. Specialised beetles are also characteristic.

N14 – Mediterranean, Macaronesian and Black Sea shifting coastal dune

Primary, shifting ('white') dunes of dynamic coastal sands around the Black and Mediterranean Seas, and into the Atlantic around SW Iberia and Macaronesia. Early pioneers upshore from the strandline catch sand blown from the beach and initiate embryo dune development. These may come and go with subsequent storms, or continue to build higher mobile white dunes that move inland. Except in Macaronesia, the dominant plant in the middle to later stages is *Ammophila arenaria* (subsp. *arundinacea* in the Mediterranean), and the associated flora on the permeable, impoverished sands is limited and sparse.

N15 – Atlantic and Baltic coastal dune grassland (grey dune)

Grasslands that develop on the stabilised sands of older (grey) dunes along the Atlantic (southern to middle Portugal), North Sea and Baltic coasts. The sandy substrate, thinly enriched with accumulating humus, is well-drained and can dry out during summer. Typically with a more or less complete cover of (relatively low) grasses, herbs, bryophytes and lichens, sometimes with low shrubs, they comprise one of the most species-rich habitats on the temperate European coast. The flora can vary with the regional climate, with the character of the substrate, from acid to highly calcareous, and with the local dune topography. Individual dune systems can vary from narrow strips to enormous stretches, though most are not a dynamic stage in succession, but maintained in a more or less stable fixed state. They were often grazed or mown in the past, which prevented the development of scrub and woodland. The habitat is threatened in most countries by abandonment of traditional farming, by eutrophication through nitrogen deposition, overuse and urbanisation, often related to tourism.

N16 – Mediterranean and Macaronesian coastal dune grassland (grey dune)

Stable (grey) dunes of fixed sands along the Mediterranean and Macaronesian coasts, and of the thermo-Atlantic coasts of Portugal, southwestern Spain and North Africa inland from wind erosion and salt deposition. They have a more or less complete cover of graminoids and herbs, often with a contingent of colourful spring annuals capitalising on early rains. The flora varies according to regional climate and dune topography. They may represent a temporary phase, giving way to evergreen sclerophyll scrub and woodland, or may form more permanent grassland at sites not suitable for shrubland. Through much of the Mediterranean, the habitat has been destroyed, contaminated by the invasion of non-native species or is much influenced by tourism, urbanization, infrastructure development, arable cultivation, nitrogen deposition and afforestation.

N17 – Black Sea coastal dune grassland (grey dune)

Dune grassland on stabilised or semi-stabilised coastal sands around the Black Sea, mostly on the western and north-western stretches and now only very locally. The dunes are best developed on broader flatter shores, and the ridges can vary in height from just a few metres to over 50 m, with moister depressions between. The flora is variable with a shift from the Mediterranean to Pontic regions moving northwards, with many regional endemic plant species among its grasses and herbs. Perennials predominate, but there can be striking contingents of annuals on more mobile stretches of sand on the ridges. Mosses and lichens can be extensive on north-facing, less sunny slopes.

N18 – Atlantic and Baltic coastal *Empetrum* heath

Heath on stable, decalcified dune sands along the cooler north Atlantic and Baltic coasts of Europe, dominated by *Empetrum nigrum*, with or without *Calluna vulgaris*, or occurring in dune slacks where *Erica tetralix* may also be abundant or even replace *Empetrum* with the same suite of associates. Persistent where wind-exposure or light grazing prevent succession to scrub or woodland.

N19 – Atlantic coastal *Calluna* and *Ulex* heath

Heath on stable, decalcified, sharply-draining dune sands along the warmer, more humid Atlantic coast of Europe, dominated by *Calluna vulgaris*, *Erica* spp., *Ulex* spp. or other low spiny legumes, often with a strong contingent of grasses and sedges. Persistent where wind-exposure or light grazing prevent succession to scrub or woodland.

N1A – Atlantic and Baltic coastal dune scrub

Scrub dominated by a wide diversity of low to tall shrubs on stabilised dry dune sands and in dune slacks along the Atlantic and Baltic coasts. The composition varies according

to regional climate and soil conditions. Fen vegetation with low *Salix repens* or grasslands with *Rosa spinosissima* are not included.

N1B – Mediterranean and Black Sea coastal dune scrub

Scrub dominated by a wide diversity of low to tall shrubs on stabilised dry dune sands along the Mediterranean and Black sea coasts, often grading to dune grassland or woodland, the associated herb flora showing elements from these neighbouring vegetation types or mosaics.

N1C – Macaronesian coastal dune scrub

Often sparse scrub on coastal dune sands in the arid mediterranean climate in parts of the Canarian archipelago.

N1D – Atlantic and Baltic broad-leaved coastal dune forest

A forest type with a wide range of variation, comprising a diversity of relatively open to closed forests on Atlantic and Baltic coastal dunes. It develops where more stable coastal sands are invaded by broadleaved trees typical of the local soil and climatic conditions. It includes forests in dry and wet conditions, on calcareous and acidic sands and along the climatic gradient from southern Norway and the Baltics towards central Portugal. Many of these forests are indistinguishable in their floristic composition from inland examples of the same general type.

N1E – Black Sea broad-leaved coastal dune forest

Natural or semi-natural tree and tree-shrub communities on coastal dunes along the Black Sea coast. The forests on larger dunes have xerothermic features, the trees being small and strongly branched while on smaller dunes species more typical of alluvial forest are found. Lianas are frequent. Although non-disturbed stands are dominated by native species, invasive aliens such as *Amorpha fruticosa*, *Robinia pseudoacacia* and *Elaeagnus angustifolia* can be frequent.

N1F – Baltic coniferous coastal dune forest

Forests on coastal dunes on the Baltic coast dominated by *Pinus sylvestris*. Many of these forests are indistinguishable in their floristic composition from inland examples of the same general type.

N1G – Mediterranean coniferous coastal dune forest

Forests on coastal dunes in the Mediterranean Basin are dominated by different species of pine. Many stands are of planted origin. A variety of other woody species occur including shrubs such as junipers. Where shrubs exceed the cover of pine, the habitat should be considered N19 Mediterranean and Black Sea coastal dune scrub.

N1H – Atlantic and Baltic moist and wet dune slack

Dune slacks develop in Atlantic and Baltic dune systems as moist-wet depressions between dune ridges, where blow-outs have lowered the sand level to that of groundwater or, unusually in the Wadden Sea, where barrier islands are occasionally flooded by tidal inundation. The water table fluctuates seasonally, less so around the Baltic, and the mean wetness of slacks can vary so that the range of vegetation is considerable from dwarf rush and bryophyte pioneer vegetation, through wet grasslands, to various kinds of mire and swamp, with persistent areas of open water with aquatic plants.

N1J – Mediterranean and Black Sea moist and wet dune slack

Small permanent or temporary freshwater bodies that develop in the depressions between sand ridges in the dune systems along the Mediterranean and Black Sea coasts. The constituent vegetation depends on the depth and persistence of the water which is very variable, and also on the level of enrichment, which is usually eutrophic to mesotrophic, though locally dystrophic. There can be aquatic communities in the open waters and swamps around the margins and, where the slacks dry out in summer, conditions can become saline with ephemerals colonising.

N2 – Coastal shingle

N21 – Atlantic, Baltic and Arctic coastal shingle beach

These deposits of shingle are most typical of highly dynamic beaches along the Atlantic, Arctic and Baltic coasts, with concentrations along the English Channel. Often mobile and largely bare, they provide an inhospitable environment colonised only in more stable situations, with some deposition of finer material and drift detritus, by a distinctive suite of salt-tolerant and nitrophilous perennial plants. They also provide a habitat suitable for some nesting waders and seabirds and a variety of distinctive invertebrates. Locally, in southern England and the Baltic, larger apposition beaches are more extensively colonised by vegetation.

N22 – Mediterranean and Black Sea coastal shingle beach

Shingle and cobble beaches formed on dynamic coasts around the Mediterranean and Black Seas where waves, mostly in winter, weather cliffs and redeposit the eroded material. Mixed with shells and decaying algae and sea grass washed ashore, it provides a nitrogen-rich surface for patchy and sporadic colonisation by annuals and some perennials, also sometimes weedy assemblages. Though widespread, its stands are narrow and localised and highly vulnerable to tourist recreation and coastal development.

N23 – Shingle and gravel beach with scrub

Coastal gravel banks with scrub. Included are dense thermo-Mediterranean scrub on gravel banks and heaths on shingle in the temperate zone.

N24 – Shingle and gravel beach forest

Coastal gravel banks, colonised by trees or riparian thickets, in particular, Mediterranean gravel banks colonized by *Quercus ilex* low forests, by *Tamarix africana* or *Vitex agnus-castus*.

N3 – Rock cliffs, ledges and shores, including the supralittoral

N31 – Atlantic and Baltic rocky sea cliff and shore

Cliffs, together with vegetated crevices, ledges and cliff-tops along the coasts of the Baltic Sea, the North Sea and the Atlantic Ocean south to middle Portugal. Exposed bedrock dominates the habitat, and its very variable composition and structure determine the character of available surfaces. The height and slope of the cliffs influence the input of salt spray which, on exposed coasts, can be very high close to the sea. This combination of local climatic and topographic conditions determines the often strong zonation of crevice vegetation, grasslands and heaths found on the cliffs, with regional

climate also affecting the flora. Nesting seabirds also add a distinctive nutrient-demanding element to the flora on their guano.

N32 – Mediterranean and Black Sea rocky sea cliff and shore

Cliffs, together with vegetated crevices, ledges and cliff-tops along the coasts of the Mediterranean Sea and Atlantic Ocean round to middle Portugal, and more locally, the Black Sea. Exposed bedrock dominates the habitat, and its variable composition and structure determine the character of available surfaces, the height and slope of the cliffs influencing the input of salt spray which, on exposed coasts, can be very high close to the sea. This combination of local climatic and topographic conditions determines the often strong zonation of crevice vegetation and grasslands found on the cliffs, with regional climate also affecting the flora, with many Mediterranean endemics.

N33 – Macaronesian rocky sea cliff and shore

The rocky cliffs of the Macaronesian islands comprise a narrow strip of basalt lava influenced by salt-spray whose zonation of crevice and ledge vegetation vary on the different island groups of the Canaries, Madeira and the Azores, with endemics providing a highly distinctive aspect to the flora. The habitat also provides important sites for nesting seabirds whose guano offers a nutrient-rich surface for colonisation.

N34 – Atlantic and Baltic soft sea cliff

Coastal loamy cliffs, with a bedrock of clays, shales or loamy sands, erode much quicker than cliffs with a hard bedrock, and therefore usually have a less steep slope and are often unstable. Along the Atlantic and Baltic coasts, they harbour relatively common and widespread species, even though a range of different micro-habitats may be found with ephemeral plant communities on the bare sediments, rank grasslands and scrub on more stable ground and flush vegetation around seepages.

N35 – Mediterranean and Black Sea soft sea cliff

Coastal soft cliffs around the Mediterranean and Black Seas that consist of readily-eroded clays, shales and sands. Usually, they have gently sloping and often unstable surfaces with a mixture of open soil, pioneer vegetation, scrub and flushes influenced by percolating waters. This habitat is poorly known, and there is little information on its ecological and floristic features.

Q – Wetlands

Q1 – Raised and blanked bogs

Q11 – Raised bog

The mire surface and underlying peat of highly oligotrophic, strongly acidic peatlands with a raised centre from which water drains towards the edges. The peat is composed mainly of sphagnum remains. Raised bogs form on nearly flat ground and are ombrotrophic, i.e. derive moisture and nutrients only from rainfall. Raised bog complexes include larger and smaller bog pools, lawns, elevated hummocks and their associated vegetation. Raised bogs form only in cool climates with high rainfall, and they are most widespread in the boreal zone and in the mountains and hills of the temperate zone; they also occur locally in the lowlands of the temperate zone. They are characteristic of lowlands and hills of northwestern and northern Europe, the adjacent Hercynian ranges, the Jura, the Alps and the Carpathians. Bogs harbour, in addition to sphagna (*Sphagnum fuscum*, *S. magellanicum* aggr., *S. majus*), which are often abundant, a small number of

dwarf shrubs such as *Andromeda polifolia*, *Rhododendron tomentosum*, *Vaccinium oxycoccos*, and sedges such as *Carex magellanica*, *Carex pauciflora*, *Eriophorum vaginatum* and *Trichophorum cespitosum*, non-sphagnaceous bryophytes and lichens.

Q12 – Blanket bog

The mire surface and underlying peat of ombrotrophic peatlands, formed on flat or gently sloping ground with poor surface drainage, in oceanic climates with high rainfall. The mire surface may on flatter ground be very similar to that of a raised bog, with a complex of small pools and terrestrial hummocks. Blanket bogs are a habitat of northwestern Europe, characteristic of the western and northern British Isles, the Faeroe Islands and the western seaboard of Scandinavia with small outliers in France, Portugal and Spain. They often cover extensive areas with local topographic features supporting distinct communities. *Sphagna* (*Sphagnum compactum*, *Sphagnum papillosum*, *Sphagnum rubellum*, *Sphagnum tenellum*) play an important role in all of them, accompanied by *Calluna vulgaris*, *Eriophorum angustifolium*, *Eriophorum vaginatum*, *Molinia caerulea*, *Narthecium ossifragum*, *Schoenus nigricans* and *Trichophorum cespitosum*. Blanket bog complexes include dystrophic pools and acidic flushes as well as the mire surface.

Q13 - Ombrotrophic percolation mire

Dome-shaped *Sphagnum* mire only fed by precipitation, which in contrast to bogs in other parts of the world have slightly humified and highly permeable peat over its total depth. So far only described from the Kolchis area of Georgia. Dominated by *Sphagnum papillosum*, *S. imbricatum* and *S. palustre*, vascular plants include *Molinia caerulea*, *Rhynchospora alba*, *R. caucasica*, *Rhododendron ponticum*, *R. luteum*, *Vaccinium arctostaphylos* and *Drosera rotundifolia*.

Q2 – Valley mires, poor fens and transition mires

Q21 – Oceanic valley mire

Topogenous wetlands in which the peat-forming vegetation depends on water draining from the surrounding landscape. Most valley mires are habitat complexes including poor fens, transition mires and pools. Acid valley mires often have vegetation resembling that of bogs, especially in those parts relatively distant from flowing water. Basic and neutral valley mires support mainly poor-fen vegetation, but in large mire systems, this is accompanied by acid wet grassland, large sedges and reeds. *Sphagnum* hummocks form locally, and transition mires or littoral and spring communities colonize small depressions. Excluded are rich-fen valley mires.

Q22 – Poor fen

This type of mire, fed by a throughput of acid, nutrient-poor groundwater occurs in a variety of topographic situations (around upland springs, in the lags of raised bogs, in forest hollows and among infertile fen-grassland complexes) throughout the siliceous landscapes of temperate Europe, particularly in the north. There is a continuous surface carpet of oligotrophic sphagna and small sedges and an associated flora of mire generalists characteristic of less minerotrophic situations. Surface patterning is usually very limited but, towards the boreal regions, there can be a gentle hummock-hollow pattern with scattered trees in drier areas.

Q23 – Relict mire of Mediterranean mountains

Oligo- to mesotrophic mire occurring on the waterlogged margins of glacial lakes and around streams in the montane and subalpine belts of the Spanish Sierra Nevada, Corsica, and the western Balkan Peninsula (and also the High Atlas of Morocco). It develops on blankets of thin peat over siliceous bedrocks, kept constantly wet and cool (covered by snow in the high Balkan mountains for much of the year) and providing a splash of green in prevailing dry landscapes. The vegetation is dominated by small sedges or graminoids often with distinctive endemic and relict species.

Q24 – Intermediate fen and soft-water spring mire

These weakly acidic minerotrophic mires occur on peat fed from upper catchments by diffuse seepage of non-calcareous groundwater discharged via springs. They occur widely throughout temperate Europe, though at higher altitudes in the warmer south. The vegetation is typically dominated by a carpet of brown mosses and minerotrophic sphagna, small sedges and associated herbs, though generally without rich-fen indicators, and sometimes with drier hummocks on which sub-shrubs and occasional trees can be found.

Q25 – Non-calcareous quaking mire

This habitat develops by terrestrialisation of open water through the outgrowth of sodden floating rafts of vegetation and accumulating peat from the margins of acidic lakes and ponds, the whole forming a flat quaking surface. It is widely distributed through Europe, though usually highly localised, with the largest areas reported from the Nordic countries. On the matted carpets of sedges and other vascular plants typical of minerotrophic situations, sphagna, other mosses and often abundant liverworts develop, thicker stretches sometimes forming irregular ombrotrophic hummocks. The main threat for such mires is drainage, leading quickly and often irreversibly to the development of other habitats, like poor fens. Quaking areas in percolation mires (which have a much higher species richness) need a very long time to regenerate after rewetting if the regulatory mechanism of the peat body has been destroyed by drainage.

Q3 – Palsa and polygon mires

Q31 – Palsa mire

Palsa mire develops where thick peat is subject to sporadic permafrost in Iceland, northern Fennoscandia and Arctic Russia where there is low precipitation and an annual mean temperature below -1°C . The permafrost dynamics produce a typical patterning with palsa mounds 2–4 m (sometimes 7 m) high, elevated in central thicker areas by permafrost lenses. The carpet of Sphagnum peat limits the penetration of thaw, maintaining a perennially frozen core of peat, silt and ice lenses beneath. Pounikko hummock ridges can be found in marginal areas subject to seasonal freezing, and there are plateau-wide palsas and string mires in the Arctic. Intact palsa mounds show a patterning of weakly minerotrophic vegetation with different assemblages of mosses, herbs and sub-shrubs on their tops and sides. Old palsa mounds can become dry, and erosion may lead to melting and collapse. A complete melting leaves behind thermokarst ponds.

Q32 – Polygon mire

Complex mires of the Arctic and subarctic patterned by surface microrelief of large, 10–30 m in diameter, low-centre or high-centre polygons formed by the juxtaposition of dry, 0.3–0.5 m high ridges. The non-sphagnaceous mosses (*Dicranum elongatum*, *Polytrichum strictum*) and lichens (*Cladonia* and *Flavocetraria* genera) outweigh the

sphagna and together with dwarf shrubs occur on the ridges. Wet hollows are occupied by grasses, sedges (*Carex rariflora*, *Eriophorum scheuchzeri*) and mosses incl. sphagna. Polygon mires occur rarely in northeastern Europe (Novaya Zemlya, Svalbard and Russian Nenets Autonomous Okrug), in the tundra where the mean annual temperature is below -1°C.

Q4 - Base-rich fens and calcareous spring mires

Q41 – Alkaline, calcareous, carbonate-rich small-sedge spring fen

Short-sedge fens, spring fens and fen grasslands kept continually wet by base-rich, nutrient-poor waters, occurring through the lowlands and mountains of temperate Europe and more locally in the boreal zone. They are most common, rich and diverse in the limestone massifs of central European mountains, especially the Alps and Carpathians. The soil is rich in organic matter and has high pH, often with precipitation of carbonate or tufa. Small basiphilous sedges dominate the vegetation with rich associated flora and a patchy carpet of fen bryophytes while sphagna are absent.

Q42 – Extremely rich moss-sedge fen

Base-rich fens without calcium carbonate precipitation, neutral, often with calcium-tolerant sphagna (e.g. *Sphagnum contortum*, *S. subfulvum*, *S. teres* and *S. warnstorffii*) dominated by sedges.

Q43 – Tall-sedge base-rich fen

Tall-sedge fens are dominated by medium to tall graminoids and tall herbs, along with a patchier tier of low plants, and a ground carpet of rich-fen bryophytes. They are limited to flat landforms where base-rich, nutrient-poor groundwater from springs and seepage lines keep the surface very wet, even in summer. They occur throughout Europe, particularly in the Atlantic and central European lowlands, becoming transitional in species composition northwards to quaking calcareous fens, though sometimes covering large areas in Fennoscandia.

Q44 – Calcareous quaking mire

Calcareous quaking mire develops in as a topogenic mire in basins fed by very calcareous, nutrient-poor groundwater, with generally thin peat, less than 2 m thick. It occurs widely throughout Europe but is most widespread in Finland and Sweden. The surface is kept permanently very wet and covered by an extensive moss carpet with only sparse vascular plants, sometimes disposed over irregular patterns of flarks and hollows. Calcium precipitation can occur on the surface, and the carpet is often interrupted by stretches of open water.

Q45 – Arctic-alpine rich fen

Fens developed on open substrates constantly flushed by icy, base-rich water alongside small rivers, springs or glaciers in the alpine belt of European mountains and in the Arctic. Constant disturbance by moving water and freeze-thaw, aeration with turbulent flow and low productivity prevent peat accumulation. Consequently, this fen typically occurs as small unstable patches colonising bare ground. The vegetation consists of small basiphilous sedges, rushes and herbs, brown mosses and liverworts, and can include endemic species that are perhaps glacial relics such as *Carex atrofusca*, *Carex microglochin* and *Juncus triglumis*.

Q46 – Carpathian travertine fen with halophytes

Short-sedge fens developed on active travertine springs fed by extremely mineral-rich groundwater coming from deep aquifers upwards along Tertiary faults. They have conserved ancient species composition that combines plant and animal (e.g. snails and ostracods) specialists dwelling in short-sedge calcareous fens of temperate Europe (*Eleocharis quinqueflora*, *Parnassia palustris*, *Pinguicula vulgaris*, *Primula farinosa*, *Schoenus ferrugineus* and *Pupilla alpicola*) with halophytic species (*Centaurium littorale* subsp. *uliginosum*, *Glaux maritima*, *Plantago maritima* subsp. *salsa*, *Scorzonera parviflora* and *Triglochin maritima*) and *Trichophorum pumilum*, a rare glacial relict of low-productive tundra, fen and salt marsh habitats. Many of these species have isolated relict populations in this habitat. Their species composition is similar to halophytic fens of the southern Siberian high-mountain regions which are climatically analogous to the European full glacial period. The habitat is endemic to the Inner Western Carpathian basins. Most of the localities were destroyed in the past.

Q5 – Helophyte beds

Q51 – Tall-helophyte bed

This habitat of tall helophytes characteristically occupies a zone from shallow to moderately deep mesotrophic to eutrophic fresh or slightly brackish water along the banks of rivers and lakes, in artificial water bodies and at nutrient-rich terrestrial sites on waterlogged ground. It is a very widespread, but naturally fragmented habitat, throughout the European lowlands. The occurrence of different dominant species depends on water depth, duration of flooding, substratum, trophic level, disturbance by waves or current, herbivory and human influence, some of the plants being cut for fodder or thatching. Because of the competitive ability and clonal growth of tall helophytes, the stands are usually species-poor and often dominated by one or a few co-dominants. The habitat is vulnerable to drainage and pollution, land reclamation for agricultural and urban development, and the decline of marshland exploitation for renewable crops.

Q52 – Small-helophyte bed

Small and amphibious helophyte-dominated freshwater vegetation is a widespread, very common but fragmented habitat throughout the European lowlands, occurring in the shallow littoral zones of lakes, ponds and rivers subject to periodic and repeated variation in water levels. It is characterised by amphibious plants and provides an important habitat for benthic invertebrates, fish, amphibians and several species of birds, by offering shelter and food. Like other wetland types, this habitat has suffered much from the intensification of agricultural land use, including drainage, modification of flooding and reclamation, and expansion of urban areas.

Q53 – Tall-sedge bed

This habitat develops throughout the European lowlands, though less commonly to the warmer south, on the margins of standing and slow-moving fresh waters just above the mean water level, but subject to periodic flooding, and on year-round water-saturated soils. Tall-sedge communities are usually species-poor, often dominated by one productive plant, often of densely tussock habit, and accompanied by few characteristic species, often disposed in mosaics on and between the tussocks. The particular dominant depends on climate, substrate, hydrology and trophic level of the habitat and, now usually in the past, on management by grazing or cutting. The main threats are the expansion of agricultural, industrial and urban areas and changes in the level of groundwater and its pollution. Often the habitat is totally transformed without the possibility of natural recovery, and strong intervention is usually needed for recovery.

Q54 – Inland saline or brackish helophyte bed

This habitat includes helophyte beds developing in and around inland saline or brackish lakes, ponds and other standing or slowly flowing waters such as saline Mediterranean rivers that are subject to summer drying. The habitat may include, depending on the particular hydrological regime, emergent communities dominated by a variety of tall or tussocky species tolerant of brackish or saline conditions. It is distributed in both the continental part of Europe and the arid Mediterranean region, where it can dry out completely in the summer and become hyper-saline. Threats include land reclamation for agricultural and urban expansion, anthropogenic changes in hydrology, and the input of freshwater to serve waterfowl hunting or ecotourism in dry areas. Safeguarding the distinctive hydrology and controlling the spread of helophytes by grazing are the main conservation actions.

Appendix C: Crosswalk between the revised EUNIS classification for Coastal habitats (N) and Wetlands (Q) and EuroVegChecklist 2016

N11 - Atlantic, Baltic and Arctic sand beach

- <> CAK-01A - *Atriplicion littoralis* Nordhagen 1940
- <> CAK-01B - *Salsolo-Minuartion peploidis* Tx. in Br.-Bl. et Tx. 1952
- <> CAK-01C - *Agropyro-Rumicion* Nordhagen 1940 nom. ambig. rejic. propos.
- <> CAK-02A - *Cakilion edentulae* Thannheiser 1981
- <> CAK-02B - *Atriplicion nudicaulis* Golub et al. 2003
- <> CAK-03A - *Euphorbion peplidis* Tx. ex Oberd. 1952

N12 - Mediterranean and Black Sea sand beach

- <> CAK-03A - *Euphorbion peplidis* Tx. ex Oberd. 1952
- <> CAK-03B - *Cakilion euxinae* Géhu et al. 1994

N13 - Atlantic and Baltic shifting coastal dune

- <> AMM-01A - *Ammophilion* Br.-Bl. 1921
- > AMM-01C - *Elymion arenarii* Christiansen 1927
- > AMM-02A - *Agropyro-Honckenyon peploidis* Tx. in Br.-Bl. et Tx. 1952 nom. mut. propos.

N14 - Mediterranean, Macaronesian and Black Sea shifting coastal dune

- <> AMM-01A - *Ammophilion* Br.-Bl. 1921
- <> AMM-01B - *Elymion gigantei* Morariu 1957

N15 - Atlantic and Baltic coastal dune grassland (grey dune)

- <> COR-01A - *Corynephorion canescentis* Klika 1931
- > CRU-01A - *Koelerion arenariae* Tx. 1937 corr. Gutermann et Mucina 1993
- > CRU-01B - *Euphorbio portlandicae-Helichryson stoechadis* Sissingh 1974
- <> CRU-02B - *Helichryson picardii* (Rivas-Mart., M. Costa et Izco in Rivas-Mart. et al. 1990) Rivas-Mart. et al. 1999
- > TUB-02A - *Linarion pedunculatae* Díez Garretas et al. in Izco et al. 1988
- <> TUB-02B - *Alkanno-Maresion nanae* Rivas Goday in Rivas Goday et Rivas-Mart. 1963 corr. Díez Garretas et al. 2001
- <> TUB-03A - *Anthyllido hamosae-Malcolmion lacerae* Rivas Goday 1958

N16 - Mediterranean and Macaronesian coastal dune grassland (grey dune)

- > CHE-01K - *Laguro ovati-Vulpion fasciculatae* Géhu et Biondi 1994
- > CRU-01C - *Diantho catalaunici-Scrophularion humifusae* Baudière et Simonneau 1974
- > CRU-01D - *Syntrichio-Lomelosion argenteae* Biondi, Sburlino et Theurillat in Sburlino et al. 2014
- > CRU-02A - *Crucianellion maritimae* Rivas Goday et Rivas-Mart. 1958
- <> CRU-02B - *Helichryson picardii* (Rivas-Mart., M. Costa et Izco in Rivas-Mart. et al. 1990) Rivas-Mart. et al. 1999
- > MOQ-01C - *Euphorbio paraliae-Lotion glauci* Jardim et al. 2003
- > TUB-02A - *Linarion pedunculatae* Díez Garretas et al. in Izco et al. 1988

- <> TUB-02B - Alkanno-Maresion nanae Rivas Goday in Rivas Goday et Rivas-Mart. 1963 corr. Díez Garretas et al. 2001
- > TUB-02C - Psammo-Vulpion Pignatti 1953
- > TUB-02D - Vulpio-Lotion Horvatić 1963
- > TUB-02E - Maresion nanae Géhu et al. 1987
- > TUB-02F - Medicagini-Triplachnion nitentis Mayer 1995
- > TUB-02G - Ononidion tournefortii Géhu et al. 1996

N17 - Black Sea coastal dune grassland (grey dune)

- > CRU-03A - Sileno thymifoliae-Jurineion kilaeae Géhu et Uslu ex Mucina all. nov. hoc loco
- > CRU-03B - Scabiosion ucranicae Sanda et al. 1980
- > CRU-03C - Cynodonto-Teucrion polii Korzhenevskii et Kliukin 1990

N18 - Atlantic and Baltic coastal Empetrum heath

- <> ULI-02A - Empetrion nigri Schubert ex Westhoff et Den Held 1969

N19 - Atlantic coastal Calluna and Ulex heath

- > ULI-01A - Ericion cinereae Böcher 1940
- <> ULI-01B - Ulicion Malcuit 1929
- <> ULI-01D - Ericion umbellatae Br.-Bl. in Br.-Bl. et al. 1952
- <> ULI-02A - Empetrion nigri Schubert ex Westhoff et Den Held 1969
- <> ULI-02B - Calluno-Genistion pilosae P. Duvigneaud 1945

N1A - Atlantic and Baltic coastal dune scrub

- > ARE-01A - Salicion arenariae Tx. ex Passarge in Scamoni 1963
- > ARE-01B - Ligustro-Hippophaeion Géhu et Géhu-Franck 1983
- <> ARE-01C - Holoschoeno australis-Salicion arenariae Neto et al. 2004
- <> LAV-02A - Coremation albi Rothmaler 1943
- <> RHA-01A - Berberidion vulgaris Br.-Bl. ex Tx. 1952 nom. conserv. propos.
- <> RHA-01D - Urtico-Crataegion Passarge et G. Hofmann 1968
- <> RHA-03A - Pruno spinosae-Rubion ulmifolii O. de Bolòs 1954

N1B - Mediterranean and Black Sea coastal dune scrub

- <> ARE-01C - Holoschoeno australis-Salicion arenariae Neto et al. 2004
- > ARE-01D - Pyracantho coccineae-Hippophaeion fluviatilis de Foucault et Julve 2001
- > CRU-02C - Helichryso barrelieri-Centaureion spinosae Mucina et Dimopoulos all. nov. hoc loco
- <> LAV-01D - Quercion fruticosae Rothmaler 1954
- <> LAV-02A - Coremation albi Rothmaler 1943
- > QUI-04B - Juniperion turbinatae Rivas-Mart. 1975 corr. 1987
- <> QUI-04H - Oleo-Ceratonion siliquae Br.-Bl. ex Guinochet et Drouineau 1944
- > QUI-04I - Asparago orientalis-Juniperion macrocarpae (Díez Garretas et Asensi 2014) Mucina stat. nov. hoc loco
- <> QUI-04L - Ceratonio-Pistacion lentisci Zohary et Orshan 1959

- <> RHA-01A - Berberidion vulgaris Br.-Bl. ex Tx. 1952 nom. conserv. propos.
- <> RHA-03A - Pruno spinosae-Rubion ulmifolii O. de Bolòs 1954

N1C - Macaronesian coastal dune scrub

- > MOQ-01A - Traganion moquinii Sunding 1972
- > MOQ-01B - Polycarpaeo niveae-Euphorbion paraliae Rivas-Mart. et Wildpret in Rivas-Mart. et al. 2002

N1D - Atlantic and Baltic broad-leaved coastal dune forest

- <> ALN-01A - Alnion glutinosae Malcuit 1929
- <> FAG-03A - Carpinion betuli Issler 1931
- <> POP-02A - Alnion incanae Pawłowski et al. 1928
- <> QUE-01B - Quercion roboris Malcuit 1929
- <> QUE-02B - Lonicero periclymeni-Betulion pubescentis Géhu 2006

N1E - Black Sea broad-leaved coastal dune forest

- <> FAG-03A - Carpinion betuli Issler 1931
- <> POP-02A - Alnion incanae Pawłowski et al. 1928
- <> POP-02D - Alno-Quercion roboris Horvat 1950

N1F - Baltic coniferous coastal dune forest

- <> PIC-03A - Dicrano-Pinion sylvestris (Libbert 1933) W. Matuszkiewicz 1962 nom. conserv. propos.

N1G - Mediterranean coniferous coastal dune forest

- <> QUI-03A - Pistacio lentisci-Pinion halepensis Biondi, Blasi, Galdenzi, Pesaresi et Vagge in Biondi et al. 2014
- <> QUI-03D - Pinion pineae Feinbrun 1959

N1H - Atlantic and Baltic moist and wet dune slack

- <> CHA-01A - Charion intermediae Sauer 1937
- <> CHA-01C - Charion canescentis Krausch 1964
- <> POT-01A - Potamogetonion Libbert 1931
- <> POT-01B - Nymphaeion albae Oberd. 1957
- <> LIT-01F - Hyperico elodis-Sparganion Br.-Bl. et Tx. ex Oberd. 1957
- <> ISO-02A - Nanocyperion Koch 1926
- <> MOL-10B - Loto tenuis-Trifolion fragiferi Westhoff et Den Held ex de Foucault 2009
- <> SAG-01A - Saginion maritimae Westhoff et al. 1962
- <> PHR-02A - Scirpion maritimi Dahl et Hadač 1941
- <> PHR-01A - Phragmition communis Koch 1926
- <> PHR-04A - Magnocaricion elatae Koch 1926
- <> SCH-01A - Caricion davallianae Klika 1934
- > SCH-01B - Caricion viridulo-trinervis Julve ex Hájek et Mucina in Theurillat et al. 2015
- <> SCH-03B - Caricion fuscae Koch 1926 nom. conserv. propos.
- <> SCH-03C - Anagallido tenellae-Juncion bulbosi Br.-Bl. 1967

N1J - Mediterranean and Black Sea moist and wet dune slack

- <> ISO-01A - Isoëtion Br.-Bl. 1935
- <> JUN-01C - Plantaginion crassifoliae Br.-Bl. in Br.-Bl. et al. 1952
- <> JUN-01D - Limonion etrusci Viciani et al. 2012
- <> JUN-01E - Agropyro-Plantaginion maritimi Horvatić 1934
- <> MOL-07A - Molinio-Holoschoenion Br.-Bl. ex Tchou 1948
- <> PHR-01A - Phragmition communis Koch 1926
- <> PHR-02A - Scirpion maritimi Dahl et Hadač 1941
- <> SAG-01A - Saginion maritimae Westhoff et al. 1962
- <> SAG-01B - Spergularion macrorhizae Gamisans 1990
- <> SAG-01C - Junco ranarii-Plantaginion commutatae Horvatić 1934
- <> SAG-01D - Romuleo-Saginion (Wolff 1968) Mucina nom. nov. hoc loco
- <> SAG-01E - Sileno sedoidis-Catapodium loliacei de Foucault et Bioret 2010

N21 - Atlantic, Baltic and Arctic coastal shingle beach

- > AMM-02B - Mertensio maritimae-Honckenyon diffusae Tx. et Géhu in Géhu 1998
- <> CAK-01A - Atriplicion littoralis Nordhagen 1940
- <> CAK-01C - Agropyro-Rumicion Nordhagen 1940 nom. ambig. rejic. propos.
- <> CAK-02A - Cakilion edentulae Thannheiser 1981
- <> CAK-02B - Atriplicion nudicaulis Golub et al. 2003

N22 - Mediterranean and Black Sea coastal shingle beach

- <> CAK-03A - Euphorbion peplidis Tx. ex Oberd. 1952
- > CRI-02G - Elytrigio bessarabicae-Lactucion tataricae Korzhenevskii ex Didukh et Mucina all. nov. hoc loco
- <> CAK-03B - Cakilion euxinae Géhu et al. 1994

N31 - Atlantic and Baltic rocky sea cliff and shore

- > CRI-01A - Crithmion maritimi Tx. et Oberd. 1958
- <> CRI-01B - Crithmo-Staticion Molinier 1934
- <> CRI-01C - Crithmo-Daucion halophili Rivas-Mart. et al. 1990
- > ASP-10A - Asplenion marini Segal 1969
- <> CRI-03A - Cochleario officinalis-Armerion maritimae Géhu et Géhu-Franck 1984
- > CRI-02A - Dactylido hispanicae-Helichryson stoechadis Géhu et Biondi in Géhu 1994

N32 - Mediterranean and Black Sea rocky sea cliff and shore

- <> CRI-01B - Crithmo-Staticion Molinier 1934
- <> CRI-01C - Crithmo-Daucion halophili Rivas-Mart. et al. 1990
- > CRI-02F - Crucianellion rupestris S. Brullo et Furnari 1990

N33 - Macaronesian rocky sea cliff and shore

- > CRI-01D - Limonion anfracti-cancellati (Horvatić 1934) Mucina nom. nov. hoc loco

- > CRI-01E - Crithmo-Frankenion hirsutae Mayer 1995
- > CRI-01F - Kochio prostratae-Limonion meyeri Korzhenevskii 1987
- > CRI-04A - Frankenio-Astydamion latifoliae Santos 1976
- > CRI-04B - Euphorbio azoricae-Festucion petraeae Lüpnitz 1976
- > CRI-04C - Helichryson obconico-devium Rivas-Mart. et al. 2002

N34 - Atlantic and Baltic soft sea cliff

- <> CRI-03A - Cochleario officinalis-Armerion maritimae Géhu et Géhu-Franck 1984
- > JUN-02A - Agropyron pungentis Géhu 1968

N35 - Mediterranean and Black Sea soft sea cliff

- > JUN-02B - Agrostio-Elytrigion athericae S. Brullo et Siracusa 2000

Q11 - Raised bog

- <> OXY-02A - Oxycocco microcarpi-Empetrium hermaphroditi Nordhagen ex Du Rietz 1954 nom. conserv. propos.
- <> OXY-02B - Sphagnion medii Kästner et Flössner 1933
- <> SCH-04A - Scheuchzerion palustris Nordhagen ex Tx. 1937

Q12 - Blanket bog

- <> OXY-01A - Ericion tetralicis Schwickerath 1933
- <> OXY-01B - Oxycocco-Ericion tetralicis Nordhagen ex Tx. 1937
- > * Erico mackaiana-Sphagnion papilloso (Fernández Prieto et al. 1987) Rivas-Mart. et al.1999

Q13 - Ombrotrophic percolation mire

- <> OXY-01B - Oxycocco-Ericion tetralicis Nordhagen ex Tx. 1937

Q21 - Oceanic valley mire

- <> OXY-01B - Oxycocco-Ericion tetralicis Nordhagen ex Tx. 1937
- <> OXY-01A - Ericion tetralicis Schwickerath 1933
- <> OXY-02B - Sphagnion medii Kästner et Flössner 1933

Q22 - Poor fen

- <> SCH-03D - Sphagno-Caricion canescentis Passarge (1964) 1978 nom. conserv. propos.

Q23 - Relict mire of Mediterranean mountains

- > SCH-03E - Festucion frigidae Rivas-Mart. et al. 2002
- > SCH-03F - Caricion intricatae Quézel 1953
- > SCH-03G - Narthecion scardici Horvat ex Lakušić 1968

Q24 - Intermediate fen and soft-water spring mire

- > SCH-03A - Drepanocladion exannulati Krajina 1933
- <> SCH-03B - Caricion fuscae Koch 1926 nom. conserv. propos.
- <> SCH-03C - Anagallido tenellae-Juncion bulbosi Br.-Bl. 1967

Q25 - Non-calcareous quaking mire

- <> LIT-01G - Sphagno-Utricularion T. Müller et Görs 1960
- <> SCH-03D - Sphagno-Caricion canescentis Passarge (1964) 1978 nom. conserv. propos.
- <> SCH-04A - Scheuchzerion palustris Nordhagen ex Tx. 1937

Q31 - Palsa mire

- > * Rubo chamaemori-Dicranion elongati Lavrinenko et Lavrinenko 2015

Q32 - Polygon mire

- > * Rubo chamaemori-Dicranion elongati Lavrinenko et Lavrinenko 2015

Q41 - Alkaline, calcareous, carbonate-rich small-sedge spring fen

- <> SCH-01A - Caricion davallianae Klika 1934
- <> SCH-01B - Caricion viridulo-trinervis Julve ex Hájek et Mucina in Theurillat et al. 2015

Q42 - Extremely rich moss-sedge fen

- <> SCH-02A - Saxifrago-Tomentypnion Lapshina 2010
- <> SCH-02D - Sphagno warnstorffii-Tomentypnion nitentis Dahl 1957

Q43 - Tall-sedge base-rich fen

- <> SCH-01A - Caricion davallianae Klika 1934
- <> SCH-02A - Saxifrago-Tomentypnion Lapshina 2010

Q44 - Calcareous quaking mire

- <> SCH-02C - Stygio-Caricion limosae Nordhagen 1943
- <> LIT-01H - Scirpido-Utricularion minoris Pietsch 1965

Q45 - Arctic-alpine rich fen

- > SCH-01C - Caricion atrofusco-saxatilis Nordhagen 1943
- > SCH-02B - Caricion stantis Matveyeva 1994

Q46 - Carpathian travertine fen with halophytes

- <> SCH-01A - Caricion davallianae Klika 1934

Q51 - Tall-helophyte bed

- <> PHR-01A - Phragmition communis Koch 1926
- <> PHR-05B - Phalaridion arundinaceae Kopecký 1961
- <> PHR-05D - Deschampsion argenteae Capelo et al. 2000

Q52 - Small-helophyte bed

- <> PHR-01A - Phragmition communis Koch 1926
- <> PHR-05B - Phalaridion arundinaceae Kopecký 1961
- <> PHR-05D - Deschampsion argenteae Capelo et al. 2000

Q53 - Tall-sedge bed

- <> PHR-04A - Magnocaricion elatae Koch 1926
- > PHR-04B - Magnocaricion gracilis Géhu 1961
- > PHR-04C - Carici-Rumicion hydrolapathi Passarge 1964
- > PHR-05C - Caricion broterianae (Rivas-Mart. et al. 1986) J.A. Molina 1996

Q54 - Inland saline or brackish helophyte bed

- > PHR-01B - Typhion laxmannii Nedelcu 1968
- <> PHR-02A - Scirpion maritimi Dahl et Hadač 1941
- > PHR-02B - Meliloto dentati-Bolboschoenion maritimi Hroudová et al. 2009

Explanation of the qualifiers

- < the type left of the qualifier is defined as a part of the type right of the qualifier
- > the type left of the qualifier is defined as a broader than and completely including the type right of the qualifier
- <> both types have a large part that overlaps, but also parts that do not overlap
- * Alliance not yet included in the European Vegetation Classification

Appendix D: Formal definitions of the revised Coastal habitats (N) and Wetlands (Q)

Species groups used in the formal definitions of habitat types

Abies alba
Abies alba

Acidophilous-oak-forest-trees
Castanea sativa
Quercus petraea
Quercus pyrenaica
Quercus robur

Adriatic-Genista
Genista hassertiana
Genista holopetala
Genista radiata

Alnus-Fraxinus-excelsior
Alnus glutinosa
Fraxinus excelsior

Alnus-Fraxinus-angustifolia-excelsior
Alnus glutinosa
Fraxinus angustifolia
Fraxinus excelsior

Alnus cordata
Alnus cordata

Alnus glutinosa
Alnus glutinosa

Alpine-acidophilous-herbs
Agrostis nevadensis
Agrostis rupestris
Alopecurus gerardi
Androsace carnea
Androsace obtusifolia
Armeria alpina
Astrantia minor
Bupleurum stellatum
Campanula alpina
Campanula herminii
Campanula scheuchzeri
Carex curvula
Carex fimbriata
Centaurea uniflora
Crocus carpetanus
Crocus sieberi
Crocus veluchensis

Dianthus glacialis
Dianthus microlepis
Dianthus scardicus
Doronicum styriacum
Endressia pyrenaica
Erodium carvifolium
Euphrasia hirtella
Euphrasia minima
Festuca airoides
Festuca eskia
Festuca halleri
Festuca henriquesii
Festuca iberica
Festuca igoschiniae
Festuca pseudodura
Festuca riloensis
Festuca rothmaleri
Festuca scabriculum
Festuca supina
Galium cespitosum
Gentiana acaulis
Gentiana alpina
Gentiana boryi
Gentiana brachyphylla
Gentiana punctata
Gentiana pyrenaica
Geum montanum
Helictochloa versicolor
Hieracium alpinum
Homogyne alpina
Juncus jacquinii
Juncus trifidus
Lagotis uralensis
Laserpitium halleri
Leucanthemopsis alpina
Luzula lutea
Luzula pediformis
Minuartia recurva
Minuartia sedoides
Narcissus bulbocodium
Narcissus pseudonarcissus
Oreochloa disticha
Oreochloa seslerioides
Paradisea liliastrum
Pedicularis comosa
Pedicularis kernerii
Pedicularis portenschlagii
Pedicularis tuberosa
Phyteuma betonicifolium
Phyteuma confusum
Phyteuma globulariifolium
Phyteuma hemisphaericum
Phyteuma michelii

Plantago alpina
Plantago nivalis
Poa media
Polygala edmundii
Potentilla aurea
Potentilla frigida
Potentilla grandiflora
Potentilla nevadensis
Potentilla valderia
Primula glutinosa
Primula integrifolia
Primula minima
Ranunculus abnormis
Ranunculus amplexicaulis
Ranunculus pyrenaicus
Salix herbacea
Scleranthus uncinatus
Sesleria comosa
Silene flos-jovis
Silene radicata
Silene vallesia
Silene waldesteinii
Soldanella alpina
Soldanella hungarica
Trifolium alpinum
Trifolium parnassii
Valeriana celtica
Veronica allionii
Veronica bellidioides

Alpine-subalpine-ericoid-dwarf-shrubs

Bruckenthalia spiculifolia
Erica carnea
Rhododendron caucasicum
Rhododendron ferrugineum
Rhododendron hirsutum
Rhododendron myrtifolium
Rhodothamnus chamaecistus

Aralo-Caspian-semi-desert-species

Agropyron fragile
Alhagi maurorum
Alyssum turkestanicum
Anabasis aphylla
Artemisia lerchiana
Astragalus physodes
Atraphaxis spinosa
Bassia prostrata
Calligonum aphyllum
Camphorosma monspeliaca
Ceratocarpus arenarius
Eremopyrum orientale
Ferula caspica

Medicago medicaginoides
Peganum harmala
Petrosimonia oppositifolia
Salsola dendroides
Salsola kali aggr.
Zygophyllum fabago

Arctic-alpine-bryophytes-lichens

Alectoria nigricans
Alectoria ochroleuca
Cetraria cucullata
Cetraria delisei
Cetraria nivalis
Cladonia amaurocraea
Cladonia bellidiflora
Cladonia carneola
Cladonia ecmocyna
Cladonia stellaris
Gymnomitrium coralloides
Kiaeria starkei
Nephroma arcticum
Racomitrium lanuginosum
Sphaerophorus globosus aggr.
Stereocaulon paschale
Tetralophozia setiformis
Thamnia vermicularis
Vulpicida tubulosus

Arctic-alpine-dwarf-shrubs

Arctostaphylos alpinus
Betula nana
Empetrum nigrum aggr.
Loiseleuria procumbens

Arctic-alpine-dwarf-willows

Salix alpina
Salix breviserrata
Salix herbacea
Salix herbacea x polaris
Salix kazbekensis
Salix nummularia
Salix polaris
Salix reptans
Salix reticulata
Salix retusa
Salix retusa aggr.
Salix serpyllifolia

Arctic-alpine-shrubby-junipers

Juniperus communis subsp. hemisphaerica
Juniperus communis subsp. nana
Juniperus sabina

Arctic-ericoid-dwarf-shrubs

Cassiope hypnoides
Cassiope tetragona
Diapensia lapponica
Phyllodoce caerulea
Rhododendron lapponicum

Arcto-alpine-rich-fen-specialists

Alopecurus magellanicus
Carex aquatilis
Carex atrofusca
Carex bicolor
Carex capillaris
Carex capitata
Carex maritima
Carex microglochin
Carex norvegica
Carex paralela
Carex saxatilis
Catoscopium nigratum
Dupontia fisheri
Juncus arcticus
Juncus biglumis
Juncus castaneus
Juncus triglumis
Kobresia simpliciuscula
Ranunculus hyperboreus
Salix polaris
Salix reticulata
Saxifraga aizoides
Saxifraga foliolosa
Saxifraga rivularis
Thalictrum alpinum
Tofieldia pusilla

Atlantic-and-Baltic-soft-sea-cliff-clay-indicators

Anthyllis vulneraria
Brassica oleracea
Eupatorium cannabinum
Jacobaea vulgaris
Petasites spurius
Reseda lutea
Samolus valerandi
Tussilago farfara

Atlantic-and-Baltic-soft-sea-cliff-salt-indicators

Armeria maritima
Plantago coronopus
Plantago maritima
Silene uniflora

Atlantic-forest-species

Ceratocarpus claviculata

Hedera helix
Hypericum pulchrum
Ilex aquifolium
Lonicera periclymenum
Teucrium scorodonia

Atlantic-heath-shrubs

Cistus lasianthus
Cistus ocymoides
Cistus palhinhae
Cistus psilosepalus
Cistus umbellatus
Daboecia cantabrica
Erica australis
Erica ciliaris
Erica cinerea
Erica erigena
Erica lusitanica
Erica mackaiana
Erica scoparia
Erica umbellata
Erica vagans
Genista anglica
Genista micrantha
Genista triacanthos
Genista tridentata
Ulex boivinii
Ulex gallii
Ulex minor

Betula pendula

Betula pendula

Betula pendula var. fontqueri

Betula pendula var. fontqueri

Betula pendula-pubescens

Betula alba
Betula alba aggr.
Betula pendula
Betula pendula x pubescens
Betula pendula + B. pubescens
Betula pubescens
Betula pubescens var. glabrata
Betula pubescens var. pumila

Betula pubescens

Betula pubescens

Birch-bog-forest-species

Aulacomnium palustre
Calamagrostis canescens
Carex canescens

Carex nigra
Comarum palustre
Eriophorum angustifolium
Eriophorum vaginatum
Molinia caerulea aggr.
Myrica gale
Polytrichum commune
Vaccinium oxycoccos
Vaccinium uliginosum

Blanket-bog-specialists

Anagallis tenella
Campsylopus atrovirens
Carex durieui
Erica cinerea
Erica mackaiana
Pleurozia purpurea
Racomitrium lanuginosum
Schoenus nigricans
Sphagnum pylaesii

Bog-Pinus

Pinus mugo
Pinus mugo aggr.
Pinus mugo subsp. rotundata
Pinus sylvestris

Bog-vascular-plants-specialists

Andromeda polifolia
Carex pauciflora
Chamaedaphne calyculata
Drosera rotundifolia
Eriophorum angustifolium
Eriophorum vaginatum
Narthecium ossifragum
Rhynchospora alba
Rhynchospora fusca
Rhododendron tomentosum
Rubus chamaemorus
Trichophorum cespitosum
Vaccinium microcarpum
Vaccinium oxycoccos
Vaccinium uliginosum

Boreo-temperate-mountain-Betula

Betula litwinowii
Betula pubescens var. glabrata
Betula pubescens var. pumila

Buxus sempervirens

Buxus sempervirens

C-Mediterranean-mountain-thorny-cushion-shrubs

Astracantha nebrodensis
Astracantha parnassi subsp. calabricus
Astracantha sicula
Astragalus sirinicus
Cytisus spinescens
Genista cupanii
Genista desoleana
Genista lobelii
Genista michelii
Genista salzmannii

Calcium-rich-spring-mires

Blysmus compressus
Carex capillaris
Carex capitata
Carex davalliana
Carex hostiana
Carex lepidocarpa
Carex panicea
Carex pulicaris
Carex trinervis
Carex viridula
Centaurium littorale
Dactylorhiza incarnata
Dactylorhiza majalis
Dactylorhiza traunsteineri
Eleocharis quinqueflora
Epipactis palustris
Eriophorum angustifolium
Eriophorum latifolium
Festuca frigida
Gymnadenia conopsea
Juncus alpinoarticulatus
Juncus subnodulosus
Liparis loeselii
Parnassia palustris
Polygala amarella
Primula farinosa
Salix repens
Salix rosmarinifolia
Schoenus ferrugineus
Schoenus nigricans
Succisa pratensis
Tofieldia calyculata
Triglochin maritima
Triglochin palustris
Valeriana dioica

Calcium-tolerant-Sphagna-and-boreal-rich-fen-bryophytes

Cinclidium stygium
Paludella squarrosa
Sphagnum contortum
Sphagnum obtusum

Sphagnum platyphyllum
Sphagnum subfulvum
Sphagnum subsecundum
Sphagnum teres
Sphagnum warnstorffii

Canary-Island-xerophytic-scrub-species

Allagopappus canariensis
Anagyris latifolia
Androcymbium hierrense
Argyranthemum callichrysum
Argyranthemum coronopifolium
Argyranthemum escarrei
Argyranthemum gracile
Argyranthemum sundingii
Asparagus arborescens
Asparagus nesioties
Asparagus pastorianus
Asparagus plocamoides
Asparagus scoparius
Asparagus umbellatus
Atriplex glauca
Brachypodium arbuscula
Bupleurum handiense
Bystropogon odoratissimus
Bystropogon plumosus
Campylanthus salsoloides
Caralluma burchardii
Carlina salicifolia
Ceropegia dichotoma
Ceropegia fusca
Convolvulus floridus
Convolvulus lopezsocasi
Convolvulus scoparius
Cytisus filipes
Dorycnium eriophthalmum
Dracaena draco
Echium aculeatum
Echium brevirame
Echium giganteum
Echium strictum
Erysimum bicolor
Euphorbia aphylla
Euphorbia atropurpurea
Euphorbia balsamifera
Euphorbia berthelotii
Euphorbia canariensis
Euphorbia handiensis
Euphorbia lamarckii
Euphorbia regis-jubae
Globularia salicina
Helianthemum canariense
Herniaria canariensis

Hypericum canariense
Jasminum odoratissimum
Justicia hyssopifolia
Kickxia sagittata
Kickxia scoparia
Kleinia neriifolia
Lavandula pinnata
Marcetella moquiniana
Maytenus canariensis
Neochamaelea pulverulenta
Pancratium canariense
Parolinia intermedia
Parolinia ornata
Paronychia canariensis
Periploca laevigata
Plantago arborescens
Plocama pendula
Reichardia famarae
Reseda scoparia
Retama raetam
Rhamnus crenulata
Rubia fruticosa
Ruta pinnata
Rutheopsis herbanica
Schizogyne sericea
Scilla haemorrhoidalis
Seseli webbii
Sideritis brevicaulis
Sideritis dendrochahorra
Sideritis pumila
Sideroxylon mirmulans
Sonchus capillaris
Sonchus microcarpus
Sonchus leptocephalus
Teline osyroides
Teucrium heterophyllum
Vicia cirrhosa

Carpinus betulus
Carpinus betulus

Cedrus atlantica
Cedrus atlantica

Cedrus libani
Cedrus libani

Chamaephytes
Achillea atrata
Achillea erba-rotta
Achillea lucana
Achillea maritima
Achillea rupestris

Achyranthes aspera
Achyranthes sicula
Aegonychon calabrum
Aethionema saxatile
Agrostis stolonifera
Ajuga iva
Ajuga reptans
Alchemilla longana
Alyssoides utriculata
Alyssum cuneifolium
Alyssum diffusum
Alyssum ligusticum
Alyssum montanum
Alyssum wulfenianum
Andromeda polifolia
Androsace alpina
Androsace brevis
Androsace chamaejasme
Androsace hausmannii
Androsace helvetica
Androsace lactea
Androsace mathildae
Androsace pubescens
Androsace vandellii
Androsace villosa
Androsace vitaliana
Androsace wulfeniana
Andryala ragusina
Anogramma leptophylla
Antennaria dioica
Anthemis aetnensis
Anthemis cotula
Anthemis cupaniana
Anthemis hydruntina
Anthemis ismelia
Anthyllis hermanniae
Anthyllis montana
Antirrhinum australe
Antirrhinum latifolium
Antirrhinum majus
Antirrhinum siculum
Arctostaphylos alpinus
Arctostaphylos uva-ursi
Arenaria aggregata
Arenaria balearica
Arenaria bertolonii
Arenaria biflora
Arenaria ciliata
Arenaria grandiflora
Arenaria huteri
Arenaria moehringioides
Arenaria procera
Argentina anserina

Argyrolobium zanonii
Armeria leucocephala
Armeria multiceps
Armeria pungens
Armeria sardo
Armeria soleirolii
Armeria sulcitana
Artemisia absinthium
Artemisia alba
Artemisia atrata
Artemisia caerulescens
Artemisia campestris
Artemisia chamaemelifolia
Artemisia cretacea
Artemisia genipi
Artemisia glacialis
Artemisia nitida
Artemisia pedemontana
Artemisia umbelliformis
Artemisia vallesiaca
Arthrocnemum macrostachyum
Asarum europaeum
Asparagus aphyllus
Asparagus pastorianus
Asperula calabra
Asperula crassifolia
Asperula garganica
Asperula gussonii
Asperula nitida
Asperula pumila
Asperula purpurea
Asperula rupestris
Asperula staliana
Asperula suberosa
Astracantha nebrodensis
Astracantha parnassi subsp. calabricus
Astracantha sicula
Astragalus austriacus
Astragalus glycyphyllos
Astragalus sempervirens
Astragalus sirinicus
Aubrieta columnae
Aubrieta deltoidea
Aurinia leucadea
Aurinia saxatilis
Aurinia sinuata
Ballota frutescens
Ballota hispanica
Ballota pseudodictamnus
Barbarea rupicola
Bassia saxicola
Bellium crassifolium
Biscutella incana

Bituminaria morisiana
Brassica botteri
Brassica drepanensis
Brassica incana
Brassica insularis
Brassica macrocarpa
Brassica oleracea
Brassica rupestris
Brassica villosa
Buphthalmum inuloides
Bupleurum dianthifolium
Calendula suffruticosa
Calluna vulgaris
Campanula garganica
Campanula isophylla
Camphorosma monspeliaca
Caralluma europaea
Carpobrotus acinaciformis
Carpobrotus edulis
Castroviejoa frigida
Castroviejoa montelinasana
Centaurea aplolepa
Centaurea cineraria
Centaurea diomedeae
Centaurea filiformis
Centaurea gymnocarpa
Centaurea horrida
Centaurea leucadea
Centaurea tauromenitana
Centranthus angustifolius
Centranthus ruber
Centranthus trinervis
Cephalaria squamiflora
Cerastium carinthiacum
Cerastium latifolium
Cerastium thomasi
Cerastium tomentosum
Cerastium uniflorum
Chiliadenus bocconei
Chiliadenus lopadusanus
Cichorium spinosum
Cistus oelandicus
Clinopodium alpinum
Clinopodium corsicum
Clinopodium serpyllifolium
Clinopodium suaveolens
Clinopodium thymifolium
Comarum palustre
Convolvulus cneorum
Convolvulus lineatus
Convolvulus oleifolius
Coronilla coronata
Coronilla minima

Coronilla vaginalis
Cressa cretica
Crithmum maritimum
Crucianella maritima
Cymbalaria aequitriloba
Cymbalaria muelleri
Cymbalaria muralis
Cymbalaria pilosa
Cynoglossum magellense
Cystopteris fragilis
Cytisus decumbens
Cytisus emeriflorus
Cytisus hirsutus
Cytisus pseudoprocumbens
Cytisus purpureus
Cytisus spinescens
Daphne alpina
Daphne cneorum
Daphne oleoides
Daphne petraea
Daphne striata
Delairea odorata
Dianthus arrostii
Dianthus rupicola
Dictamnus albus
Diplotaxis crassifolia
Diplotaxis harra
Dorycnium hirsutum
Dracocephalum austriacum
Dracocephalum ruyschiana
Dryas octopetala
Drypis jacquiniana
Drypis spinosa
Dysphania ambrosioides
Edraianthus graminifolius
Empetrum nigrum aggr.
Erica carnea
Erica cinerea
Erica manipuliflora
Erica sicula
Eritrichium nanum
Erodium alpinum
Erodium corsicum
Erodium glaucophyllum
Erodium nervulosum
Erysimum cheiri
Euphorbia amygdaloides
Euphorbia barrelieri
Euphorbia biumbellata
Euphorbia ceratocarpa
Euphorbia corsica
Euphorbia flavicoma
Euphorbia fragifera

Euphorbia gasparrinii
Euphorbia myrsinites
Euphorbia orientalis
Euphorbia paralias
Euphorbia pithyusa
Euphorbia rigida
Euphorbia segetalis
Euphorbia spinosa
Euphorbia triflora
Fagonia cretica
Fragaria moschata
Fragaria vesca
Fragaria viridis
Frankenia hirsuta
Frankenia hispida
Frankenia intermedia
Frankenia laevis
Fumana arabica
Fumana ericoides
Fumana laevipes
Fumana procumbens
Fumana scoparia
Fumana thymifolia
Galium schmidii
Genista aristata
Genista cupanii
Genista germanica
Genista holopetala
Genista januensis
Genista pilosa
Genista radiata
Genista sagittalis
Genista sericea
Genista sylvestris
Genista tinctoria
Genista triangularis
Geum reptans
Glandora rosmarinifolia
Glechoma hederacea
Glechoma hirsuta
Glechoma sardoa
Globularia cordifolia
Globularia meridionalis
Globularia neapolitana
Globularia repens
Gypsophila arrostii
Gypsophila papillosa
Gypsophila repens
Halimione portulacoides
Halocnemum strobilaceum
Haplophyllum patavinum
Helianthemum alpestre
Helianthemum apenninum

Helianthemum canum
Helianthemum cinereum
Helianthemum croceum
Helianthemum hirtum
Helianthemum jonium
Helianthemum syriacum
Helianthemum lunulatum
Helianthemum nummularium
Helianthemum oelandicum
Helianthemum pilosum
Helianthemum violaceum
Helichrysum italicum
Helichrysum nebrodense
Helichrysum pendulum
Helichrysum rupestre
Helichrysum saxatile
Helichrysum siculum
Helichrysum stoechas
Heliotropium amplexicaule
Heliotropium bocconeii
Heliotropium curassavicum
Heliotropium suaveolens
Helleborus foetidus
Helosciadium crassipes
Herniaria fontanesii
Hieracium bifidum
Hieracium lucidum
Hieracium murorum
Hormathophylla ligustica
Huperzia selago
Hypericum aegypticum
Hypericum coris
Hyssopus officinalis
Iberis saxatilis
Iberis semperflorens
Iberis sempervirens
Inula verbascifolia
Jacobaea abrotanifolia
Jacobaea candida
Jacobaea gibbosa
Jacobaea lycopifolia
Jacobaea maritima
Jasione orbiculata
Jovibarba globifera
Kickxia commutata
Launaea fragilis
Lavandula multifida
Limbarda crithmoides
Limoniastrum monopetalum
Limonium acutifolium
Limonium albidum
Limonium articulatum
Limonium bocconeii

Limonium cosyrense
Limonium divaricatum
Limonium hermaeum
Limonium inarimense
Limonium japygicum
Limonium laetum
Limonium lausianum
Limonium merxmulleri
Limonium morisianum
Limonium panormitanum
Limonium parvifolium
Limonium remotispiculum
Limonium tenoreanum
Limonium tenuiculum
Linaria capraria
Linaria supina
Linaria tonzigii
Linnaea borealis
Linum campanulatum
Linum capitatum
Linum suffruticosum aggr.
Linum tenuifolium
Loiseleuria procumbens
Lomelosia crenata
Lomelosia graminifolia
Lotus collinus
Lotus creticus
Lotus cytisoides
Lotus longesiliquosus
Lomelosia cretica
Lycopodiella inundata
Lycopodium alpinum
Lycopodium annotinum
Lycopodium clavatum
Lycopodium complanatum
Lycopodium issleri
Lycopodium tristachyum
Matthiola fruticulosa
Matthiola incana
Medicago marina
Mentha requienii
Mercurialis corsica
Mesembryanthemum cordifolium
Micromeria consentina
Micromeria filiformis
Micromeria graeca
Micromeria juliana
Micromeria marginata
Micromeria microphylla
Micromeria nervosa
Minuartia austriaca
Minuartia biflora
Minuartia capillacea

Minuartia cherlerioides
Minuartia graminifolia
Minuartia grignensis
Minuartia laricifolia
Minuartia recurva
Minuartia rostrata
Minuartia rupestris
Minuartia sedoides
Minuartia verna
Minuartia villarii
Moehringia bavarica
Moehringia dielsiana
Moehringia glaucovirens
Moehringia lebrunii
Moehringia papulosa
Moehringia sedoides
Moehringia tommasinii
Moltkia suffruticosa
Myriolimon ferulaceum
Nepeta agrestis
Nepeta nepetella
Noccaea brachypetala
Noccaea rotundifolia
Noccaea stilosa
Noccaea sylvia
Odontarrhena alpestris
Odontarrhena argentea
Odontarrhena bertolonii
Odontarrhena corsica
Odontarrhena nebrodensis
Odontarrhena robertiana
Odontites bocconeii
Onobrychis saxatilis
Onoclea struthiopteris
Ononis masquillieri
Ononis minutissima
Ononis spinosa
Ononis striata
Onosma echioides
Opuntia compressa
Origanum onites
Orthilia secunda
Oxalis corniculata
Oxytropis amethystea
Oxytropis jacquinii
Oxytropis lapponica
Oxytropis pilosa
Peganum harmala
Phagnalon rupestre
Phagnalon saxatile
Phagnalon sordidum
Phyla canescens
Phyla nodiflora

Phyllolepidum cyclocarpum
Pimpinella tragiun
Plagius flosculosus
Plantago albicans
Plantago sempervirens
Plantago subulata
Plumbago europaea
Polycarpon polycarpoides
Polygala chamaebuxus
Polygonum maritimum
Polygonum romanum
Potentilla apennina
Potentilla caulescens
Potentilla clusiana
Potentilla crassinervia
Potentilla grammopetala
Potentilla nitida
Potentilla saxifraga
Potentilla valderia
Prasium majus
Primula palinuri
Psoralea morisiana
Ptilostemon gnaphaloides
Ranunculus repens
Rhinanthus minor
Rhinanthus personatus
Rhodalsine geniculata
Rhodiola rosea
Rhodothamnus chamaecistus
Ruscus aculeatus
Ruscus hypoglossum
Ruta angustifolia
Ruta chalepensis
Ruta corsica
Ruta graveolens
Ruta montana
Salix alpina
Salix breviserrata
Salix daphnoides
Salix herbacea
Salix myrsinites
Salix repens
Salix reticulata
Salix retusa
Salpichroa organifolia
Salpichroa rhomboidea
Salvia canariensis
Salvia leucantha
Salvia officinalis
Santolina pinnata
Saponaria pumilio
Sarcocornia fruticosa
Sarcocornia perennis

Satureja cuneifolia
Satureja montana
Satureja subspicata
Satureja thymbra
Saxifraga aphylla
Saxifraga arachnoidea
Saxifraga aspera
Saxifraga berica
Saxifraga biflora
Saxifraga bryoides
Saxifraga caesia
Saxifraga callosa
Saxifraga cochlearis
Saxifraga crustata
Saxifraga depressa
Saxifraga diapensioides
Saxifraga exarata
Saxifraga florulenta
Saxifraga glabella
Saxifraga italica
Saxifraga marginata
Saxifraga oppositifolia
Saxifraga pedemontana
Saxifraga porophylla
Saxifraga presolanensis
Saxifraga retusa
Saxifraga squarrosa
Saxifraga tenella
Saxifraga tombeanensis
Saxifraga valdensis
Saxifraga vandellii
Scabiosa limonifolia
Scrophularia canina
Scrophularia ramosissima
Scutellaria alpina
Sedum acre
Sedum album
Sedum alpestre
Sedum amplexicaule
Sedum brevifolium
Sedum dasiphyllum
Sedum magellense
Sedum monregalense
Sedum montanum
Sedum ochroleucum
Sedum rupestre
Sedum sediforme
Sedum sexangulare
Sedum spurium
Selaginella denticulata
Selaginella helvetica
Selaginella selaginoides
Sempervivum arachnoideum

Sempervivum calcareum
Sempervivum dolomiticum
Sempervivum grandiflorum
Sempervivum montanum
Sempervivum riccii
Sempervivum tectorum
Sempervivum wulfenii
Senecio ambiguus
Senecio squalidus
Sideritis hirsuta
Sideritis hyssopifolia
Sideritis syriaca
Silene acaulis
Silene elisabethae
Silene fruticosa
Silene requienii
Silene velutinoides
Sinapis pubescens
Spergularia media
Spergularia rubra
Spiraea cana
Spiraea chamaedryfolia
Spiraea decumbens
Stachys corsica
Stachys glutinosa
Stellaria holostea
Telephium imperati
Teucrium chamaedrys
Teucrium flavum
Teucrium marum
Teucrium massiliense
Teucrium montanum
Teucrium polium aggr.
Thymbra capitata
Thymelaea dioica
Thymus alpestris
Thymus herba-barona
Thymus longicaulis
Thymus odoratissimus
Thymus praecox
Thymus pulegioides
Thymus richardii
Thymus serpyllum
Thymus spinulosus
Thymus striatus
Thymus thracicus
Thymus vulgaris
Trachelium caeruleum
Trifolium fragiferum
Trifolium pratense
Trifolium repens
Vaccinium microcarpum
Vaccinium myrtillus

Vaccinium oxycoccos
Vaccinium uliginosum
Valeriana angustifolia
Veronica allionii
Veronica beccabunga
Veronica bellidioides
Veronica filiformis
Veronica fruticans
Veronica fruticulosa
Veronica montana
Veronica officinalis
Veronica repens
Veronica serpyllifolia
Vinca difformis
Vinca major
Vinca minor
Viola arborescens

Colchic-percolation-mire

Rhododendron luteum
Rhododendron ponticum
Rhynchospora caucasica

Continental-inland-salt-steppe-specialists

Eremopyrum orientale
Eremopyrum triticeum
Limonium gmelinii
Limonium meyeri
Limonium tomentellum
Petrosimonia brachiata
Petrosimonia oppositifolia
Puccinellia dolicholepis
Puccinellia festuciformis
Suaeda acuminata

Crops

Allium cepa
Allium sativum
Anethum graveolens
Avena sativa
Beta vulgaris subsp. vulgaris
Brassica napus
Brassica oleracea
Brassica rapa
Capsicum annuum
Carthamus tinctorius
Cicer arietinum
Citrullus lanatus
Cucumis melo
Cucumis sativus
Cucurbita pepo
Cucurbita maxima
Cynara scolymus

Fagopyrum esculentum
Fagopyrum tataricum
Glycine max
Gossypium hirsutum
Helianthus annuus
Hordeum vulgare
Lactuca sativa
Lens culinaris
Linum usitatissimum
Nicotiana tabacum
Papaver somniferum
Petroselinum crispum
Phacelia tanacetifolia
Phaseolus vulgaris
Pisum sativum
Raphanus sativus
Secale cereale
Sesamum indicum
Sinapis alba
Solanum lycopersicum
Solanum tuberosum
Sorghum bicolor
Triticosecale rimpaui
Triticum aestivum
Triticum monococcum
Triticum turgidum
Vicia ervilia
Vicia faba
Zea mays

Cupressaceae-trees

Juniperus drupacea
Juniperus excelsa
Juniperus foetidissima
Juniperus thurifera
Tetraclinis articulata

Cupressus sempervirens

Cupressus sempervirens

Dark-taiga-trees

Abies sibirica
Picea abies
Picea obovata
Pinus sibirica

Dry-and-wet-heath-shrubs

Calluna vulgaris
Erica ciliaris
Erica mackaiana
Erica vagans
Genista anglica
Genista micrantha

Ulex minor

Dry-heath-shrubs

Daboecia cantabrica
Empetrum nigrum aggr.
Erica andevalensis
Erica australis
Erica cinerea
Erica scoparia
Erica umbellata
Genista germanica
Genista pilosa
Genista triacanthos
Genista tridens
Genista tridentata
Ulex boivinii
Ulex europaeus
Ulex gallii
Ulex micranthus
Ulex parviflorus
Vaccinium myrtillus
Vaccinium vitis-idaea

Dryas

Dryas integrifolia
Dryas octopetala

Dry-continental-pine-forest-species

Arenaria procera
Astragalus arenarius
Astragalus danicus
Astragalus glycyphyllos
Brachypodium pinnatum
Convallaria majalis
Dianthus arenarius
Dracocephalum ruyshiana
Geranium sanguineum
Hieracium laevigatum
Hieracium sabaudum
Lathyrus pisiformis
Onobrychis arenaria
Origanum vulgare
Peucedanum oreoselinum
Pimpinella saxifraga
Thalictrum minus
Thymus serpyllum
Trifolium alpestre
Trifolium medium
Trifolium montanum

Dwarf-shrubs

Acantholimon ulicinum
Alyssum atlanticum

Anabasis articulata
Anthyllis cytisoides
Anthyllis lagascana
Anthyllis onobrychioides
Anthyllis polycephala
Anthyllis ramburii
Anthyllis rupestris
Anthyllis tejedensis
Anthyllis terniflora
Antirrhinum latifolium
Antirrhinum siculum
Arctostaphylos alpinus
Arctostaphylos uva-ursi
Arenaria aggregata
Arenaria alfacarensis
Arenaria cavanillesiana
Argyrolobium zanonii
Asparagus aphyllus
Astracantha caspica
Astracantha caucasica
Astracantha condensata
Astracantha cretica
Astracantha echinus
Astracantha erinacea
Astracantha granatensis
Astracantha gummifera
Astracantha nebrodensis
Astracantha parnassi subsp. calabricus
Astracantha parnassi subsp. cyllenea
Astracantha parnassi subsp. parnassi
Astracantha prusiana
Astracantha rumelica
Astracantha sicula
Astracantha thracica
Astracantha trojana
Astragalus alopecuroides subsp. grosii
Astragalus angustifolius
Astragalus balearicus
Astragalus cavanillesii
Astragalus hispanicus
Astragalus sempervirens
Astragalus sirinicus
Astragalus tragacantha
Ballota frutescens
Ballota hispanica
Ballota pseudodictamnus
Bruckenthalia spiculifolia
Bupleurum frutescens
Calluna vulgaris
Camphorosma monspeliaca
Carthamus balearicus
Carthamus hispanicus subsp. araneosus
Cassiope hypnoides

Cassiope tetragona
Centaurea horrida
Centaurea hyssopifolia
Cephalaria squamiflora
Convolvulus cneorum
Convolvulus oleifolius
Corema album subsp. azoricum
Coris hispanica
Coronilla minima
Coronilla valentina
Cytisus spinescens
Daboecia azorica
Daboecia cantabrica
Daphne alpina
Daphne arbuscula
Daphne oleoides
Diapensia lapponica
Dorycnium fulgurans
Dorycnium hirsutum
Dryas integrifolia
Dryas octopetala
Dryas punctata
Echinopartum boissieri
Echinopartum horridum
Echinopartum lusitanicum
Empetrum nigrum aggr.
Ephedra distachya
Erica andevalensis
Erica carnea
Erica ciliaris
Erica cinerea
Erica erigena
Erica mackaiana
Erica maderensis
Erica terminalis
Erica tetralix
Erica umbellata
Erica vagans
Erinacea anthyllis
Euphorbia acanthothamnos
Euphorbia isatidifolia
Euphorbia maresii
Euphorbia minuta subsp. moleroi
Euphorbia paralias
Fumana arabica
Fumana baetica
Fumana ericoides
Fumana fontanesii
Fumana hispidula
Fumana laevipes
Fumana laevis
Fumana paradoxa
Fumana thymifolia

Genista acanthoclada
Genista anglica
Genista aspalathoides
Genista corsica
Genista cupanii
Genista desoleana
Genista dorycnifolia
Genista fasselata
Genista germanica
Genista hispanica
Genista lobelii
Genista lobelii subsp. longipes
Genista lydia
Genista micrantha
Genista michelii
Genista morisii
Genista pilosa
Genista ramosissima
Genista salzmannii
Genista sanabrensis
Genista sardoa
Genista scorpius
Genista tenera
Genista tricuspidata
Genista tridens
Genista tridentata
Genista umbellata
Genista valdes-bermejoi
Genista versicolor
Glandora nitida
Globularia alypum
Globularia salicina
Gypsophila bermejoi
Gypsophila struthium
Halimione portulacoides
Hedysarum boveanum
Helianthemum almeriense
Helianthemum alypoides
Helianthemum apenninum
Helianthemum asperum
Helianthemum caput-felis
Helianthemum hirtum
Helianthemum lippii
Helianthemum marifolium
Helianthemum marifolium subsp. conquense
Helianthemum neopiliferum
Helianthemum origanifolium
Helianthemum squamatum
Helianthemum syriacum
Helianthemum violaceum
Helianthemum viscarium
Helianthemum viscidulum
Helichrysum italicum

Helichrysum litoreum
Helichrysum monizii
Helichrysum stoechas
Herniaria fontanesii
Herniaria fruticosa
Hippocrepis bourgaei
Hippocrepis fruticescens
Hippocrepis rupestris
Hippocrepis scabra
Hippocrepis squamata
Hormathophylla longicaulis
Hypericum aegypticum
Hypericum balearicum
Hypericum ericoides
Chamaedaphne calyculata
Chamaespartium undulatum
Cheirolophus intybaceus
Jurinea pinnata
Krascheninnikovia ceratoides
Launaea cervicornis
Launaea fragilis
Launaea pumila
Lavandula angustifolia
Lavandula dentata
Lavandula lanata
Lavandula latifolia
Lavandula multifida
Lavandula stoechas
Lembotropis nigricans
Lepidium subulatum
Limoniastrum monopetalum
Linaria capraria
Linum campanulatum
Linum suffruticosum aggr.
Lithodora fruticosa
Lithodora hispidula
Loiseleuria procumbens
Lomelosia cretica
Micromeria graeca
Micromeria hyssopifolia
Micromeria nervosa
Micromeria varia
Nepeta hispanica
Odontarrhena robertiana
Odontites bocconeii
Onobrychis conferta
Onobrychis stenorrhiza
Ononis crispa
Ononis fruticosa
Ononis minutissima
Ononis tridentata
Onosma fruticosa
Phlomis crinita

Phlomis italica
Phlomis lychnitis
Phlomis purpurea
Phyllodoce caerulea
Polycarpha nivea
Polygala rupestris
Prasium majus
Pteroccephalus spathulatus
Ptilostemon gnaphaloides
Pulicaria burchardii
Putoria calabrica
Reaumuria vermiculata
Reseda stricta
Reseda suffruticosa
Rhododendron caucasicum
Rhododendron ferrugineum
Rhododendron hirsutum
Rhododendron lapponicum
Rhododendron myrtifolium
Rhododendron tomentosum
Rhodothamnus chamaecistus
Rosmarinus eriocalyx
Rosmarinus officinalis
Ruta angustifolia
Ruta chalepensis
Ruta montana
Salix alpina
Salix breviserrata
Salix herbacea
Salix herbacea x polaris
Salix kazbekensis
Salix myrtilloides
Salix nummularia
Salix polaris
Salix repens
Salix reptans
Salix reticulata
Salix retusa
Salix retusa aggr.
Salix serpillifolia
Salix sphenophylla
Salvia blancoana
Salvia candelabrum
Santolina corsica
Santolina viscosa
Sarcopoterium spinosum
Satureja cuneifolia
Satureja innota
Satureja intricata
Satureja obovata
Satureja thymbra
Scabiosa andryalifolia
Sideritis algarviensis

Sideritis arborescens
Sideritis bubanii
Sideritis carbonellis
Sideritis dianica
Sideritis glacialis
Sideritis grandiflora
Sideritis hirsuta
Sideritis hyssopifolia
Sideritis chamaedryfolia
Sideritis ibanyezii
Sideritis ilicifolia
Sideritis incana
Sideritis leucantha
Sideritis murgetana
Sideritis osteoxylla
Sideritis pungens
Sideritis pusilla
Sideritis reverchonii
Sideritis sericea
Sideritis serrata
Sideritis spinulosa
Sideritis tragoriganum
Staehelina dubia
Stachys glutinosa
Tetraena fontanesii
Teucrium algarbiense
Teucrium balthazaris
Teucrium carolipau subsp. *fontqueri*
Teucrium carthaginense
Teucrium gnaphalodes
Teucrium haenseleri
Teucrium charidemi
Teucrium lanigerum
Teucrium lepicephalum
Teucrium libanitis
Teucrium luteum
Teucrium marum
Teucrium murcicum
Teucrium oxylepis
Teucrium pumilum
Teucrium reverchonii
Teucrium ronnigeri
Teucrium simlatum
Teucrium subspinosum
Teucrium turredanum
Thymbra capitata
Thymelaea argentata
Thymelaea dioica
Thymelaea pubescens
Thymelaea sanamunda
Thymelaea tinctoria
Thymelaea velutina
Thymus antoninae

Thymus baeticus
Thymus caespititius
Thymus hyemalis
Thymus lacaitae
Thymus longiflorus
Thymus lotocephalus
Thymus mastichina
Thymus membranaceus
Thymus orospedanus
Thymus piperella
Thymus vulgaris
Ulex argenteus
Ulex borgiae
Ulex densus
Ulex gallii
Ulex genistoides
Ulex micranthus
Ulex minor
Ulex parviflorus
Vaccinium cylindraceum
Vaccinium myrtillus
Vaccinium uliginosum
Vaccinium vitis-idaea
Vella aspera
Vella bourgeana
Vella castrilensis
Vella luentina
Vella pseudocytisus
Vella spinosa
Verbascum spinosum

E-Mediterranean-mountain-thorny-cushion-shrubs

Acantholimon ulicinum
Astracantha caspica
Astracantha caucasica
Astracantha condensata
Astracantha cretica
Astracantha echinus
Astracantha parnassi subsp. cyllenea
Astracantha parnassi subsp. parnassi
Astracantha erinacea
Astracantha rumelica
Astracantha thracica
Astragalus angustifolius
Astragalus sirinicus
Berberis cretica
Verbascum spinosum

E-garrigue-herbs

Alyssum tenium
Alyssum umbellatum
Asparagus aphyllus
Astragalus spruneri

Atractylis cancellata
Ballota acetabulosa
Ballota pseudodictamnus
Biarum tenuifolium
Carlina gummifera
Centaurea acicularis
Centaurea spinosa
Centaurium triphyllum
Convolvulus althaeoides
Convolvulus betonicifolius
Drimia numidica
Drimia maritima
Convolvulus oleifolius
Cuscuta planiflora
Cytisus lanigerus
Fumana arabica
Fumana laevis
Genista sylvestris
Helianthemum sicanorum
Hypericum empetrifolium
Hypericum olympicum
Iris adriatica
Iris tuberosa
Lactuca tuberosa
Linum pubescens
Lotus tetraphyllus
Micromeria graeca
Micromeria juliana
Micromeria myrtifolia
Micromeria nervosa
Neotinea lactea
Odontarrhena euboea
Odontarrhena obtusifolia
Ophrys bombyliflora
Ophrys scolopax
Ophrys speculum
Ophrys sphegodes
Ophrys tenthredinifera
Orchis italica
Orchis quadripunctata
Origanum onites
Paronychia bornmuelleri
Paronychia macrosepala
Petrorhagia armerioides
Petrorhagia cretica
Petrorhagia fasciculata
Petrorhagia obcordata
Phagnalon rupestre
Ranunculus cupreus
Ranunculus gracilis
Ranunculus isthmicus
Reseda stricta
Satureja obovata

Satureja thymbra
Sideritis arborescens
Sideritis spinulosa
Silene corinthiaca
Silene cretica
Silene laconica
Silene sieberi
Stachys cretica
Stachys spinosa
Teucrium alpestre
Teucrium brevifolium
Teucrium divaricatum
Teucrium dunense
Teucrium microphyllum
Thymelaea pubescens
Thymelaea velutina
Trifolium physodes
Vicia cretica
Viola scorpiuroides

E-garrigue-shrubs

Cistus parviflorus
Cytisus eriocarpus
Cytisus fontanesii
Ebenus cretica
Erica manipuliflora
Phlomis cretica
Phlomis fruticosa
Phlomis lanata
Salvia fruticosa
Salvia pomifera

Erico-Pinetalia-species

Amelanchier ovalis
Aquilegia vulgaris
Aremonia agrimonoides
Brachypodium rupestre
Buphthalmum salicifolium
Bupleurum longifolium
Calamagrostis varia
Carduus defloratus aggr.
Carex alba
Carex ornithopoda
Cirsium laniflorum
Clinopodium alpinum
Coronilla vaginalis
Cotinus coggygria
Cruciata taurica
Daphne cneorum
Daphne oleoides
Epipactis atrorubens
Erica carnea
Eryngium amethystinum

Festuca amethystina
Galium anisophyllum
Galium austriacum
Galium lucidum
Globularia cordifolia
Hieracium bifidum
Hippocrepis emerus
Inula ensifolia
Laserpitium latifolium
Laserpitium siler
Leontodon incanus
Leucanthemum adustum
Noccaea montana
Phyteuma orbiculare
Pimpinella lithophila
Polygala amara
Polygala chamaebuxus
Polygala nicaeensis aggr.
Psephellus declinatus
Rhamnus saxatilis
Rubus tauricus
Scabiosa lucida
Seseli libanotis
Sesleria robusta
Teucrium chamaedrys
Teucrium montanum
Teucrium polium aggr.
Thesium alpinum
Thymus longicaulis
Viola sieheana

Fagus-sylvatica-orientalis

Fagus sylvatica
Fagus orientalis

Fen-with-calcium-carbonate-precipitation-species

Cratoneuron filicinum
Eleocharis quinqueflora
Eupatorium cannabinum
Palustriella commutata aggr.
Philonotis calcarea
Schoenus ferrugineus
Tofieldia calyculata
Triglochin maritima

Forest-clearing-herbs

Atropa bella-donna
Calamagrostis epigejos
Centaurium erythraea
Chelidonium majus
Digitalis purpurea
Epilobium angustifolium
Eupatorium cannabinum

Lupinus polyphyllus
Rubus idaeus
Sambucus ebulus
Senecio sylvaticus
Senecio viscosus
Torilis japonica
Verbascum thapsus

Forest-clearing-trees-and-shrubs

Betula pendula
Populus tremula
Salix caprea
Sambucus nigra
Sambucus racemosa
Sorbus aucuparia

Fraxinus excelsior

Fraxinus excelsior

Garrigue-and-micro-garrigue-species

Alyssoides utriculata
Alyssum diffusum
Aphyllanthes monspeliensis
Arenaria arcuatociliata
Arenaria vitoriana
Armeria sardoa
Artemisia alba
Asperula purpurea
Astragalus clusianus
Cistus creticus
Cistus monspeliensis
Coris monspeliensis
Coronilla minima
Coronilla valentina
Cytisus spinescens
Echinopartum boissieri
Erysimum fitzii
Euphorbia myrsinites
Euphorbia spinosa
Fumana ericoides
Fumana procumbens
Fumana thymifolia
Genista cinerea
Genista desoleana
Genista eliasennenii
Genista hispanica
Genista januensis
Genista lobelii
Genista michelii
Genista pseudopilosa
Genista pulchella
Genista salzmännii
Genista scorpius

Genista teretifolia
Genista versicolor
Globularia meridionalis
Helianthemum apenninum
Helianthemum canum
Helianthemum hirtum
Helianthemum italicum
Helianthemum marifolium
Helianthemum rossmaessleri
Helichrysum stoechas
Hypericum coris
Hyssopus officinalis
Lavandula angustifolia
Lavandula latifolia
Linum campanulatum
Linum suffruticosum aggr.
Matthiola fruticulosa
Minuartia laricifolia
Odontarrhena bertolonii
Phagnalon rupestre
Phagnalon saxatile
Phlomis crinita
Phlomis fruticosa
Salvia blancoana
Salvia officinalis
Salvia phlomoides
Santolina chamaecyparissus aggr.
Satureja intricata
Satureja montana
Sideritis flaviflora
Sideritis laxispicata
Sideritis pungens
Sideritis syriaca
Staehelina dubia
Teucrium aragonense
Teucrium expassum
Teucrium leonis
Teucrium luteum
Teucrium montanum
Teucrium polium aggr.
Teucrium simlatum
Teucrium webbianum
Thymbra capitata
Thymelaea pubescens
Thymus clandestinus
Thymus longicaulis
Thymus loscosii
Thymus mastigophorus
Thymus membranaceus
Thymus orospedanus
Thymus striatus
Thymus vulgaris
Thymus zygis

Genistoid-shrubs

Adenocarpus anisochilus
Adenocarpus brutius
Adenocarpus complicatus
Adenocarpus decorticans
Adenocarpus hispanicus
Adenocarpus telonensis
Adenocarpus viscosus
Cytisus arboreus
Cytisus balansae
Cytisus cantabricus
Cytisus commutatus
Cytisus grandiflorus
Cytisus ingramii
Cytisus multiflorus
Cytisus scoparius
Cytisus striatus
Cytisus villosus
Genista cinerascens
Genista falcata
Genista florida
Genista hystrix
Genista linifolia
Genista monspessulana
Genista obtusiramea
Genista polyanthos
Genista spartioides
Genista umbellata
Retama monosperma
Retama sphaerocarpa

Gypsophilous-dwarf-shrubs

Arenaria cavanillesiana
Astragalus alopecuroides subsp. grosii
Carthamus hispanicus subsp. araneosus
Centaurea hyssopifolia
Coris hispanica
Euphorbia minuta subsp. moleroi
Gypsophila bermejoi
Gypsophila struthium
Helianthemum alypoides
Helianthemum marifolium subsp. conquense
Helianthemum squamatum
Herniaria fruticosa
Jurinea pinnata
Launaea pumila
Lepidium subulatum
Ononis tridentata
Reseda stricta
Reseda suffruticosa
Reaumuria vermiculata
Rosmarinus eriocalyx

Santolina viscosa
Teucrium balthazaris
Teucrium carolipauai subsp. fontqueri
Teucrium lepicephalum
Teucrium libanitis
Teucrium pumilum
Teucrium turredanum
Thymus lacaitae
Vella aspera
Vella pseudocytisus

Gypsophilous-herbs

Allosorus persicus
Artemisia pedemontana
Astragalus alopecuroides subsp. grosii
Astragalus caprinus subsp. huetii
Brassica repanda subsp. gypsicola
Campanula fastigiata
Carthamus hispanicus subsp. araneosus
Centaurium triphyllum
Chaenorhinum grandiflorum
Chaenorhinum reyesii
Chaenorhinum rubrifolium
Clypeola eriocarpa
Ctenopsis delicatula
Ctenopsis gypsophila
Diplotaxis harra
Erodium laciniatum
Ferula loscosii
Koeleria castellana
Lepidium cardamines
Limonium catanzaroi
Limonium optimae
Odontites longiflora
Sedum gypsicola
Trisetaria loeflingiana
Ziziphora hispanica

Halophytic-fen-species

Trichophorum pumilum
Triglochin maritima
Plantago maritima
Glaux maritima
Schoenoplectus lacustris subsp. glaucus
Cetaurium littorale

Hemicryptophytes

Acanthus mollis
Acanthus spinosus
Achillea ageratum
Achillea barrelieri
Achillea distans
Achillea ligustica

Achillea macrophylla
Achillea millefolium aggr.
Achillea nana
Achillea nobilis
Achillea oxyloba
Achillea ptarmica
Achillea setacea
Achillea tomentosa
Achillea virescens
Achnatherum bromoides
Achnatherum calamagrostis
Aconitum lycoctonum
Adenophora lilifolia
Adenostyles alliariae
Adenostyles alpina
Adenostyles australis
Adenostyles leucophylla
Adonis distorta
Adonis vernalis
Aegonychon purpurocaeruleum
Aethionema thomasianum
Agrimonia eupatoria
Agrimonia procera
Agropyron cristatum
Agrostis alpina
Agrostis canina
Agrostis capillaris
Agrostis castellana
Agrostis gigantea
Agrostis rupestris
Agrostis schleicheri
Ajuga genevensis
Ajuga orientalis
Ajuga pyramidalis
Alcea biennis
Alcea ficifolia
Alcea rosea
Alcea setosa
Alchemilla acutidens
Alchemilla alpigena
Alchemilla alpina
Alchemilla chirophylla
Alchemilla cinerea
Alchemilla colorata
Alchemilla compta
Alchemilla conjuncta
Alchemilla connivens
Alchemilla coriacea
Alchemilla crinita
Alchemilla decumbens
Alchemilla demissa
Alchemilla effusa
Alchemilla exigua

Alchemilla fallax
Alchemilla filicaulis
Alchemilla fissa
Alchemilla fissimima
Alchemilla flabellata
Alchemilla flaccida
Alchemilla flavovirens
Alchemilla frigens
Alchemilla glabra
Alchemilla glacialis
Alchemilla glaucescens
Alchemilla glomerulans
Alchemilla grossidens
Alchemilla helvetica
Alchemilla heteropoda
Alchemilla hirtipes
Alchemilla illyrica
Alchemilla impexa
Alchemilla incisa
Alchemilla inconcinna
Alchemilla jucunda
Alchemilla lineata
Alchemilla longiuscula
Alchemilla marsica
Alchemilla monticola
Alchemilla nitida
Alchemilla obtusa
Alchemilla opaca
Alchemilla pallens
Alchemilla pentaphyllea
Alchemilla reniformis
Alchemilla saxatilis
Alchemilla schmidelyana
Alchemilla semisecta
Alchemilla sinuata
Alchemilla straminea
Alchemilla strigosula
Alchemilla subcrenata
Alchemilla subsericea
Alchemilla tenuis
Alchemilla tirolensis
Alchemilla transiens
Alchemilla trunciloba
Alchemilla undulata
Alchemilla vaccariana
Alchemilla versipila
Alchemilla vetteri
Alchemilla vulgaris aggr.
Alchemilla xanthochlora
Alkanna tinctoria
Alkanna tuberculata
Alliaria petiolata
Allosorus acrosticus

Allosorus guanchicus
Allosorus persicus
Allosorus pteridioides
Allosorus tinaei
Alopecurus aequalis
Alopecurus arundinaceus
Alopecurus bulbosus
Alopecurus geniculatus
Alopecurus gerardi
Alopecurus pratensis
Althaea cannabina
Althaea officinalis
Amaranthus muricatus
Ampelodesmos mauritanicus
Anagallis crassifolia
Anagallis monelli
Anagallis tenella
Anarrhinum bellidifolium
Anarrhinum corsicum
Anchusa azurea
Anchusa crispa
Anchusa hybrida
Anchusa ochroleuca
Anchusa officinalis
Anchusa undulata
Androsace adfinis
Androsace carnea
Androsace obtusifolia
Anemone baldensis
Anemone sylvestris
Angelica archangelica
Angelica sylvestris
Anthemis cretica
Anthemis maritima
Anthoxanthum odoratum aggr.
Anthriscus nemorosa
Anthriscus nitidus
Anthriscus sylvestris
Anthyllis vulneraria
Aphyllanthes monspeliensis
Apium graveolens
Aposeris foetida
Aquilegia alpina
Aquilegia atrata
Aquilegia barbaricina
Aquilegia bernardii
Aquilegia bertolonii
Aquilegia einseleana
Aquilegia nigricans
Aquilegia ottonis
Aquilegia thalictrifolia
Aquilegia viscosa
Aquilegia vulgaris

Arabidopsis arenosa
Arabidopsis halleri
Arabidopsis petraea
Arabis allionii
Arabis alpina
Arabis caerulea
Arabis ciliata
Arabis collina
Arabis glabra
Arabis hirsuta
Arabis pedemontana
Arabis planisiliqua
Arabis sagittata
Arabis serpillifolia
Arabis soyeri
Arabis surculosa
Arabis vochinensis
Arctium lappa
Arctium minus
Arctium nemorosum
Arctium tomentosum
Aremonia agrimonoides
Arenaria marschlinsii
Armeria alpina
Armeria arenaria
Armeria canescens
Armeria denticulata
Armeria gussonei
Armeria helodes
Armeria macropoda
Armeria marginata
Armeria maritima
Armeria morisii
Armeria seticeps
Arnica montana
Arrhenatherum elatius
Artemisia campestris
Artemisia vulgaris
Aruncus dioicus
Asperula aristata
Asperula cynanchica
Asperula hexaphylla
Asperula laevigata
Asperula neglecta
Asperula nitens
Asperula rupicola
Asperula tinctoria
Asphodelus fistulosus
Asphodelus tenuifolius
Asplenium adiantum-nigrum
Asplenium adulterinum
Asplenium ceterach
Asplenium fissum

Asplenium fontanum
Asplenium lepidum
Asplenium marinum
Asplenium obovatum
Asplenium petrarchae
Asplenium ruta-muraria
Asplenium sagittatum
Asplenium scolopendrium
Asplenium seelosii
Asplenium septentrionale
Asplenium trichomanes
Asplenium viride
Aster alpinus
Aster amellus
Aster novi-belgii aggr.
Aster vimineus
Aster x salignus
Astragalus alopecurus
Astragalus alpinus
Astragalus aquilanus
Astragalus australis
Astragalus caprinus
Astragalus centralpinus
Astragalus cicer
Astragalus danicus
Astragalus depressus
Astragalus exscapus
Astragalus frigidus
Astragalus hypoglottis
Astragalus leontinus
Astragalus maritimus
Astragalus monspessulanus
Astragalus muelleri
Astragalus odoratus
Astragalus onobrychis
Astragalus penduliflorus
Astragalus verrucosus
Astragalus vesicarius
Astrantia bavarica
Astrantia carniolica
Astrantia major
Astrantia minor
Astrantia pauciflora
Asyneuma limonifolium
Athamanta cortiana
Athamanta cretensis
Athamanta ramosissima
Athamanta sicula
Athamanta turbith
Athamanta vestina
Athyrium distentifolium
Aurinia petraea
Avenella flexuosa

Avenula pubescens
Avenula versicolor
Ballota nigra
Barbarea arcuata
Barbarea bracteosa
Barbarea intermedia
Barbarea sicula
Barbarea stricta
Barbarea verna
Barbarea vulgaris
Bartsia alpina
Bellardiochloa variegata
Bellidiastrum michelii
Bellis perennis
Bellis pusilla
Bellis sylvestris
Bellium bellidioides
Bellium nivale
Berteroa incana
Berteroa mutabilis
Berteroa obliqua
Beta trigyna
Beta vulgaris subsp. maritima
Beta vulgaris subsp. vulgaris
Biscutella ambigua
Biscutella coronopifolia
Biscutella intricata
Biscutella laevigata
Biscutella maritima
Biscutella pinnatifida
Biscutella raphanifolia
Biscutella rotgesii
Bituminaria bituminosa
Blechnum spicant
Blitum bonus-henricus
Boehmeria nivea
Bonannia graeca
Borago pygmaea
Bothriochloa ischaemum
Bothriochloa pertusa
Brachypodium phoenicoides
Brachypodium pinnatum
Brachypodium retusum
Brachypodium rupestre
Brachypodium sylvaticum
Brassica fruticulosa
Brassica glabrescens
Brassica repanda
Braya alpina
Briza media
Bromopsis erecta
Bromopsis inermis
Bromopsis pannonica

Bromopsis ramosa aggr.
Bubon macedonicum
Bunias orientalis
Bupleurum elatum
Bupleurum falcatum
Bupleurum petraeum
Bupleurum ranunculoides
Bupleurum rigidum
Bupleurum stellatum
Cachrys cristata
Cachrys libanotis
Cachrys pungens
Cachrys sicula
Calamagrostis arundinacea
Calamagrostis canescens
Calamagrostis epigejos
Calamagrostis pseudophragmites
Calamagrostis varia
Calamagrostis villosa
Callianthemum coriandrifolium
Caltha palustris
Calystegia sepium
Calystegia silvatica
Camelina microcarpa
Camelina rumelica
Camelina sativa
Campanula albicans
Campanula alpestris
Campanula barbata
Campanula bononiensis
Campanula carnica
Campanula cenisia
Campanula cervicaria
Campanula cochleariifolia
Campanula elatines
Campanula elatinoides
Campanula excisa
Campanula foliosa
Campanula forsythii
Campanula garganica
Campanula glomerata
Campanula latifolia
Campanula lingulata
Campanula medium
Campanula morettiana
Campanula patula
Campanula persicifolia
Campanula petraea
Campanula pyramidalis
Campanula raineri
Campanula rapunculoides
Campanula rapunculus
Campanula rhomboidalis

Campanula rotundifolia
Campanula sabatia
Campanula scheuchzeri
Campanula sibirica
Campanula spicata
Campanula thyrsoides
Campanula tommasiniana
Campanula trachelium
Campanula trichocalycina
Campanula versicolor
Campanula zoysii
Cardamine amara
Cardamine asarifolia
Cardamine bellidifolia
Cardamine flexuosa
Cardamine matthioli
Cardamine pratensis
Cardamine raphanifolia
Cardamine resedifolia
Cardamine rivularis
Cardamine trifolia
Carduus acanthoides
Carduus affinis
Carduus argemone
Carduus carduelis
Carduus cephalanthus
Carduus chrysacanthus
Carduus collinus
Carduus crispus
Carduus fasciculiflorus
Carduus litigiosus
Carduus macrocephalus
Carduus nutans
Carduus personata
Carduus pycnocephalus
Carduus tenuiflorus
Carex appropinquata
Carex atrata
Carex baldensis
Carex bohemica
Carex brachystachys
Carex brunnescens
Carex buekii
Carex canescens
Carex capillaris
Carex capitata
Carex caryophyllea
Carex cuprina
Carex curvula
Carex davalliana
Carex demissa
Carex depauperata
Carex depressa

Carex diandra
Carex digitata
Carex distachya
Carex distans
Carex divulsa
Carex elata
Carex elongata
Carex extensa
Carex ferruginea
Carex firma
Carex flava
Carex foetida
Carex fritschii
Carex fuliginosa
Carex heleonastes
Carex hostiana
Carex humilis
Carex illegitima
Carex kitaibeliana
Carex lachenalii
Carex laevigata
Carex lepidocarpa
Carex leporina
Carex macrolepis
Carex macrostachys
Carex michelii
Carex montana
Carex mucronata
Carex nigra
Carex norvegica
Carex olbiensis
Carex ornithopoda
Carex pallescens
Carex paniculata
Carex parviflora
Carex pediformis
Carex pendula
Carex pilosa
Carex pilulifera
Carex praecox
Carex pseudocyperus
Carex punctata
Carex remota
Carex rupestris
Carex sempervirens
Carex spicata
Carex strigosa
Carex sylvatica
Carex tumidicarpa
Carex umbrosa
Carex viridula
Carex vulpina
Carlina acanthifolia

Carlina acaulis
Carlina biebersteinii
Carlina corymbosa
Carlina gummifera
Carlina involucrata
Carlina macrocephala
Carlina nebrodensis
Carlina sicula
Carlina vulgaris
Carpesium abrotanoides
Carthamus pinnatus
Carum appuanum
Carum carvi
Carum heldreichii
Carum verticillatum
Cenchrus ciliaris
Cenchrus longisetus
Cenchrus setaceus
Centaurea acaulis
Centaurea alba aggr.
Centaurea amara
Centaurea ambigua
Centaurea aplolepa
Centaurea aspera
Centaurea calcitrapa
Centaurea cana
Centaurea centauroides
Centaurea cineraria
Centaurea collina
Centaurea cristata
Centaurea dichroantha
Centaurea diffusa
Centaurea dubia
Centaurea hyalolepis
Centaurea jacea
Centaurea kartschiana
Centaurea leucophaea
Centaurea muretii
Centaurea nemoralis
Centaurea nervosa
Centaurea nigra
Centaurea nigrescens
Centaurea paniculata
Centaurea parlatoris
Centaurea phrygia
Centaurea ragusina
Centaurea rhaetica
Centaurea rupestris aggr.
Centaurea scabiosa
Centaurea scannensis
Centaurea seridis
Centaurea sicula
Centaurea solstitialis

Centaurea sphaerocephala
Centaurea stoebe
Centaurea subtilis
Centaurea tommasinii
Centaurea uniflora
Centaurium erythraea
Centaurium littorale
Cephalaria alpina
Cephalaria leucantha
Cerastium alpinum
Cerastium arvense
Cerastium fontanum subsp. vulgare
Cerastium lineare
Cerastium pedunculatum
Cerastium soleirolii
Cerastium subtriflorum
Cerastium sylvaticum
Ceratochloa cathartica
Cerinthe glabra
Cerinthe tenuiflora
Cervaria rivini
Chaerophyllum aromaticum
Chaerophyllum aureum
Chaerophyllum bulbosum
Chaerophyllum hirsutum
Chaiturus marrubiastrum
Cheirolophus crassifolius
Chelidonium majus
Chondrilla acanthophylla
Chondrilla chondrilloides
Chondrilla juncea
Chrysopogon gryllus
Chrysosplenium alternifolium
Chrysosplenium dubium
Chrysosplenium oppositifolium
Cichorium intybus
Cicuta virosa
Circaea alpina
Circaea lutetiana
Cirsium alsophilum
Cirsium bertolonii
Cirsium carniolicum
Cirsium creticum
Cirsium echinatum
Cirsium eriophorum
Cirsium erisithales
Cirsium ferox
Cirsium helenioides
Cirsium heterophyllum
Cirsium italicum
Cirsium lobelii
Cirsium monspessulanum
Cirsium morisianum

Cirsium oleraceum
Cirsium palustre
Cirsium pannonicum
Cirsium scabrum
Cirsium spinosissimum
Cirsium tenoreanum
Cirsium vulgare
Citrullus colocynthis
Cleistogenes serotina
Clematis integrifolia
Clematis recta
Clinopodium menthifolium
Clinopodium nepeta
Clinopodium vulgare
Cochlearia officinalis
Coincya monensis
Coincya richeri
Conium maculatum
Convolvulus althaeoides
Convolvulus cantabrica
Convolvulus silvaticus
Coris monspeliensis
Corrigiola telephiifolia
Cortusa matthioli
Corydalis ochroleuca
Corynephorus canescens
Cosentinia vellea
Cota tinctoria
Crambe tataria
Crepis albida
Crepis alpestris
Crepis aurea
Crepis biennis
Crepis bocconi
Crepis bursifolia
Crepis chondrilloides
Crepis conyzifolia
Crepis praemorsa aggr.
Crepis jacquinii
Crepis lacera
Crepis leontodontoides
Crepis mollis
Crepis paludosa
Crepis pontana
Crepis pyrenaica
Crepis rhaetica
Crepis spathulata
Crepis terglouensis
Cruciata glabra
Cruciata laevipes
Cryptogramma crispa
Cryptotaenia thomasii
Cullen americanum

Cyanus montanus
Cyanus triumfettii
Cymbalaria hepaticifolia
Cymbalaria pallida
Cynara cardunculus
Cynoglossum cheirifolium
Cynoglossum clandestinum
Cynoglossum creticum
Cynoglossum dioscoridis
Cynoglossum germanicum
Cynoglossum montanum
Cynoglossum nebrodense
Cynoglossum officinale
Cynosurus cristatus
Cyperus esculentus
Cyperus glomeratus
Cyperus longus
Cyperus papyrus
Cyperus strigosus
Cyrtonium fortunei
Cystopteris fragilis
Cystopteris montana
Cystopteris sudetica
Dactylis glomerata
Danaa cornubiensis
Danthonia alpina
Danthonia decumbens
Daucus carota
Delphinium dubium
Delphinium elatum
Delphinium emarginatum
Delphinium fissum
Deschampsia media
Descurainia tanacetifolia
Dianthus barbatus
Dianthus carthusianorum
Dianthus ciliatus
Dianthus deltoides
Dianthus ferrugineus
Dianthus furcatus
Dianthus glacialis
Dianthus monspessulanus
Dianthus pavonius
Dianthus seguieri
Dianthus sternbergii
Dianthus superbus
Dianthus sylvestris
Dichoropetalum carvifolia
Dichoropetalum schottii
Digitalis ferruginea
Digitalis grandiflora
Digitalis laevigata
Digitalis lutea

Digitalis purpurea
Diploaxis tenuifolia
Dipsacus ferox
Dipsacus fullonum
Dipsacus laciniatus
Dipsacus pilosus
Dittrichia viscosa
Dorycnium pentaphyllum aggr.
Dorycnium rectum
Dorycnopsis gerardi
Draba aizoides
Draba aspera
Draba dolomitica
Draba dubia
Draba fladnizensis
Draba hoppeana
Draba loiseleurii
Draba siliquosa
Draba tomentosa
Drosera intermedia
Drosera longifolia
Drosera rotundifolia
Drymocallis rupestris
Drymochloa sylvatica
Dysphania multifida
Echinophora spinosa
Echinophora tenuifolia
Echinops exaltatus
Echinops ritro
Echinops sphaerocephalus
Echinops spinosissimus
Echium arenarium
Echium asperrimum
Echium creticum
Echium italicum
Echium vulgare
Eleocharis carniolica
Eleocharis multicaulis
Elymus caninus
Elymus panormitanus
Elytrigia corsica
Elytrigia elongata
Epilobium alpestre
Epilobium alsinifolium
Epilobium anagallidifolium
Epilobium angustifolium
Epilobium collinum
Epilobium dodonaei
Epilobium fleischeri
Epilobium hirsutum
Epilobium hypericifolium
Epilobium lanceolatum
Epilobium montanum

Epilobium nutans
Epilobium obscurum
Epilobium palustre
Epilobium parviflorum
Epilobium roseum
Epilobium tetragonum
Epimedium alpinum
Erigeron alpinus
Erigeron atticus
Erigeron epiroticus
Erigeron glabratus
Erigeron karvinskianus
Erigeron neglectus
Erigeron schleicheri
Erigeron uniflorus
Erinus alpinus
Eriophorum latifolium
Eriophorum vaginatum
Erodium acaule
Erucastrum gallicum
Erucastrum nasturtiifolium
Erucastrum palustre
Erucastrum virgatum
Eryngium alpinum
Eryngium amethystinum
Eryngium campestre
Eryngium corniculatum
Eryngium creticum
Eryngium dichotomum
Eryngium pusillum
Eryngium spinalba
Eryngium tricuspdatum
Eryngium triquetrum
Erysimum bonannianum
Erysimum crassistylum
Erysimum hieracifolium
Erysimum jugicola
Erysimum majellense
Erysimum metlesicsii
Erysimum odoratum
Erysimum pseudorhaeticum
Erysimum rhaeticum
Erysimum nevadense aggr.
Erysimum sylvestre
Eupatorium cannabinum
Euphorbia carniolica
Euphorbia cyparissias
Euphorbia esula
Euphorbia lathyris
Euphorbia lucida
Euphorbia semiperfoliata
Ferula communis
Ferulago campestris

Ferulago nodiflora
Ferulago nodosa
Ferulago sylvatica
Festuca acuminata
Festuca airoides
Festuca alpestris
Festuca alpina
Festuca amethystina
Festuca apuanica
Festuca arvernensis
Festuca bosniaca
Festuca caeruleascens
Festuca calva
Festuca cenisia
Festuca cinerea
Festuca circummediterranea
Festuca cyrnea
Festuca filiformis
Festuca flavescens
Festuca guestfalica auct.
Festuca halleri
Festuca heteromalla
Festuca heteropachys
Festuca heterophylla
Festuca illyrica
Festuca inops
Festuca intercedens
Festuca jeanpertia
Festuca laevigata
Festuca macranthera
Festuca marginata subsp. andres-molinae
Festuca marginata subsp. gallica
Festuca melanopsis
Festuca morisiana
Festuca nitida
Festuca norica
Festuca ovina
Festuca picturata
Festuca pignattiorum
Festuca pseudodura
Festuca quadriflora
Festuca robustifolia
Festuca rubra aggr.
Festuca sardoa
Festuca scabriculum
Festuca stenantha
Festuca stricta subsp. sulcata
Festuca stricta subsp. trachyphylla
Festuca sylvatica
Festuca ticinensis
Festuca trichophylla
Festuca valesiaca aggr.
Festuca varia

Festuca violacea
Fibigia clypeata
Filipendula ulmaria
Filipendula vulgaris
Foeniculum vulgare
Fourraea alpina
Galatella linosyris
Galatella sedifolia
Galega officinalis
Galium aetnicum
Galium aristatum
Galium austriacum
Galium baldense
Galium bernardii
Galium boreale
Galium congestum
Galium corrudifolium
Galium corsicum
Galium debile
Galium erythrorrhizon
Galium glaucophyllum
Galium glaucum
Galium intermedium
Galium jussiei
Galium laevigatum
Galium litorale
Galium lucidum
Galium magellense
Galium margaritaceum
Galium megalospermum
Galium mollugo aggr.
Galium montis-arerae
Galium noricum
Galium obliquum
Galium palustre aggr.
Galium pseudohelveticum
Galium pumilum
Galium pusillum
Galium rotundifolium
Galium rubrum
Galium scabrum
Galium sylvaticum
Galium tendae
Galium tunetanum
Galium uliginosum
Gaura sinuata
Gentiana acaulis
Gentiana alpina
Gentiana angulosa
Gentiana asclepiadea
Gentiana aspera
Gentiana austriaca
Gentiana bavarica

Gentiana brachyphylla
Gentiana burseri
Gentiana clusii
Gentiana cruciata
Gentiana dinarica
Gentiana froelichii
Gentiana ligustica
Gentiana lutea
Gentiana macrophylla
Gentiana magellensis
Gentiana pannonica
Gentiana pneumonanthe
Gentiana pumila
Gentiana punctata
Gentiana purpurea
Gentiana rostanii
Gentiana terglouensis
Gentiana verna
Gentianella anisodonta
Gentianella aspera
Gentianella austriaca
Gentianella columnae
Gentianella crispata
Gentianella engadinensis
Gentianella germanica
Gentianella lutescens
Gentianella pilosa
Gentianella ramosa
Geranium argenteum
Geranium asphodeloides
Geranium cinereum
Geranium palustre
Geranium phaeum
Geranium pratense
Geranium pyrenaicum
Geranium reflexum
Geranium sanguineum
Geranium sylvaticum aggr.
Geum gasparrinii
Geum heterocarpum
Geum micropetalum
Geum molle
Geum montanum
Geum rivale
Geum urbanum
Glaucium flavum
Globularia bisnagarica
Globularia incanescens
Globularia nudicaulis
Gnaphalium diminutum
Gnaphalium hoppeanum
Gnaphalium norvegicum
Gnaphalium supinum

Gnaphalium sylvaticum
Goniolimon italicum
Grafia golaka
Gratiola officinalis
Hacquetia epipactis
Hedysarum confertum
Hedysarum coronarium
Hedysarum hedysaroides
Helianthus decapetalus
Helianthus pauciflorus
Helictochloa bromoides
Helictochloa cincinnata
Helictochloa praeusta
Helictochloa pratensis
Helictochloa versicolor
Helictotrichon bromoides
Helictotrichon convolutum
Helictotrichon parlatorei
Helictotrichon sedenense
Helictotrichon sempervirens
Helictotrichon setaceum
Helleborus lividus
Hellenocarum multiflorum
Helminthotheca aculeata
Helosciadium inundatum
Helosciadium nodiflorum
Helosciadium repens
Heptaptera angustifolia
Heracleum austriacum
Heracleum sphondylium
Herniaria alpina
Herniaria incana
Hesperis laciniata
Hesperis matronalis
Heteropogon contortus
Hibiscus palustris
Hibiscus roseus
Hieracium alpinum
Hieracium amplexicaule
Hieracium aureum
Hieracium bupleuroides
Hieracium glaucum
Hieracium humile
Hieracium incanum
Hieracium lachenalii
Hieracium lactucella
Hieracium laevigatum
Hieracium lawsonii
Hieracium naegelianum
Hieracium pallidum
Hieracium pictum
Hieracium piliferum
Hieracium porrifolium

Hieracium portanum
Hieracium prenanthoides
Hieracium racemosum
Hieracium sabaudum
Hieracium umbellatum
Hieracium villosum
Hieracium virgaurea
Hierochloa australis
Hierochloa odorata
Hippocrepis comosa
Hippocrepis glauca
Hirschfeldia incana
Holcus annuus
Holcus lanatus
Holcus mollis
Holcus notarisii
Homalotrichon pubescens
Homogyne alpina
Homogyne discolor
Homogyne sylvestris
Hordelymus europaeus
Hordeum bulbosum
Hordeum secalinum
Horminum pyrenaicum
Hornungia alpina
Hutchinsia brevicaulis
Hylotelephium anacampseros
Hylotelephium maximum
Hylotelephium telephium
Hyparrhenia hirta
Hypericum annulatum
Hypericum australe
Hypericum barbatum
Hypericum elodes
Hypericum hirsutum
Hypericum humifusum
Hypericum hyssopifolium
Hypericum maculatum
Hypericum montanum
Hypericum perforatum
Hypericum pubescens
Hypericum richeri
Hypericum spruneri
Hypericum tetrapterum
Hypericum tomentosum
Hypericum triquetrifolium
Hypochaeris robertia
Iberis aurosica
Iberis carnosa
Iberis spathulata
Inula bifrons
Inula britannica

Inula ensifolia
Inula helenium
Inula helvetica
Inula hirta
Inula montana
Inula salicina
Inula spiraeifolia
Isatis campestris
Isatis praecox
Isatis tinctoria
Jacobaea alpina
Jacobaea aquatica
Jacobaea erratica
Jacobaea erucifolia
Jacobaea incana
Jacobaea paludosa
Jacobaea samnitum
Jacobaea subalpina
Jacobaea uniflora
Jacobaea vulgaris
Jasione laevis
Jasione montana
Juncus acutus
Juncus conglomeratus
Juncus effusus
Juncus inflexus
Juncus jacquinii
Juncus squarrosus
Juncus tenuis
Jurinea mollis
Kernera saxatilis
Klasea nudicaulis
Knautia arvensis
Knautia baldensis
Knautia calycina
Knautia dinarica
Knautia dipsacifolia
Knautia drymeia
Knautia gussonei
Knautia illyrica
Knautia longifolia
Knautia lucana
Knautia mollis
Knautia persicina
Knautia purpurea
Knautia ressmannii
Knautia transalpina
Knautia velutina
Kobresia myosuroides
Kobresia simpliciuscula
Koeleria cenisia
Koeleria eriostachya
Koeleria hirsuta

Koeleria macrantha
Koeleria pyramidata
Koeleria splendens
Koeleria vallesiana
Kundmannia sicula
Lactuca alpina
Lactuca longidentata
Lactuca muralis
Lactuca perennis
Lactuca quercina
Lactuca serriola
Lactuca tenerrima
Lactuca viminea
Lamium album
Lamium flexuosum
Lamium galeobdolon
Lamium garganicum
Lamium maculatum
Lamium orvala
Lamyropsis microcephala
Laser trilobum
Laserpitium gallicum
Laserpitium halleri
Laserpitium krapfii
Laserpitium latifolium
Laserpitium nestleri
Laserpitium nitidum
Laserpitium peucedanoides
Laserpitium prutenicum
Laserpitium siler
Lathyrus cirrhosus Ser.
Lathyrus filiformis
Lathyrus heterophyllus
Lathyrus laevigatus
Lathyrus latifolius
Lathyrus laxiflorus
Lathyrus ochraceus
Lathyrus palustris
Lathyrus pratensis
Lathyrus sylvestris
Lathyrus tuberosus
Launaea nudicaulis
Leontodon anomalus
Leontodon berinii
Leontodon crispus
Leontodon hirtus
Leontodon hispidus
Leontodon incanus
Leontodon intermedius
Leontodon tuberosus
Leontopodium nivale
Leonurus cardiaca
Lepidium graminifolium

Lepidium hirtum
Lepidium latifolium
Leucanthemopsis alpina
Leucanthemum adustum
Leucanthemum atratum
Leucanthemum coronopifolium
Leucanthemum corsicum
Leucanthemum heterophyllum
Leucanthemum laciniatum
Leucanthemum pachyphyllum
Leucanthemum pallens
Leucanthemum subglaucum
Leucanthemum tridactylites
Leucanthemum virgatum
Leucanthemum vulgare aggr.
Leucopoa calabrica
Leucopoa dimorpha
Leucopoa laxa
Leucopoa pulchella
Leucopoa spectabilis
Levisticum officinale
Ligusticum corsicum
Ligusticum ferulaceum
Ligusticum lucidum
Ligusticum mutellina
Ligusticum mutellinoides
Ligusticum simplex
Limonium avei
Limonium bellidifolium
Limonium binervosum
Limonium calcarae
Limonium cancellatum
Limonium cordatum
Limonium cumanum
Limonium danubiale
Limonium densiflorum
Limonium densissimum
Limonium dubium
Limonium johannis
Limonium longispicatum
Limonium minutiflorum
Limonium multiforme
Limonium narbonense
Limonium pontium
Limonium sibthorpiatum
Limonium sinuatum
Linaria alpina
Linaria angustissima
Linaria genistifolia
Linaria heterophylla
Linaria purpurea
Linaria repens
Linaria vulgaris

Linum alpinum
Linum austriacum
Linum bienne
Linum collinum
Linum flavum
Linum hirsutum
Linum maritimum
Linum narbonense
Linum punctatum
Linum tommasinii
Linum viscosum
Lithospermum officinale
Lobularia maritima
Lolium perenne
Lomelosia argentea
Lomelosia crenata
Lotus alpinus
Lotus corniculatus
Lotus delortii
Lotus maritimus
Lotus pedunculatus
Lotus preslii
Lotus tenuis
Lunaria annua
Lunaria rediviva
Luzula campestris aggr.
Luzula forsteri
Luzula glabrata
Luzula lutea
Luzula luzulina
Luzula luzuloides
Luzula nivea
Luzula pedemontana
Luzula pediformis
Luzula pilosa
Luzula pindica
Luzula spicata
Luzula sylvatica
Lycopus europaeus
Lycopus exaltatus
Lygeum spartum
Lysimachia nemorum
Lysimachia nummularia
Lysimachia punctata
Lysimachia vulgaris
Lythrum intermedium
Lythrum junceum
Lythrum salicaria
Lythrum virgatum
Magydaris pastinacea
Malva alcea
Malva ambigua
Malva arborea

Malva erecta
Malva moschata
Malva sylvestris
Malva thuringiaca
Malva verticillata
Mandragora autumnalis
Mandragora officinarum
Mantisalca salmantica
Marrubium alysson
Marrubium incanum
Marrubium peregrinum
Marrubium vulgare
Matthiola sinuata
Medicago carstiensis
Medicago pironae
Medicago prostrata
Medicago sativa
Megathyrsus bivonanus
Melica amethystina
Melica ciliata
Melica cupanii
Melica minuta
Melica nutans
Melica uniflora
Melilotus officinalis
Melissa officinalis
Melittis melissophyllum
Mentha aquatica
Mentha arvensis
Mentha longifolia
Mentha pulegium
Mentha spicata
Mentha suaveolens
Meum athamanticum
Mimulus moschatus
Minuartia rubra
Moehringia ciliata
Moehringia markgrafii
Moehringia muscosa
Moehringia pichleri
Molinia caerulea aggr.
Molopospermum peloponnesiacum
Moneses uniflora
Morisia monanthos
Muhlenbergia frondosa
Muhlenbergia schreberi
Murbeckiella pinnatifida
Murbeckiella zanonii
Mutellina corsica
Myosotis alpestris
Myosotis corsicana
Myosotis decumbens
Myosotis scorpioides aggr.

Myosotis soleirolii
Myosotis sylvatica
Myosoton aquaticum
Myrrhis odorata
Nardus stricta
Nassella mucronata
Nasturtium microphyllum
Nasturtium officinale
Nepeta cataria
Nepeta foliosa
Nepeta italica
Nepeta nuda
Nepeta tuberosa
Noccaea brachypetala
Noccaea brevistyla
Noccaea cikaea
Noccaea praecox
Nonea pulla
Ochlopoa supina
Ocimum basilicum
Oenanthe aquatica
Oenanthe crocata
Oenanthe fistulosa
Oenanthe globulosa
Oenanthe lachenalii
Oenanthe lisae
Oenanthe peucedanifolia
Oenanthe pimpinelloides
Oenanthe silaifolia
Oenothera biennis
Oenothera glazioviana
Oenothera parviflora
Oenothera sinuosa
Oenothera stricta
Oenothera stucchii
Oenothera suaveolens
Omphalodes verna
Onobrychis alba
Onobrychis arenaria
Onobrychis humilis
Onobrychis montana
Onobrychis supina
Onobrychis viciifolia
Ononis natrix
Ononis pusilla
Ononis rotundifolia
Onopordum acanthium
Onopordum argolicum
Onopordum illyricum
Onopordum tauricum
Onosma visianii
Oplismenus hirtellus
Opopanax chironium

Opopanax hispidus
Oreochloa disticha
Oreochloa seslerioides
Oreoselinum nigrum
Origanum majorana
Origanum vulgare
Oxalis fontana
Oxalis stricta
Oxybaphus nyctagineus
Oxyria digyna
Oxytropis campestris
Oxytropis halleri
Oxytropis helvetica
Oxytropis neglecta
Oxytropis pilosa
Pachypleurum mutellinoides
Paederota bonarota
Paederota lutea
Palaeocyanus crassifolius
Pallenis maritima
Panicum compressum
Papaver aurantiacum
Papaver kernerii
Paragymnopteris marantae
Parietaria judaica
Parietaria officinalis
Parnassia palustris
Paronychia argentea
Paronychia capitata
Paronychia kapela
Paronychia polygonifolia
Paspalum dilatatum
Paspalum quadrifarium
Pastinaca latifolia
Pastinaca sativa
Patzkea paniculata
Pedicularis acaulis
Pedicularis asplenifolia
Pedicularis cenisia
Pedicularis comosa
Pedicularis elegans
Pedicularis elongata
Pedicularis foliosa
Pedicularis friderici-augusti
Pedicularis gyroflexa
Pedicularis hacquetii
Pedicularis hoermanniana
Pedicularis kernerii
Pedicularis oederii
Pedicularis palustris
Pedicularis petiolaris
Pedicularis recutita
Pedicularis rosea

Pedicularis sylvatica
Pedicularis tuberosa
Pedicularis verticillata
Pentaglottis sempervirens
Persicaria decipiens
Persicaria salicifolia
Petagnaëa gussonei
Petrocallis pyrenaica
Petrorhagia illyrica
Petrorhagia saxifraga
Petroselinum crispum
Petroselinum sativum
Peucedanum altissimum
Peucedanum austriacum
Peucedanum cervaria
Peucedanum coriaceum
Peucedanum officinale
Peucedanum oreoselinum
Peucedanum ostruthium
Peucedanum palustre
Peucedanum venetum
Phalaris aquatica
Phalaris coerulescens
Phalaris truncata
Phalaroides arundinacea
Phleum alpinum aggr.
Phleum phleoides
Phleum pratense
Phleum serotinum
Phlomis herba-venti
Physalis alkekengi
Physalis peruviana
Physoplexis comosa
Physospermum cornubiense
Physospermum verticillatum
Phyteuma betonicifolium
Phyteuma charmelii
Phyteuma cordatum
Phyteuma globulariifolium
Phyteuma hedraianthifolium
Phyteuma hemisphaericum
Phyteuma humile
Phyteuma michelii
Phyteuma orbiculare
Phyteuma ovatum
Phyteuma persicifolium
Phyteuma scheuchzeri
Phyteuma scorzonerifolium
Phyteuma serratum
Phyteuma sieberi
Phyteuma spicatum
Picnemon acarna
Picris hieracioides

Picris hispidissima
Picris laciniata
Picris scaberrima
Pilosella alpicola
Pilosella aurantiaca
Pilosella caespitosa
Pilosella cymosa
Pilosella glacialis
Pilosella hoppeana
Pilosella kralikii
Pilosella lactucella
Pilosella officinarum
Pilosella pavichii
Pilosella piloselloides
Pilosella pseudopilosella
Pilosella saussureoides
Pimpinella alpina
Pimpinella anisoides
Pimpinella lutea
Pimpinella major
Pimpinella peregrina
Pimpinella saxifraga
Pinguicula alpina
Pinguicula corsica
Pinguicula hirtiflora
Pinguicula leptoceras
Pinguicula longifolia
Pinguicula vulgaris
Piptatherum coerulescens
Piptatherum miliaceum
Piptatherum virescens
Plantago alpina
Plantago altissima
Plantago argentea
Plantago atrata
Plantago crassifolia
Plantago holosteam
Plantago lanceolata
Plantago major
Plantago maritima
Plantago maritima subsp. serpentina
Plantago media
Plantago serraria
Pleurospermum austriacum
Poa alpina
Poa badensis aggr.
Poa balbisii
Poa bivonae
Poa bulbosa
Poa carniolica
Poa cenisia
Poa chaixii
Poa compressa

Poa glauca
Poa hybrida
Poa laxa
Poa minor
Poa nemoralis
Poa palustris
Poa pratensis aggr.
Poa pumila
Poa remota
Poa trivialis
Podospermum canum
Podospermum laciniatum
Podospermum purpureum
Podospermum roseum
Polygala alpestris
Polygala alpina
Polygala amarella
Polygala angelisii
Polygala apiculata
Polygala carniolica
Polygala carueliana
Polygala comosa
Polygala flavescens
Polygala major
Polygala nicaeensis aggr.
Polygala pedemontana
Polygala pisauensis
Polygala preslii
Polygala sardoa
Polygala serpyllifolia
Polygala vulgaris
Polygonum oxyspermum
Polygonum raii
Polypodium cambricum
Polypodium interjectum
Polypodium serratum
Polypodium vulgare
Polypogon viridis
Potentilla alba
Potentilla anglica
Potentilla argentea
Potentilla aurea
Potentilla brauneana
Potentilla calabra
Potentilla cinerea
Potentilla collina
Potentilla crantzii
Potentilla detommasii
Potentilla erecta
Potentilla foliosa
Potentilla frigida
Potentilla grandiflora
Potentilla heptaphylla

Potentilla hirta
Potentilla inclinata
Potentilla indica
Potentilla intermedia
Potentilla micrantha
Potentilla multifida
Potentilla nivea
Potentilla pennsylvanica
Potentilla pusilla
Potentilla recta
Potentilla reptans
Potentilla sterilis
Potentilla tabernaemontani
Potentilla thuringiaca
Prangos ferulacea
Prangos trifida
Prenanthes purpurea
Primula acaulis
Primula allionii
Primula apennina
Primula auricula
Primula carniolica
Primula daonensis
Primula elatior
Primula farinosa
Primula glaucescens
Primula glutinosa
Primula halleri
Primula hirsuta
Primula integrifolia
Primula latifolia
Primula marginata
Primula minima
Primula pedemontana
Primula spectabilis
Primula tyrolensis
Primula veris
Primula villosa
Primula wulfeniana
Prunella grandiflora
Prunella hyssopifolia
Prunella laciniata
Prunella vulgaris
Pseudofumaria alba
Pseudofumaria lutea
Pseudoturritis turrita
Psoralea americana
Pteris cretica
Pteris vittata
Pteroselinum austriacum
Ptilostemon casabonae
Ptilostemon niveus
Ptilostemon strictus

Ptychotis sardoa
Ptychotis saxifraga
Puccinellia distans
Puccinellia fasciculata
Puccinellia festuciformis
Pulicaria dysenterica
Pulicaria odora
Pulmonaria angustifolia
Pulmonaria australis
Pulmonaria mollis
Pulmonaria obscura
Pulmonaria officinalis
Pulmonaria saccharata
Pulmonaria tridentina
Pulmonaria vallisarsae
Pulsatilla alpina
Pulsatilla halleri
Pulsatilla montana
Pulsatilla vernalis
Pyrola chlorantha
Pyrola media
Pyrola minor
Pyrola rotundifolia
Ranunculus aconitifolius
Ranunculus acris
Ranunculus aduncus
Ranunculus alpestris
Ranunculus apenninus
Ranunculus asiaticus
Ranunculus auricomus aggr.
Ranunculus bilobus
Ranunculus breyninus
Ranunculus brutius
Ranunculus bulbosus
Ranunculus bullatus
Ranunculus carinthiacus
Ranunculus chaerophyllos
Ranunculus clethraphilus
Ranunculus cordiger
Ranunculus crenatus
Ranunculus flammula
Ranunculus fontanus
Ranunculus glacialis
Ranunculus gracilis
Ranunculus gramineus
Ranunculus illyricus
Ranunculus isthmicus
Ranunculus lanuginosus
Ranunculus lingua
Ranunculus macrophyllus
Ranunculus marschlinsii
Ranunculus millefoliatus
Ranunculus monspeliacus

Ranunculus montanus
Ranunculus neapolitanus
Ranunculus paludosus
Ranunculus platanifolius
Ranunculus pollinensis
Ranunculus polyanthemus subsp. nemorosus
Ranunculus polyanthemus
Ranunculus pratensis
Ranunculus pygmaeus
Ranunculus pyrenaicus
Ranunculus rupestris
Ranunculus seguieri
Ranunculus serbicus
Ranunculus serpens
Ranunculus spicatus
Ranunculus velutinus
Ranunculus venetus
Ranunculus perenne
Ratibida pinnata
Reichardia picroides
Reseda lutea
Reseda luteola
Rhaponticoides africana
Rhaponticoides alpina
Rhaponticoides centaurium
Rhaponticum coniferum
Rhaponticum scariosum
Rhizobotrya alpina
Rhynchospora elephas
Rhynchospora alba
Rhynchospora fusca
Rorippa amphibia
Rorippa austriaca
Rorippa islandica
Rorippa lippizensis
Rorippa pyrenaica
Rorippa stylosa
Rorippa sylvestris
Rorippa thracica
Rouya polygama
Rubia tinctorium
Rubus saxatilis
Rumex acetosa
Rumex acetosella
Rumex alpinus
Rumex amplexicaulis
Rumex aquaticus
Rumex arifolius
Rumex confertus
Rumex conglomeratus
Rumex crispus
Rumex cristatus
Rumex hydrolapathum

Rumex intermedius
Rumex nebroides
Rumex nepalensis
Rumex nivalis
Rumex obtusifolius
Rumex patientia
Rumex pulcher
Rumex sanguineus
Rumex scutatus
Rumex thyrsoiflorus
Rumex thyrsoides
Sagina glabra
Sagina nodosa
Sagina pilifera
Sagina procumbens
Sagina saginoides
Sagina subulata
Salvia aethiopis
Salvia argentea
Salvia glutinosa
Salvia nemorosa
Salvia pinnata
Salvia pratensis
Salvia sclarea
Salvia verbenaca
Salvia verticillata
Salvia virgata
Samolus valerandi
Sanguisorba dodecandra
Sanguisorba minor
Sanguisorba officinalis
Sanicula europaea
Saponaria bellidifolia
Saponaria lutea
Saponaria ocymoides
Saponaria officinalis
Saponaria sicula
Saussurea alpina aggr.
Saussurea discolor
Saussurea pygmaea
Saxifraga adscendens
Saxifraga aizoides
Saxifraga androsacea
Saxifraga bulbifera
Saxifraga carpetana
Saxifraga cernua
Saxifraga corsica
Saxifraga cotyledon
Saxifraga cuneifolia
Saxifraga exarata
Saxifraga facchinii
Saxifraga granulata
Saxifraga hirculus

Saxifraga hohenwartii
Saxifraga hostii
Saxifraga moschata
Saxifraga muscoides
Saxifraga mutata
Saxifraga paniculata
Saxifraga petraea
Saxifraga rotundifolia
Saxifraga sedoides
Saxifraga seguieri
Saxifraga stellaris
Saxifraga taygetea
Saxifraga umbrosa
Scabiosa pseudisetensis
Schedonorus arundinaceus
Schedonorus giganteus
Schedonorus pratensis
Scheuchzeria palustris
Schlagintweitia intybacea
Schoenoplectus lacustris
Schoenoplectus lacustris subsp. *glaucus*
Schoenoplectus litoralis
Schoenoplectus mucronatus
Schoenoplectus triqueter
Schoenus ferrugineus
Schoenus nigricans
Scleranthus perennis
Scolymus grandiflorus
Scolymus hispanicus
Scopolia carniolica
Scorzonera aristata
Scorzonera austriaca
Scorzonera callosa
Scorzonera glastifolia
Scorzonera hirsuta
Scorzonera hispanica
Scorzonera humilis
Scorzonera trachysperma
Scorzoneroides autumnalis
Scorzoneroides helvetica
Scorzoneroides montana
Scrophularia aquatica
Scrophularia auriculata
Scrophularia canina
Scrophularia lucida
Scrophularia nodosa
Scrophularia scopolii
Scrophularia trifoliata
Scrophularia umbrosa
Scrophularia vernalis
Scutellaria albida
Scutellaria altissima
Scutellaria columnae

Scutellaria minor
Scutellaria rubicunda
Secale strictum
Securigera varia
Sedum hirsutum
Sedum villosum
Selinum carvifolia
Selinum silaifolium
Senecio cacaliaster
Senecio doria aggr.
Senecio doronicum
Senecio integrifolius
Senecio nemorensis aggr.
Senecio ovirensis
Senecio persoonii
Senecio scopolii
Senecio squalidus subsp. rupestris
Klasea flavescens
Serratula tinctoria
Sesamoides purpurascens
Seseli annuum
Seseli djianeae
Seseli kochii
Seseli libanotis
Seseli montanum
Seseli pallasii
Seseli peucedanoides
Seseli polyphyllum
Seseli ramosissimum
Seseli tortuosum
Seseli viarum
Sesleria autumnalis
Sesleria caerulea
Sesleria insularis
Sesleria juncifolia
Sesleria nitida
Sesleria ovata
Sesleria sphaerocephala
Sesleria tuzsonii
Setaria parviflora
Sibbaldia procumbens
Silaum silaus
Silene alpestris
Silene baccifera
Silene campanula
Silene catholica
Silene ciliata
Silene cordifolia
Silene coronaria
Silene dioica
Silene flos-cuculi
Silene flos-jovis
Silene ichnusae

Silene italica
Silene latifolia
Silene multicaulis
Silene nodulosa
Silene nutans
Silene otites aggr.
Silene paradoxa
Silene parnassica
Silene quadridentata
Silene quadrifida
Silene roemeri
Silene rupestris
Silene salzmannii
Silene saxifraga
Silene succulenta
Silene suecica
Silene tyrrhenia
Silene vallesia
Silene velutina
Silene veselskyi
Silene viridiflora
Silene viscaria
Silene vulgaris
Silphium perfoliatum
Sison amomum
Sisymbrium austriacum
Sisymbrium strictissimum
Sisyrinchium angustifolium
Sisyrinchium bermudiana
Sisyrinchium montanum
Sium latifolium
Sium sisarum
Sixalix atropurpurea
Smyrnum olusatrum
Smyrnum perfoliatum
Solanum elaeagnifolium
Soldanella alpina
Soldanella hungarica
Soldanella minima
Soldanella pusilla
Soleirolia soleirolii
Solenanthus apenninus
Solenopsis bivonae
Solidago canadensis
Solidago gigantea
Solidago virgaurea
Sonchus arvensis
Sonchus maritimus
Sonchus palustris
Spergularia nicaeensis
Stachys alopecuros
Stachys alpina
Stachys arenaria

Stachys byzantina
Stachys cretica
Stachys germanica
Stachys heraclea
Stachys maritima
Stachys officinalis
Stachys palustris
Stachys pubescens
Stachys recta
Stachys sylvatica
Stachys thirkei
Stachys tymphaea
Staphisagria picta
Stellaria alsine
Stellaria diffusa
Stellaria graminea
Stellaria longifolia
Stellaria nemorum
Stellaria palustris
Stipa aristella
Stipa austroitalica
Stipa barbata
Stipa capillata
Stipa fontanesii
Stipa neesiana
Stipa offneri
Stipa pellita
Stipa pennata
Stipa pulcherrima
Stipa sicula
Stipa tirsia
Stipa trichotoma
Succisa pratensis
Succisella inflexa
Swertia perennis
Symphyotrichum novae-angliae
Symphyotrichum novi-belgii aggr.
Symphytum asperum
Symphytum officinale
Symphytum orientale
Tanacetum corymbosum
Tanacetum parthenium
Tanacetum vulgare
Taraxacum alpestre
Taraxacum aquilonare
Taraxacum austriacum
Taraxacum cucullatum
Taraxacum erythrospermum
Taraxacum fontanum
Taraxacum glaciale
Taraxacum handelii
Taraxacum hoppeanum
Taraxacum lambinonii

Taraxacum megalorrhizon
Taraxacum obovatum
Taraxacum pacheri
Taraxacum reichenbachii
Taraxacum sect. Erythrosperma
Taraxacum sect. Obliqua
Taraxacum sect. Palustria
Taraxacum sect. Taraxacum
Telekia speciosissima
Tephrosieris balbisiana
Tephrosieris integrifolia
Tephrosieris longifolia
Teucrium campanulatum
Teucrium lucidum
Teucrium scordium
Teucrium scorodonia
Teucrium siculum
Thalictrum alpinum
Thalictrum calabricum
Thalictrum flavum
Thalictrum foetidum
Thalictrum galioides
Thalictrum lucidum
Thalictrum minus
Thalictrum simplex
Thapsia garganica
Thesium alpinum
Thesium ramosum
Thesium corsalpinum
Thesium divaricatum
Thesium humifusum
Thesium italicum
Thesium parnassi
Thesium pyrenaicum
Thesium sommierii
Thlaspi salisii
Thysselinum palustre
Tofieldia calyculata
Tofieldia pusilla
Tolpis staticifolia
Tolpis virgata
Tozzia alpina
Tragopogon crocifolius
Tragopogon dubius
Tragopogon porrifolius
Tragopogon pratensis
Tragopogon tommasinii
Tricholaena teneriffae
Trifolium alpestre
Trifolium alpinum
Trifolium badium
Trifolium bionae
Trifolium hybridum

Trifolium montanum
Trifolium noricum
Trifolium ochroleucon
Trifolium pallescens
Trifolium pannonicum
Trifolium patulum
Trifolium physodes
Trifolium rubens
Trifolium thalii
Trifolium uniflorum
Trinia dalechampii
Trinia glauca
Tripidium ravennae
Tripidium strictum
Tripodium pannonicum
Trisetaria alpestris
Trisetaria gracilis
Trisetum alpestre
Trisetum bertolonii
Trisetum conradiae
Trisetum flavescens
Trisetum gracile
Trisetum spicatum
Trochiscanthes nodiflora
Trollius europaeus
Tuberaria lignosa
Urospermum dalechampii
Urtica atrovirens
Urtica dioica
Urtica rupestris
Valeriana celtica
Valeriana dioica
Valeriana elongata
Valeriana exaltata
Valeriana excelsa
Valeriana montana
Valeriana officinalis
Valeriana salunca
Valeriana saxatilis
Valeriana stolonifera
Valeriana supina
Valeriana tripteris
Valeriana tuberosa
Verbascum argenteum
Verbascum blattaria
Verbascum chaixii
Verbascum conocarpum
Verbascum creticum
Verbascum densiflorum
Verbascum lanatum
Verbascum longifolium
Verbascum lychnitis
Verbascum macrurum

Verbascum mallophorum
Verbascum nigrum
Verbascum niveum
Verbascum phlomoides
Verbascum phoeniceum
Verbascum pulverulentum
Verbascum rotundifolium
Verbascum samniticum
Verbascum siculum
Verbascum sinuatum
Verbascum thapsus
Verbascum virgatum
Verbena officinalis
Veronica alpina
Veronica anagallis-aquatica
Veronica aphylla
Veronica austriaca
Veronica catenata
Veronica chamaedrys
Veronica lutea
Veronica prostrata
Veronica pumila
Veronica scutellata
Veronica urticifolia
Vicia altissima
Vicia cassubica
Vicia cracca
Vicia dumetorum
Vicia durandii
Vicia glauca
Vicia grandiflora
Vicia ochroleuca
Vicia onobrychioides
Vicia pisiformis
Vicia sepium
Vicia serinica
Vicia sicula
Vicia sparsiflora
Vicia sylvatica
Vicia tenuifolia
Vincetoxicum hirundinaria
Vincetoxicum nigrum
Viola aetnensis
Viola alba
Viola argenteria
Viola bertolonii
Viola biflora
Viola calcarata
Viola canina
Viola cenisia
Viola collina
Viola comollia
Viola corsica

Viola dubyana
Viola elatior
Viola eugeniae
Viola graeca
Viola hirta
Viola jordanii
Viola magellensis
Viola merxmulleri
Viola mirabilis
Viola munbyana
Viola nebrodensis
Viola obliqua
Viola odorata
Viola palustris
Viola papilionacea
Viola pinnata
Viola pseudogracilis
Viola pumila
Viola pyrenaica
Viola reichenbachiana
Viola riviniana
Viola rupestris
Viola suavis
Viola thomasiana
Viola valderia
Vulpia sicula
Willemetia stipitata
Woodsia alpina
Woodsia ilvensis
Woodsia pulchella
Wulfenia carinthiaca
Xanthoselinum alsaticum
Xerolekia speciosissima

Ilex aquifolium
Ilex aquifolium

Junipero-Pinetea-species
Adenocarpus hispanicus
Berberis aetnensis
Echinopartum barnadesii
Echinopartum horridum
Erica vagans
Festuca braun-blanquetii
Festuca iberica
Genista falcata
Genista florida
Helictochloa marginata
Ononis aragonensis
Retama sphaerocarpa

Juniperus communis subsp. communis
Juniperus communis subsp. communis

Larix decidua
Larix decidua

Larix sibirica
Larix sibirica

Low-steppic-shrubs
Caragana frutex
Prunus fruticosa
Prunus tenella
Spiraea media

Lowland-hardwood-riparian-trees
Fraxinus pallisiae
Quercus robur
Ulmus laevis
Ulmus minor

Lowland-to-alpine-heath-dwarf-shrubs
Arctostaphylos uva-ursi
Bruckenthalia spiculifolia
Calluna vulgaris
Empetrum nigrum aggr.
Genista pilosa
Vaccinium myrtillus
Vaccinium uliginosum
Vaccinium vitis-idaea

Macaronesian-coastal-dune-scrub
Polycarpha nivea
Pulicaria burchardii
Tetraena fontanesii
Traganum moquinii

Macaronesian-garrigue-shrubs
Artemisia argentea
Carlina salicifolia
Echium decaisnei
Erysimum arbuscula
Erysimum maderense
Genista tenera
Globularia salicina
Helichrysum monizii
Micromeria hyssopifolia
Micromeria varia

Macaronesian-junipers
Juniperus brevifolia
Juniperus cedrus

Macaronesian-laurophyllous
Apollonias barbujana

Clethra arborea
Ilex canariensis
Ilex perado
Laurus azorica
Laurus novocanariensis
Morella faya
Ocotea foetens
Persea indica
Picconia azorica
Picconia excelsa
Prunus lusitanica subsp. azorica
Prunus lusitanica subsp. hixa

Macaronesian-low-heath-shrubs

Calluna vulgaris
Corema album subsp. azoricum
Daboecia azorica
Erica arborea
Erica maderensis
Erica scoparia
Thymus caespititius
Vaccinium cylindraceum

Macaronesian-tall-heath-shrubs

Arbutus canariensis
Erica arborea
Erica scoparia
Vaccinium padifolium

Macaronesian-xero-halophile-scrub-species

Androcymbium gramineum
Astragalus mareoticus
Chenoleoides tomentosa
Convolvulus caput-medusae
Frankenia capitata
Lobularia canariensis
Lotus arinagensis
Lotus kunkelii
Lotus lancerottensis
Minuartia webbii
Ononis hebecarpa
Ononis hesperia
Polygonum balansae
Pulicaria burchardii
Tetraena fontanesii
Tetraena gaetula

Madeiran-xerophytic-scrub-species

Argyranthemum pinnatifidum subsp. succulentum
Artemisia argentea
Asparagus scoparius
Asparagus umbellatus
Atriplex glauca

Bupleurum salicifolium subsp. salicifolium
Calendula suffruticosa subsp. maderensis
Carlina salicifolia
Chamaemeles coriacea
Cheirolophus massonianus
Chenoleoides tomentosa
Convolvulus massonii
Crambe fruticosa
Echium nervosum
Echium portasanctensis
Erysimum arbuscula
Erysimum bicolor
Erysimum maderense
Euphorbia piscatoria
Genista tenera
Globularia salicina
Helichrysum melaleucum
Helichrysum monizii
Hypericum canariense
Jasminum azoricum
Jasminum odoratissimum
Lavandula pinnata
Lotus argyroides
Lotus macranthus
Maytenus umbellata
Plantago arborescens
Rubia fruticosa
Schizogyne sericea
Scilla madeirensis
Sideritis candicans
Sideroxylon mirmulans
Teucrium heterophyllum

Mainland-laurophyllous

Laurus nobilis
Morella faya
Prunus laurocerasus
Prunus lusitanica subsp. lusitanica

Mediterranean-Abies

Abies borisii-regis
Abies cephalonica
Abies cilicica
Abies nebrodensis
Abies pinsapo

Mediterranean-Pinus

Pinus brutia
Pinus halepensis
Pinus pinaster
Pinus pinea

Mediterranean-Rubus

Rubus sanctus
Rubus ulmifolius

Mediterranean-genistoid-shrubs

Adenocarpus anisochilus
Adenocarpus brutius
Adenocarpus complicatus
Adenocarpus decorticans
Adenocarpus hispanicus
Adenocarpus telonensis
Adenocarpus viscosus
Cytisus arboreus
Cytisus cantabricus
Cytisus commutatus
Cytisus grandiflorus
Cytisus ingramii
Cytisus multiflorus
Cytisus striatus
Cytisus villosus
Genista cinerascens
Genista falcata
Genista florida
Genista hystrix
Genista linifolia
Genista monspessulana
Genista obtusiramea
Genista polyanthos
Genista spartioides
Genista umbellata
Retama monosperma
Retama sphaerocarpa

Mediterranean-halo-nitrophilous-scrub-species

Acuston lunarioides
Artemisia arborescens
Artemisia barrelieri
Artemisia herba-alba
Artemisia lucentica
Artemisia ramosa
Artemisia thuscula
Artemisia valentina
Atriplex glauca
Atriplex semibaccata
Ballota hirsuta
Bosea yervamora
Camphorosma monspeliaca
Capparis sicula
Carthamus arborescens
Ceballosia fruticosa
Chenoleoides tomentosa
Cistanche phelypaea
Commicarpus africanus
Euphorbia matritensis

Fagonia cretica
Forsskaolea angustifolia
Frankenia capitata
Frankenia thymifolia
Gymnocarpos decander
Hammada articulata
Haplophyllum linifolium
Herniaria canariensis
Hohenackeria polyodon
Ipomoea indica
Ipomoea purpurea
Launaea arborescens
Limonium frederici
Limonium opulentum
Lycium europaeum
Lycium intricatum
Lycium schweinfurthii
Malva acerifolia
Marrubium alysson
Marrubium supinum
Medicago arborea
Mercurialis tomentosa
Peganum harmala
Salsola tetrandra
Salsola divaricata
Salsola carpatha
Salsola aegaea
Salsola genistoides
Salsola longifolia
Salsola oppositifolia
Salsola papillosa
Salsola portilloi
Salsola vermiculata
Salsola verticillata
Santolina chamaecyparissus aggr.
Santolina impressa
Santolina pectinata
Santolina rosmarinifolia
Sideritis danielii
Suaeda altissima
Suaeda ifniensis
Suaeda palaestina
Suaeda pelagica
Suaeda vermiculata
Trigonella rechingeri
Withania aristata
Withania frutescens
Withania somnifera

Mediterranean-mountain-relict-mire-species

Bellis bernardii
Bellium nivale
Carex bulgarica

Carex nevadensis
Cirsium heterotrichum
Dactylorhiza cordigera
Festuca frigida
Gentiana pyrenaica
Gymnadenia frivaldii
Juncus requienii
Nartheceum reverchonii
Nartheceum scardicum
Pinguicula balcanica
Pinguicula corsica
Pinguicula nevadensis
Plantago gentianoides
Primula deorum
Ranunculus cordiger
Ranunculus pyrenaeus
Scorzoneroides crocea
Scorzoneroides microcephala
Silene asterias
Soldanella pindicola
Veronica nevadensis
Willemetia stipitata

Mediterranean-riparian-shrubs

Nerium oleander
Tamarix africana
Tamarix arborea
Tamarix boveana
Tamarix canariensis
Tamarix dalmatica
Tamarix hampeana
Tamarix mascatensis
Tamarix parviflora
Tamarix tetrandra
Vitex agnus-castus

Mediterranean-riparian-species

Allium triquetrum
Arisarum vulgare
Arum italicum
Arundo donax
Asparagus acutifolius
Cercis siliquastrum
Dioscorea communis
Dittrichia viscosa
Dracunculus vulgaris
Ficus carica
Juncus acutus
Nerium oleander
Oxalis pes-caprae
Parietaria judaica
Periploca graeca
Piptatherum miliaceum

Platanus orientalis
Rubia peregrina
Rubus sanctus
Rubus ulmifolius
Scirpoides holoschoenus
Smilax aspera
Suaeda vera
Tamarix africana
Tamarix arborea
Tamarix boveana
Tamarix canariensis
Tamarix dalmatica
Tamarix hampeana
Tamarix mascatensis
Tamarix parviflora
Tamarix tetrandra
Urospermum picroides
Urtica pilulifera
Vitex agnus-castus

Mesomediterranean-maquis-shrubs

Anagyris foetida
Arbutus andrachne
Arbutus unedo
Bupleurum fruticosum
Calicotome spinosa
Calicotome villosa
Celtis australis
Erica arborea
Jasminum fruticans
Juniperus phoenicea
Juniperus oxycedrus aggr.
Myrtus communis
Phillyrea angustifolia
Phillyrea latifolia
Pistacia terebinthus
Rhamnus alaternus
Rhamnus lycioides
Rosa sempervirens
Styrax officinalis
Teucrium fruticans
Viburnum tinus

Mire-specialist-bryophytes

Aneura pinguis
Aulacomnium palustre
Bryum pseudotriquetrum
Calliergon giganteum
Calliergon richardsonii
Calypogeia sphagnicola
Campyliadelphus elodes
Campylium stellatum
Campylopus atrovirens

Catoscopium nigratum
Cephalozia connivens
Cephalozia loitlesbergeri
Cinclidium arcticum
Cinclidium stygium
Cinclidium subrotundum
Cladopodiella fluitans
Dicranum bonjeanii
Dicranum elongatum
Dicranum leioneuron
Dicranum undulatum
Drepanocladus polygamus
Drepanocladus pseudostramineus
Drepanocladus sendtneri
Drepanocladus trichophyllus
Fissidens adianthoides
Fissidens osmundoides
Gymnocolea inflata
Hamatocaulis lapponicus
Hamatocaulis vernicosus
Helodium blandowii
Kurzia pauciflora
Leiocolea badensis
Leiocolea bantriensis
Loeskyopnum badium
Meesia hexasticha
Meesia longiseta
Meesia triquetra
Meesia uliginosa
Moerckia hibernica
Mylia anomala
Nardia scalaris
Odontoschisma sphagni
Oncophorus virens
Paludella squarrosa
Palustriella commutata aggr.
Philonotis calcarea
Philonotis fontana
Pleurozia purpurea
Polytrichum commune
Polytrichum hyperboreum
Polytrichum strictum
Preissia quadrata
Pseudocalliergon lycopodioides
Pseudocalliergon trifarium
Pseudocalliergon turgescens
Racomitrium lanuginosum
Riccardia chamedryfolia
Riccardia incurvata
Riccardia multifida
Rhizomnium pseudopunctatum
Scorpidium revolvens aggr.
Scorpidium scorpioides

Sphagnum affine
Sphagnum austinii
Sphagnum angermanicum
Sphagnum annulatum
Sphagnum jensenii
Sphagnum aongstroemii
Sphagnum auriculatum+inundatum
Sphagnum balticum
Sphagnum capillifolium aggr.
Sphagnum compactum
Sphagnum contortum
Sphagnum cuspidatum
Sphagnum fimbriatum
Sphagnum fuscum
Sphagnum lindbergii
Sphagnum magellanicum aggr.
Sphagnum majus
Sphagnum molle
Sphagnum obtusum
Sphagnum palustre aggr.
Sphagnum papillosum
Sphagnum platyphyllum
Sphagnum pulchrum
Sphagnum recurvum aggr.
Sphagnum riparium
Sphagnum rubellum
Sphagnum russowii
Sphagnum strictum
Sphagnum subfulvum
Sphagnum subnitens
Sphagnum subsecundum
Sphagnum tenellum
Sphagnum teres
Sphagnum warnstorffii
Sphagnum lenense
Sphagnum pylaiei
Sphagnum pylaisii
Straminergon stramineum
Tomentypnum nitens
Tritomaria quinquedentata
Warnstorfia exannulata
Warnstorfia fluitans
Warnstorfia sarmentosa
Warnstorfia tundrae

N15-Atlantic-and-Baltic-coastal-dune-grassland-grey-dune-specialists

Alyssum loiseleurii
Anchusa calcarea
Armeria welwitschii
Euphorbia portlandica
Galium arenarium
Helichrysum italicum subsp. picardii
Iberis procumbens

Malcolmia littorea
Mibora minima
Reichardia gaditana
Thymus carnosus
Verbascum litigiosum

N16-Mediterranean-and-Macaronesian-coastal-dune-grassland-grey-dune-specialists

Anthemis maritima
Anthemis tomentosa
Anthyllis hamosa
Artemisia monosperma
Asteriscus imbricatus
Atractylis carduus
Centaurea cuneifolia
Centaurea greuteri
Centaurea sphaerocephala
Centaurea tommasinii
Corynephorus divaricatus
Cyperus macrorhizus
Dianthus pyrenaicus
Echiochilon fruticosum
Echium angustifolium
Euphorbia terracina
Filago lusitanica
Launaea fragilis
Linaria pedunculata
Lomelosia rutifolia
Lotus cytisoides
Lotus glaucus
Lotus pseudo-creticus
Malcolmia ramosissima
Maresia nana
Ononis angustifolia
Ononis tournefortii
Polycarpaea nivea
Traganum moquinii

N17-Black-Sea-coastal-dune-grassland-grey-dune-specialists

Astrodaucus littoralis
Carex colchica
Centaurea odessana
Convolvulus persicus
Dianthus bessarabicus
Erysimum montanum
Festuca arenicola
Jurinea kilaea
Lepidotrichum uechtritzianum
Linum tauricum
Marrubium peregrinum
Silene euxina
Silene thymifolia
Verbascum purpureum

N22-Mediterranean-and-Black-Sea-coastal-shingle-beach-specialists

Glaucium flavum
Matthiola sinuata
Matthiola tricuspidata
Raphanus maritimus

Native-broadleaf-trees

Acer campestre
Acer cappadocicum
Acer divergens
Acer heldreichii
Acer hyrcanum
Acer monspessulanum
Acer opalus aggr.
Acer platanoides
Acer pseudoplatanus
Acer sempervirens
Acer species
Acer tataricum
Acer trautvetteri
Acer undulatum
Aesculus hippocastanum
Aesculus species
Alnus cordata
Alnus glutinosa
Alnus incana
Alnus species
Alnus x pubescens
Betula litwinowii
Betula obscura
Betula oycoviensis
Betula pendula
Betula pendula var. fontqueri
Betula pubescens
Betula pubescens var. glabrata
Betula pubescens var. pumila
Betula species
Carpinus betulus
Carpinus orientalis
Carpinus species
Castanea sativa
Castanea species
Celtis australis
Celtis planchoniana
Celtis tournefortii
Cercis siliquastrum
Corylus colurna
Crataegus azarolus
Crataegus germanica
Diospyros lotus
Elaeagnus angustifolia
Elaeagnus species
Fagus orientalis

Fagus species
Fagus sylvatica
Fraxinus angustifolia
Fraxinus excelsior
Fraxinus ornus
Fraxinus pallisae
Fraxinus species
Ilex aquifolium
Ilex canariensis
Ilex colchica
Juglans regia
Laurus azorica
Laurus novocanariensis
Malus dasyphylla
Malus florentina
Malus species
Malus sylvestris
Malus trilobata
Olea europaea
Ostrya carpinifolia
Phoenix canariensis
Phoenix theophrasti
Pistacia atlantica
Platanus orientalis
Platanus species
Populus alba
Populus nigra
Populus species
Populus tremula
Populus x canescens
Prunus avium
Prunus brigantina
Prunus cerasifera
Prunus cocomilia
Prunus padus
Prunus species
Pterocarya fraxinifolia
Pyrus bourgaeana
Pyrus communis
Pyrus nivalis
Quercus alnifolia
Quercus aucheri
Quercus brantii
Quercus canariensis
Quercus canariensis + petraea
Quercus cerris
Quercus coccifera
Quercus congesta
Quercus crenata
Quercus dalechampii
Quercus faginea
Quercus frainetto
Quercus gussonei

Quercus hartwissiana
Quercus humilis + cerrioides
Quercus ichnusae
Quercus ilex
Quercus infectoria
Quercus ithaburensis
Quercus macranthera
Quercus pauciradiata
Quercus petraea
Quercus pontica
Quercus pubescens
Quercus pyrenaica
Quercus robur
Quercus rotundifolia
Quercus species
Quercus suber
Quercus trojana
Quercus x airensis
Quercus x allorgeana
Quercus x andegavensis
Quercus x arrimatensis
Quercus x bedaei
Quercus x calvescens
Quercus x cerrioides
Quercus x firmurensis
Quercus x fontanesii
Quercus x fontqueri
Quercus x gracilis
Quercus x kernerii
Quercus x marianica
Quercus x mixta
Quercus x montserratii
Quercus x neomairei
Quercus x numantina
Quercus x nummantina
Quercus x penasii
Quercus x rosacea
Quercus x rotensis
Quercus x salcedoi
Quercus x senneniana
Quercus x streimii
Quercus x trabutii
Quercus x welwitschii
Salix alba
Salix caprea
Salix euxina
Sorbus anglica
Sorbus aria aggr.
Sorbus aucuparia
Sorbus borbasii
Sorbus carpatica
Sorbus dacica
Sorbus domestica

Sorbus hardeggensis
Sorbus hibernica
Sorbus intermedia
Sorbus latifolia aggr.
Sorbus pannonica
Sorbus pekarovae
Sorbus quercea
Surbus portae-bohemicae
Sorbus roopiana
Sorbus slovenica
Sorbus sudetica
Sorbus torminalis
Sorbus umbellata
Tilia begoniifolia
Tilia cordata
Tilia platyphyllos
Tilia species
Tilia tomentosa
Tilia x vulgaris
Ulmus glabra
Ulmus laevis
Ulmus minor
Ulmus procera
Ulmus species
Zelkova abelicea

Native-conifer-trees

Abies alba
Abies borisii-regis
Abies cephalonica
Abies cilicica
Abies nebrodensis
Abies nordmanniana
Abies pinsapo
Abies sibirica
Abies species
Cedrus atlantica
Cedrus libani
Cedrus species
Cupressus sempervirens
Cupressus species
Juniperus brevifolia
Juniperus cedrus
Juniperus drupacea
Juniperus excelsa
Juniperus foetidissima
Juniperus thurifera
Larix decidua
Larix sibirica
Larix species
Picea abies
Picea omorika
Picea orientalis

Picea species
Pinus brutia
Pinus canariensis
Pinus cembra
Pinus halepensis
Pinus heldreichii
Pinus mugo subsp. rotundata
Pinus nigra
Pinus peuce
Pinus pinaster
Pinus pinea
Pinus sibirica
Pinus species
Pinus sylvestris
Pinus uncinata
Pinus x celakovskiorum
Pinus x rhaetica
Taxus baccata
Taxus species

Native-light-canopy-trees

Betula species
Betula litwinowii
Betula obscura
Betula oycoviensis
Betula pendula
Betula pendula var. fontqueri
Betula pubescens
Betula pubescens var. glabrata
Betula pubescens var. pumila
Cedrus species
Cedrus atlantica
Cedrus libani
Cupressus species
Cupressus macrocarpa
Cupressus sempervirens
Juniperus brevifolia
Juniperus cedrus
Juniperus drupacea
Juniperus excelsa
Juniperus foetidissima
Juniperus thurifera
Larix species
Larix decidua
Larix sibirica
Pinus species
Pinus Xrhaetica
Pinus brutia
Pinus canariensis
Pinus cembra
Pinus halepensis
Pinus heldreichii
Pinus mugo subsp. rotundata

Pinus nigra
Pinus peuce
Pinus pinaster
Pinus pinea
Pinus sibirica
Pinus sylvestris
Pinus uncinata
Pinus x celakovskiorum
Pinus x rhaetica
Populus tremula
Taxus species
Taxus baccata
Tetraclinis articulata

Native-trees

Abies alba
Abies borisii-regis
Abies cephalonica
Abies cilicica
Abies nebrodensis
Abies nordmanniana
Abies pinsapo
Abies sibirica
Abies species
Acer campestre
Acer cappadocicum
Acer divergens
Acer heldreichii
Acer hyrcanum
Acer monspessulanum
Acer opalus aggr.
Acer platanoides
Acer pseudoplatanus
Acer sempervirens
Acer species
Acer tataricum
Acer trautvetteri
Acer undulatum
Aesculus hippocastanum
Aesculus species
Alnus cordata
Alnus glutinosa
Alnus incana
Alnus species
Alnus x pubescens
Betula litwinowii
Betula obscura
Betula oycoviensis
Betula pendula
Betula pendula var. fontqueri
Betula pubescens
Betula pubescens var. glabrata
Betula pubescens var. pumila

Betula species
Carpinus betulus
Carpinus orientalis
Carpinus species
Castanea sativa
Castanea species
Cedrus atlantica
Cedrus libani
Cedrus species
Celtis australis
Celtis planchoniana
Celtis tournefortii
Cercis siliquastrum
Corylus colurna
Crataegus azarolus
Crataegus germanica
Cupressus sempervirens
Cupressus species
Diospyros lotus
Elaeagnus angustifolia
Elaeagnus species
Fagus orientalis
Fagus species
Fagus sylvatica
Fraxinus angustifolia
Fraxinus excelsior
Fraxinus ornus
Fraxinus pallisae
Fraxinus species
Ilex aquifolium
Ilex canariensis
Ilex colchica
Juglans regia
Juniperus brevifolia
Juniperus cedrus
Juniperus drupacea
Juniperus excelsa
Juniperus foetidissima
Juniperus thurifera
Larix decidua
Larix sibirica
Larix species
Laurus azorica
Laurus novocanariensis
Malus dasyphylla
Malus florentina
Malus species
Malus sylvestris
Malus trilobata
Olea europaea
Ostrya carpinifolia
Phoenix canariensis
Phoenix theophrasti

Picea abies
Picea omorika
Picea orientalis
Picea species
Pinus brutia
Pinus canariensis
Pinus cembra
Pinus halepensis
Pinus heldreichii
Pinus mugo subsp. *rotundata*
Pinus nigra
Pinus peuce
Pinus pinaster
Pinus pinea
Pinus sibirica
Pinus species
Pinus sylvestris
Pinus uncinata
Pinus x celakovskiorum
Pinus x rhaetica
Pistacia atlantica
Platanus orientalis
Platanus species
Platyclusus orientalis
Populus alba
Populus nigra
Populus species
Populus tremula
Populus x canescens
Prunus avium
Prunus brigantina
Prunus cerasifera
Prunus cocomilia
Prunus padus
Prunus species
Pterocarya fraxinifolia
Pyrus bourgaeana
Pyrus communis
Pyrus nivalis
Pyrus syriaca
Quercus alnifolia
Quercus aucheri
Quercus brantii
Quercus canariensis
Quercus canariensis + petraea
Quercus cerris
Quercus coccifera
Quercus congesta
Quercus crenata
Quercus dalechampii
Quercus faginea
Quercus frainetto
Quercus gussonei

Quercus hartwissiana
Quercus humilis + cerrioides
Quercus ichnusae
Quercus ilex
Quercus infectoria
Quercus ithaburensis
Quercus libani
Quercus macranthera
Quercus pauciradiata
Quercus petraea
Quercus pontica
Quercus pubescens
Quercus pyrenaica
Quercus robur
Quercus rotundifolia
Quercus species
Quercus suber
Quercus trojana
Quercus x airensis
Quercus x allorgeana
Quercus x andegavensis
Quercus x arrimatensis
Quercus x bedaei
Quercus x calvescens
Quercus x cerrioides
Quercus x firmurensis
Quercus x fontanesii
Quercus x fontqueri
Quercus x gracilis
Quercus x kernerii
Quercus x marianica
Quercus x mixta
Quercus x montserratii
Quercus x neomairei
Quercus x numantina
Quercus x nummantina
Quercus x penasii
Quercus x rosacea
Quercus x rotensis
Quercus x salcedoi
Quercus x senneniana
Quercus x streimii
Quercus x trabutii
Quercus x welwitschii
Salix alba
Salix caprea
Salix euxina
Sorbus anglica
Sorbus aria aggr.
Sorbus aucuparia
Sorbus borbasii
Sorbus carpatica
Sorbus dacica

Sorbus domestica
Sorbus hardeggensis
Sorbus hibernica
Sorbus hybrida aggr.
Sorbus intermedia
Sorbus latifolia aggr.
Sorbus pannonica
Sorbus pekarovae
Sorbus quercea
Sorbus roopiana
Sorbus slovenica
Sorbus sudetica
Sorbus torminalis
Sorbus umbellata
Taxus baccata
Taxus species
Tilia cordata
Tilia begoniifolia
Tilia platyphyllos
Tilia species
Tilia tomentosa
Tilia x vulgaris
Ulmus glabra
Ulmus laevis
Ulmus minor
Ulmus procera
Ulmus species
Zelkova abelicea

Noble-hardwood-trees

Acer opalus aggr.
Acer platanoides
Acer pseudoplatanus
Fraxinus excelsior
Tilia cordata
Tilia begoniifolia
Tilia platyphyllos
Ulmus glabra

Noble-hardwood-trees-generalists

Acer platanoides
Fraxinus excelsior
Tilia begoniifolia
Tilia cordata
Ulmus glabra

Noble-hardwood-trees-ravine-specialists

Acer opalus aggr.
Acer pseudoplatanus
Tilia platyphyllos

Non-native-broadleaf-deciduous-trees

Acer negundo

Acer saccharinum
Aesculus carnea
Ailanthus altissima
Catalpa bignonioides
Celtis occidentalis
Fagus crenata
Fagus sylvatica (cult.)
Fraxinus americana
Fraxinus pennsylvanica
Gleditsia triacanthos
Juglans cinerea
Juglans mandshurica
Juglans nigra
Liriodendron tulipifera
Malus baccata
Malus prunifolia
Malus pumila
Morus alba
Morus nigra
Morus species
Paulownia tomentosa
Platanus occidentalis
Platanus x hispanica
Populus balsamifera
Populus carolinensis
Populus laurifolia
Populus nigra cv. 'Italica'
Populus simonii
Populus suaveolens
Populus tremuloides
Populus trichocarpa
Populus x canadensis
Prunus armeniaca
Prunus cerasus
Prunus domestica
Prunus dulcis
Pterocarya stenoptera
Quercus coccinea
Quercus palustris
Quercus robur (cult.)
Quercus rubra
Quercus rubra (cult.)
Robinia pseudoacacia
Salix alba cv. chermesina
Salix babylonica
Salix blanda
Styphnolobium japonicum
Ulmus pumila
Ulmus x hollandica

Non-native-broadleaf-evergreen-trees

Acacia dealbata
Acacia karoo

Acacia melanoxydon
Acacia saligna
Eucalyptus camaldulensis
Eucalyptus globulus
Eucalyptus robustus
Eucalyptus species
Schinus molle
Trachycarpus fortunei

Non-native-conifer-trees

Abies concolor
Abies grandis
Abies procera
Araucaria araucana
Cedrus deodara
Cupressus arizonica
Cupressus lusitanica
Chamaecyparis lawsoniana
Chamaecyparis pisifera
Chamaecyparis species
Cupressus macrocarpa
Larix kaempferi
Larix x eurolepis
Metasequoia species
Picea glauca
Picea pungens
Picea sitchensis
Pinus banksiana
Pinus contorta
Pinus pinaster (cult.)
Pinus radiata
Pinus rigida
Pinus strobus
Pinus wallichiana
Platyclusus orientalis
Pseudotsuga menziesii
Sequoia sempervirens
Sequoiadendron giganteum
Taxodium distichum
Thuja occidentalis
Thuja plicata
Thuja species
Tsuga canadensis
Tsuga heterophylla
Tsuga species
Xanthocyparis nootkatensis

Non-native-trees

Abies concolor
Abies grandis
Abies procera
Acacia dealbata
Acacia karoo

Acacia melanoxyton
Acacia saligna
Acer negundo
Acer saccharinum
Aesculus carnea
Ailanthus altissima
Araucaria araucana
Catalpa bignonioides
Cedrus deodara
Celtis occidentalis
Chamaecyparis lawsoniana
Chamaecyparis pisifera
Chamaecyparis species
Cupressus arizonica
Cupressus lusitanica
Cupressus macrocarpa
Eucalyptus camaldulensis
Eucalyptus globulus
Eucalyptus robustus
Eucalyptus species
Fagus crenata
Fagus sylvatica (cult.)
Fraxinus americana
Fraxinus pennsylvanica
Gleditsia triacanthos
Juglans cinerea
Juglans mandshurica
Juglans nigra
Larix kaempferi
Larix x eurolepis
Liriodendron tulipifera
Malus baccata
Malus prunifolia
Malus pumila
Metasequoia species
Morus alba
Morus nigra
Morus species
Paulownia tomentosa
Phoenix dactylifera
Picea glauca
Picea pungens
Picea sitchensis
Pinus banksiana
Pinus contorta
Pinus pinaster (cult.)
Pinus radiata
Pinus rigida
Pinus strobus
Pinus wallichiana
Pistacia vera
Platanus occidentalis
Platanus x hispanica

Platycladus orientalis
Populus balsamifera
Populus carolinensis
Populus laurifolia
Populus nigra cv. 'Italica'
Populus simonii
Populus suaveolens
Populus tremuloides
Populus trichocarpa
Populus x canadensis
Prunus armeniaca
Prunus cerasus
Prunus domestica
Prunus dulcis
Pseudotsuga menziesii
Pterocarya stenoptera
Quercus coccinea
Quercus palustris
Quercus robur (cult.)
Quercus rubra
Quercus rubra (cult.)
Robinia pseudoacacia
Salix alba cv. chermesina
Salix babylonica
Salix blanda
Schinus molle
Sequoia sempervirens
Sequoiadendron giganteum
Styphnolobium japonicum
Taxodium distichum
Thuja occidentalis
Thuja plicata
Thuja species
Trachycarpus fortunei
Tsuga canadensis
Tsuga heterophylla
Tsuga species
Ulmus pumila
Ulmus x hollandica
Xanthocyparis nootkatensis

Oak-hornbeam-forest-trees

Acer campestre
Carpinus betulus
Castanea sativa
Quercus petraea
Quercus robur
Tilia tomentosa

Olea-Ceratonia-woodland-shrubs

Ceratonia siliqua
Pistacia atlantica
Pistacia lentiscus

Oryza sativa
Oryza sativa

Palsa-specialists
Dicranum elongatum
Luzula wahlenbergii
Omphalina hudsoniana
Rubus chamaemorus
Tephrosia atropurpurea

Pan-Mediterranean-acidic-garrigue-shrubs
Calicotome villosa
Cistus creticus
Cistus laurifolius
Cistus monspeliensis
Cistus salviifolius
Globularia alypum
Helichrysum italicum
Helichrysum stoechas
Lavandula stoechas
Micromeria graeca
Rosmarinus officinalis

Pan-Mediterranean-basic-garrigue-shrubs
Argyrobolus zanonii
Asparagus horridus
Calicotome villosa
Cistus creticus
Dorycnium hirsutum
Fumana arabica
Fumana ericoides
Fumana laevipes
Fumana thymifolia
Helianthemum syriacum
Helichrysum italicum
Micromeria graeca
Micromeria nervosa
Ononis minutissima
Rosmarinus officinalis
Ruta chalepensis
Salvia officinalis
Teucrium flavum
Thymus capitata
Thymelaea hirsuta
Thymelaea tartonraira

Phrygana-shrubs
Alhagi maurorum
Euphorbia acanthothamnos
Genista acanthoclada
Genista fasselata
Lithodora hispidula

Onosma fruticosum
Sarcopoterium spinosum
Verbascum spinosum

Picea

Picea abies
Picea obovata
Picea omorika
Picea orientalis

Pinetalia-pallasianae-kochianae-species

Brachypodium pinnatum
Brachypodium rupestre
Briza media
Bromopsis cappadocica
Campanula sibirica
Carex humilis
Cirsium laniflorum
Cotinus coggygria
Cruciata taurica
Inula ensifolia
Galium mollugo aggr.
Helianthemum nummularium
Pimpinella lithophila
Psephellus declinatus
Rosa spinosissima
Rubus tauricus
Seseli libanotis
Teucrium chamaedrys
Teucrium polium aggr.
Thalictrum minus
Viola sieheana

Pinus canariensis

Pinus canariensis

Pinus mugo

Pinus mugo

Pinus mugo aggr.

Pinus mugo aggr.

Pinus nigra

Pinus nigra

Pinus pinaster

Pinus pinaster

Pinus sylvestris

Pinus sylvestris

Pinus uncinata

Pinus uncinata

Pinus-heldreichii-peuce
Pinus heldreichii
Pinus peuce

Pinus-sylvestris-nigra
Pinus nigra
Pinus sylvestris

Populus tremula
Populus tremula

Prunus lusitanica
Prunus lusitanica

Pteridium aquilinum
Pteridium aquilinum

Quaking-non-calcareous-fen-bryophytes
Cladopodiella fluitans
Gymnocolea inflata
Sphagnum annulatum
Sphagnum jensenii
Sphagnum auriculatum+inundatum
Sphagnum balticum
Sphagnum cuspidatum
Sphagnum lindbergii
Sphagnum majus
Sphagnum platyphyllum
Sphagnum pulchrum
Sphagnum recurvum aggr.
Sphagnum riparium
Sphagnum subsecundum
Sphagnum tenellum
Warnstorfia fluitans

Quercus coccifera
Quercus coccifera

R11-Pannonian-and-Pontic-sandy-steppe-specialists
Bassia laniflora
Colchicum arenarium
Dianthus diutinus
Dianthus serotinus
Festuca beckeri
Festuca vaginata
Festuca wagneri
Tragopogon floccosus

R15-Continental-dry-rocky-steppic-grassland-and-dwarf-scrub-on-chalk-outcrops-specialists
Allium sphaeropodum
Artemisia hololeuca
Artemisia nutans

Artemisia salsoloides
Asperula tephrocarpa
Astragalus albicaulis
Brassica elongata subsp. pinnatifida
Diplotaxis cretacea
Euphorbia petrophila
Jurinea arachnoidea
Koeleria talievii
Linum ucranicum
Polygala cretacea
Scrophularia cretacea
Silene cretacea
Silene supina
Thymus calcareus

R1B-Continental-dry-grassland-true-steppe-specialists

Artemisia austriaca
Artemisia pontica
Astragalus dasyanthus
Astragalus exscapus
Astragalus subuliformis
Carex supina
Crambe tataria
Festuca valesiaca aggr.
Galatella villosa
Goniolimon besseranum
Goniolimon collinum
Goniolimon tataricum
Inula oculus-christi
Iris pumila
Jurinea arachnoidea
Jurinea mollis
Jurinea stoechadifolia
Koeleria brevis
Nepeta parviflora
Nepeta ucranica
Paeonia tenuifolia
Phlomis herba-venti
Pulsatilla grandis
Salvia aethiopis
Salvia austriaca
Salvia nutans
Stipa borysthenica aggr.
Stipa capillata
Stipa dasyphylla
Stipa korshinskyi
Stipa pulcherrima
Stipa ucrainica
Stipa zalesskii
Taraxacum serotinum

R1E-Mediterranean-tall-perennial-dry-grassland-specialists

Andropogon distachyos

Brachypodium boissieri
Brachypodium retusum
Festuca capillifolia
Festuca scariosa
Helictochloa bromoides
Helictotrichon filifolium
Heteropogon contortus
Hyparrhenia hirta
Hyparrhenia sinaica
Lygeum spartum
Macrochloa tenacissima
Stipa barbata
Stipa cazorlensis
Stipa iberica
Stipa juncea
Stipa lagascae
Stipa offneri
Stipa parviflora
Trisetum velutinum

R1G-Iberian-oromediterranean-siliceous-dry-grassland-specialists

Agrostis tileni
Androsace rioxana
Armeria caespitosa
Armeria duriaei
Artemisia granatensis
Erigeron frigidus
Eryngium glaciale
Festuca clementei
Festuca pseudeskia
Herniaria boissieri
Hormathophylla purpurea
Leucanthemopsis flaveola
Luzula caespitosa
Luzula spicata subsp. nevadensis
Pilosella vahlII
Teesdalia conferta
Trisetum glaciale

R1H-Iberian-oromediterranean-basiphilous-dry-grassland-specialists

Astragalus tremolsianus
Draba hispanica
Erodium cazorlanum
Erodium daucoides
Erodium glandulosum
Festuca altopyrenaica
Festuca burnatii
Festuca hystrix
Festuca liviensis
Festuca marginata subsp. andres-molinae
Festuca nevadensis
Festuca ochroleuca
Onobrychis pyrenaica

Saponaria caespitosa
Saxifraga conifera
Sideritis glacialis

R1J-Cyrno-Sardean-oromediterranean-siliceous-dry-grassland-specialists

Armeria multiceps
Armeria sardoa
Cerastium soleirolii
Festuca morisiana
Pilosella soleiroliana

R1K-Balkan-and-Anatolian-oromediterranean-dry-grassland-specialists

Beta nana
Corydalis blanda
Herniaria parnassica
Poa pumila
Trifolium heldreichianum
Trifolium parnassii

R1L-Madeiran-oromediterranean-siliceous-dry-grassland-specialists

Anthoxanthum maderense
Anthyllis lemanniana
Festuca jubata
Holcus pintodasilvae
Micromeria varia subsp. *thymoides*
Orchis mascula subsp. *scopulorum*
Parafestuca albida
Rumex bucephalophorus subsp. *canariensis*

R1N-Open-Iberian-supramediterranean-dry-acid-and-neutral-grassland-specialists

Armeria caballeroi
Armeria ciliata
Armeria eriophylla
Armeria langei
Armeria merinoi
Armeria transmontana
Bufonia macropetala
Centaurea borjjae
Centaurea toletana
Dianthus laricifolius
Festuca brigantina
Festuca gredensis
Festuca longiauriculata
Festuca summilusitana
Herniaria scabrida
Leucanthemopsis flaveola
Leucanthemopsis pallida
Leucanthemopsis pulverulenta
Lotus glareosus
Ornithogalum concinnum
Ortegia hispanica
Pilosella castellana
Reseda virgata

Sagina merinoi

R1Q-Inland-sanddrift-and-dune-with-siliceous-grassland-specialists

Carex arenaria

Corynephorus canescens

R1S-Heavy-metal-grassland-in-Western-and-Central-Europe-specialists

Armeria alpina subsp. *halleri*

Viola calaminaria

Viola guestphalica

R23-Mountain-hay-meadow-specialists

Arabidopsis halleri

Astrantia major

Campanula serrata

Cirsium heterophyllum

Crepis pyrenaica

Crocus vernus

Geranium sylvaticum aggr.

Knautia nevadensis

Meum athamanticum

Narcissus poeticus

Phleum alpinum aggr.

Phyteuma halleri

Phyteuma spicatum

Phyteuma tetramerum

Pimpinella serbica

Poa chaixii

Rhinanthus mediterraneus

Viola cornuta

R24-Iberian-summer-pasture-vallicar-specialists

Agrostis castellana

Anthoxanthum ovatum

Celtica gigantea

Festuca ampla

Festuca elegans

Holcus annuus

Molineriella minuta

Periballia involucrata

R31-Mediterranean-tall-humid-inland-grassland-specialists

Agrostis reuteri

Carex mairei

Cirsium monspessulanum

Cirsium pyrenaicum

Cochlearia glastifolia

Cochlearia megalosperma

Dittrichia viscosa

Dorycnium hirsutum

Dorycnium rectum

Euphorbia hirsuta

Galium viridiflorum

Hypericum caprifolium
Hypericum pubescens
Hypericum tomentosum
Imperata cylindrica
Juncus striatus
Linum tenue
Lysimachia ephemerum
Melilotus indica
Peucedanum hispanicum
Phalaris aquatica
Ranunculus granatensis
Ranunculus macrophyllus
Serapias vomeracea aggr.
Sonchus maritimus
Succisella andreae-molinae
Thalictrum speciosissimum
Trifolium resupinatum

R33-Mediterranean-short-moist-grassland-of-mountains-specialists

Agrostis nevadensis
Armeria splendens
Campanula herminii
Festuca iberica
Festuca rothmaleri
Gentiana boryi
Plantago nivalis
Poa legionensis
Potentilla asturica
Potentilla nevadensis
Ranunculus abnormis
Ranunculus acetosellifolius
Scorzoneroides carpetana
Scorzoneroides microcephala

R34-Submediterranean-moist-meadow-specialists

Alopecurus rendlei
Bellevallia romana
Colchicum lusitanum
Crepis setosa
Moenchia mantica
Oenanthe peucedanifolia
Ornithogalum collinum
Ranunculus marginatus
Ranunculus velutinus
Scilla litardierei
Trifolium cinctum
Trifolium pallidum
Trifolium resupinatum

R41-Snow-bed-vegetation-specialists

Achillea clusiana
Achillea lingulata
Alchemilla fissa

Alchemilla pentaphyllea
Alchemilla subsericea
Arabis caerulea
Carex norvegica
Dianthus microlepis
Gnaphalium hoppeanum
Ranunculus alpestris
Ranunculus crenatus
Ranunculus glacialis
Ranunculus nivalis
Ranunculus pygmaeus
Ranunculus sulphureus
Salix herbacea
Salix polaris
Saxifraga androsacea
Saxifraga cernua
Sibbaldia procumbens
Soldanella minima

R42-Boreal-and-arctic-acidophilous-alpine-grassland-specialists

Alchemilla glomerulans
Cassiope hypnoides
Vahlodea atropurpurea

R43-Temperate-acidophilous-alpine-grassland-specialists

Agrostis rupestris
Alopecurus gerardii
Androsace carnea
Bellardiochloa variegata
Campanula alpina
Campanula scheuchzeri
Carex curvula
Carex foetida
Endressia pyrenaica
Festuca airoides
Festuca eskia
Gentiana alpina
Geum montanum
Helictochloa versicolor
Jacobaea abrotanifolia
Luzula pediformis
Oreochloa disticha
Primula minima
Scorzoneroides cantabrica
Scorzoneroides pyrenaica

R44-Arctic-alpine-calcareous-grassland-specialists

Achillea clavennae
Androsace chamaejasme
Androsace villosa
Androsace vitaliana
Astragalus alpinus
Astragalus australis

Astragalus frigidus
Astragalus penduliflorus
Bartsia alpina
Bellidiastrum michelii
Campanula thyrsoides
Carex baldensis
Carex ferruginea
Carex firma
Carex mucronata
Carex sempervirens
Dactylorhiza viridis
Draba aizoides
Dryas octopetala
Festuca versicolor
Galium anisophyllum
Gentiana clusii
Gentiana nivalis
Gentiana verna
Gymnadenia nigra aggr.
Jacobaea abrotanifolia
Leontopodium nivale
Myosotis alpestris
Oxytropis campestris
Oxytropis halleri
Pulsatilla alpina
Ranunculus thora
Rhinanthus gracilis
Saussurea alpina aggr.
Saxifraga caesia
Sesleria coerulans
Stachys alopecuros
Veronica aphylla

R45-Alpine-and-subalpine-calcareous-grassland-of-the-Balkans-and-Apennines-specialists

Achillea holosericea
Astragalus mayeri
Asyneuma limonifolium
Carex kitaibeliana
Sesleria nitida
Trinia dalechampii

R51-Thermophilous-forest-fringe-of-base-rich-soils-specialists

Aegonychon purpurocaeruleum
Dictamnus albus
Geranium sanguineum
Iris variegata
Melampyrum cristatum
Melittis melissophyllum
Paeonia mascula
Paeonia officinalis
Peucedanum cervaria
Polygonatum odoratum
Tanacetum corymbosum

Trifolium medium
Vicia dumetorum
Vicia pisiformis
Vicia sylvatica
Vincetoxicum hirundinaria

R52-Forest-fringe-of-acidic-nutrient-poor-soils-specialists

Hypericum pulchrum
Lathyrus linifolius
Melampyrum pratense
Melampyrum sylvaticum
Teucrium scorodonia
Vicia orobus

R53-Macaronesian-thermophilous-forest-fringe-specialists

Ammi huntii
Ammi trifoliatum
Angelica lignescens
Chaerophyllum azoricum
Dactylorhiza foliosa
Geranium palmatum
Geranium reuteri
Lactuca watsoniana
Myosotis latifolia
Pericallis appendiculata
Pericallis aurita
Pericallis cruenta
Pericallis echinata
Pericallis malvifolia
Pericallis tussilaginis
Pimpinella dendrotragium
Ranunculus cortusifolius
Rumex maderensis
Scrophularia smithii
Teucrium francoi
Viola paradoxa

R56-Montane-subalpine-moist-or-wet-tall-herb-and-fern-fringe-dominants

Aconitum burnatii
Aconitum napellus aggr.
Aconogonon alpinum
Adenostyles alliariae
Adenostyles alpina
Athyrium distentifolium
Carduus personata
Chaerophyllum villarsii
Cirsium appendiculatum
Cirsium erisithales
Cirsium pyrenaicum
Cirsium tymphaeum
Delphinium elatum
Doronicum austriacum
Doronicum grandiflorum

Geum coccineum
Heracleum elegans
Heracleum transsilvanicum
Jacobaea alpina
Jacobaea subalpina
Peucedanum ostruthium
Ranunculus aconitifolius
Ranunculus platanifolius
Rhaponticum scariosum
Rumex alpinus
Telekia speciosa
Veratrum album

Raised-bog-Sphagnum

Sphagnum capillifolium aggr.
Sphagnum fuscum
Sphagnum magellanicum aggr.
Sphagnum recurvum aggr.
Sphagnum rubellum
Sphagnum russowii

Ravine-forest-specialists

Acer opalus aggr.
Acer pseudoplatanus
Aruncus dioicus
Asplenium scolopendrium
Asplenium trichomanes
Cystopteris fragilis
Gymnocarpium dryopteris
Lunaria rediviva
Polypodium cambricum
Polypodium interjectum
Polypodium vulgare
Polystichum aculeatum
Scrophularia vernalis
Tilia platyphyllos

Sclerophyllous-tree-Quercus

Quercus alnifolia
Quercus aucheri
Quercus crenata
Quercus ilex
Quercus rotundifolia
Quercus suber

Semi-desert-riparian-shrubs

Alhagi maurorum
Halimodendron halodendron
Karelinia caspia
Tamarix arceuthoides
Tamarix elongata
Tamarix gracilis
Tamarix hispida

Tamarix kotschyi
Tamarix laxa
Tamarix mascatensis
Tamarix octandra
Tamarix tetragyna

Semi-desert-sand-dune-with-sparse-scrub-species

Agriophyllum squarrosum
Agropyron fragile
Alyssum borzeanum
Alyssum turkestanicum
Artemisia arenaria
Centaurea adpressa
Centaurea diffusa
Ceratocarpus arenarius
Corispermum aralocaspicum
Eremopyrum triticeum
Leymus racemosus
Peganum harmala
Salsola kali aggr.
Verbascum pinnatifidum

Shrubs

Acacia mearnsii
Acacia pycnantha
Acacia retinodes
Acacia saligna
Acer campestre
Acer monspessulanum
Adenocarpus anisochilus
Adenocarpus brutius
Adenocarpus complicatus
Adenocarpus decorticans
Adenocarpus hispanicus
Adenocarpus telonensis
Adenocarpus viscosus
Alhagi maurorum
Alnus viridis
Alnus viridis subsp. fruticosa
Amelanchier canadensis
Amelanchier laevis
Amelanchier lamarckii
Amelanchier ovalis
Amelanchier parviflora
Amelanchier species
Amelanchier spicata
Amorpha fruticosa
Anagyris foetida
Anthyllis barba-jovis
Arbutus andrachne
Arbutus canariensis
Arbutus unedo
Aronia species

Aronia x prunifolia
Artemisia arborescens
Artemisia argentea
Asparagus acutifolius
Asparagus albus
Asparagus horridus
Baccharis halimifolia
Berberis aetnensis
Berberis cretica
Berberis thunbergii
Berberis vulgaris
Betula humilis
Betula nana
Betula pendula
Broussonetia papyrifera
Buddleja davidii
Bupleurum fruticosum
Buxus balearica
Buxus sempervirens
Buxus species
Calicotome spinosa
Calicotome villosa
Caragana arborescens
Caragana frutex
Caragana grandiflora
Caragana pygmaea
Caragana scythica
Caragana species
Caragana stenophylla
Carlina salicifolia
Celtis australis
Ceratonia siliqua
Cestrum parqui
Cistus albidus
Cistus atriplicifolius
Cistus calycinus
Cistus clusii
Cistus creticus
Cistus crispus
Cistus halimifolius
Cistus heterophyllus
Cistus ladanifer
Cistus lasianthus
Cistus laurifolius
Cistus libanotis
Cistus monspeliensis
Cistus ocymoides
Cistus palhinhae
Cistus parviflorus
Cistus populifolius
Cistus psilosepalus
Cistus salviifolius
Cistus umbellatus

Cistus varius
Clematis vitalba
Cneorum tricoccon
Colutea arborescens
Colutea armena
Colutea atlantica
Colutea cilicica
Colutea hispanica
Colutea istria
Colutea melanocalyx
Coriaria myrtifolia
Cornus alba
Cornus mas
Cornus sanguinea
Cornus sericea
Cornus species
Coronilla juncea
Corylus avellana
Corylus species
Cotinus coggygria
Cotoneaster acuminatus
Cotoneaster bullatus
Cotoneaster cinnabarinus
Cotoneaster delphinensis
Cotoneaster divaricatus
Cotoneaster franchetii
Cotoneaster frigidus
Cotoneaster granatensis
Cotoneaster horizontalis
Cotoneaster integerrimus
Cotoneaster integrifolius
Cotoneaster lucidus
Cotoneaster melanocarpus
Cotoneaster microphyllus
Cotoneaster multiflorus
Cotoneaster simonsii
Cotoneaster species
Cotoneaster tomentosus
Cotoneaster x matrensis
Crataegus ambigua
Crataegus coccinea
Crataegus dipyrrena
Crataegus fallacina
Crataegus heldreichii
Crataegus intricata
Crataegus laciniata
Crataegus laevigata
Crataegus macrocarpa
Crataegus meyeri
Crataegus microphylla
Crataegus mollis aggr.
Crataegus mon. et ox.
Crataegus monogyna

Crataegus nigra
Crataegus orientalis
Crataegus pentagyna
Crataegus pycnoloba
Crataegus rhipidophylla
Crataegus sanguinea
Crataegus species
Crataegus x media
Cydonia oblonga
Cytisophyllum sessilifolium
Cytisus aeolicus
Cytisus arboreus
Cytisus ardoinii
Cytisus balansae
Cytisus cantabricus
Cytisus commutatus
Cytisus eriocarpus
Cytisus fontanesii
Cytisus grandiflorus
Cytisus ingramii
Cytisus multiflorus
Cytisus procumbens
Cytisus reverchonii
Cytisus scoparius
Cytisus striatus
Cytisus supranubius
Cytisus tommasinii
Cytisus villosus
Cytisus x praecox
Daphne blagayana
Daphne glomerata
Daphne gnidioides
Daphne gnidium
Daphne laureola
Daphne mezereum
Daphne pontica
Daphne rodriguezii
Daphne sericea
Daphne x savensis
Dasiphora fruticosa
Deutzia scabra
Ebenus cretica
Echium decaisnei
Elaeagnus commutata
Elaeagnus pungens
Elaeagnus x ebbingei
Ephedra foeminea
Ephedra fragilis
Ephedra major
Erica arborea
Erica australis
Erica lusitanica
Erica manipuliflora

Erica multiflora
Erica scoparia
Erysimum arbuscula
Erysimum maderense
Euonymus europaeus
Euonymus japonicus
Euonymus latifolius
Euonymus nanus
Euonymus species
Euonymus verrucosus
Euphorbia dendroides
Euphorbia squamigera
Ficus carica
Flueggea tinctoria
Forsythia europaea
Forsythia species
Forsythia suspensa
Forsythia viridissima
Forsythia x intermedia
Frangula alnus
Frangula rupestris
Frangula species
Genista aetnensis
Genista cinerascens
Genista ephedroides
Genista falcata
Genista florida
Genista hystrix
Genista linifolia
Genista majorica
Genista monspessulana
Genista obtusiramea
Genista polyanthos
Genista sessilifolia
Genista spartioides
Genista tinctoria
Genista tournefortii
Genista triacanthos
Genista valentina
Gomphocarpus fruticosus
Halimodendron halodendron
Hippocrepis emerus
Hippophae rhamnoides
Hippophae species
Hypericum androsaemum
Hypericum calycinum
Hypericum hircinum
Hypericum xylosteifolium
Chaenomeles japonica
Chamaerops humilis
Ilex aquifolium
Ilex canariensis
Ilex colchica

Jasminum fruticans
Jasminum odoratissimum
Juniperus communis subsp. communis
Juniperus communis subsp. hemisphaerica
Juniperus communis subsp. nana
Juniperus chinensis
Juniperus oxycedrus aggr.
Juniperus phoenicea
Juniperus sabina
Juniperus species
Juniperus virginiana
Karelinia caspia
Laburnum alpinum
Laburnum anagyroides
Lantana camara
Launaea arborescens
Laurus nobilis
Ligustrum japonicum
Ligustrum lucidum
Ligustrum ovalifolium
Ligustrum species
Ligustrum vulgare
Lonicera alpigena
Lonicera arborea
Lonicera biflora
Lonicera caerulea
Lonicera caucasica
Lonicera formanekiana
Lonicera hellenica
Lonicera involucrata
Lonicera maackii
Lonicera nigra
Lonicera nitida
Lonicera nummulariifolia
Lonicera pyrenaica
Lonicera species
Lonicera splendida
Lonicera tatarica
Lonicera xylosteum
Lycium afrum
Lycium barbarum
Lycium europaeum
Lycium chinense
Lycium intricatum
Mahonia aquifolium
Malus dasyphylla
Malus sylvestris
Malva arborea
Malva olbia
Malva subovata
Maytenus senegalensis
Medicago arborea
Morella faya

Myoporum insulare
Myoporum tenuifolium
Myrica gale
Myrica species
Myricaria germanica
Myrtus communis
Nerium oleander
Nicotiana glauca
Olea europaea
Osmanthus decorus
Osyris alba
Osyris lanceolata
Paliurus species
Paliurus spina-christi
Periploca angustifolia
Philadelphus coronarius
Philadelphus pubescens
Philadelphus species
Phillyrea angustifolia
Phillyrea latifolia
Phillyrea species
Phlomis cretica
Phlomis fruticosa
Phlomis lanata
Physocarpus opulifolius
Pinus mugo
Pinus mugo aggr.
Pistacia atlantica
Pistacia lentiscus
Pistacia terebinthus
Polygonum equisetiforme
Polygonum scoparium
Populus tremula
Potentilla parvifolia
Prunus cerasifera
Prunus fruticosa
Prunus laurocerasus
Prunus lusitanica
Prunus lusitanica subsp. lusitanica
Prunus mahaleb
Prunus microcarpa
Prunus padus subsp. borealis
Prunus persica
Prunus prostrata
Prunus ramburii
Prunus serotina
Prunus spinosa
Prunus tenella
Prunus virginiana
Prunus webbii
Prunus x eminens
Prunus x fruticans
Ptelea trifoliata

Punica granatum
Pyracantha coccinea
Pyrus cordata
Pyrus elaeagrifolia
Pyrus nivalis
Pyrus species
Pyrus spinosa
Quercus coccifera
Quercus infectoria
Quercus lusitanica
Retama monosperma
Retama sphaerocarpa
Rhamnus alaternus
Rhamnus alpina
Rhamnus cathartica
Rhamnus cornifolia
Rhamnus depressa
Rhamnus hirtella
Rhamnus imeretina
Rhamnus intermedia
Rhamnus kurdica
Rhamnus libanotica
Rhamnus ludovici-salvatoris
Rhamnus lycioides
Rhamnus microcarpa
Rhamnus myrtifolia
Rhamnus nitida
Rhamnus orbiculata
Rhamnus pallasii
Rhamnus pumila
Rhamnus punctata
Rhamnus pyrella
Rhamnus saxatilis
Rhamnus sibthorpiana
Rhamnus species
Rhamnus thymifolia
Rhamnus x colmeiroi
Rhododendron luteum
Rhododendron ponticum
Rhododendron smirnowii
Rhododendron species
Rhododendron ungeronii
Rhus coriaria
Rhus typhina
Ribes alpinum
Ribes aureum
Ribes biebersteinii
Ribes cf. petraeum
Ribes multiflorum
Ribes nigrum
Ribes orientale
Ribes petraeum
Ribes rubrum aggr.

Ribes sanguineum
Ribes species
Ribes uva-crispa
Rosa abietina
Rosa acicularis
Rosa agrestis
Rosa arvensis
Rosa arvensis x sempervirens
Rosa balcarica
Rosa balsamica
Rosa caesia
Rosa caesia aggr.
Rosa canina aggr.
Rosa canina x deseglisei
Rosa canina x micrantha
Rosa caryophyllacea
Rosa donetzica
Rosa foetida
Rosa gallica
Rosa glabrifolia
Rosa glauca
Rosa heckeliana
Rosa inodora
Rosa majalis
Rosa marginata
Rosa marschalliana
Rosa mollis
Rosa montana
Rosa moschata
Rosa multiflora
Rosa obtusifolia aggr.
Rosa pendulina
Rosa pouzinii
Rosa pulverulenta
Rosa rhaetica
Rosa rubiginosa aggr.
Rosa rugosa
Rosa scabriuscula
Rosa sempervirens
Rosa serafinii
Rosa sherardii
Rosa species
Rosa spinosissima
Rosa squarrosa x canina
Rosa stylosa
Rosa tomentosa
Rosa turcica
Rosa villosa
Rosa virginiana
Rosa vosagiaca aggr.
Rosa x alba
Rosa x dumetorum
Rosa x pervirens

Rubus caesius
Rubus fruticosus aggr.
Rubus idaeus
Rubus sanctus
Rubus ulmifolius
Salix amplexicaulis
Salix apennina
Salix apoda
Salix appendiculata
Salix arbuscula
Salix arbuscula aggr.
Salix atrocinerea x aurita
Salix aurita
Salix aurita x atrocinerea
Salix bicolor
Salix caesia
Salix cantabrica
Salix caprea
Salix caspica
Salix cinerea
Salix cinerea subsp. oleifolia
Salix daphnoides
Salix eleagnos
Salix foetida
Salix fragilis x pentandra
Salix glabra
Salix glauca
Salix glaucosericea
Salix hastata
Salix hegetschweileri
Salix helvetica
Salix krylovii
Salix laggeri
Salix lanata
Salix lapponum
Salix mielichhoferi
Salix myrsinifolia
Salix myrsinites
Salix myrsinites gr.
Salix pedicellata
Salix pentandra
Salix pentandrifolia
Salix phlebophylla
Salix phyllicifolia
Salix phyllicifolia x glauca
Salix pulchra
Salix purpurea
Salix pyrenaica
Salix pyrolifolia
Salix salviifolia
Salix silesiaca
Salix silesiaca x aurita
Salix silesiaca x caprea

Salix starkeana
Salix triandra
Salix viminalis
Salix viminalis x purpurea
Salix vinogradovii
Salix waldsteiniana
Salix x ambigua
Salix x capreola
Salix x rubra
Salsola dendroides
Salsola laricina
Salsola vermiculata
Salvia fruticosa
Salvia officinalis
Salvia pomifera
Sambucus canadensis
Sambucus nigra
Sambucus racemosa
Sambucus sibirica
Sambucus species
Searsia pentaphylla
Searsia tripartita
Sorbaria tomentosa
Sorbus aria aggr.
Sorbus aucuparia
Sorbus chamaemespilus
Sorbus rupicola
Sorbus sambucifolia
Sorbus sudetica
Spartium junceum
Spiraea alba
Spiraea cana
Spiraea cantoniensis
Spiraea crenata
Spiraea decumbens
Spiraea douglasii
Spiraea hypericifolia
Spiraea chamaedryfolia
Spiraea japonica
Spiraea media
Spiraea menziesii
Spiraea salicifolia
Spiraea species
Spiraea tomentosa
Spiraea x billardii
Spiraea x vanhouttei
Staphylea pinnata
Styrax officinalis
Suaeda vera
Symphoricarpos albus
Symphoricarpos species
Syringa species
Syringa vulgaris

Tamarix africana
Tamarix arborea
Tamarix arceuthoides
Tamarix boveana
Tamarix canariensis
Tamarix dalmatica
Tamarix elongata
Tamarix gallica
Tamarix gracilis
Tamarix hampeana
Tamarix hispida
Tamarix kotschyi
Tamarix laxa
Tamarix mascatensis
Tamarix octandra
Tamarix parviflora
Tamarix ramosissima
Tamarix smyrnensis
Tamarix species
Tamarix tetragyna
Tamarix tetrandra
Teucrium flavum
Teucrium fruticans
Thymelaea hirsuta
Thymelaea tartonraira
Traganum moquinii
Ulex airensis
Ulex boivinii
Ulex europaeus
Vaccinium arctostaphylos
Vaccinium corymbosum
Vaccinium macrocarpon
Vaccinium padifolium
Viburnum lantana
Viburnum maculatum
Viburnum opulus
Viburnum orientale
Viburnum species
Viburnum tinus
Vitex agnus-castus
Weigela florida
Ziziphus jujuba
Ziziphus lotus

Softwood-riparian-trees

Populus alba
Populus nigra
Salix alba
Salix euxina

Spartium junceum

Spartium junceum

Sphagnum

Sphagnum affine
Sphagnum angermanicum
Sphagnum annulatum
Sphagnum aongstroemii
Sphagnum apiculatum
Sphagnum austinii
Sphagnum balticum
Sphagnum bavaricum
Sphagnum capillifolium aggr.
Sphagnum cf. magellanicum
Sphagnum compactum
Sphagnum compactum + S. molle
Sphagnum contortum
Sphagnum cuspidatum
Sphagnum fimbriatum
Sphagnum fuscum
Sphagnum girgensohnii
Sphagnum imbricatum
Sphagnum jensenii
Sphagnum lenense
Sphagnum lindbergii
Sphagnum magellanicum aggr.
Sphagnum majus
Sphagnum molle
Sphagnum nemoreum
Sphagnum obtusum
Sphagnum palustre + S. papillosum
Sphagnum palustre aggr.
Sphagnum papillosum
Sphagnum platyphyllum
Sphagnum pulchrum
Sphagnum pylaesii
Sphagnum quinquefarium
Sphagnum recurvum aggr.
Sphagnum riparium
Sphagnum rubellum
Sphagnum russowii
Sphagnum sect. Acutifolia
Sphagnum sect. Cuspidata
Sphagnum sect. Palustria
Sphagnum sect. Subsecunda
Sphagnum species
Sphagnum squarrosum
Sphagnum strictum
Sphagnum subbicolor
Sphagnum subfulvum
Sphagnum subnitens
Sphagnum subsecundum
Sphagnum tenellum
Sphagnum tenerum
Sphagnum teres
Sphagnum warnstorffii

Sphagnum wulfianum
Sphagnum auriculatum+inundatum
Sphagnum palustre aggr.

Subalpine

Bellidiastrum michelii
Campanula scheuchzeri
Carduus kernerii
Carex sempervirens
Clematis alpina
Cortusa matthioli
Festuca flavescens
Gentiana lutea
Geranium sylvaticum aggr.
Hieracium prenanthoides
Homogyne alpina
Juniperus communis subsp. nana
Peucedanum ostruthium
Phyteuma orbiculare
Pinus mugo
Poa alpina
Pulsatilla alpina
Ranunculus breyninus
Rhododendron ferrugineum
Rhododendron hirsutum
Rhodothamnus chamaecistus
Soldanella alpina
Soldanella hungarica
Sorbus chamaemespilus
Veratrum album
Veratrum lobelianum
Viola biflora

Subalpine-and-subarctic-deciduous-shrubs

Alnus viridis
Alnus viridis subsp. fruticosa
Prunus padus subsp. borealis
Rhamnus alpina
Salix appendiculata
Salix bicolor
Salix caesia
Salix daphnoides
Salix foetida
Salix glabra
Salix glauca
Salix glaucosericea
Salix hastata
Salix hegetschweileri
Salix helvetica
Salix laggeri
Salix lanata
Salix lapponum
Salix mielichhoferi

Salix myrsinifolia
Salix pentandra
Salix phylicifolia
Salix pulchra
Salix silesiaca
Salix waldsteiniana
Sorbus chamaemespilus
Sorbus sudetica

Subalpine-conifer-trees

Larix decidua
Pinus cembra

Submediterranean-deciduous-shrubs

Acer monspessulanum
Amelanchier ovalis
Berberis vulgaris
Coriaria myrtifolia
Cornus mas
Cotinus coggygria
Cotoneaster delphinensis
Cotoneaster granatensis
Cotoneaster tomentosus
Cydonia oblonga
Cytisophyllum sessilifolium
Forsythia europaea
Malus dasyphylla
Paliurus spina-christi
Prunus cerasifera
Prunus mahaleb
Pyrus cordata
Rhamnus saxatilis
Rosa montana
Rosa pouzinii
Rosa rhaetica
Spiraea crenata
Syringa vulgaris
Viburnum lantana

Tall-fen-sedges

Carex appropinquata
Carex cespitosa
Carex diandra
Carex elata
Carex lasiocarpa
Carex rostrata
Cladium mariscus
Juncus subnodulosus
Schoenus ferrugineus
Schoenus nigricans

Teide-summit-plants

Adenocarpus viscosus

Andryala pinnatifida
Argyranthemum tenerifae
Arrhenatherum calderae
Bencomia exstipulata
Cheirolophus teydis
Cytisus supranubius
Descurainia bourgaeana
Descurainia gonzalesii
Echium auberianum
Echium gentianoides
Echium wildpretii
Erigeron calderae
Erysimum scoparium
Genista benehoavensis
Helianthemum juliae
Micromeria lachnophylla
Micromeria lasiophylla
Nepeta teydea
Pimpinella cumbrae
Polycarpaea tenuis
Pterocephalus lasiospermus
Pterocephalus porphyranthus
Rhaponticum canariense
Silene nocteolens
Tolpis webbii
Viola cheiranthifolia

Temperate-Abies

Abies alba
Abies nordmanniana

Temperate-deciduous-shrubs

Acer campestre
Berberis vulgaris
Caragana arborescens
Clematis vitalba
Cornus sanguinea
Cotoneaster integerrimus
Crataegus laevigata
Crataegus macrocarpa
Crataegus monogyna
Euonymus europaeus
Ligustrum vulgare
Lonicera xylosteum
Malus sylvestris
Prunus spinosa
Prunus x eminens
Rhamnus cathartica
Ribes alpinum
Rosa caesia
Rosa canina aggr.
Rosa foetida
Rosa glauca

Rosa inodora
Rosa majalis
Rosa marginata
Rosa mollis
Rosa pendulina
Rosa pulverulenta
Rosa rubiginosa aggr.
Rosa sherardii
Rosa stylosa
Rosa tomentosa
Rosa villosa
Salix caprea
Sambucus nigra
Sambucus racemosa
Sorbus aria aggr.
Sorbus aucuparia
Spiraea chamaedryfolia
Viburnum opulus

Temperate-fen-shrubs

Betula humilis
Dasiphora fruticosa
Frangula alnus
Myrica gale
Salix aurita
Salix cinerea
Salix myrsinifolia
Salix myrtilloides
Salix pentandra
Salix repens

Temperate-genistoid-shrubs

Cytisus scoparius
Ulex europaeus

Temperate-riparian-shrubs

Hippophae rhamnoides
Myricaria germanica
Salix cantabrica
Salix cinerea subsp. oleifolia
Salix daphnoides
Salix eleagnos
Salix pedicellata
Salix purpurea
Salix salviifolia
Salix triandra
Salix viminalis

Temperate-riparian-forest-species-upland

Aconitum napellus aggr.
Alnus incana
Anthriscus nitida
Calamagrostis varia

Calamagrostis villosa
Carduus personata
Carex alba
Chaerophyllum hirsutum
Chrysosplenium alternifolium
Crepis paludosa
Equisetum pratense
Geranium sylvaticum
Geum rivale
Gymnocarpium dryopteris
Knautia arvernensis
Onoclea struthiopteris
Oxalis acetosella
Petasites albus
Petasites hybridus
Petasites kablikianus
Petasites paradoxus
Picea abies
Rubus saxatilis
Sambucus racemosa
Silene dioica
Stellaria nemorum
Telekia speciosa
Tephrosieris crispa
Thalictrum aquilegiifolium
Vaccinium myrtillus

Temperate-riparian-forest-species-western

Allium triquetrum
Asplenium scolopendrium
Blechnum spicant
Cardamine raphanifolia
Carex pendula
Carex reuteriana
Galium broterianum
Hypericum androsaeum
Lonicera periclymenum
Myosotis lamottiana
Polystichum setiferum
Primula acaulis
Quercus canariensis
Ranunculus macrophyllus
Rhododendron ponticum subsp. baeticum 0
Salix cinerea subsp. oleifolia
Salix salviifolia
Saxifraga hirsuta
Saxifraga spathularis
Senecio bayonnensis
Teucrium scorodonia
Valeriana pyrenaica

Temperate-riparian-forest-species-lowland

Acer negundo

Alliaria petiolata
Carex divulsa
Carex strigosa
Cornus sanguinea
Fraxinus pallisae
Gagea lutea
Iris pseudacorus
Leucojum aestivum
Polygonatum hirtum
Populus alba
Populus nigra
Quercus robur
Rubus caesius
Salix alba
Ulmus laevis
Ulmus minor

Temperate-Rubus

Rubus caesius
Rubus fruticosus aggr.
Rubus idaeus

Temperate-submediterranean-deciduous-shrubs

Acer campestre
Acer monspessulanum
Amelanchier ovalis
Berberis vulgaris
Caragana arborescens
Clematis vitalba
Coriaria myrtifolia
Cornus mas
Cornus sanguinea
Cotinus coggygria
Cotoneaster delphinensis
Cotoneaster granatensis
Cotoneaster integerrimus
Cotoneaster tomentosus
Crataegus laevigata
Crataegus macrocarpa
Crataegus monogyna
Cydonia oblonga
Cytisophyllum sessilifolium
Euonymus europaeus
Euonymus verrucosus
Forsythia europaea
Ligustrum vulgare
Lonicera xylosteum
Malus dasycphylla
Malus sylvestris
Paliurus spina-christi
Prunus cerasifera
Prunus mahaleb
Prunus spinosa

Prunus x eminens
Pyrus cordata
Pyrus elaeagrifolia
Rhamnus cathartica
Rhamnus saxatilis
Ribes alpinum
Rosa agrestis
Rosa caesia
Rosa canina aggr.
Rosa foetida
Rosa glauca
Rosa inodora
Rosa majalis
Rosa marginata
Rosa mollis
Rosa montana
Rosa pendulina
Rosa pouzinii
Rosa pulverulenta
Rosa rhaetica
Rosa rubiginosa aggr.
Rosa sherardii
Rosa stylosa
Rosa tomentosa
Rosa villosa
Salix caprea
Sambucus nigra
Sambucus racemosa
Sorbus aria aggr.
Sorbus aucuparia
Spiraea chamaedryfolia
Spiraea crenata
Viburnum lantana
Viburnum opulus

Temperate-upland-riparian-forest-species

Alnus incana
Anthriscus nitida
Chaerophyllum hirsutum
Geum rivale
Matteucia struthiopteris
Petasites albus
Sambucus racemosa
Silene dioica
Telekia speciosa
Thalictrum aquilegifolium

Thermomediterranean-shrubs

Asparagus albus
Asparagus horridus
Chamaerops humilis
Cytisus aeolicus
Euphorbia dendroides

Genista ephedroides
Genista majorica
Maytenus senegalensis
Periploca angustifolia
Ziziphus lotus

Thermophilous-oak-forest-trees

Acer monspessulanum
Acer tataricum
Carpinus orientalis
Castanea sativa
Celtis australis
Celtis planchoniana
Corylus colurna
Fraxinus ornus
Ostrya carpinifolia
Pyrus nivalis
Quercus canariensis
Quercus cerris
Quercus congesta
Quercus dalechampii
Quercus faginea
Quercus frainetto
Quercus gussonei
Quercus hartwissiana
Quercus ichnusae
Quercus macranthera
Quercus petraea
Quercus pubescens
Quercus pyrenaica
Quercus robur
Quercus trojana
Sorbus domestica
Sorbus torminalis
Tilia tomentosa
Zelkova carpinifolia

Thermophilous-oak-forest-trees-specialists

Acer monspessulanum
Acer tataricum
Carpinus orientalis
Celtis australis
Corylus colurna
Fraxinus ornus
Ostrya carpinifolia
Pyrus nivalis
Quercus canariensis
Quercus cerris
Quercus congesta
Quercus dalechampii
Quercus faginea
Quercus frainetto
Quercus gussonei

Quercus hartwissiana
Quercus ichnusae
Quercus macranthera
Quercus pubescens
Quercus trojana
Sorbus domestica

Trees

Abies alba
Abies borisii-regis
Abies cephalonica
Abies cilicica
Abies concolor
Abies grandis
Abies nebrodensis
Abies nordmanniana
Abies pinsapo
Abies procera
Abies sibirica
Abies species
Acacia dealbata
Acacia karoo
Acacia melanoxylon
Acacia saligna
Acer campestre
Acer cappadocicum
Acer divergens
Acer heldreichii
Acer hyrcanum
Acer monspessulanum
Acer negundo
Acer opalus aggr.
Acer platanoides
Acer pseudoplatanus
Acer saccharinum
Acer sempervirens
Acer species
Acer tataricum
Acer trautvetteri
Acer undulatum
Aesculus carnea
Aesculus hippocastanum
Aesculus species
Ailanthus altissima
Alnus cordata
Alnus glutinosa
Alnus incana
Alnus species
Alnus x pubescens
Araucaria araucana
Betula litwinowii
Betula medwediewii
Betula obscura

Betula oycoviensis
Betula pendula
Betula pendula var. fontqueri
Betula pubescens
Betula pubescens var. glabrata
Betula pubescens var. pumila
Betula species
Carpinus betulus
Carpinus orientalis
Carpinus species
Castanea sativa
Castanea species
Catalpa bignonioides
Cedrus atlantica
Cedrus deodara
Cedrus libani
Cedrus species
Celtis australis
Celtis occidentalis
Celtis planchoniana
Celtis tournefortii
Cercis siliquastrum
Chamaecyparis lawsoniana
Chamaecyparis pisifera
Chamaecyparis species
Corylus colurna
Crataegus azarolus
Crataegus germanica
Cupressus arizonica
Cupressus lusitanica
Cupressus macrocarpa
Cupressus sempervirens
Cupressus species
Diospyros lotus
Elaeagnus angustifolia
Elaeagnus species
Eucalyptus camaldulensis
Eucalyptus globulus
Eucalyptus robustus
Eucalyptus species
Fagus crenata
Fagus orientalis
Fagus species
Fagus sylvatica
Fagus sylvatica (cult.)
Fraxinus americana
Fraxinus angustifolia
Fraxinus excelsior
Fraxinus ornus
Fraxinus pallisae
Fraxinus pennsylvanica
Fraxinus species
Gleditsia triacanthos

Ilex aquifolium
Ilex canariensis
Ilex colchica
Juglans cinerea
Juglans mandshurica
Juglans nigra
Juglans regia
Juniperus brevifolia
Juniperus cedrus
Juniperus drupacea
Juniperus excelsa
Juniperus foetidissima
Juniperus thurifera
Larix decidua
Larix kaempferi
Larix sibirica
Larix species
Larix x eurolepis
Laurus azorica
Laurus novocanariensis
Liriodendron tulipifera
Malus baccata
Malus dasycphylla
Malus florentina
Malus prunifolia
Malus pumila
Malus species
Malus sylvestris
Malus trilobata
Metasequoia species
Morus alba
Morus nigra
Morus species
Olea europaea
Ostrya carpinifolia
Paulownia tomentosa
Phoenix canariensis
Phoenix dactylifera
Phoenix theophrasti
Picea abies
Picea glauca
Picea obovata
Picea omorika
Picea orientalis
Picea pungens
Picea sitchensis
Picea species
Pinus banksiana
Pinus brutia
Pinus canariensis
Pinus cembra
Pinus contorta
Pinus halepensis

Pinus heldreichii
Pinus mugo aggr.
Pinus mugo subsp. rotundata
Pinus nigra
Pinus peuce
Pinus pinaster
Pinus pinaster (cult.)
Pinus pinea
Pinus radiata
Pinus rigida
Pinus sibirica
Pinus species
Pinus strobus
Pinus sylvestris
Pinus uncinata
Pinus wallichiana
Pinus x celakovskiorum
Pinus x rhaetica
Pistacia atlantica
Pistacia vera
Platanus occidentalis
Platanus orientalis
Platanus species
Platanus x hispanica
Platyclusus orientalis
Populus alba
Populus balsamifera
Populus carolinensis
Populus laurifolia
Populus nigra
Populus nigra cv. 'Italica'
Populus simonii
Populus species
Populus suaveolens
Populus tremula
Populus tremuloides
Populus trichocarpa
Populus x canadensis
Populus x canescens
Prunus armeniaca
Prunus avium
Prunus brigantina
Prunus cerasifera
Prunus cerasus
Prunus cocomilia
Prunus domestica
Prunus dulcis
Prunus padus
Prunus species
Pseudotsuga menziesii
Pterocarya fraxinifolia
Pterocarya stenoptera
Pyrus bourgaeana

Pyrus communis
Pyrus nivalis
Pyrus syriaca
Quercus alnifolia
Quercus aucheri
Quercus brantii
Quercus canariensis
Quercus canariensis + petraea
Quercus cerris
Quercus coccifera
Quercus coccinea
Quercus congesta
Quercus crenata
Quercus dalechampii
Quercus faginea
Quercus frainetto
Quercus gussonei
Quercus hartwissiana
Quercus humilis + cerrioides
Quercus ichnusae
Quercus ilex
Quercus infectoria
Quercus ithaburensis
Quercus libani
Quercus macranthera
Quercus palustris
Quercus pauciradiata
Quercus petraea
Quercus pontica
Quercus pubescens
Quercus pyrenaica
Quercus robur
Quercus robur (cult.)
Quercus rotundifolia
Quercus rubra
Quercus rubra (cult.)
Quercus species
Quercus suber
Quercus trojana
Quercus x airensis
Quercus x allorgeana
Quercus x andegavensis
Quercus x arrimatensis
Quercus x bedaei
Quercus x calvescens
Quercus x cerrioides
Quercus x firmurensis
Quercus x fontanesii
Quercus x fontqueri
Quercus x gracilis
Quercus x kernerii
Quercus x marianica
Quercus x mixta

Quercus x montserratii
Quercus x neomairei
Quercus x numantina
Quercus x nummantina
Quercus x penasii
Quercus x rosacea
Quercus x rotensis
Quercus x salcedoi
Quercus x senneniana
Quercus x streimii
Quercus x trabutii
Quercus x welwitschii
Robinia pseudoacacia
Salix alba
Salix alba cv. chermesina
Salix babylonica
Salix blanda
Salix caprea
Salix euxina
Schinus molle
Sequoia sempervirens
Sequoiadendron giganteum
Sorbus anglica
Sorbus aria aggr.
Sorbus aucuparia
Sorbus borbasii
Sorbus carpatica
Sorbus dacica
Sorbus domestica
Sorbus hardeggensis
Sorbus hibernica
Sorbus hybrida aggr.
Sorbus intermedia
Sorbus latifolia aggr.
Sorbus pannonica
Sorbus pekarovae
Sorbus quercea
Sorbus roopiana
Sorbus slovenica
Sorbus species
Sorbus sudetica
Sorbus torminalis
Sorbus umbellata
Styphnolobium japonicum
Taxodium distichum
Taxus baccata
Taxus species
Thuja occidentalis
Thuja plicata
Thuja species
Tilia begoniifolia
Tilia cordata
Tilia platyphyllos

Tilia species
Tilia tomentosa
Tilia x vulgaris
Trachycarpus fortunei
Tsuga canadensis
Tsuga heterophylla
Tsuga species
Ulmus glabra
Ulmus laevis
Ulmus minor
Ulmus procera
Ulmus pumila
Ulmus species
Ulmus x hollandica
Xanthocyparis nootkatensis
Zelkova abelicea

Valley-bog-specialists

Drosera anglica
Erica tetralix
Eriophorum angustifolium
Narthecium ossifragum
Odontoschisma sphagni
Pinguicula lusitanica
Sphagnum affine
Sphagnum austinii
Sphagnum imbricatum
Sphagnum papillosum

W-Mediterranean-coastal-spiny-shrubs

Astragalus balearicus
Astragalus tragacantha
Carthamus balearicus
Dorycnium fulgurans
Genista corsica
Genista morisii
Genista sardoa
Launaea cervicornis
Teucrium subspinosum

W-Mediterranean-mountain-thorny-cushion-shrubs

Bupleurum fruticescens
Echinopartum horridum
Echinopartum ibericum
Echinopartum lusitanicum
Erinacea anthyllis
Genista lobelii subsp. longipes
Genista sanabrensis
Genista versicolor
Vella castrilensis
Vella spinosa

W-acidic-garrigue-herbs

Allium scorzonerifolium
Armeria macrophylla
Armeria pinifolia
Armeria rouyana
Armeria velutina
Centaurea alba aggr.
Centaurea carratracensis
Centaurea hanrii
Centaurea sagredoii
Crepis leontodontoides
Cytinus hypocistis
Dianthus broteri
Galatella aragonensis
Helichrysum italicum
Helictochloa hackelii
Hypericum australe
Klasea baetica
Narcissus triandrus
Odontarrhena serpyllifolia
Odontites lanceolatus
Orchis olbiensis
Orobanche artemisiae-campestris
Scorzonera baetica
Sideritis lacaitae
Sideritis marianica
Sideritis paulii
Sideritis perezlarae
Staehelina baetica
Thymelaea lythroides
Thymus albicans
Thymus camphoratus
Thymus capitellatus
Thymus leptophyllus
Thymus zygis

W-acidic-garrigue-shrubs

Cistus albidus
Cistus atriplicifolius
Cistus calycinus
Cistus crispus
Cistus halimifolius
Cistus ladanifer
Cistus lasianthus
Cistus libanotis
Cistus ocymoides
Cistus populifolius
Cistus umbellatus
Cistus varius
Lavandula stoechas
Sideritis arborescens
Sideritis hirsuta
Teucrium marum
Thymus mastichina

Ulex argenteus
Ulex borgiae
Ulex genistoides
Ulex parviflorus

W-basic-garrigue-herbs

Andryala agardhii
Aphyllanthes monspeliensis
Arenaria arcuatociliata
Arenaria delaguardiae
Arenaria tomentosa
Aristolochia bianorii
Aristolochia pistolochia
Armeria filicaulis
Armeria villosa
Astragalus bourgaeanus
Astragalus glaux
Astragalus incanus
Astragalus monspessulanus
Astragalus turolensis
Atractylis cancellata
Atractylis humilis
Bupleurum rigidum
Carlina gummifera
Catananche caerulea
Centaurea alba aggr.
Centaurea antennata
Centaurea emigrantis
Centaurea gadorensis
Centaurea genesii-lopezii
Centaurea granatensis
Centaurea hyssopifolia
Centaurea jaennensis
Centaurea linifolia
Centaurea monticola
Centaurea pinae
Centaurea resupinata
Centaurea toletana
Convolvulus lanuginosus
Coris monspeliensis
Distichoselinum tenuifolium
Echium flavum
Erodium boissieri
Erodium daucoides
Erysimum cazorlense
Erysimum nevadense aggr.
Galium balearicum
Genista scorpius
Glandora nitida
Globularia spinosa
Guillonea scabra
Helianthemum cinereum
Helianthemum marifolium

Helianthemum pannosum
Helictochloa hackelii
Hippocrepis commutata
Hippocrepis eriocarpa
Hippocrepis scorpioides
Hormathophylla cochleata
Iberis nazarita
Iberis procumbens
Jasione crispa
Jurinea pinnata
Klasea baetica
Klasea flavescens
Klasea pinnatifida
Knautia purpurea
Knautia subscaposa
Launaea pumila
Leontodon hirtus
Lepidium subulatum
Leucanthemopsis spathulifolia
Leucanthemum favargerii
Leucanthemum pallens
Limonium album
Limonium carthaginense
Limonium esteveii
Limonium racemosum
Limonium tabernense
Lomelosia pulsatilloides
Lotus tetraphyllus
Micromeria filiformis
Micromeria inodora
Moricandia foetida
Ononis cephalotes
Onosma hispanica
Ophrys arachnitiformis
Ophrys lutea
Ophrys passionis
Ophrys sphegodes
Orobanche latisquama
Paronychia aretioides
Paronychia suffruticosa
Picris hispanica
Ptilostemon hispanicus
Ranunculus malessanus
Rhaponticum coniferum
Rhodanthemum arundanum
Rothmaleria granatensis
Rumex intermedius
Santolina elegans
Santolina viscosa
Scabiosa pulsatilloides
Scorzonera albicans
Scorzonera hirsuta
Scorzonera reverchonii

Teucrium aragonense
Teucrium balthazaris
Teucrium bicolorum
Teucrium carolipau
Teucrium cavanillesianum
Teucrium compactum
Teucrium eriocephalum
Teucrium franchetianum
Teucrium leonis
Teucrium lerrouxii
Teucrium martinii
Teucrium pumilum
Teucrium webbianum
Thapsia gymnesica
Thesium humifusum
Thesium humile
Thymus funkii
Thymus granatensis
Thymus lacaitae
Thymus loscosii
Thymus moroderi
Thymus willdenowii
Thymus zygis
Valeriana tuberosa

W-basic-garrigue-shrubs

Alyssum atlanticum
Anabasis articulata
Anthyllis cytisoides
Anthyllis lagascana
Anthyllis onobrychioides
Anthyllis polycephala
Anthyllis ramburii
Anthyllis rupestris
Anthyllis tejedensis
Anthyllis terniflora
Arenaria alfacarensis
Arenaria aggregata
Asparagus albus
Astracantha granatensis
Astragalus balearicus
Astragalus cavanillesii
Astragalus hispanicus
Chamaespartium undulatum
Cheirolophus intybaceus
Cistus albidus
Cistus atriplicifolius
Cistus clusii
Cistus heterophyllus
Cistus ladanifer
Cistus palhinhae
Coronilla minima
Echinopartum boissieri

Erica multiflora
Erica terminalis
Euphorbia isatidifolia
Euphorbia maresii
Fumana baetica
Vella bourgeana
Fumana fontanesii
Fumana hispidula
Fumana laevis
Fumana paradoxa
Genista dorycnifolia
Genista hispanica
Genista ramosissima
Genista scorpius
Genista tricuspidata
Genista umbellata
Genista valdes-bermejoi
Genista versicolor
Glandora nitida
Hedysarum boveanum
Helianthemum almeriense
Helianthemum asperum
Helianthemum caput-felis
Helianthemum apenninum
Helianthemum hirtum
Helianthemum marifolium
Helianthemum neopiliferum
Helianthemum origanifolium
Helianthemum violaceum
Helianthemum viscarium
Helianthemum viscidulum
Helichrysum litoreum
Herniaria fontanesii
Hippocrepis bourgaei
Hippocrepis fruticescens
Hippocrepis rupestris
Hippocrepis scabra
Hippocrepis squamata
Hormathophylla longicaulis
Hypericum balearicum
Hypericum ericoides
Lavandula angustifolia
Lavandula dentata
Lavandula lanata
Lavandula latifolia
Linum campanulatum
Linum suffruticosum aggr.
Lithodora fruticosa
Nepeta hispanica
Odontarrhena robertiana
Onobrychis conferta
Onobrychis stenorrhiza
Ononis crispa

Ononis fruticosa
Phlomis crinita
Phlomis italica
Phlomis lychnitis
Phlomis purpurea
Polygala rupestris
Pterocephalus spathulatus
Ruta angustifolia
Ruta montana
Salvia blancoana
Salvia candelabrum
Salvia officinalis
Satureja innota
Satureja intricata
Satureja obovata
Scabiosa andryalifolia
Sideritis algarviensis
Sideritis bubanii
Sideritis carbonellis
Sideritis chamaedryfolia
Sideritis dianica
Sideritis glacialis
Sideritis grandiflora
Sideritis hirsuta
Sideritis hyssopifolia
Sideritis ibanyezii
Sideritis ilicifolia
Sideritis incana
Sideritis leucantha
Sideritis murgetana
Sideritis osteoxylla
Sideritis pungens
Sideritis pusilla
Sideritis reverchonii
Sideritis sericea
Sideritis serrata
Sideritis spinulosa
Sideritis tragoriganum
Staehelina dubia
Teucrium algarbiense
Teucrium carthaginense
Teucrium charidemi
Teucrium gnaphalodes
Teucrium haenseleri
Teucrium lanigerum
Teucrium luteum
Teucrium marum
Teucrium murcicum
Teucrium oxylepis
Teucrium reverchonii
Teucrium ronnigeri
Teucrium similatatum
Teucrium subspinosum

Thymelaea argentata
Thymelaea hirsuta
Thymelaea pubescens
Thymelaea sanamunda
Thymelaea tartonraira
Thymelaea tinctoria
Thymelaea velutina
Thymus antoninae
Thymus baeticus
Thymus hyemalis
Thymus longiflorus
Thymus lotocephalus
Thymus membranaceus
Thymus orospedanus
Thymus piperella
Thymus vulgaris
Ulex densus
Ulex parviflorus
Vella lucentina
Vella spinosa

Wet-heath-herbs-and-mosses

Aulacomnium palustre
Carex panicea
Drosera rotundifolia
Gentiana pneumonanthe
Juncus squarrosus
Lycopodiella inundata
Molinia caerulea aggr.
Myrica gale
Narthecium ossifragum
Sphagnum compactum
Sphagnum molle
Sphagnum palustre
Sphagnum tenellum
Thymelaea dendryobryum
Trichophorum cespitosum

##D +01 A25a-Arctic-coastal-salt-marsh

Argentina anserina subsp. groenlandica
Carex glareosa
Carex mackenziei
Carex salina
Carex subspathacea
Carex ursina
Cochlearia anglica
Cochlearia officinalis
Gentianella detonsa
Juncus gerardi
Plantago maritima
Puccinellia nutkaensis
Puccinellia phryganodes
Stellaria humifusa

Triglochin maritima

##D +01 A25b-Baltic-coastal-meadow

Argentina anserina
Blysmopsis rufa
Bolboschoenus maritimus
Calamagrostis neglecta
Carex glareosa
Carex mackenziei
Carex paleacea
Centaurium littorale
Centaurium pulchellum
Eleocharis parvula
Eleocharis uniglumis
Glaux maritima
Juncus gerardi
Lotus tenuis
Odontites litoralis
Plantago maritima
Puccinellia capillaris
Puccinellia distans
Puccinellia nutkaensis
Salicornia europaea aggr.
Spergularia marina
Spergularia media
Trifolium fragiferum
Triglochin maritima

##D +01 A25c-Atlantic-coastal-salt-marsh

Alopecurus bulbosus
Apium graveolens
Argentina anserina
Armeria maritima
Artemisia maritima
Atriplex littoralis
Atriplex prostrata
Bassia hirsuta
Blysmopsis rufa
Bolboschoenus maritimus
Bupleurum tenuissimum
Carex distans
Carex extensa
Centaurium littorale
Centaurium pulchellum
Cochlearia anglica
Cochlearia danica
Cochlearia officinalis
Eleocharis uniglumis
Elytrigia atherica
Frankenia laevis
Frankenia pulverulenta
Glaux maritima
Halimione pedunculata

Halimione portulacoides
Hordeum marinum
Hornungia procumbens
Juncus gerardi
Juncus maritimus
Limonium vulgare
Lotus tenuis
Odontites litoralis
Oenanthe lachenalii
Parapholis strigosa
Plantago maritima
Puccinellia distans
Puccinellia fasciculata
Puccinellia maritima
Puccinellia nutkaensis
Sagina maritima
Salicornia europaea aggr.
Sarcocornia perennis
Schoenoplectus lacustris subsp. glaucus
Spartina anglica
Spartina maritima
Spergularia marina
Spergularia media
Suaeda maritima aggr.
Suaeda vera
Trifolium fragiferum
Triglochin barrelieri
Triglochin maritima
Tripolium pannonicum

##D +01 N11-Atlantic-Baltic-and-Arctic-sand-beach

Atriplex calotheca
Atriplex glabriuscula
Atriplex laciniata
Atriplex littoralis
Atriplex longipes
Atriplex prostrata
Cakile maritima
Honckenya peploides
Mertensia maritima
Polygonum maritimum
Polygonum raii
Salsola kali aggr.
Tripleurospermum maritimum aggr.

##D +01 N13-Atlantic-and-Baltic-shifting-coastal-dune

Ammophila arenaria
Calystegia soldanella
Carex arenaria
Cerastium diffusum
Elytrigia juncea
Eryngium maritimum
Euphorbia paralias

Glaucium flavum
Honckenya peploides
Leymus arenarius
Oenothera oakesiana
Pancratium maritimum
Sonchus arvensis
x-Ammocalamagrostis baltica

##D +01 N15-Atlantic-and-Baltic-coastal-dune-grassland-grey-dune

Alyssum loiseleurii
Anacamptis pyramidalis
Anchusa calcarea
Armeria pungens
Armeria welwitschii
Bupleurum baldense
Calamagrostis epigejos
Carex arenaria
Carex caryophyllea
Cerastium diffusum
Cerastium semidecandrum
Cochlearia danica
Crucianella maritima
Dianthus hyssopifolius subsp. gallicus
Ephedra distachya
Erodium lebelli
Eryngium maritimum
Euphorbia paralias
Euphorbia portlandica
Festuca juncifolia
Festuca polesica
Festuca vasconensis
Fumana procumbens
Galium arenarium
Galium maritimum
Galium verum
Helichrysum italicum subsp. picardii
Helichrysum stoechas
Herniaria ciliolata
Hieracium umbellatum
Iberis procumbens
Imperata cylindrica
Jasione montana
Koeleria albescens
Lagurus ovatus
Leontodon saxatilis
Linaria arenaria
Linaria supina
Matthiola sinuata
Medicago marina
Mibora minima
Myosotis ramosissima
Omphalodes littoralis
Ononis natrix

Ononis repens
Phleum arenarium
Pilosella officinarum
Reichardia gaditana
Saxifraga tridactylites
Sedum acre
Silene conica
Silene nutans
Silene otites aggr.
Syntrichia ruralis aggr.
Thymus carnosus
Veronica officinalis
Vicia lathyroides
Viola curtisii
Viola rupestris
Viola tricolor aggr.
Vulpia fasciculata

##D +01 N1H-Atlantic-and-Baltic-moist-and-wet-dune-slack

Agrostis canina
Anacamptis palustris aggr.
Anagallis tenella
Aneura pinguis
Apium inundatum
Baldellia ranunculoides
Blackstonia perfoliata
Bolboschoenus maritimus
Bryum pseudotriquetrum
Calamagrostis canescens
Calamagrostis stricta
Calliergonella cuspidata
Campylium stellatum
Carex demissa
Carex flacca
Carex hartmanii
Carex nigra
Carex punctata
Carex trinervis
Centaurium erythraea
Centaurium littorale
Centaurium pulchellum
Centunculus minimus
Cicendia filiformis
Cirsium palustre
Cladium mariscus
Dactylorhiza incarnata
Dactylorhiza purpurella
Drepanocladus aduncus
Eleocharis palustris
Eleocharis quinqueflora
Eleocharis uniglumis
Epilobium palustre
Epipactis palustris

Equisetum variegatum
Galium palustre aggr.
Gentianella amarella
Herminium monorchis
Hippuris vulgaris
Hydrocotyle vulgaris
Juncus acutus
Juncus alpinoarticulatus
Juncus arcticus
Juncus articulatus
Juncus balticus
Juncus bufonius aggr.
Juncus subnodulosus
Linum catharticum
Liparis loeselii
Lythrum salicaria
Mentha aquatica
Moerckia hibernica
Oenanthe lachenalii
Ophioglossum vulgatum
Parnassia palustris
Pellia endiviifolia
Phragmites australis
Pilularia globulifera
Plantago uniflora
Platanthera bifolia
Potamogeton coloratus
Potamogeton gramineus
Potamogeton pectinatus
Potentilla erecta
Preissia quadrata
Pyrola rotundifolia
Radiola linoides
Ranunculus baudotii
Ranunculus flammula
Sagina nodosa
Salix repens
Samolus valerandi
Schoenus nigricans
Teucrium scordium
Vaccinium macrocarpon

##D +01 N21-Atlantic-Baltic-and-Arctic-coastal-shingle-beach

Angelica archangelica
Argentina anserina
Atriplex glabriuscula
Atriplex laciniata
Atriplex littoralis
Atriplex praecox
Atriplex prostrata
Beta vulgaris subsp. maritima
Catapodium marinum
Cerastium alpinum

Cochlearia groenlandica
Crambe maritima
Eryngium maritimum
Glaucium flavum
Honckenya peploides
Isatis tinctoria
Lathyrus japonicus
Limbarda crithmoides
Linaria vulgaris
Malva arborea
Mertensia maritima
Polygonum maritimum
Polygonum raii
Rumex crispus
Sagina nivalis
Salsola kali aggr.
Suaeda vera
Tripleurospermum maritimum aggr.
Tripolium pannonicum

##D +01 N31-Atlantic-and-Baltic-rocky-sea-cliff-and-shore

Allium schoenoprasum
Angelica pachycarpa
Armeria berlengensis
Armeria maritima
Armeria pubigera
Asplenium marinum
Atriplex glabriuscula
Atriplex laciniata
Atriplex littoralis
Beta vulgaris subsp. maritima
Catapodium marinum
Cerastium alpinum
Cochlearia danica
Cochlearia groenlandica
Cochlearia officinalis
Cochlearia scotica
Crambe maritima
Crithmum maritimum
Dactylis marina
Daucus gummifer
Euphorbia portlandica
Frankenia laevis
Inula crithmoides
Jasione crispa
Ligusticum scoticum
Limbarda crithmoides
Limonium binervosum aggr.
Limonium dodartii
Limonium normannicum
Limonium ovalifolium
Malva arborea
Matthiola sinuata

Mertensia maritima
Plantago coronopus
Plantago maritima
Polygonum raii
Rumex rupestris
Sagina maritima
Sagina nivalis
Sedum acre
Sesamoides purpurascens
Silene uniflora
Spergularia rupicola
Suaeda vera
Trifolium occidentale
Trifolium scabrum

##D +01 N34-Atlantic-and-Baltic-soft-sea-cliff

Anthyllis vulneraria
Armeria maritima
Brassica oleracea
Daucus carota
Eupatorium cannabinum
Jacobaea vulgaris
Petasites spurius
Plantago coronopus
Plantago maritima
Reseda lutea
Samolus valerandi
Silene uniflora
Tragopogon heterospermus
Tussilago farfara

##D +02 A25d-Mediterranean-and-Black-Sea-coastal-salt-marsh

Aeluropus littoralis
Alopecurus bulbosus
Apium graveolens
Artemisia caerulescens
Artemisia gallica
Artemisia santonicum
Arthrocnemum macrostachyum
Atriplex prostrata
Atriplex tatarica
Bassia hirsuta
Bassia sedoides
Camphorosma annua
Camphorosma monspeliaca
Camphorosma songorica
Carex distachya
Carex extensa
Centaurium pulchellum
Centaurium spicatum
Centaurium tenuiflorum
Elytrigia atherica
Elytrigia elongata

Elytrigia scirpea
Frankenia hirsuta
Frankenia laevis
Frankenia pulverulenta
Gladiolus communis
Gypsophila perfoliata
Gypsophila tomentosa
Halimione pedunculata
Halimione portulacoides
Halocnemum strobilaceum
Hornungia procumbens
Imperata cylindrica
Iris spuria
Jacobaea auricula
Juncus acutus
Juncus gerardi
Juncus maritimus
Juncus subulatus
Lepidium perfoliatum
Limbarda crithmoides
Limoniastrum monopetalum
Limonium algarvense
Limonium angustebracteatum
Limonium bellidifolium
Limonium binervosum
Limonium confusum
Limonium danubiale
Limonium glomeratum
Limonium gmelinii
Limonium narbonense
Limonium ovalifolium
Limonium suffruticosum
Limonium supinum
Limonium tschurjukiense
Limonium virgatum
Limonium vulgare
Linum maritimum
Lotus preslii
Lotus tenuis
Microcnemum coralloides
Petrosimonia brachiata
Plantago cornutii
Plantago crassifolia
Plantago maritima
Podospermum canum
Puccinellia bilykiana
Puccinellia festuciformis
Puccinellia gigantea
Puccinellia syvaschica
Romulea bulbocodium
Rumex pulcher
Salicornia europaea aggr.
Salsola soda

Samolus valerandi
Sarcocornia fruticosa
Sarcocornia perennis
Scirpoides holoschoenus
Silene sedoides
Sonchus crassifolius
Sonchus maritimus
Suaeda acuminata
Suaeda brevifolia
Suaeda corniculata
Suaeda maritima aggr.
Suaeda splendens
Suaeda vera
Triglochin barrelieri
Triglochin maritima
Tripolium pannonicum

##D +02 N12-Mediterranean-and-Black-Sea-sand-beach

Achillea maritima
Anthemis tomentosa
Argusia sibirica
Astragalus baionensis
Atriplex glabriuscula
Atriplex laciniata
Atriplex prostrata
Beta vulgaris subsp. *maritima*
Beta vulgaris subsp. *adanensis*
Cakile maritima
Calystegia soldanella
Crambe maritima
Eryngium maritimum
Euphorbia peplis
Galium neglectum
Glaucium flavum
Hieracium eriophorum
Honckenya peploides
Hypocoum procumbens
Lactuca tatarica
Lathyrus japonicus
Leymus racemosus
Matthiola sinuata
Matthiola tricuspidata
Medicago marina
Oenothera oakesiana
Pancratium maritimum
Polygonum maritimum
Polygonum raii
Raphanus maritimus
Salsola kali aggr.
Silene uniflora
Sporobolus pungens
Tetraena alba
Xanthium orientale

##D +02 N14-Mediterranean-Macaronesian-and-Black-Sea-shifting-coastal-dune

Achillea maritima
Ammophila arenaria
Androcymbium gramineum
Anthemis maritima
Anthemis tomentosa
Astrodaucus littoralis
Calystegia soldanella
Centaurea arenaria aggr.
Convolvulus caput-medusae
Convolvulus persicus
Cutandia maritima
Cyperus capitatus
Echinophora spinosa
Elytrigia juncea
Eryngium maritimum
Euphorbia paralias
Euphorbia peplis
Festuca vaginata
Glaucium flavum
Honckenya peploides
Leymus arenarius
Maresia nana
Medicago falcata
Medicago marina
Ononis natrix
Pancratium maritimum
Peucedanum arenarium
Polycarpaea nivea
Polygonum maritimum
Secale sylvestre
Silene euxina
Silene thymifolia
Sporobolus pungens
Stachys maritima
Tetraena fontanesii

##D +02 N16-Mediterranean-and-Macaronesian-coastal-dune-grassland-grey-dune

Achillea maritima
Alyssum hirsutum
Alyssum minutum
Anagallis monelli
Anthemis maritima
Anthemis tomentosa
Anthyllis hamosa
Anthyllis hermanniae
Armeria pungens
Artemisia monosperma
Asteriscus imbricatus
Atractylis carduus
Calendula suffruticosa
Calystegia soldanella

Carex liparocarpos
Centaurea cuneifolia
Centaurea greuteri
Centaurea sphaerocephala
Centaurea spinosa
Centaurea tommasinii
Cionura erecta
Corynephorus divaricatus
Crucianella maritima
Cynanchum acutum
Cyperus capitatus
Cyperus macrorhizus
Dianthus pyrenaicus
Echinops spinosissimus
Echiochilon fruticosum
Echium angustifolium
Ephedra distachya
Erodium lebelli
Eryngium maritimum
Erysimum diffusum
Erysimum graecum
Euphorbia paralias
Euphorbia terracina
Filago lusitanica
Fumana procumbens
Helichrysum stoechas
Hypericum olympicum
Imperata cylindrica
Jasione heldreichii
Lagurus ovatus
Launaea fragilis
Linaria pedunculata
Lomelosia argentea
Lomelosia rutifolia
Lotus creticus
Lotus cytisoides
Lotus glaucus
Lotus pseudo-creticus
Malcolmia ramosissima
Malcolmia triloba
Maresia nana
Matthiola sinuata
Medicago littoralis
Medicago marina
Ononis angustifolia
Ononis natrix
Ononis tournefortii
Pancratium maritimum
Phleum arenarium
Pimpinella villosa
Plantago albicans
Polycarpaea nivea
Polygonum equisetiforme

Scrophularia ramosissima
Senecio glaucus
Seseli tortuosum
Silene congesta
Silene conica
Silene dichotoma
Silene niceensis
Silene subconica
Sixalix atropurpurea
Stachys atherocalyx
Trachomitum venetum
Traganum moquinii
Verbascum litigiosum
Verbascum pinnatifidum
Verbascum sinuatum
Vulpia alopecuros
Vulpia fasciculata

##D +02 N17-Black-Sea-coastal-dune-grassland-grey-dune

Achillea maritima
Alyssum hirsutum
Alyssum minutum
Artemisia arenaria
Asperula graveolens
Asterolinon linum-stellatum
Astragalus varius
Astrodaucus littoralis
Calystegia soldanella
Carex colchica
Carex liparocarpos
Centaurea arenaria aggr.
Centaurea odessana
Cionura erecta
Convolvulus persicus
Corispermum nitidum
Cynanchum acutum
Cyperus capitatus
Dianthus bessarabicus
Ephedra distachya
Erodium lebelii
Eryngium maritimum
Erysimum diffusum
Erysimum montanum
Euphorbia paralias
Euphorbia seguieriana
Festuca arenicola
Festuca beckeri
Festuca polesica
Fumana procumbens
Goniolimon collinum
Gypsophila perfoliata
Hypericum olympicum
Imperata cylindrica

Jasione heldreichii
Jasione montana
Jurinea kilaea
Lagurus ovatus
Lepidotrichum uechtritizianum
Linaria genistifolia
Linum tauricum
Lomelosia argentea
Lomelosia ucranica
Maresia nana
Medicago littoralis
Medicago marina
Odontarrhena borzaeana
Pancratium maritimum
Peucedanum arenarium
Secale sylvestre
Seseli tortuosum
Silene borysthenica
Silene euxina
Silene thymifolia
Stachys atherocalyx
Stipa borysthenica aggr.
Trachomitum venetum
Verbascum pinnatifidum
Verbascum purpureum

##D +02 N1J-Mediterranean-and-Black-Sea-moist-and-wet-dune-slack

Anacamptis palustris aggr.
Blackstonia perfoliata
Bolboschoenus maritimus
Carex distans
Centaurium pulchellum
Ceratophyllum demersum
Cladium mariscus
Colchicum soboliferum
Cyperus flavescens
Juncus littoralis
Imperata cylindrica
Myriophyllum spicatum
Phragmites australis
Samolus valerandi
Schoenoplectus lacustris
Schoenus nigricans
Scirpoides holoschoenus
Stuckenia pectinata
Tripidium ravennae
Typha angustifolia
Typha latifolia

##D +02 N22-Mediterranean-and-Black-Sea-coastal-shingle-beach

Achillea maritima
Argusia sibirica
Atriplex glabriuscula

Atriplex laciniata
Atriplex prostrata
Beta vulgaris subsp. maritima
Beta vulgaris subsp. adanensis
Cakile maritima
Crambe maritima
Crithmum maritimum
Elytrigia juncea
Eryngium maritimum
Euphorbia peplis
Glaucium flavum
Lactuca tatarica
Leymus racemosus
Malcolmia maritima
Matthiola sinuata
Matthiola tricuspidata
Raphanus maritimus
Salsola kali aggr.
Sporobolus pungens
Xanthium orientale

##D +02 N32-Mediterranean-and-Black-Sea-rocky-sea-cliff-and-shore

Achillea cretica
Allium commutatum
Allium phalereum
Allium staticiforme
Anthemis rigida
Anthyllis barba-jovis
Anthyllis hermanniae
Armeria ruscinonensis
Asteriscus maritimus
Astrodaucus litoralis
Astragalus tragacantha
Atriplex prostrata
Atriplex tatarica
Bassia prostrata
Bellium crassifolium
Bellium minutum
Brassica insularis
Brassica tyrrhena
Camphorosma monspeliaca
Catapodium marinum
Centaurea cineraria
Centaurea filiformis
Centaurea raphanina
Centaurium maritimum
Cephalaria squamiflora
Cichorium spinosum
Convolvulus lineatus
Crithmum maritimum
Crucianella maritima
Daucus carota
Dianthus sardous

Elytrigia atherica
Elytrigia bessarabica
Elytrigia elongata
Euphorbia pithyusa
Frankenia corymbosa
Frankenia hirsuta
Frankenia laevis
Frankenia pulverulenta
Genista thyrrena
Goniolimon collinum
Goniolimon sartorii
Gypsophila perfoliata
Halimione verrucifera
Helichrysum litoreum
Helichrysum stoechas
Helichrysum rupestre
Hyoseris taurina
Hypericum aegypticum
Jacobaea maritima
Lactuca saligna
Lactuca tatarica
Launaea cervicornis
Limbarda crithmoides
Limonium acutifolium
Limonium ammophilon
Limonium anfractum
Limonium antipaxorum
Limonium apulum
Limonium arcuatum
Limonium aucheri
Limonium aegaeum
Limonium albomarginatum
Limonium amopicum
Limonium anfractum
Limonium aphroditae
Limonium apulum
Limonium archeothirae
Limonium astypaleanum
Limonium athinense
Limonium atticum
Limonium balearicum
Limonium biflorum
Limonium bocconeii
Limonium brevipetiolatum
Limonium calabrum
Limonium calliopsium
Limonium cancellatum
Limonium caprariense
Limonium cordatum
Limonium coronense
Limonium carpathum
Limonium cephalonicum
Limonium chrisianum

Limonium circaei
Limonium compactum
Limonium cordatum
Limonium corinthiacum
Limonium cornarianum
Limonium crateriforme
Limonium creticum
Limonium cumanum
Limonium cythereum
Limonium diomedeam
Limonium dolihiense
Limonium doriae
Limonium dufourii
Limonium ebusitanum
Limonium elaphonisicum
Limonium fragile
Limonium frederici
Limonium gibertii
Limonium girardianum
Limonium gmelinii
Limonium graecum
Limonium helenae
Limonium heraionense
Limonium hierapetrae
Limonium hirsuticalyx
Limonium ilvae
Limonium inarimense
Limonium ikaricum
Limonium isidorum
Limonium ithacense
Limonium kardamylii
Limonium japygicum
Limonium lacinium
Limonium malacitanum
Limonium majoricum
Limonium marisoliai
Limonium meandrinum
Limonium melancholicum
Limonium messeniaticum
Limonium meyeri
Limonium microcycladicum
Limonium minoicum
Limonium monolithicum
Limonium multifforme
Limonium ocymifolium
Limonium oligotrichum
Limonium parosicum
Limonium pseudodictyocladum
Limonium pseudominutum
Limonium phitosianum
Limonium pigadiense
Limonium proliferum
Limonium pylium

Limonium quinnii
Limonium recticaule
Limonium remotispiculum
Limonium retirameum
Limonium roridum
Limonium samium
Limonium saracinatum
Limonium sartorianum
Limonium sougiae
Limonium schinousae
Limonium sieberi
Limonium syracusanum
Limonium sirinicum
Limonium sitiacum
Limonium sommierianum
Limonium spreitzenhoferi
Limonium stenotatum
Limonium sulcitanum
Limonium taenari
Limonium tenuiculum
Limonium thirae
Limonium tremolsii
Limonium vanandense
Limonium vravronense
Limonium virgatum
Limonium xerocomposicum
Limonium xiliense
Limonium zacynthium
Lotus cytisoides
Matthiola sinuata
Pallenis maritima
Parapholis strigosa
Paronychia macrosepala
Phagnalon rupestre
Phleum crypsoides
Phleum exaratum
Phleum subulatum
Plantago coronopus aggr.
Plantago macrorhiza
Prangos ferulacea
Psilurus incurvus
Reichardia picroides
Rhaponticum serratuloides
Sagina maritima
Salsola aegaea
Scolymus hispanicus
Sedum litoreum
Seseli bocconeii
Silene caliacrae
Silene compacta
Silene fabaria
Silene martinolii
Silene rothmaleri

Silene sedoides
Sonchus asper
Stachys ionica
Thymbra capitata
Thymelaea hirsuta
Thymelaea tartonraira
Trifolium uniflorum
Valantia muralis
Xanthium spinosum

##D +02 N33-Macaronesian-rocky-sea-cliff-and-shore

Argyranthemum frutescens
Asplenium marinum
Astydamia latifolia
Atractylis preauxiana
Azorina vidalii
Crithmum maritimum
Daucus azoricus
Euphorbia azorica
Festuca petraea
Frankenia ericifolia
Frankenia laevis
Frankenia pulverulenta
Helichrysum devium
Helichrysum obconicum
Limonium brassicifolium
Limonium fruticans
Limonium imbricatum
Limonium lowei
Limonium macrophyllum
Limonium papillatum
Limonium pectinatum
Limonium pyramidatum
Lotus glaucus
Lotus loweanus
Myosotis maritima
Plantago coronopus aggr.
Reichardia crystallina
Reichardia ligulata
Sinapidendron frutescens
Solidago sempervirens
Spergularia azorica

##D +02 N35-Mediterranean-and-Black-Sea-soft-sea-cliff

Argusia sibirica
Artemisia santonicum
Bassia hirsuta
Brassica elongata
Campanula sibirica
Camphorosma monspeliaca
Cynanchum acutum
Elytrigia elongata
Diploaxis muralis

Glycyrrhiza glabra
Kochia prostrata
Lactuca tatarica
Linum tenuifolium
Matthiola odoratissima
Peganum harmala
Petrosimonia triandra
Salvia tomentosa
Senecio vernalis
Teucrium polium aggr.

##D +03 H21-Boreal-and-arctic-siliceous-scrree-and-block-field

Alchemilla alpina
Arabidopsis petraea
Arabis alpina
Arabis glabra
Arctostaphylos uva-ursi
Arenaria norvegica
Armeria maritima
Avenella flexuosa
Campanula rotundifolia
Carex bigelowii
Cerastium alpinum
Cerastium nigrescens
Cerastium regelii
Cryptogramma crispa
Cystopteris fragilis
Draba daurica
Draba incana
Draba norvegica
Dryas octopetala
Dryopteris carthusiana
Empetrum nigrum aggr.
Epilobium angustifolium
Epilobium collinum
Epilobium latifolium
Equisetum variegatum
Erigeron acris
Erysimum hieraciifolium
Festuca ovina
Festuca rubra aggr.
Festuca vivipara
Galium normanii
Galium verum
Gentiana nivalis
Gymnocarpium dryopteris
Hieracium alpinum
Huperzia selago
Hylotelephium telephium
Juncus trifidus
Juniperus communis subsp. nana
Lotus corniculatus
Luzula arcuata

Luzula spicata
Minuartia biflora
Minuartia rubella
Minuartia stricta
Oxyria digyna
Papaver radicum
Poa alpina
Poa glauca
Poa nemoralis
Polygonatum odoratum
Polypodium vulgare
Polystichum lonchitis
Potentilla crantzii
Potentilla nivea
Potentilla hyparctica
Ranunculus glacialis
Ranunculus sulphureus
Rhodiola rosea
Rosa villosa
Rubus idaeus
Rubus saxatilis
Salix herbacea
Salix starkeana
Saxifraga aizoides
Saxifraga cernua
Saxifraga cespitosa
Saxifraga nivalis
Saxifraga oppositifolia
Sedum annuum
Silene acaulis
Silene suecica
Silene uniflora
Silene viscaria
Solidago virgaurea
Thalictrum alpinum
Tofieldia pusilla
Trisetum spicatum
Vaccinium myrtillus
Vaccinium uliginosum
Vaccinium vitis-idaea
Verbascum nigrum
Verbascum thapsus
Veronica fruticans
Vicia sylvatica
Viola canina
Viola tricolor aggr.
Woodsia ilvensis

##D +03 H22-Boreal-and-arctic-base-rich-scree

Arabidopsis petraea
Arabis alpina
Arenaria humifusa
Arenaria norvegica

Arenaria pseudofrigida
Artemisia norvegica
Braya linearis
Braya purpurascens
Campanula rotundifolia
Carex bigelowii
Carex capillaris
Carex fuliginosa
Carex glacialis
Carex rupestris
Cerastium alpinum
Draba fladnizensis
Draba nivalis
Draba norvegica
Dryas octopetala
Equisetum scirpoides
Equisetum variegatum
Gymnocarpium robertianum
Kobresia myosuroides
Kobresia simpliciuscula
Luzula arcuata
Minuartia rubella
Minuartia stricta
Oxytropis lapponica
Papaver laestadianum
Papaver radicum
Pinguicula alpina
Poa alpina
Poa glauca
Potentilla nivea
Salix reticulata
Saxifraga aizoides
Saxifraga nivalis
Saxifraga oppositifolia
Silene acaulis
Thalictrum alpinum
Tofieldia pusilla
Woodsia alpina

##D +03 H23-Temperate-high-mountain-siliceous-scrub

Achillea erba-rotta
Achillea nana
Aconogonon alpinum
Androsace alpina
Androsace hedraeantha
Armeria alpina
Athyrium distentifolium
Bellardiochloa variegata
Cardamine glauca
Cardamine resedifolia
Cerastium pedunculatum
Cerastium pyrenaicum
Cerastium uniflorum

Cochlearia tatrae
Cryptogramma crispa
Cystopteris fragilis
Doronicum clusii
Doronicum grandiflorum
Dryopteris oreades
Festuca picturata
Gentiana frigida
Geum reptans
Gymnocarpium dryopteris
Jacobaea leucophylla
Linaria alpina
Luzula alpinopilosa
Luzula spicata
Minuartia sedoides
Oreochloa disticha
Oxyria digyna
Pedicularis verticillata
Poa cenisia
Poa laxa
Ranunculus glacialis
Saxifraga adscendens
Saxifraga androsacea
Saxifraga bryoides
Saxifraga carpatica
Saxifraga cernua
Saxifraga oppositifolia
Saxifraga pedemontana
Senecio doronicum
Senecio squalidus subsp. rupestris
Silene acaulis
Veronica baumgartenii

##D +03 H24-Temperate-high-mountain-base-rich-scrub

Achillea atrata
Achillea clusiana
Achillea oxyloba
Adenostyles alpina
Adonis distorta
Alchemilla decumbens
Alyssum cuneifolium
Alyssum repens
Alyssum wulfenianum
Aquilegia pyrenaica
Arabidopsis neglecta
Arabis alpina
Arabis caerulea
Arabis ferdinandi-coburgii
Arenaria bertolonii
Arenaria ciliata
Asplenium fissum
Asplenium scolopendrium
Athamanta cretensis

Bunium alpinum
Campanula cochleariifolia
Campanula pulla
Campanula rotundifolia
Centaurea parlatoris
Centaurea rupestris aggr.
Cerastium carinthiacum
Cerastium tomentosum
Cerastium transsilvanicum
Cochlearia tatrae
Crepis pygmaea
Cystopteris montana
Degenia velebitica
Delphinium oxyspalum
Dioscorea pyrenaica
Doronicum carpaticum
Draba fladnizensis
Dryopteris mindshelkensis
Dryopteris villarii
Festuca glacialis
Festuca pyrenaica
Galium baldense
Galium megalospermum
Galium noricum
Galium pyrenaicum
Galium stojanovii
Gnaphalium hoppeanum
Gnaphalium pichleri
Gypsophila repens
Hornungia alpina
Hypochaeris robertia
Iberis spathulata
Leucanthemum atratum aggr.
Leucopoa dimorpha
Leucopoa pulchella
Ligusticum ferulaceum
Linaria purpurea
Minuartia cerastiifolia
Moehringia ciliata
Moehringia muscosa
Myosotis alpestris
Noccaea bellidifolia
Noccaea rotundifolia
Noccaea stilosa
Papaver alpinum
Papaver pyrenaicum
Papaver suaveolens
Petasites paradoxus
Poa dolosa
Poa minor
Polystichum lonchitis
Ranunculus breyninus
Ranunculus carinthiacus

Ranunculus parnassifolius
Reseda glauca
Rhodiola rosea
Rumex scutatus
Salix retusa
Saxifraga aizoides
Saxifraga bryoides
Saxifraga carpatica
Saxifraga glabella
Saxifraga moschata
Saxifraga oppositifolia
Saxifraga pedemontana
Saxifraga sedoides
Saxifraga wahlenbergii
Sedum atratum
Seseli malyi
Thlaspi kernerii
Thymus pulcherrimus
Tolpis staticifolia
Trisetum distichophyllum
Trisetum spicatum
Valeriana bertiscea
Valeriana elongata
Veronica aragonensis
Veronica baumgartenii
Veronica nummularia
Veronica saturejoides
Viola grisebachiana
Viola magellensis
Xatardia scabra

##D +03 H25-Temperate-lowland-to-montane-siliceous-scrub

Achnatherum calamagrostis
Anarrhinum bellidifolium
Armeria alpina
Asplenium adiantum-nigrum
Biscutella valentina
Conopodium bunioides
Cryptogramma crispa
Digitalis purpurea
Digitalis thapsi
Dryopteris affinis
Dryopteris expansa
Dryopteris oreades
Dryopteris tyrrhena
Epilobium collinum
Erysimum humile
Galeopsis ladanum
Galeopsis pyrenaica
Galeopsis segetum
Galeopsis tetrahit
Geranium robertianum
Holcus annuus

Hylotelephium telephium
Jacobaea leucophylla
Linaria alpina
Linaria repens
Linaria saxatilis
Melica ciliata
Pimpinella major
Poa nemoralis
Reseda gredensis
Rumex suffruticosus
Santolina oblongifolia
Scrophularia oxyrhyncha
Scrophularia scorodonia
Scrophularia sublyrata
Senecio pyrenaicus
Senecio viscosus
Taraxacum pyrenaicum
Trisetum hispidum
Xatardia scabra

##D +03 H26a-Temperate-lowland-to-montane-base-rich-scrree

Achnatherum calamagrostis
Aethionema saxatile
Arabis alpina
Biscutella neustriaca
Cystopteris fragilis
Eupatorium cannabinum
Festuca xanthina
Galeopsis angustifolia
Galeopsis ladanum
Galium fleurotii
Gymnocarpium robertianum
Hieracium bifidum
Iberis violletii
Lamium garganicum
Leontodon hyoseroides
Linaria supina
Melica ciliata
Microrrhinum minus
Moehringia muscosa
Origanum vulgare
Parietaria officinalis
Rumex scutatus
Scrophularia canina
Senecio squalidus subsp. rupestris
Silene saxifraga
Silene vulgaris
Sisymbrium supinum
Teucrium botrys
Teucrium montanum
Thymus comosus
Vincetoxicum hirundinaria
Viola hispida

##D +03 H26b-Western-Mediterranean-base-rich-scree

Achillea barrelieri
Achnatherum calamagrostis
Adonis distorta
Allium palentinum
Alyssum fastigiatum
Androsace ciliata

Andryala ragusina
Aquilegia cazorlensis
Aquilegia discolor
Arabis alpina
Arenaria bertolonii
Arrhenatherum album
Biscutella valentina
Bunium alpinum
Bunium macuca
Bupleurum ranunculoides
Calamagrostis pseudophragmites
Campanula arvatica
Campanula cochleariifolia
Campanula jaubertiana
Carduus carlinoides
Centaurea rupestris aggr.
Centaurea delucae
Centaurea prolongoi
Centranthus lecoqii
Centranthus ruber
Cerastium soleirolii
Cerastium thomasii
Cerastium tomentosum
Cirsium acaulon
Cochlearia aragonensis
Coincya monensis
Conopodium thalictrifolium
Crambe filiformis
Crepis granatensis
Crepis oporinoides
Crepis pygmaea
Cystopteris montana
Doronicum grandiflorum
Dryopteris mindshelkensis
Dryopteris oreades
Echium albicans
Erucastrum nasturtiifolium
Eryngium glaciale
Erysimum duriaei
Erysimum gorbeanum
Euphorbia nevadensis
Festuca glacialis
Galeopsis angustifolia
Galium cespitosum

Galium cometerhizon
Galium corsicum
Galium pyrenaicum
Galium rosellum
Gouffeia arenarioides
Gymnocarpium robertianum
Hornungia alpina
Hypochaeris robertia
Iberis carnosa
Iberis ciliata
Iberis spathulata
Jurinea fontqueri
Lactuca singularis
Lactuca tenerrima
Lactuca viminea
Laserpitium gallicum
Leontodon hyoseroides
Leucanthemum coronopifolium
Leucanthemum laciniatum
Leucopoa dimorpha
Linaria aeruginea
Linaria badalii
Linaria filicaulis
Linaria glacialis
Linaria propinqua
Linaria purpurea
Linaria supina
Minuartia cerastiifolia
Myosotis alpestris
Nepeta amethystina
Nepeta nepetella
Noccaea stylosa
Papaver ernesti-mayeri
Papaver lapeyrousianum
Plantago monosperma
Platycapnos saxicola
Poa balbisii
Polystichum lonchitis
Ptilostemon niveus
Ptychotis saxifraga
Ranunculus alpestris
Ranunculus parnassifolius
Reseda valentina
Rumex scutatus
Salix breviserrata
Saxifraga oppositifolia
Saxifraga pedemontana
Saxifraga praetermissa
Scrophularia canina
Scrophularia sciophila
Secale strictum
Sedum annum
Sedum brevifolium

Sedum monregalense
Senecio pyrenaicus
Silene boryi
Silene inaperta
Silene secundiflora
Spergula viscosa
Taraxacum sect. Alpina
Tolpis staticifolia
Trisetum distichophyllum
Verbascum conocarpum
Veronica alpina
Veronica mampodrensis
Veronica nummularia
Vicia glauca
Viola crassiuscula
Viola diversifolia
Viola magellensis

##D +03 H26c-Eastern-Mediterranean-base-rich-scrub

Acantholimon ulicinum
Achillea abrotanoides
Achillea ambrosiaca
Achnatherum calamagrostis
Aethionema cordatum
Aethionema saxatile
Aethionema speciosum
Aethionema stylosum
Allium tauricola
Alopecurus textilis
Alyssum argyrophyllum
Alyssum chondrogynum
Alyssum handelii
Alyssum scardicum
Alyssum sphacioticum
Alyssum troodi
Androsace multiscapa
Androsace villosa
Anthemis plutonia
Anthriscus kotschyi
Anthriscus sylvestris
Arenaria balansae
Arenaria conferta
Arenaria kotschyana
Asperula idaea
Asperula muscosa
Asperula stricta
Astragalus haussknechtii
Astragalus oxytropifolius
Astragalus pelliger
Bornmuellera baldaccii
Bubon albanicum
Bunium microcarpum
Campanula hawkinsiana

Cardamine carnosae
Cardamine glauca
Centaurea cyprensis
Centaurea idaea
Centranthus calcitrapae
Cerastium cerastoides
Cerastium gnaphalodes
Cicer incisum
Clinopodium troodi
Corydalis blanda

Corydalis rutifolia
Corydalis uniflora
Crepis frigida
Crepis sibthorpiana
Crepis willdenowii
Cyanus bourgaei
Cyclotrichium origanifolium
Cynoglossum troodii
Dianthus petraeus
Dianthus sphacioticus
Dianthus strictus
Draba cretica
Drypis spinosa
Elytrigia lazica
Elytrigia tauri
Euphorbia cassia
Euphorbia deflexa
Euphorbia herniariifolia
Euphorbia pestalozzae
Festuca adanensis
Festuca anatolica
Fritillaria crassifolia
Fumana paphlagonica
Galium cilicicum
Galium corrudifolium
Galium incanum
Geocaryum cynapioides
Geranium macrorrhizum
Geranium subcaulescens
Grafia golaka
Hedysarum cyprium
Hedysarum erythroleucum
Heldreichia bourgaei
Heldreichia bupleurifolia
Heldreichia rotundifolia
Helianthemum hymettium
Heracleum humile
Hyacinthella millingenii
Hypericum confertum
Hypericum crenulatum
Iberis simplex
Jurinea moschus

Lactuca glareosa
Lactuca intricata
Lamium eriocephalum
Lamium garganicum
Laserpitium petrophilum
Leucopoa spectabilis
Linaria corifolia
Linaria microsepala
Lindbergella sintenisii
Lomelosia crenata
Lomelosia sphaciotica
Malcolmia orsiniana
Mattiastrum lithospermifolium
Minuartia attica
Minuartia juniperina
Minuartia pichleri
Minuartia rimarum
Nepeta cilicica
Nepeta concolor
Nepeta sphaciotica
Noccaea oppositifolia
Noccaea sintenisii
Noccaea zaffranii
Odontarrhena akamasica
Odontarrhena bertolonii
Odontarrhena cyprica
Odontarrhena fragillima
Onosma troodi
Oxyria digyna
Peltaria alliacea
Peucedanum alpinum
Phagnalon pygmaeum
Phyllolepidum cyclocarpum
Poa cenisia
Podospermum radicosum
Pseudofumaria alba
Ptilostemon afer
Ranunculus brevifolius
Ranunculus cadmicus
Ranunculus radinotrichus
Ricotia cretica
Ricotia davisiana
Ricotia varians
Salvia veneris
Scrophularia canina
Scrophularia depauperata
Scrophularia myriophylla
Scrophularia rimarum
Scutellaria hirta
Scutellaria orientalis
Senecio fruticulosus
Senecio squalidus subsp. rupestris
Senecio thapsoides

Sesleria phleoides
Sesleria robusta
Silene caesia
Silene fabaria
Silene fabarioides
Silene haussknechtii
Silene multicaulis
Silene nuncupanda
Silene pentelica
Silene supina
Silene variegata
Thamnosciadium junceum
Thymus integer
Thymus leucotrichus
Valantia aprica
Valeriana bertiscea
Vavilovia formosa
Veronica caespitosa
Veronica cuneifolia
Veronica tauricola
Veronica thessalica
Vicia alpestris
Vicia canescens
Viola albanica
Viola calcarata
Viola crassifolia
Viola dukadjinica
Viola fragrans
Viola striis-notata

##D +03 H31a-Boreal-and-arctic-siliceous-inland-cliff

Alchemilla alpina
Arabidopsis petraea
Arenaria norvegica
Asplenium adiantum-nigrum
Asplenium septentrionale
Asplenium trichomanes
Astragalus alpinus
Cerastium alpinum
Cystopteris fragilis
Draba incana
Draba norvegica
Epilobium collinum
Hieracium schmidtii
Hylotelephium maximum
Poa glauca
Polypodium vulgare
Saxifraga cotyledon
Silene rupestris
Silene suecica
Stellaria graminea
Veronica fruticans
Woodsia alpina

Woodsia ilvensis

##D +03 H31b-Temperate-high-mountain-siliceous-inland-cliff

Agrostis rupestris
Agrostis schraderiana
Androsace alpina
Androsace vandellii
Androsace wulfeniana
Anthemis pindicola
Artemisia genipi
Artemisia glacialis
Artemisia umbelliformis
Asplenium septentrionale
Aurinia saxatilis
Bupleurum stellatum
Campanula wanneri
Centaurea deustiformis
Dianthus sylvestris
Dianthus tristis
Draba dubia
Erigeron schleicheri
Eritrichium nanum
Erysimum rhaeticum
Hylotelephium anacampseros
Jacobaea carniolica
Minuartia cherlerioides
Phyteuma hemisphaericum
Phyteuma humile
Phyteuma scheuchzeri
Poa laxa
Potentilla doerfleri
Potentilla haynaldiana
Primula hirsuta
Primula minima
Saxifraga aspera
Saxifraga bryoides
Saxifraga cotyledon
Saxifraga exarata
Saxifraga florulenta
Saxifraga juniperifolia
Saxifraga muscoides
Saxifraga pedemontana
Sempervivum arachnoideum
Sempervivum grandiflorum
Sempervivum marmoreum
Sempervivum montanum
Sempervivum wulfenii
Silene acaulis
Silene dinarica
Silene lerchenfeldiana
Veronica baumgartenii
Woodsia alpina

##D +03 H31c-Temperate-lowland-to-montane-siliceous-inland-cliff

Achillea chamaemelifolia
Asarina procumbens
Asplenium adiantum-nigrum
Asplenium marinum
Asplenium obovatum
Asplenium septentrionale
Asplenium trichomanes
Asplenium trichomanes x alternifolium
Aurinia saxatilis
Centaurea pectinata
Centaurea prolongoi
Coincya monensis
Cystoperis fragilis
Dianthus graniticus
Dianthus henteri
Dianthus pyrenaicus
Epilobium collinum
Hieracium schmidtii
Jovibarba heuffelii
Leucanthemum monspeliense
Minuartia recurva
Polypodium vulgare
Primula minima
Saxifraga hypnoides
Saxifraga paradoxa
Saxifraga rosace
Sedum hirsutum
Sedum stefco
Sempervivum calcareum
Sesamoides purpurascens
Silene rupestris
Veronica bachofenii
Woodsia ilvensis

##D +03 H31d-Mediterranean-siliceous-inland-cliff

Alchemilla crenulata
Alchemilla saxatilis
Alchemilla serratisaxatilis
Allosorus hispanicus
Allosorus tinaei
Androsace vandellii
Antirrhinum grosii
Aquilegia bernardii
Armeria leucocephala
Asarina procumbens
Asplenium adiantum-nigrum
Asplenium foreziense
Asplenium obovatum
Asplenium septentrionale
Asplenium trichomanes
Bufonia macropetala
Campanula samothracica

Castroviejoa frigida
Centaurea avilae
Centranthus nevadensis
Cystopteris fragilis
Dianthus sylvestris
Draba dubia
Draba loiseleurii
Dryopteris pallida
Erigeron paolii
Erodium rupicola
Festuca sardoa
Hieracium carpetanum
Hieracium schmidtii
Hypericum cuisinii
Jasione crispa
Leucanthemum corsicum
Leucanthemum monspeliense
Linaria capraria
Linaria purpurea
Minuartia recurva
Murbeckiella boryi
Narcissus rupicola
Phyteuma serratum
Polygonum icaricum
Polypodium cambricum
Potentilla crassinervia
Saxifraga genesiana
Saxifraga nevadensis
Saxifraga pedemontana
Saxifraga pentadactylis
Saxifraga sibirica
Saxifraga vayredana
Scabiosa corsica
Sempervivum minutum
Silene boryi
Silene foetida
Silene requienii
Umbilicus horizontalis

##D +03 H32a-Boreal-and-arctic-base-rich-inland-cliff

Arabidopsis petraea
Arabis alpina
Arenaria norvegica
Asplenium ruta-muraria
Asplenium scolopendrium
Asplenium trichomanes
Asplenium viride
Cerastium nigrescens
Cystopteris fragilis
Draba fladnizensis
Draba incana
Poa glauca
Polypodium vulgare

Potentilla crantzii
Rhodiola rosea
Saxifraga adscendens
Saxifraga nivalis
Saxifraga paniculata
Saxifraga rivularis
Silene suecica
Woodsia alpina

##D +03 H32b-Temperate-high-mountain-base-rich-inland-cliff

Achillea oxyloba
Androsace cylindrica
Androsace helvetica
Androsace lactea
Arabis stellulata
Artemisia umbelliformis
Asperula hirta
Asplenium seelosii
Asplenium trichomanes
Asplenium viride
Ballota frutescens
Campanula cochleariifolia
Cystopteris fragilis
Draba aizoides
Draba kotschyi
Draba norvegica
Draba sauteri
Draba tomentosa
Festuca stenantha
Gypsophila petraea
Hieracium humile
Hormathophylla purpurea
Kerneria saxatilis
Minuartia rupestris
Petrocallis pyrenaica
Phyteuma charmelii
Phyteuma cordatum
Potentilla alchimilloides
Potentilla caulescens
Potentilla nivalis
Potentilla saxifraga
Primula allionii
Primula marginata
Ramonda myconi
Rhamnus pumila
Saxifraga aretioides
Saxifraga callosa
Saxifraga longifolia
Saxifraga marginata
Saxifraga media
Saxifraga moschata
Saxifraga mutata
Silene campanula

Thymus pulcherrimus
Trisetum bertolonii

##D +03 H32c-Temperate-lowland-to-montane-base-rich-inland-cliff

Androsace hausmannii
Androsace helvetica
Androsace lactea
Arabis pumila
Arabis stellulata
Asplenium scolopendrium
Asplenium trichomanes
Asplenium viride
Campanula cespitosa
Carex brachystachys
Carex ornithopoda
Cystopteris fragilis
Draba aizoides
Draba norvegica
Draba sauteri
Draba tomentosa
Festuca alpina
Festuca stenantha
Hieracium bupleuroides
Hieracium humile
Kenera saxatilis
Moehringia muscosa
Petrocallis pyrenaica
Polypodium interjectum
Potentilla caulescens
Rhamnus pumila
Saxifraga cuneifolia
Sedum hispanicum
Valeriana saxatilis
Valeriana tripteris
Woodsia pulchella

##D +03 H32d-Mediterranean-base-rich-inland-cliff

Achillea ageratifolia
Achillea cretica
Achillea pindicola
Aethionema lycium
Aethionema saxatile
Aethionema schistosum
Aethionema spicatum
Alchemilla ellenbergiana
Allium antonii-bolosii
Allium grosii
Allosorus acrosticus
Allosorus hispanicus
Allosorus persicus
Alyssoides cretica
Amelanchier parviflora
Anogramma leptophylla

Anthriscus kotschyi
Antirrhinum hispanicum
Antirrhinum microphyllum
Antirrhinum pertegasii
Antirrhinum pulverulentum
Antirrhinum subbaeticum
Antirrhinum valentinum
Arabis alpina
Arabis bryoides
Arenaria balearica
Arenaria cretica
Arenaria deflexa
Arenaria kotschyana
Arenaria pamphylica
Arenaria tmolea
Arenaria uninervia
Artemisia chamaemelifolia
Asperula arcadiensis
Asperula boissieri
Asperula boryana
Asperula pau
Asperula pubescens
Asperula serotina
Asperula stricta
Asperula tournefortii
Asplenium aegaeum
Asplenium ceterach
Asplenium creticum
Asplenium fissum
Asplenium fontanum
Asplenium lepidum
Asplenium petrarchae
Asplenium ruta-muraria
Asplenium sagittatum
Asplenium seelosii
Asplenium tadei
Asplenium trichomanes
Asyneuma compactum
Asyneuma linifolium
Asyneuma lycium
Athamanta vayredana
Aubrieta canescens
Aubrieta deltoidea
Aubrieta thessala
Aurinia corymbosa
Aurinia saxatilis
Bellium bellidioides
Biscutella frutescens
Brassica balearica
Brassica cretica
Bubon macedonicum
Bufonia calyculata
Bupleurum barceloi

Bupleurum kakiskalae
Campanula affinis
Campanula aizoon
Campanula celsii
Campanula cretica
Campanula cymbalaria
Campanula isaurica
Campanula laciniata
Campanula mollis
Campanula oreadum
Campanula pelviformis
Campanula rupestris
Campanula rupicola
Campanula tubulosa
Campanula versicolor
Capparis orientalis
Cardamine plumierii
Carex rorulenta
Carum meoides
Centaurea argentea
Centaurea boissieri
Centaurea cariensis
Centaurea clementei
Centaurea drabifolia
Centaurea lancifolia
Centaurea mariana
Centaurea ossaea
Centaurea poculatoris
Centaurea redempta
Centaurea resupinata
Centaurea rouyi
Centaurea saxicola
Centaurea segariensis
Centranthus ruber
Cephalaria squamiflora
Chaenorhinum organifolium
Chaenorhinum tenellum
Chiliadenus glutinosus
Clinopodium rouyanum
Clinopodium serpyllifolium
Cosentinia vellea
Crepis auriculifolia
Crepis triasii
Crocus cambessedesii
Cystopteris fragilis
Danthoniastrum compactum
Davallia canariensis
Dianthus elegans
Dianthus fruticosus
Dianthus juniperinus
Dianthus rupicola
Dianthus xylorrhizus
Digitalis dubia

Doronicum cacaliifolium
Dorystaechas hastata
Draba acaulis
Draba lacaitae
Draba lasiocarpa
Draba scardica
Ebenus cretica
Erodium reichardii
Eryngium ternatum
Erysimum candicum
Euphorbia herniariifolia
Festuca pseudosupina
Ficus carica
Galatella cretica
Galium canum
Galium crespianum
Galium degenii
Galium erythrorrhizon
Galium fruticosum
Galium graecum
Geranium glaberrimum
Globularia majoricensis
Gnaphalium leucopilinum
Gypsophila montserratii
Helichrysum crassifolium
Helichrysum heldreichii
Helichrysum melitense
Helichrysum orientale
Helictochloa crassifolia
Hieracium amplexicaule
Hieracium aragonense
Hieracium bourgaei
Hieracium candidum
Hieracium elisaeum
Hieracium humile
Hieracium laniferum
Hieracium lawsonii
Hieracium loscosianum
Hieracium mixtum
Hieracium pannosum
Hieracium sartorianum
Hieracium scapigerum
Hieracium texedense
Hippocrepis balearica
Hippocrepis valentina
Hirtellina fruticosa
Hirtinella lobelii
Hormathophylla cadevalliana
Hormathophylla cochleata
Hormathophylla reverchonii
Hypericum aciferum
Hypericum amblycalyx
Hypericum jovis

Hypericum origanifolium
Hypericum taygeteum
Iberis gibraltarica
Inula candida
Inula heterolepis
Inula methanaea
Inula oxylepis
Inula parnassica
Inula pseudolimonella
Inula verbascifolia
Jacobaea gnaphalioides
Jankaea heldreichii
Jasione foliosa
Lactuca acanthifolia
Lafuentea rotundifolia
Laserpitium petrophilum
Lepidium villarsii
Linaria anticaria
Linaria cavanillesii
Linaria verticillata
Linum arboreum
Lomelosia albocincta
Lomelosia crenata
Lomelosia cretica
Lomelosia hymettia
Lomelosia minoana
Lomelosia variifolia
Macrotomia densiflora
Melica rectiflora
Michauxia tchihatcheffii
Micromeria filiformis
Micromeria myrtifolia
Minuartia verna
Moehringia intricata
Myosotis speluncicola
Narcissus calcicola
Naufraga balearica
Nepeta concolor
Nepeta phyllochlamys
Odontites linkii
Omphalodes luciliae
Onobrychis sphaciotica
Onosma graeca
Origanum dictamnus
Papaver rupifragum
Petromarula pinnata
Petrorhagia dianthoides
Phagnalon rupestre
Phagnalon sordidum
Phyllolepidum cyclocarpum
Poa cenisia
Polypodium cambricum
Polypodium interjectum

Polypodium vulgare
Potentilla deorum
Potentilla kotschyana
Potentilla pulvinaris
Potentilla speciosa
Pseudoscabiosa grosii
Pseudoscabiosa saxatilis
Ptilostemon chamaepeuce
Ramonda myconi
Ranunculus creticus
Ranunculus weyleri
Rhamnus alpina
Rhamnus libanotica
Rhamnus pumila
Rhamnus sibthorpiana
Rosularia libanotica
Rosularia serrata
Rubia angustifolia
Rupicapnos africana
Sanguisorba ancistroides
Sanguisorba cretica
Sarcocapnos baetica
Sarcocapnos crassifolia
Sarcocapnos enneaphylla
Sarcocapnos pulcherrima
Satureja parnassica
Saxifraga biternata
Saxifraga bourgaeana
Saxifraga camposii
*Saxifraga corsica**Saxifraga cuneata*
Saxifraga exarata
Saxifraga federici-augusti
Saxifraga fragilis
Saxifraga glabella
Saxifraga granatensis
Saxifraga kotschyi
Saxifraga latepetiolata
Saxifraga longifolia
Saxifraga losae
Saxifraga luteoviridis
Saxifraga marginata
Saxifraga moncayensis
Saxifraga paniculata
Saxifraga porophylla
Saxifraga reuteriana
Saxifraga rigoi
Saxifraga scardica
Saxifraga sempervivum
Saxifraga sibthorpii
Saxifraga spruneri
Saxifraga taygetea
Scorzonera cretica
Scrophularia depauperata

Scrophularia heterophylla
Scrophularia kotschyana
Scrophularia libanotica
Scutellaria hirta
Securigera globosa
Sedum dasyphyllum
Sedum magellense
Selaginella denticulata
Sempervivum marmoreum
Senecio castagneanus
Sesleria doerfleri
Sesleria insularis
Sibthorpia africana
Sideritis glauca
Sideritis perfoliata
Sideritis stachydioides
Silene andryalifolia
Silene auriculata
Silene boryi
Silene congesta
Silene gazulensis
Silene gigantea
Silene hifacensis
Silene leptoclada
Silene mollissima
Silene odontopetala
Silene parnassica
Silene pusilla
Silene saxifraga
Silene tomentosa
Solenopsis balearica
Stachys candida
Stachys chrysantha
Stachys parolinii
Stachys spreitzenhoferi
Stachys swainsonii
Staehelina petiolata
Symphytum creticum
Tanacetum argenteum
Tanacetum armenum
Teucrium aroanium
Teucrium buxifolium
Teucrium cuneifolium
Teucrium fragile
Teucrium francisci-wernerii
Teucrium freynii
Teucrium halacsyanum
Teucrium hifacense
Teucrium intricatum
Teucrium rivas-martinezii
Teucrium rivasii
Teucrium rotundifolium
Teucrium thymifolium

Thymus richardii
Trisetum velutinum
Umbilicus horizontalis
Umbilicus luteus
Umbilicus rupestris
Valeriana apula
Valeriana asarifolia
Valeriana longiflora
Valeriana sisymbriifolia
Valeriana speluncaria
Valeriana tripteris
Verbascum arcturus
Verbascum pestalozzae
Veronica bellidioides
Veronica kotschyana
Viola chelmea
Viola herzogii
Viola parnonia
Viola perinensis
Viola poetica

##D +03 H32ef-Ultramafic-inland-cliff

Asplenium adiantum-nigrum subsp. serpentini
Asplenium adulterinum
Asplenium alternifolium
Asyneuma limonifolium
Drymocallis malacophylla
Halacsya sendtneri
Noccaea praecox
Odontarrhena muralis
Onosma echioides
Paragymnopteris marantae
Silene flavescens

##D +03 H32g-Mediterranean-ultramafic-inland-cliff

Allosorus guanchicus
Allosorus pteridioides
Asplenium balearicum
Asplenium foreziense
Asplenium obovatum
Cosentinia vellea
Paragymnopteris marantae
Pellaea calomelanos
Rosularia serpentinica
Viola sandrasea

##D +03 H33-Macaronesian-inland-cliff

Adiantum reniforme
Aeonium aizoon
Aeonium aureum
Aeonium balsamiferum
Aeonium canariense
Aeonium castello-paivae

Aeonium cuneatum
Aeonium decorum
Aeonium diplocyclum
Aeonium glandulosum
Aeonium glutinosum
Aeonium gomerense
Aeonium goochiae
Aeonium haworthii
Aeonium hierrense
Aeonium holochrysum
Aeonium lancerottense
Aeonium manriqueorum
Aeonium mascaense
Aeonium nobile
Aeonium palmense
Aeonium percarneum
Aeonium rubrolineatum
Aeonium saundersii
Aeonium sedifolium
Aeonium simsii
Aeonium smithii
Aeonium spathulatum
Aeonium subplanum
Aeonium tabulaeforme
Aeonium undulatum
Aeonium urbicum
Aeonium valverdense
Aeonium vestitum
Aeonium virgineum
Aeonium viscatum
Aeonium x burchardii
Aeonium x meyerheimii
Aichryson bethencourtianum
Aichryson bituminosum
Aichryson bollei
Aichryson brevipetalum
Aichryson divaricatum
Aichryson dumosum
Aichryson laxum
Aichryson pachycaulon
Aichryson parlatorei
Aichryson punctatum
Aichryson tortuosum
Aichryson villosum
Allagopappus canariensis
Allosorus acrosticus
Allosorus fragilis
Allosorus guanchicus
Allosorus pteridioides
Allosorus tinaei
Andryala crithmifolia
Andryala glandulosa
Anogramma leptophylla

Asplenium aethiopicum
Asplenium aureum
Asplenium hemionitis
Asplenium lolegnamense
Asplenium marinum
Asplenium monanthes
Asplenium septentrionale
Athamanta cervariifolia
Babcockia platylepis
Bethencourtia palmensis
Cosentinia vellea
Crambe arborea
Crambe laevigata
Crambe scaberrima
Crepis vesicaria subsp. *andryaloides*
Cyrtomium falcatum
Cystopteris fragilis
Davallia canariensis
Dendriopoterium menendezii
Festuca agustini
Galium productum
Greenovia dodrentalis
Habenaria tridactylites
Hypericum grandifolium
Hypericum reflexum
Hypochaeris oligocephala
Matthiola maderensis
Micromeria teneriffae
Micromeria varia
Minuartia platyphylla
Monanthes adenoscepes
Monanthes anagensis
Monanthes brachycaulon
Monanthes icterica
Monanthes laxiflora
Monanthes lowei
Monanthes muralis
Monanthes pallens
Monanthes polyphylla
Monizia edulis
Musschia aurea
Paragymnopteris marantae
Parietaria filamentosa
Pericallis lanata
Phyllis viscosa
Plantago leiopetala
Polycarpaea carnosa
Polypodium cambricum subsp. *azoricum*
Polypodium cambricum subsp. *macaronesicum*
Polypodium x *fontqueri*
Rhamnus integrifolia
Salvia broussonetii
Saxifraga maderensis

Saxifraga portosanctana
Sedum brissemoretii
Sedum farinosum
Sedum fusiforme
Sedum nudum
Selaginella kraussiana
Silene berthelotiana
Sinapidendron angustifolium
Sinapidendron frutescens
Sinapidendron gymnocalyx
Sinapidendron rupestre
Sonchus acaulis
Sonchus congestus
Sonchus gummifer
Sonchus pendulus
Sonchus radicans
Sonchus tectifolius
Sonchus tuberifer
Thelypteris pozoi
Tolpis calderae
Tolpis crassiuscula
Tolpis lagopoda
Tolpis macrorrhiza
Tolpis succulenta
Vieraea laevigata
Woodwardia radicans

##D +03 H34-Wet-inland-cliff

Adiantum capillus-veneris
Alchemilla glabra
Asplenium scolopendrium
Borago pygmaea
Carex brachystachys
Cystopteris fragilis
Dianthus nitidus
Hypericum hircinum
Hypericum nummularium
Moehringia muscosa
Phegopteris connectilis
Pinguicula grandiflora
Pinguicula hirtiflora
Polypodium interjectum

##D +03 H51b-Polar-desert

Alopecurus magellanicus
Cerastium nigrescens
Cerastium regelii
Draba corymbosa
Draba pauciflora
Luzula confusa
Papaver radicum
Phippsia algida
Poa arctica

Ranunculus sabinii
Saxifraga cespitosa
Saxifraga hyperborea
Saxifraga oppositifolia

##D +03 H61-Mediterranean-and-temperate-volcanic-field

Agrostis canina subsp. monteluccii
Anthemis aetnensis
Argyranthemum tenerifae
Cerastium tomentosum
Rumex aetnensis
Saponaria sicula
Scleranthus perennis subsp. vulcanicus
Senecio squalidus subsp. aethnensis
Silene nocteolens
Viola cheiranthifolia

##D +04 N16-Mediterranean-and-Macaronesian-coastal-dune-grassland-grey-dune

Achillea maritima
Alyssum hirsutum
Alyssum minutum
Anagallis monelli
Anthemis maritima
Anthemis tomentosa
Anthyllis hamosa
Anthyllis hermanniae
Armeria pungens
Artemisia monosperma
Asteriscus imbricatus
Atractylis carduus
Calendula suffruticosa
Calystegia soldanella
Carex liparocarpos
Centaurea cuneifolia
Centaurea greuteri
Centaurea sphaerocephala
Centaurea spinosa
Centaurea tommasinii
Cionura erecta
Corynephorus divaricatus
Crucianella maritima
Cynanchum acutum
Cyperus capitatus
Cyperus macrorhizus
Dianthus pyrenaicus
Echinops spinosissimus
Echiochilon fruticosum
Echium angustifolium
Ephedra distachya
Erodium lebelli
Eryngium maritimum
Erysimum diffusum
Erysimum graecum

Euphorbia paralias
Euphorbia terracina
Filago lusitanica
Fumana procumbens
Helichrysum stoechas
Hypericum olympicum
Imperata cylindrica
Jasione heldreichii
Lagurus ovatus
Launaea fragilis
Linaria pedunculata
Lomelosia argentea
Lomelosia rutifolia
Lotus creticus
Lotus cytisoides
Lotus glaucus
Lotus pseudo-creticus
Malcolmia ramosissima
Malcolmia triloba
Maresia nana
Matthiola sinuata
Medicago littoralis
Medicago marina
Ononis angustifolia
Ononis natrix
Ononis tournefortii
Pancratium maritimum
Phleum arenarium
Pimpinella villosa
Plantago albicans
Polycarpaea nivea
Polygonum equisetiforme
Scrophularia ramosissima
Senecio glaucus
Seseli tortuosum
Silene congesta
Silene conica
Silene dichotoma
Silene niceensis
Silene subconica
Sixalix atropurpurea
Stachys atherocalyx
Trachomitum venetum
Traganum moquinii
Verbascum litigiosum
Verbascum pinnatifidum
Verbascum sinuatum
Vulpia alopecuros
Vulpia fasciculata

##D +04 N17-Black-Sea-coastal-dune-grassland-grey-dune

Alyssum hirsutum
Alyssum

Anchusa velenovskyi
Artemisia campestris
Asperula graveolens
Asterolinon linum-stellatum
Astragalus varius
Carex colchica
Carex liparocarpos
Centaurea arenaria aggr.
Centaurea odessana
Cionura erecta
Corispermum nitidum
Cynanchum acutum
Cyperus capitatus
Dianthus bessarabicus
Ephedra distachya
Erodium lebelii
Eryngium maritimum
Erysimum diffusum
Erysimum montanum
Euphorbia paralias
Euphorbia seguieriana
Festuca arenicola
Festuca beckeri
Festuca polesica
Fumana procumbens
Goniolimon collinum
Jasione heldreichii
Jasione montana
Jurinea kilaea
Lagurus ovatus
Lepidotrichum uechtritzianum
Linaria genistifolia
Linum tauricum
Lomelosia argentea
Medicago littoralis
Odontarrhena borzaeana
Pancratium maritimum
Peucedanum arenarium
Rumex acetosella
Schoenoplectus mucronatus
Secale sylvestre
Seseli tortuosum
Silene borysthenica
Silene euxina
Silene thymifolia
Stachys atherocalyx
Stipa borysthenica aggr.
Teucrium polium aggr.
Trachomitum venetum
Verbascum pinnatifidum
Verbascum purpureum

##D +04 C11a-Permanent-oligotrophic-waterbody-with-very-soft-water-species

Eleocharis palustris
Eriocaulon aquaticum
Isoetes boryana
Isoetes lacustris
Isoetes longissima
Isoetes setacea
Isolepis fluitans
Lobelia dortmanna
Luronium natans
Myriophyllum alterniflorum
Plantago uniflora
Potamogeton epihydrus
Ranunculus reptans
Subularia aquatica

##D +04 C11b-Permanent-oligotrophic-to-mesotrophic-waterbody-with-soft-water-species

Alisma gramineum
Antinoria agrostidea
Aristavena setacea
Baldellia alpestris
Baldellia ranunculoides
Eleocharis acicularis
Eleocharis multicaulis
Eleocharis palustris
Hydrocotyle vulgaris
Isoetes lacustris
Isoetes setacea
Isolepis fluitans
Juncus bulbosus
Juncus emmanuelis
Juncus heterophyllus
Lobelia dortmanna
Luronium natans
Lycopodiella inundata
Myriophyllum alterniflorum
Pilularia globulifera
Plantago uniflora
Potamogeton gramineus
Potamogeton polygonifolius
Ranunculus ololeucos
Ranunculus reptans
Samolus valerandi
Sparganium angustifolium
Subularia aquatica

##D +04 C12a-Permanent-oligotrophic-to-mesotrophic-waterbody-with-Characeae

Nitella flexilis

##D +04 C12b-Mesotrophic-to-eutrophic-waterbody-with-vascular-plants

Ceratophyllum demersum
Elodea canadensis
Hydrocharis morsus-ranae
Myriophyllum spicatum

Nelumbo nucifera
Nuphar lutea
Nuphar pumila
Nymphaea alba
Potamogeton acutifolius
Potamogeton alpinus
Potamogeton berchtoldii
Potamogeton compressus
Potamogeton friesii
Potamogeton lucens
Potamogeton natans
Potamogeton perfoliatus
Potamogeton trichoides
Ranunculus aquatilis
Ranunculus circinatus
Stratiotes aloides
Trapa natans
Utricularia vulgaris

##D +04 C14-Permanent-dystrophic-waterbody

Juncus bulbosus
Myriophyllum alterniflorum
Potamogeton alpinus
Potamogeton perfoliatus
Sparganium angustifolium
Sparganium emersum
Sparganium natans
Utricularia intermedia
Utricularia minor
Utricularia vulgaris

##D +04 C15-Permanent-inland-saline-and-brackish-waterbody

Althenia filiformis
Althenia orientalis
Callitriche lenisulca
Callitriche stagnalis
Callitriche truncata
Najas marina
Najas minor
Ranunculus peltatus subsp. baudotii
Ranunculus polyphyllus
Ruppia cirrhosa
Ruppia maritima
Stuckenia pectinata
Zannichellia obtusifolia
Zannichellia palustris
Zannichellia pedicellata

##D +04 C16b-Mediterranean-temporary-waterbody

Agrostis salmantica
Baldellia ranunculoides
Bellis annua
Briza minor

Callitriche brutia
Callitriche platycarpa
Callitriche truncata
Centaurium maritimum
Centaurium spicatum
Chaetopogon fasciculatus
Cicendia filiformis
Crassula tillaea
Crassula vaillantii
Cyperus longus
Cyperus michelianus
Damasonium alisma
Damasonium bourgaei
Damasonium polyspermum
Elatine gussonei
Elatine macropoda
Eryngium corniculatum
Exaculum pusillum
Illecebrum verticillatum
Isoetes azorica
Isoetes boryana
Isoetes durieui
Isoetes heldreichii
Isoetes histrix
Isoetes setacea
Isoetes velata
Juncus capitatus
Juncus foliosus
Juncus pygmaeus
Lotus angustissimus
Lotus conimbricensis
Lotus parviflorus
Lythrum castellanum
Lythrum flexuosum
Lythrum thymifolia
Lythrum tribracteatum
Marsilea batardae
Marsilea strigosa
Mentha cervina
Mentha pulegium
Nananthea perpusilla
Neoschischkinia pourrettii
Ophioglossum lusitanicum
Pilularia minuta
Polypogon subspathaceus
Ranunculus batrachioides
Ranunculus dichotomiflorus
Ranunculus lateriflorus
Ranunculus muricatus
Ranunculus ophioglossifolius
Ranunculus revelieri
Ranunculus sardous
Ranunculus trilobus

Sisymbrella aspera
Solenopsis corsica
Solenopsis laurentia
Solenopsis minuta

##D +04 C21a-Base-poor-spring-and-spring-brook

Cardamine acris
Cardamine amara
Cardamine flexuosa
Carex remota
Carex vaginata
Chrysosplenium alternifolium
Chrysosplenium oppositifolium
Circaea alpina
Circaea x intermedia
Crepis paludosa
Epilobium alsinifolium
Epilobium hornemannii
Epilobium nutans
Epilobium obscurum
Epilobium palustre
Impatiens noli-tangere
Montia fontana
Myosotis stolonifera
Petasites frigidus
Pinguicula balcanica
Poa remota
Ranunculus hederaceus
Ranunculus omiophyllus
Saxifraga aizoides
Saxifraga stellaris
Stellaria alsine
Veronica nevadensis

##D +04 C21b-Calcareous-spring-and-spring-brook

Arabis soyeri
Carex acutiformis
Carex appropinquata
Carex atrofusca
Carex capillaris
Carex capitata
Carex flava
Carex saxatilis
Cochlearia pyrenaica
Deschampsia argentea
Epilobium davuricum
Equisetum scirpoides
Equisetum variegatum
Juncus biglumis
Juncus triglumis
Montia fontana
Oenanthe divaricata
Pinguicula longifolia

Pinguicula vulgaris
Saxifraga aizoides

##D +04 C22a-Permanent-non-tidal-fast-turbulent-watercourse-of-montane-to-alpine-regions-with-
 mosses

Blindia acuta
Brachythecium plumosum
Brachythecium rivulare
Scapania undulata
Porina clorotica
Dermatocarpon luridum
Cinclidotus fontinaloides
Cinclidotus riparius
Dichodontium pellucidum
Fontinalis antipyretica
Hydrogrimmia mollis
Hygrohypnum molle
Hygrohypnum smithii
Schistidium rivulare
Jungermannia exsertifolia
Philonotis fontana
Platyhypnidium riparioides
Pohlia wahlenbergii
Rhacomitrium fasciculare

##D +04 C22b-Permanent-non-tidal-fast-turbulent-watercourse-of-plains-montane-regions-with-
 Ranunculus

Berula erecta
Butomus umbellatus
Callitriche cophocarpa
Callitriche hamulata
Glyceria fluitans
Myriophyllum alterniflorum
Potamogeton alpinus
Potamogeton berchtoldii
Potamogeton coloratus
Potamogeton gramineus
Potamogeton nodosus
Potamogeton perfoliatus
Potamogeton polygonifolius
Ranunculus aquatilis
Ranunculus circinatus
Ranunculus fluitans
Ranunculus peltatus
Ranunculus penicillatus
Ranunculus penicillatus subsp. *pseudofluitans*
Ranunculus trichophyllus
Sium latifolium
Sparganium angustifolium
Sparganium emersum
Sparganium erectum aggr.
Veronica anagallis-aquatica
Veronica beccabunga

##D +04 C23-Permanent-non-tidal-smooth-flowing-watercourse

Berula erecta
Butomus umbellatus
Callitriche cophocarpa
Callitriche hamulata
Helosciadium nodiflorum
Mentha aquatica
Nasturtium officinale
Potamogeton berchtoldii
Potamogeton coloratus
Potamogeton crispus
Potamogeton gramineus
Potamogeton lucens
Potamogeton natans
Potamogeton nodosus
Potamogeton perfoliatus
Potamogeton polygonifolius
Potamogeton pusillus
Ranunculus aquatilis
Ranunculus circinatus
Ranunculus trichophyllus
Rorippa amphibia
Sagittaria sagittifolia
Schoenoplectus lacustris
Sium latifolium
Sparganium emersum
Sparganium erectum aggr.
Stuckenia pectinata
Veronica anagallis-aquatica
Veronica beccabunga
Zannichellia palustris

##D +04 C24-Tidal-river-upstream-from-the-estuary

Bolboschoenus maritimus
Callitriche truncata
Deschampsia wibeliana
Elatine hydropiper
Elatine triandra
Jacobaea paludosa
Najas marina
Najas minor
Nasturtium officinale
Oenanthe conioides
Potamogeton nodosus
Potamogeton perfoliatus
Sagittaria sagittifolia
Schoenoplectus triqueter
Senecio sarracenicus
Sparganium emersum
Vallisneria spiralis
Veronica anagallis-aquatica
Veronica catenata

Zannichellia palustris

##D +04 C25a-Temperate-temporary-running-watercourse

Glyceria fluitans
Glyceria notata
Helosciadium nodiflorum
Mentha aquatica
Myosotis scorpioides aggr.
Nasturtium officinale
Ranunculus peltatus
Ranunculus penicillatus subsp. *pseudofluitans*
Veronica anagallis-aquatica

##D +04 C35a-Periodically-exposed-shore-with-stable-eutrophic-sediments-with-pioneer-vegetation

Alopecurus aequalis
Bidens cernuus
Bidens connata
Bidens frondosus
Bidens radiatus
Bidens tripartitus
Corrigiola litoralis
Oxybasis glauca
Oxybasis rubra
Persicaria dubia
Persicaria foliosa
Persicaria hydropiper
Persicaria lapathifolia
Persicaria minor
Potentilla supina
Pulicaria vulgaris
Ranunculus sceleratus
Rorippa palustris
Rumex maritimus
Tephrosieris palustris

##D +04 C35b-Periodically-exposed-shore-with-stable-mesotrophic-sediments-with-pioneer-vegetation

Anagallis minima
Blackstonia perfoliata
Carex bohémica
Centaurium pulchellum
Cerastium dubium
Chaetopogon fasciculatus
Cicendia filiformis
Coleanthus subtilis
Corrigiola litoralis
Crassula aquatica
Crassula tillaea
Cyperus flavescens
Cyperus fuscus
Cyperus michelianus
Damasonium alisma

Elatine alsinastrum
Elatine hexandra
Elatine hydropiper
Elatine macropoda
Elatine triandra
Eleocharis acicularis
Eleocharis ovata
Fimbristylis dichotoma
Gnaphalium uliginosum
Gypsophila muralis
Hypericum humifusum
Illecebrum verticillatum
Isoetes durieui
Isoetes histrix
Isoetes velata
Isolepis setacea
Juncus bufonius aggr.
Juncus capitatus
Juncus pygmaeus
Juncus tenageia
Koenigia islandica
Limosella aquatica
Lindernia dubia
Lindernia procumbens
Ludwigia palustris
Lythrum hyssopifolia
Lythrum tribracteatum
Mentha pulegium
Myosurus minimus
Neoschischkinia pourrettii
Potentilla supina
Pulicaria vulgaris
Radiola linoides
Ranunculus lateriflorus
Ranunculus muricatus
Ranunculus ophioglossifolius
Ranunculus sardous
Sagina apetala
Sagina nodosa
Samolus valerandi
Solenopsis laurentia
Solenopsis minuta
Spergularia echinosperma
Spergularia rubra
Verbena supina
Veronica anagalloides
Veronica catenata
Veronica scardica

##D +04 C35c-Periodically-exposed-saline-shore-with-pioneer-vegetation

Centaurium pulchellum
Corrigiola telephiifolia
Cressa cretica

Crypsis aculeata
Crypsis alopecuroides
Crypsis schoenoides
Cyperus flavescens
Cyperus pannonicus
Digitaria debilis
Eleocharis carniolica
Fimbristylis bisumbellata
Fimbristylis dichotoma
Glinus lotoides
Heliotropium supinum
Juncus biglumis
Juncus tenageia
Juncus triglumis
Koenigia islandica
Lepidium coronopus
Lepidium latifolium
Lythrum hyssopifolia
Lythrum tribracteatum
Oxybasis glauca
Panicum debile
Paspalum distichum
Polygonum salsugineum
Polypogon maritimus
Polypogon monspeliensis
Pulicaria arabica
Pulicaria sicula
Samolus valerandi
Spergularia marina
Spergularia media
Verbena supina

##D +04 C35d-Unvegetated-or-sparsely-vegetated-shore-with-mobile-sediments-in-montane-alpine-
regions

Astragalus alpinus
Calamagrostis neglecta
Calamagrostis pseudophragmites
Cerastium alpinum
Chaerophyllum hirsutum
Chondrilla chondrilloides
Cotoneaster cinnabarinus
Elymus fibrosus
Elymus alaskanus
Elymus transbaicalensis
Epilobium colchicum
Epilobium dodonaei
Epilobium fleischeri
Epilobium latifolium
Epilobium roseum
Equisetum variegatum
Erigeron acris
Festuca vivipara
Gnaphalium uliginosum

Hippophae rhamnoides
Luzula spicata
Myosotis scorpioides aggr.
Myosoton aquaticum
Oenanthe crocata
Petasites hybridus
Petasites kablikianus
Ptychotis saxifraga
Rumex scutatus
Saxifraga aizoides
Scrophularia canina
Tolpis staticifolia
Trifolium saxatile

##D +04 C35e-Unvegetated-or-sparsely-vegetated-shore-with-mobile-sediments-in-the-Mediterranean-region

Agrostis semiverticillata
Andryala integrifolia
Arenaria montana
Asperula purpurea
Centranthus ruber
Conopodium thalictrifolium
Cyperus fuscus
Dittrichia viscosa
Dysphania botrys
Epilobium dodonaei
Erucastrum nasturtiifolium
Festuca duriotagana
Galium corrudifolium
Glaucium flavum
Iberis carnosa
Lactuca viminea
Lotus creticus
Paspalum dilatatum
Paspalum distichum
Paspalum vaginatum
Polypogon viridis
Reseda valentina
Santolina etrusca
Santolina chamaecyparissus aggr.
Saponaria officinalis
Satureja montana
Scrophularia canina
Scrophularia sciophila
Seseli tortuosum
Xanthium orientale

##D +04 Q51-Tall-helophyte-bed

Acorus calamus
Bolboschoenus laticarpus
Bolboschoenus maritimus
Butomus umbellatus
Calamagrostis canescens

Calamagrostis purpurea
Equisetum fluviatile
Galium palustre aggr.
Glyceria maxima
Iris pseudacorus
Lycopus europaeus
Lysimachia vulgaris
Lythrum salicaria
Mentha aquatica
Myosotis scorpioides aggr.
Phalaroides arundinacea
Phragmites australis
Ranunculus lingua
Schoenoplectus corymbosus
Schoenoplectus lacustris
Scolochloa festucacea
Scutellaria galericulata
Sium latifolium
Sparganium erectum aggr.
Thelypteris palustris
Typha angustifolia
Typha domingensis
Typha latifolia
Typha laxmannii
Typha minima
Typha shuttleworthii

##D +04 Q52-Small-helophyte-bed

Alisma gramineum
Alisma lanceolata
Alisma plantago-aquatica
Alopecurus aequalis
Alopecurus magellanicus
Arctophila fulva
Beckmannia syzigachne
Berula erecta
Bolboschoenus glaucus
Bolboschoenus planiculmis
Bolboschoenus yagara
Butomus umbellatus
Calla palustris
Carex pseudocyperus
Carex reuteriana
Catabrosa aquatica
Cicuta virosa
Comarum palustre
Eleocharis mamillata
Eleocharis palustris
Eleocharis uniglumis
Festuca rothmaleri
Galium broterianum
Galium palustre aggr.
Glyceria declinata

Glyceria fluitans
Glyceria nemoralis
Glyceria notata
Glyceria spicata
Helosciadium bermejoi
Helosciadium nodiflorum
Hippuris vulgaris
Hydrocotyle vulgaris
Hypericum undulatum
Juncus subnodulosus
Leersia oryzoides
Lycopus europaeus
Lysimachia vulgaris
Mentha aquatica
Menyanthes trifoliata
Myosotis scorpioides aggr.
Nasturtium officinale
Oenanthe aquatica
Oenanthe crocata
Persicaria amphibia
Ranunculus flammula
Ranunculus gmelinii
Ranunculus lingua
Ranunculus omiophyllus
Rorippa amphibia
Rumex hydrolapathum
Sagittaria sagittifolia
Scutellaria galericulata
Sium latifolium
Sparganium emersum
Thelypteris palustris
Veronica anagallis-aquatica
Veronica beccabunga

##D +04 Q53-Tall-sedge-bed

Calamagrostis purpurea
Carex acuta
Carex acutiformis
Carex appropinquata
Carex aquatilis
Carex buxbaumii
Carex canescens
Carex cespitosa
Carex diandra
Carex disticha
Carex elata
Carex hispida
Carex lasiocarpa
Carex lyngbyei
Carex melanostachya
Carex paniculata
Carex randalpina
Carex rhynchophysa

Carex riparia
Carex rostrata
Carex vesicaria
Carex vulpina
Cladium mariscus
Lysimachia thyrsiflora
Peucedanum palustre
Scolochloa festucacea

##D +04 Q54-Inland-saline-or-brackish-helophyte-bed

Atriplex prostrata
Bolboschoenus maritimus
Carex distachya
Carex extensa
Carex melanostachya
Cirsium brachycephalum
Juncus acutus
Juncus gerardi
Juncus maritimus
Juncus subulatus
Melilotus dentatus
Mentha pulegium
Phragmites australis
Puccinellia distans
Puccinellia peisonis
Schoenoplectus lacustris subsp. glaucus
Schoenoplectus litoralis
Schoenoplectus pungens
Schoenoplectus triqueter
Scorzonera parviflora
Tripolium pannonicum
Typha domingensis
Typha laxmannii

##D +04 Bog-species

Alectoria nigricans
Andromeda polifolia
Aulacomnium palustre
Betula nana
Breutelia chrysocoma
Calluna vulgaris
Calypogeia sphagnicola
Campylopus atrovirens
Carex durieui
Carex pauciflora
Cephalozia connivens
Cephalozia loitlesbergeri
Cephaloziella elachista
Cetraria delisei
Chamaedaphne calyculata
Cladonia stellaris
Dicranum elongatum
Dicranum leioneuron

Dicranum undulatum
Drosera rotundifolia
Empetrum nigrum aggr.
Erica ciliaris
Erica mackaiana
Erica tetralix
Eriophorum vaginatum
Gymnocolea inflata
Icmadophila ericetorum
Juncus squarrosus
Kurzia pauciflora
Lophozia laxa
Mylia anomala
Narthecium ossifragum
Odontoschisma sphagni
Pinguicula villosa
Pleurozia purpurea
Pleurozium schreberi
Polytrichum strictum
Racomitrium lanuginosum
Rhododendron tomentosum
Rhynchospora alba
Rhynchospora fusca
Rubus chamaemorus
Schoenus nigricans
Sphaerophorus globosus aggr.
Sphagnum auriculatum+inundatum
Sphagnum austinii
Sphagnum balticum
Sphagnum capillifolium aggr.
Sphagnum compactum
Sphagnum fuscum
Sphagnum magellanicum aggr.
Sphagnum papillosum
Sphagnum recurvum aggr.
Sphagnum rubellum
Sphagnum russowii
Sphagnum strictum
Sphagnum subnitens
Sphagnum tenellum
Trichophorum cespitosum
Vaccinium microcarpum
Vaccinium oxycoccos
Vaccinium uliginosum

##D +04 Fen-species

Agrostis canina
Anagallis tenella
Andromeda polifolia
Aneura pinguis
Aulacomnium palustre
Bartsia alpina
Bellis bernardii

Bellium nivale
Blysmus compressus
Bryum pseudotriquetrum
Calamagrostis neglecta
Calliergon giganteum
Calliergon richardsonii
Carnyliadelphus elodes
Carnylium stellatum
Carnylopus atrovirens
Carex appropinquata
Carex aquatilis
Carex atrofusca
Carex bicolor
Carex bulgarica
Carex buxbaumii
Carex canescens
Carex capillaris
Carex capitata
Carex davalliana
Carex demissa
Carex diandra
Carex dioica
Carex echinata
Carex elata
Carex flava
Carex frigida
Carex heleonastes
Carex hostiana
Carex chordorrhiza
Carex lachenalii
Carex lapponica
Carex lasiocarpa
Carex laxa
Carex lepidocarpa
Carex limosa
Carex livida
Carex magellanica
Carex maritima
Carex microglochin
Carex nevadensis
Carex nigra
Carex norvegica
Carex panicea
Carex parallela
Carex pulicaris
Carex rariflora
Carex rostrata
Carex rotundata
Carex saxatilis
Carex tenuiflora
Carex trinervis
Carex vaginata
Carex viridula

Catoscopium nigratum
Centaurium littorale
Cinclidium arcticum
Cinclidium stygium
Cinclidium subrotundum
Cirsium heterotrichum
Cladopodiella fluitans
Comarum palustre
Dactylorhiza cordigera
Dactylorhiza incarnata
Dactylorhiza majalis
Dactylorhiza traunsteineri
Dicranum bonjeanii
Dicranum leioneuron
Drepanocladus polygamus
Drepanocladus pseudostramineus
Drepanocladus sendtneri
Drepanocladus trichophyllus
Drepanocladus tundrae
Drosera intermedia
Drosera longifolia
Drosera rotundifolia
Dupontia fisheri
Eleocharis quinqueflora
Epilobium palustre
Epipactis palustris
Equisetum palustre
Equisetum variegatum
Eriophorum angustifolium
Eriophorum gracile
Eriophorum latifolium
Eriophorum russeolum
Eriophorum scheuchzeri
Festuca frigida
Fissidens adianthoides
Fissidens osmundoides
Gymnadenia frivaldii
Gymnocolea inflata
Hamatocaulis lapponicus
Hamatocaulis vernicosus
Hammarbya paludosa
Helodium blandowii
Hypericum elodes
Juncus alpinoarticulatus
Juncus arcticus
Juncus articulatus
Juncus biglumis
Juncus bulbosus
Juncus castaneus
Juncus requienii
Juncus stygius
Juncus subnodulosus
Juncus thomasii

Juncus triglumis
Kobresia simpliciuscula
Leiocolea badensis
Leiocolea bantriensis
Liparis loeselii
Loeskypnum badium
Meesia hexasticha
Meesia longiseta
Meesia triquetra
Meesia uliginosa
Menyanthes trifoliata
Moerckia hibernica
Myrica gale
Narthecium scardicum
Oncophorus virens
Paludella squarrosa
Palustriella commutata aggr.
Parnassia palustris
Pedicularis mixta
Pedicularis palustris
Pedicularis sceptrum-carolinum
Pedicularis sylvatica
Pedicularis verticillata
Peucedanum palustre
Philonotis calcarea
Philonotis fontana
Pinguicula balcanica
Pinguicula corsica
Pinguicula grandiflora
Pinguicula lusitanica
Pinguicula nevadensis
Pinguicula vulgaris
Plantago gentianoides
Polygala amarella
Polytrichum commune
Polytrichum hyperboreum
Potamogeton polygonifolius
Potentilla anglica
Preissia quadrata
Primula deorum
Primula farinosa
Primula nutans
Primula scandinavica
Primula stricta
Pseudobryum cinclidioides
Pseudocalliergon lycopodioides
Pseudocalliergon trifarium
Pseudocalliergon turgescens
Ranunculus cordiger
Ranunculus pyrenaeus
Rhizomnium pseudopunctatum
Rhynchospora alba
Rhynchospora fusca

Riccardia chamedryfolia
Riccardia incurvata
Riccardia multifida
Salix lapponum
Salix myrsinites
Salix myrtilloides
Salix repens
Salix reticulata
Salix rosmarinifolia
Saussurea alpina aggr.
Saxifraga foliolosa
Saxifraga hirculus
Scorpidium revolvens aggr.
Scorpidium scorpioides
Scorzoneroides microcephala
Scorzoneroides rilaensis
Scheuchzeria palustris
Schoenus ferrugineus
Schoenus nigricans
Silene asterias
Soldanella pindicola
Sphagnum angermanicum
Sphagnum annulatum
Sphagnum aongstroemii
Sphagnum auriculatum+inundatum
Sphagnum balticum
Sphagnum capillifolium aggr.
Sphagnum contortum
Sphagnum cuspidatum
Sphagnum fimbriatum
Sphagnum jensenii
Sphagnum lenense
Sphagnum lindbergii
Sphagnum majus
Sphagnum molle
Sphagnum obtusum
Sphagnum palustre aggr.
Sphagnum papillosum
Sphagnum platyphyllum
Sphagnum pulchrum
Sphagnum recurvum aggr.
Sphagnum riparium
Sphagnum russowii
Sphagnum subfulvum
Sphagnum subnitens
Sphagnum subsecundum
Sphagnum teres
Sphagnum warnstorffii
Spiranthes aestivalis
Stellaria palustris
Straminergon stramineum
Succisa pratensis
Thalictrum alpinum

Tofieldia calyculata
Tofieldia pusilla
Tomentypnum nitens
Triglochin maritima
Triglochin palustris
Trichophorum alpinum
Trichophorum cespitosum
Trichophorum pumilum
Tritomaria quinqueidentata
Typha lugdunensis
Typha minima
Typha shuttleworthii
Utricularia intermedia
Utricularia ochroleuca
Utricularia bremii
Utricularia minor
Vaccinium oxycoccos
Valeriana dioica
Veronica nevadensis
Veronica scutellata
Viola epipsila
Viola palustris
Warnstorfia exannulata
Warnstorfia sarmentosa
Willemetia stipitata

##D +06 Atlantic-bog

Anagallis tenella
Arnica montana
Breutelia chrysocoma
Campylopus atrovirens
Carex durieui
Cladonia portentosa
Cladonia uncialis
Diplophyllum albicans
Erica mackaiana
Erica tetralix
Eriophorum vaginatum
Hypericum elodes
Mylia taylorii
Nartheceum ossifragum
Nowellia curvifolia
Odontoschisma sphagni
Pinguicula grandiflora
Pinguicula lusitanica
Pleurozia purpurea
Racomitrium lanuginosum
Serratula tinctoria
Schoenus nigricans
Sphagnum auriculatum+inundatum
Sphagnum compactum
Sphagnum magellanicum aggr.
Sphagnum papillosum

Sphagnum pylaesii
Sphagnum recurvum aggr.

##D +06 Continental-bog

Betula nana
Carex pauciflora
Cladonia stellaris
Empetrum nigrum aggr.
Eriophorum vaginatum
Chamaedaphne calyculata
Melampyrum pratense
Pinus mugo aggr.
Rhododendron tomentosum
Rubus chamaemorus
Sphagnum compactum
Sphagnum fuscum
Sphagnum magellanicum aggr.
Sphagnum papillosum
Sphagnum recurvum aggr.
Sphagnum russowii
Vaccinium myrtillus
Vaccinium uliginosum
Vaccinium vitis-idaea

##D +07 Non-calcareous-quaking-mire

Calla palustris
Carex aquatilis
Carex diandra
Carex elata
Carex chordorrhiza
Carex lasiocarpa
Carex limosa
Carex livida
Carex magellanica
Carex rariflora
Carex rostrata
Carex rotundata
Carex saxatilis
Cladopodiella fluitans
Comarum palustre
Drosera intermedia
Drosera longifolia
Drosera rotundifolia
Equisetum fluviatile
Eriophorum angustifolium
Eriophorum gracile
Eriophorum scheuchzeri
Juncus bulbosus
Lysimachia thyrsiflora
Menyanthes trifoliata
Pedicularis palustris
Rhynchospora alba
Rhynchospora fusca

Scheuchzeria palustris
Sphagnum annulatum
Sphagnum balticum
Sphagnum cuspidatum
Sphagnum jensenii
Sphagnum lindbergii
Sphagnum majus
Sphagnum recurvum aggr.
Sphagnum riparium
Sphagnum tenellum
Trichophorum alpinum
Utricularia bremii
Utricularia intermedia
Utricularia minor
Utricularia ochroleuca
Warnstorfia fluitans

##D +07 Poor-fen

Agrostis canina
Aulacomnium palustre
Betula nana
Bistorta officinalis
Calluna vulgaris
Carex canescens
Carex echinata
Carex nigra
Carex panicea
Carex magellanica
Crepis paludosa
Dactylorhiza maculata aggr.
Dicram scoparium
Drosera longifolia
Drosera rotundifolia
Epilobium palustre
Eriophorum angustifolium
Festuca rubra aggr.
Galium palustre aggr.
Juncus filiformis
Melampyrum pratense
Molinia caerulea aggr.
Peucedanum palustre
Polytrichum commune
Polytrichum strictum
Potentilla anglica
Potentilla erecta
Sphagnum capillifolium aggr.
Sphagnum palustre aggr.
Sphagnum papillosum
Sphagnum recurvum aggr.
Sphagnum russowii
Sphagnum squarrosum
Straminergon stramineum
Vaccinium oxycoccos

Vaccinium uliginosum
Viola palustris

##D +08 Q11-Raised-bog
Andromeda polifolia
Cladonia stellaris
Eriophorum vaginatum
Mylia anomala
Polytrichum strictum
Rubus chamaemorus
Sphagnum capillifolium aggr.
Sphagnum fuscum
Sphagnum magellanicum aggr.
Sphagnum papillosum
Sphagnum recurvum aggr.
Sphagnum rubellum
Sphagnum russowii
Vaccinium microcarpum

##D +08 Q31-Palsa-mire
Alectoria nigricans
Andromeda polifolia
Cladonia amaurocraea
Cladonia stellaris
Cladonia subfurcata
Coelocaulon divergens
Dicranum elongatum
Eriophorum vaginatum
Ochrolechia androgyna
Ochrolechia inaequatula
Polytrichum strictum
Rubus chamaemorus
Sphaerophorus globosus aggr.
Sphagnum fuscum
Thamnia vermicularis
Vaccinium microcarpum

##D +09 Acidophilous-fen-species
Calypogeia sphagnicola
Cladopodiella fluitans
Eriophorum vaginatum
Gymnocolea inflata
Mylia anomala
Odontoschisma sphagni
Polytrichum commune
Polytrichum strictum
Racomitrium lanuginosum
Sphagnum affine
Sphagnum annulatum
Sphagnum aongstroemii
Sphagnum austinii
Sphagnum balticum
Sphagnum capillifolium aggr.

Sphagnum compactum
Sphagnum cuspidatum
Sphagnum fuscum
Sphagnum jensenii
Sphagnum lindbergii
Sphagnum magellanicum aggr.
Sphagnum majus
Sphagnum obtusum
Sphagnum palustre aggr.
Sphagnum papillosum
Sphagnum pulchrum
Sphagnum recurvum aggr.
Sphagnum riparium
Sphagnum rubellum
Sphagnum russowii
Sphagnum strictum
Sphagnum tenellum
Straminergon stramineum
Warnstorfia fluitans

##D +09 Non-acidophilous-fen-species

Aneura pinguis
Bryum pseudotriquetrum
Calliergon giganteum
Calliergon richardsonii
Campyliadelphus elodes
Campylium stellatum
Carex davalliana
Carex lepidocarpa
Catoscopium nigratum
Centaurium littorale
Cephalozia connivens
Cephalozia loitlesbergeri
Cinclidium arcticum
Cinclidium stygium
Cinclidium subrotundum
Dicranum bonjeanii
Drepanocladus polygamus
Drepanocladus sendtneri
Drepanocladus trichophyllus
Drepanocladus tundrae
Eleocharis quinqueflora
Fissidens adianthoides
Fissidens osmundoides
Hamatocaulis lapponicus
Hamatocaulis vernicosus
Helodium blandowii
Juncus subnodulosus
Leiocolea badensis
Leiocolea bantriensis
Loeskyppnum badium
Meesia hexasticha
Meesia longiseta

Meesia triquetra
Meesia uliginosa
Moerckia hibernica
Narthecium scardicum
Oncophorus virens
Paludella squarrosa
Palustriella commutata aggr.
Parnassia palustris
Philonotis calcarea
Philonotis fontana
Pinguicula balcanica
Pinguicula corsica
Pinguicula vulgaris
Pleurozia purpurea
Polygala amarella
Polytrichum hyperboreum
Preissia quadrata
Pseudocalliergon lycopodioides
Pseudocalliergon trifarium
Pseudocalliergon turgescens
Rhizomnium pseudopunctatum
Riccardia chamedryfolia
Riccardia incurvata
Riccardia multifida
Scorpidium revolvens aggr.
Scorpidium scorpioides
Schoenus ferrugineus
Sphagnum auriculatum+inundatum
Sphagnum contortum
Sphagnum fimbriatum
Sphagnum obtusum
Sphagnum platyphyllum
Sphagnum subfulvum
Sphagnum subnitens
Sphagnum subsecundum
Sphagnum teres
Sphagnum warnstorffii
Straminergon stramineum
Tofieldia calyculata
Tomentypnum nitens
Tritomaria quinquedentata
Warnstorffia exannulata
Warnstorffia sarmentosa

##D +40 Arcto-alpine-rich-fen-species

Alopecurus magellanicus
Aneura pinguis
Aulacomnium palustre
Aulacomnium turgidum
Bistorta vivipara
Blysmus compressus
Bryum bimum
Bryum cryophyllum

Bryum pseudotriquetrum
Campylium stellatum
Carex aquatilis
Carex atrofusca
Carex bicolor
Carex capillaris
Carex capitata
Carex concolor
Carex dioica
Carex maritima
Carex microglochin
Carex nigra
Carex norvegica
Carex panicea
Carex parallela
Carex rariflora
Carex rostrata
Carex saxatilis
Carex vaginata
Catoscopium nigratum
Cinclidium arcticum
Cinclidium stygium
Cinclidium subrotundum
Cyrtonium hymenophyllum
Drepanocladus polygamus
Dupontia fisheri
Dupontia pelligera
Euphrasia frigida
Equisetum variegatum
Eriophorum angustifolium
Fissidens adianthoides
Fissidens osmundoides
Juncus alpinoarticulatus
Juncus arcticus
Juncus biglumis
Juncus castaneus
Juncus stygius
Juncus triglumis
Kobresia simpliciuscula
Loeskyum badium
Meesia hexasticha
Meesia longiseta
Meesia triquetra
Meesia uliginosa
Oncophorus virens
Parnassia palustris
Pedicularis hirsuta
Pinguicula alpina
Pinguicula vulgaris
Primula nutans
Primula scandinavica
Primula stricta
Pseudobryum cinclidioides

Ranunculus hyperboreus
Salix polaris
Salix reticulata
Saussurea alpina aggr.
Saxifraga aizoides
Saxifraga foliolosa
Saxifraga rivularis
Scorpidium revolvens aggr.
Selaginella selaginoides
Tayloria lingulata
Thalictrum alpinum
Tofieldia pusilla
Tomentypnum nitens
Trichophorum cespitosum
Trichophorum pumilum
Triglochin palustris
Warnstorfia tundrae

##D +40 Calcareous-non-quaking-fen-species

Aneura pinguis
Blysmus compressus
Bryum pseudotriquetrum
Campyliadelphus elodes
Campylium stellatum
Carex capillaris
Carex davalliana
Carex dioica
Carex flacca
Carex flava
Carex hordeistichos
Carex hostiana
Carex lepidocarpa
Carex nigra
Carex panicea
Carex trinervis
Carex viridula
Centaurium littorale
Ctenidium molluscum
Cratoneuron filicinum
Dactylorhiza incarnata
Dactylorhiza majalis
Drepanocladus polygamus
Drepanocladus sendtneri
Eleocharis quinqueflora
Epipactis palustris
Eriophorum angustifolium
Eriophorum latifolium
Eupatorium cannabinum
Equisetum palustre
Equisetum telmateia
Equisetum variegatum
Fissidens adianthoides
Gymnadenia conopsea

Hamatocaulis vernicosus
Juncus alpinoarticulatus
Juncus articulatus
Juncus inflexus
Juncus subnodulosus
Linum catharticum
Liparis loeselii
Menyanthes trifoliata
Palustriella commutata aggr.
Parnassia palustris
Philonotis calcarea
Pinguicula alpina
Pinguicula vulgaris
Polygala amara
Polygala amarella
Primula farinosa
Pseudocalliergon lycopodioides
Salix repens
Sesleria caerulea
Sesleria uliginosa
Scorpidium revolvens aggr.
Schoenus ferrugineus
Schoenus nigricans
Spiranthes aestivalis
Succisa pratensis
Tofieldia calyculata
Tomentypnum nitens
Triglochin maritima
Triglochin palustris
Valeriana dioica

##D +04 R11-Pannonian-and-Pontic-sandy-steppe

Achillea micrantha
Agropyron dasyanthum
Alkanna tinctoria
Allium guttatum
Alyssum tortuosum
Anchusa gmelinii
Anchusa ochroleuca
Androsace septentrionalis
Asperula graveolens
Astragalus arenarius
Astragalus varius
Bassia laniflora
Carex colchica
Carex stenophylla
Centaurea arenaria aggr.
Colchicum arenarium
Corispermum nitidum
Dianthus arenarius
Dianthus borbasii
Dianthus diutinus
Dianthus platyodon

Dianthus serotinus
Echinops ritro
Ephedra distachya
Equisetum ramosissimum
Erysimum canum
Erysimum diffusum
Erysimum montanum
Festuca beckeri
Festuca vaginata
Festuca wagneri
Fumana procumbens
Gypsophila paniculata
Helichrysum arenarium
Jacobaea borysthenica
Jurinea cyanooides
Koeleria glauca
Myosotis stricta
Odontarrhena borzaeana
Odontarrhena tortuosa
Onosma arenaria
Pilosella echioides
Polygonum arenarium
Scabiosa ucrainica
Scorzonera ensifolia
Secale sylvestre
Sedum urvillei
Seseli tortuosum
Silene chlorantha
Silene otites aggr.
Silene subconica
Stipa borysthenica aggr.
Thymus pallasianus
Tragopogon borystenicus
Tragopogon floccosus
Veronica dillenii
Veronica praecox

##D +04 R12-Cryptogam-and-annual-dominated-vegetation-on-siliceous-rock-outcrops

Aira caryophyllea
Aphanes microcarpa
Arenaria serpyllifolia
Armeria rumelica
Cerastium pumilum
Draba verna aggr.
Gagea bohémica
Jasione montana
Lens nigricans
Linaria genistifolia
Micropyrum tenellum
Minuartia greuteriana
Myosotis ramosissima
Myosotis stricta
Plantago subulata

Poa bulbosa
Poa glauca
Poa perconcinna
Potentilla argentea
Potentilla tabernaemontani
Scleranthus perennis
Sedum acre
Sedum album
Sedum anglicum
Sedum annuum
Sedum brevifolium
Sedum rupestre
Sedum sexangulare
Sempervivum arachnoideum
Sempervivum montanum
Sempervivum ruthenicum
Silene rupestris
Thymus caespititius
Trifolium arvense
Trifolium dalmaticum
Trifolium subterraneum
Veronica dillenii
Veronica verna
Vulpia bromoides

##D +04 R13-Cryptogam-and-annual-dominated-vegetation-on-calcareous-and-ultramafic-rock-

outcrops

Abietinella abietina
Aethionema saxatile
Allium sphaerocephalon
Alyssum alyssoides
Alyssum montanum
Androsace elongata
Androsace septentrionalis
Arabidopsis thaliana
Arabis auriculata
Arenaria leptoclados
Arenaria serpyllifolia
Artemisia rupestris
Asperula tenella
Athalamia hyalina
Barbula convoluta
Bryum caespiticium
Bryum elegans
Cerastium brachypetalum
Cerastium pumilum
Cerastium semidecandrum
Cladonia symphy carpia
Clinopodium acinos
Clinopodium suaveolens
Crepis foliosa
Didymodon fallax
Didymodon ferrugineus

Didymodon rigidulus
Distichium capillaceum
Draba verna aggr.
Encalypta rhaptocarpa
Encalypta streptocarpa
Encalypta vulgaris
Festuca oelandica
Galium oelandicum
Gypsophila fastigiata
Holosteum umbellatum
Homalothecium sericeum
Hornungia petraea
Jovibarba globifera
Leptogium schraderi
Linaria genistifolia
Medicago minima
Medicago monspeliaca
Minuartia mesogitana
Mycobilimbia lurida
Noccaea ochroleuca
Noccaea perfoliata
Petrorhagia saxifraga
Poa bulbosa
Poa compressa
Poa perconcinna
Potentilla tabernaemontani
Psora decipiens
Saxifraga tridactylites
Sedum acre
Sedum album
Sedum rupestre
Sedum sediforme
Sedum sexangulare
Silene uniflora
Sisymbrium supinum
Taraxacum sect. Erythrosperma
Tortella inclinata
Tortella rigens
Tortella tortuosa
Valeriana tuberosa
Veronica praecox

##D +04 R14-Perennial-rocky-grassland-of-the-Italian-Peninsula

Alyssoides utriculata
Anthyllis vulneraria
Armeria canescens
Armeria denticulata
Artemisia alba
Asperula aristata
Asperula purpurea
Asphodeline lutea
Brachypodium genuense
Carex humilis

Carex macrolepis
Centaurea ambigua
Centaurea aplolepa
Centaurea rupestris aggr.
Cephalaria leucantha
Crepis lacera
Cyanus triumfettii
Cytisus spinescens
Dianthus ciliatus
Eryngium amethystinum
Erysimum pseudorhaeticum
Euphorbia spinosa
Festuca circummediterranea
Festuca inops
Festuca robustifolia
Genista januensis
Globularia meridionalis
Hyssopus officinalis
Inula montana
Jurinea mollis
Knautia purpurea
Koeleria lobata
Koeleria splendens
Minuartia laricifolia subsp. ophiolitica
Odontarrhena bertolonii
Phleum ambiguum
Pimpinella saxifraga
Plantago holosteam
Potentilla rigoana
Ruta graveolens
Salvia officinalis
Scorzoneroides cichoriacea
Sesleria nitida
Silene otites aggr.
Stipa dasyvaginata
Stipa etrusca
Thymus longicaulis
Thymus striatus
Trinia glauca
Valeriana tuberosa
Viola eugeniae

##D +04 R15-Continental-dry-rocky-steppic-grassland-and-dwarf-scrub-on-chalk-outcrops

Allium sphaeropodum
Alyssum tortuosum
Anthemis trotzkiana
Artemisia hololeuca
Artemisia nutans
Artemisia salsoloides
Asperula tephrocarpa
Astragalus albicaulis
Atraphaxis decipiens
Brassica elongata subsp. pinnatifida

Centaurea marschalliana
Diplotaxis cretacea
Echinops meyeri
Gypsophila altissima
Hedysarum razoumovianum
Jurinea arachnoidea
Koeleria talievii
Linum ucranicum
Matthiola fragrans
Meniocus linifolius
Onosma simplicissima
Polygala cretacea
Rhaponticoides ruthenica
Scabiosa isetensis
Scrophularia cretacea
Seseli glabratum
Silene cretacea
Silene supina
Thymus calcareus
Zygophyllum pinnatum

##D +04 R16-Perennial-rocky-grassland-of-Central-and-South-Eastern-Europe

Allium flavum
Anthericum ramosum
Anthyllis vulneraria
Asperula cynanchica
Bromopsis pannonica
Campanula sibirica
Carex humilis
Centaurea stoebe
Erysimum odoratum
Euphorbia cyparissias
Festuca csikhegyensis
Festuca dalmatica
Festuca pallens
Fumana procumbens
Galium austriacum
Globularia cordifolia
Helianthemum nummularium
Helictotrichon decorum
Inula ensifolia
Jovibarba globifera
Melica ciliata
Minuartia setacea
Poa badensis aggr.
Potentilla incana
Sanguisorba minor
Satureja pilosa
Satureja montana
Scabiosa ochroleuca
Sedum album
Seseli austriacum
Seseli leucospermum

Seseli osseum
Sesleria rigida
Stachys recta
Stipa eriocaulis
Teucrium chamaedrys
Teucrium montanum
Thymus comosus
Thymus praecox
Vincetoxicum hirundinaria

##D +04 R17-Heavy-metal-dry-grassland-of-the-Balkans

Achillea pseudopectinata
Anchusa stridii
Armeria canescens
Asperula ophiolitica
Asplenium adiantum-nigrum subsp. serpentini
Bufonia euboica
Centaurea grisebachii
Centaurea kosaninii
Centaurea vlachorum
Cerastium neoscardicum
Dianthus giganteus
Drymocallis rupestris
Erysimum linariifolium
Euphorbia glabriflora
Euphorbia montenegrina
Fumana bonapartei
Gentiana nopscae
Gypsophila spergulifolia
Halacsya sendtneri
Haplophyllum boissierianum
Minuartia verna
Noccaea kovatsii
Odontarrhena heldreichii
Odontarrhena markgrafii
Paragymnopteris marantae
Pistorinia hispanica
Plantago holosteam
Polygonum albanicum
Potentilla astracanicum
Potentilla mollis
Potentilla visianii
Scabiosa achaeta
Scabiosa leucophylla
Scleranthus perennis
Scrophularia canina
Sedum hispanicum
Sedum ochroleucum
Sedum serpentini
Sesleria latifolia
Silene armeria
Silene bupleuroides subsp. staticifolia
Stachys goulimyi

Stachys scardica
Thesium vlachorum
Tulipa serbica
Verbascum glabratum

##D +04 R18-Perennial-rocky-calcareous-grassland-of-subatlantic-submediterranean-Europe

Anthyllis vulneraria
Aphyllanthes monspeliensis
Asperula cynanchica
Bothriochloa ischaemum
Bromopsis erecta
Carex halleriana
Carex humilis
Coronilla minima
Fumana procumbens
Genista scorpius
Globularia bisnagarica
Globularia repens
Helianthemum apenninum
Helianthemum canum
Helictochloa bromoides
Helictochloa pratensis
Helichrysum stoechas
Hippocrepis comosa
Koeleria vallesiana
Linum suffruticosum aggr.
Ononis striata
Potentilla tabernaemontani
Sedum sediforme
Seseli montanum
Sesleria autumnalis
Teucrium chamaedrys
Teucrium montanum
Thymus vulgaris

##D +04 R19-Dry-steppic-submediterranean-pasture-of-the-Amphi-Adriatic-region

Alyssum diffusum
Anthyllis montana
Bromopsis condensata
Bupleurum veronense
Carex humilis
Centaurea cristata
Centaurea rupestris aggr.
Chrysopogon gryllus
Cytisus pseudoprocumbens
Dianthus garganicus
Dianthus sylvestris
Edraianthus tenuifolius
Eryngium amethystinum
Euphorbia spinosa
Fumana procumbens
Galium corrudifolium
Genista sericea

Genista sylvestris
Globularia cordifolia
Hippocrepis glauca
Iris pseudopumila
Koeleria lobata
Koeleria splendens
Linum tommasiniii
Medicago prostrata
Melica transsilvanica
Plantago holosteum
Salvia officinalis
Sanguisorba minor
Satureja montana
Satureja subspicata
Scorzonera villosa
Sesleria juncifolia
Stipa austroitalica
Teucrium chamaedrys
Teucrium montanum

##D +04 R1A-Semi-dry-perennial-calcareous-grassland

Adonis vernalis
Agrimonia eupatoria
Anacamptis pyramidalis
Anthericum ramosum
Arabis hirsuta
Asperula cynanchica
Astragalus austriacus
Astragalus onobrychis
Avenula pubescens
Brachypodium pinnatum
Brachypodium rupestre
Briza media
Bromopsis erecta
Campanula bononiensis
Campanula glomerata
Carex caryophyllea
Carex flacca
Carex michelii
Carex montana
Carlina acaulis
Carlina biebersteinii
Carlina vulgaris
Centaurea scabiosa
Chamaespartium sagittale
Chrysopogon gryllus
Cirsium acaulon
Cirsium pannonicum
Clematis integrifolia
Cruciata glabra
Cytisus austriacus
Danthonia alpina
Dianthus carthusianorum

Dianthus hyssopifolius
Euphorbia cyparissias
Euphrasia nemorosa
Festuca stricta subsp. sulcata
Filipendula vulgaris
Fragaria viridis
Galium pumilum
Galium verum
Gentiana cruciata
Gentianella amarella
Gentianella ciliata
Gentianella germanica
Gymnadenia conopsea
Gypsophila paniculata
Helictochloa pratensis
Helictotrichon desertorum
Hippocrepis comosa
Homalothecium lutescens
Hypochaeris maculata
Jacobaea erucifolia
Jacobaea vulgaris
Knautia illyrica
Koeleria pyramidata
Leontodon hispidus
Linum catharticum
Linum hirsutum
Neotinea ustulata
Onobrychis arenaria
Onobrychis montana
Onobrychis viciifolia
Ononis spinosa
Ophrys apifera
Ophrys holosericea
Ophrys insectifera
Ophrys sphegodes
Orchis anthropophora
Orchis mascula
Orchis militaris
Orchis purpurea
Origanum vulgare
Peucedanum arenarium
Peucedanum cervaria
Pimpinella nigra
Pimpinella saxifraga
Plantago media
Poa pratensis aggr.
Polygala amarella
Polygala comosa
Polygala major
Potentilla heptaphylla
Primula veris
Prunella grandiflora
Prunella laciniata

Ranunculus bulbosus
Ranunculus polyanthemus
Salvia nemorosa
Salvia pratensis
Salvia verticillata
Sanguisorba minor
Scabiosa canescens
Scabiosa columbaria
Scabiosa ochroleuca
Scorzonera villosa
Securigera varia
Seseli annuum
Teucrium chamaedrys
Teucrium pyrenaicum
Thalictrum minus
Thesium linophyllum
Thymus praecox
Tragopogon pratensis
Trifolium montanum
Trifolium ochroleucon
Veronica austriaca
Veronica prostrata
Vincetoxicum hirundinaria
Viola hirta

##D +04 R1B-Continental-dry-grassland-true-steppe

Agropyron cristatum
Allium flavum
Allium globosum
Allium rubens
Alyssum lenense
Alyssum obovatum
Artemisia austriaca
Artemisia pontica
Asperula petraea
Astragalus austriacus
Astragalus dasyanthus
Astragalus exscapus
Astragalus helmii
Astragalus karelinianus
Astragalus onobrychis
Astragalus subuliformis
Bassia prostrata
Bothriochloa ischaemum
Campanula sibirica
Carex humilis
Carex pediformis
Carex stenophylla
Carex supina
Centaurea ruthenica
Centaurea sibirica
Centaurea stoebe
Centaurea turgaica

Cephalaria uralensis
Clausia aprica
Cleistogenes serotina
Cotoneaster melanocarpus
Crambe tataria
Cytisus austriacus
Dianthus acicularis
Dianthus pontederiae
Dianthus uralensis
Dracocephalum austriacum
Elytrigia intermedia
Elytrigia pruinifera
Elytrigia reflexiaristata
Ephedra distachya
Eryngium campestre
Erysimum diffusum
Festuca valesiaca aggr.
Galatella villosa
Galium octonarium
Galium ruthenicum
Goniolimon besseranum
Goniolimon collinum
Goniolimon tataricum
Hedysarum argyrophyllum
Hedysarum grandiflorum
Helictotrichon desertorum
Hylotelephium triphyllum
Hypericum elegans
Inula ensifolia
Inula oculus-christi
Iris pumila
Jurinea arachnoidea
Jurinea mollis
Jurinea stoechadifolia
Koeleria brevis
Koeleria macrantha
Koeleria sclerophylla
Linaria uralensis
Linum austriacum
Linum hirsutum
Marrubium peregrinum
Medicago cancellata
Minuartia krascheninnikovii
Nepeta ucranica
Nonea pulla
Orostachys spinosa
Oxytropis floribunda
Oxytropis pilosa
Paeonia tenuifolia
Phlomis herba-venti
Phlomis tuberosa
Polygala sibirica
Pontechium maculatum

Potentilla argentea
Potentilla incana
Pulsatilla uralensis
Ranunculus illyricus
Salvia aethiopis
Salvia austriaca
Salvia nemorosa
Salvia nutans
Scabiosa isetensis
Scorzonera austriaca
Sedum hybridum
Seseli tortuosum
Silene altaica
Stipa borysthenica aggr.
Stipa capillata
Stipa dasphylla
Stipa korshinskyi
Stipa lessingiana
Stipa orientalis
Stipa pennata
Stipa pulcherrima
Stipa ucrainica
Stipa zalesskii
Tanacetum kittaryanum
Taraxacum serotinum
Teucrium chamaedrys
Thalictrum foetidum
Thymus bashkiriensis
Thymus guberlinensis
Thymus minussinensis
Thymus pannonicus aggr.
Thymus punctulosus
Thymus talijevii
Thymus uralensis
Verbascum phoeniceum
Veronica austriaca
Veronica prostrata

##D +04 R1C-Desert-steppe

Agropyron desertorum
Alyssum turkestanicum
Anabasis cretacea
Anthemis trotzkiana
Artemisia austriaca
Artemisia lerchiana
Artemisia lessingiana
Artemisia salsoloides
Artemisia taurica
Asparagus inderiensis
Astragalus macropus
Astragalus tenuifolius
Atraphaxis decipiens
Atraphaxis frutescens

Bassia prostrata
Centaurea carbonata
Centaurea kasakorum
Crambe aspera
Echinops meyeri
Ephedra distachya
Eremogone koriniana
Ferula caspica
Ferula orientalis
Ferula tatarica
Galatella tatarica
Galatella villosa
Gypsophila rupestris
Hedysarum cretaceum
Hedysarum razoumovianum
Hedysarum tscherkassovae
Jurinea kirghisorum
Jurinea multiflora
Lepidium meyeri
Leymus akmolinsensis
Leymus ramosus
Limonium cretaceum
Matthiola fragrans
Meniocus linifolius
Odontarrhena tortuosa
Psathyrostachys hyalantha
Psathyrostachys juncea
Seseli glabratum
Sterigmostemum tomentosum
Stipa lessingiana
Stipa sareptana
Tanacetum achilleifolium
Tulipa biebersteiniana
Xeranthemum annuum
Zygophyllum pinnatum

##D +04 R1D-Mediterranean-closely-grazed-dry-grassland

Achillea coarctata
Allium guttatum
Alyssum turkestanicum
Ammoides pusilla
Anthemis arvensis
Arenaria pomelii
Astragalus cymbicarpos
Astragalus echinatus
Astragalus incanus
Astragalus macrorhizus
Astragalus pelecinus
Astragalus scorpioides
Astragalus sesameus
Astragalus stella
Barbarea bracteosa
Bellis annua

Biscutella baetica
Biscutella lyrata
Carex caryophyllea
Clinopodium alpinum
Colchicum filifolium
Convolvulus lineatus
Crepis zacintha
Daucus muricatus
Erodium botrys
Erodium cicutarium
Erodium laciniatum
Festuca trichophylla
Galium murale
Hedypnois cretica
Hedysarum humile
Hypochaeris cretensis
Lagurus ovatus
Linaria simplex
Lotus angustissimus
Lupinus micranthus
Medicago intertexta
Moenchia erecta
Molineriella minuta
Moraea sisyrrinchium
Myosotis ramosissima
Ophrys sphegodes
Ornithogalum collinum
Otospermum glabrum
Parentucellia latifolia
Paronychia argentea
Paronychia echinulata
Plantago albicans
Plantago coronopus aggr.
Plantago lagopus
Plantago loeflingii
Plantago serraria
Poa bulbosa
Potentilla calabra
Ranunculus bullatus
Ranunculus paludosus
Ranunculus pseudomillefoliatus
Romulea bulbocodium
Romulea linaresii
Romulea ramiflora
Scorpiurus vermiculatus
Scorzonera villosa
Taraxacum obovatum
Teucrium polium aggr.
Thymus spinulosus
Trifolium bionae
Trifolium bocconeii
Trifolium cherleri
Trifolium gemellum

Trifolium glomeratum
Trifolium micranthum
Trifolium nigrescens
Trifolium scabrum
Trifolium subterraneum
Trifolium suffocatum
Trifolium tomentosum
Trigonella gladiata
Urospermum picroides
Vicia lutea
Vulpia sicula

##D +04 R1E-Mediterranean-tall-perennial-dry-grassland

Allium agrigentinum
Allium baeticum
Allium chamaemoly
Allium melananthum
Allium moschatum
Allium pallens
Allium sphaerocephalon
Allium subvillosum
Ampelodesmos mauritanicus
Anacamptis papilionacea
Andropogon distachyos
Andryala integrifolia
Andryala laxiflora
Anthemis muricata
Anthyllis cytisoides
Arenaria valentina
Arenaria x decipiens
Aristida adscensionis
Armeria arenaria
Armeria castroviejoi
Arrhenatherum album
Asparagus aphyllus
Asparagus horridus
Asphodeline lutea
Asphodelus ayardii
Asphodelus cerasiferus
Asphodelus macrocarpus
Asphodelus ramosus
Atractylis humilis
Bellis sylvestris
Biarum dispar
Bituminaria bituminosa
Brachypodium boissieri
Brachypodium retusum
Camphorosma monspeliaca
Carex flacca
Carlina corymbosa
Carlina graeca
Cenchrus setaceus
Centaurea pulvinata

Cistus clusii
Drimia maritima
Colchicum triphyllum
Convolvulus althaeoides
Dactylis glomerata
Daucus carota
Daucus crinitus
Daucus setifolius
Dipcadi serotinum
Distichoselinum tenuifolium
Drimia maritima
Drimia undata
Eryngium dichotomum
Eryngium dilatatum
Eryngium triquetrum
Ferula loscosii
Festuca caeruleascens
Festuca capillifolia
Festuca scariosa
Fumana ericoides
Fumana thymifolia
Gladiolus italicus
Helianthemum cinereum
Helictochloa bromoides
Helictochloa gervaisii
Helictotrichon filifolium
Heteropogon contortus
Hyparrhenia hirta
Hyparrhenia sinaica
Lapiedra martinezii
Lathyrus clymenum
Lavandula multifida
Leontodon tuberosus
Leucojum valentinum
Linum narbonense
Linum strictum aggr.
Lobularia maritima
Lotus ornithopodioides
Lygeum spartum
Macrochloa tenacissima
Malva agrigentina
Micromeria graeca
Moricandia arvensis
Narcissus dubius
Ophrys bombyliflora
Ophrys lutea
Ophrys omegaifera
Ophrys speculum
Ophrys tenthredinifera
Ornithogalum narbonense
Pallenis spinosa
Phagnalon rupestre
Phagnalon saxatile

Phlomis lychnitis
Polygonum tenorii
Prangos ferulacea
Ranunculus bullatus
Ranunculus paludosus
Reichardia picroides
Rhaponticum coniferum
Ruta angustifolia
Salvia verbenaca
Scorzonera cretica
Sedum sediforme
Stipa apertifolia
Stipa barbata
Stipa capillata
Stipa cazorlensis
Stipa clausa
Stipa iberica
Stipa juncea
Stipa lagascae
Stipa offneri
Stipa parviflora
Teucrium pseudochamaepitys
Thapsia villosa
Thymus orospedanus
Thymus vulgaris
Thymus zygis
Trisetum velutinum
Vella pseudocytisus

##D +04 R1F-Mediterranean-annual-rich-dry-grassland

Aegilops geniculata
Aizoanthemopsis hispanica
Allium pentadactyli
Alyssum alyssoides
Alyssum granatense
Alyssum simplex
Ammoides pusilla
Anacamptis coriophora
Androsace elongata
Anisantha fasciculata
Arabis auriculata
Arenaria arundana
Arenaria capillipes
Arenaria conimbricensis
Arenaria leptoclados
Arenaria modesta
Arenaria obtusiflora
Arenaria pomelii
Arenaria retusa
Asteriscus aquaticus
Asterolinon linum-stellatum
Atractylis cancellata
Avena barbata

Bombycilaena erecta
Buglossoides incrassata
Bupleurum baldense
Bupleurum gerardi
Bupleurum gracile
Bupleurum semicompositum
Callipeltis cucullaria
Campanula dichotoma
Campanula erinus
Catananche lutea
Catapodium rigidum
Cerastium pumilum
Chaenorhinum grandiflorum
Chaenorhinum macropodium
Chaenorhinum rubrifolium
Clypeola jonthlaspi
Coronilla scorpioides
Crepis neglecta
Crucianella angustifolia
Ctenopsis gypsophila
Daucus durieua
Dianthus humilis
Echinaria capitata
Erodium recoderi
Eryngium grosii
Erysimum incanum
Euphorbia exigua
Euphorbia falcata
Euphorbia sulcata
Filago eriocephala
Filago pyramidata
Galium parisiense
Gastridium ventricosum
Hedysarum spinosissimum
Helianthemum angustatum
Helianthemum salicifolium
Hippocrepis biflora
Hippocrepis ciliata
Hornungia petraea
Hypericum perforatum
Hypochaeris achyrophorus
Iberis fontqueri
Jasione montana
Jasione penicillata
Lactuca viminea
Lathyrus sphaericus
Limonium echioides
Linaria huteri
Linaria micrantha
Linaria oblongifolia
Linaria platycalyx
Linaria salzmännii
Linaria saturejoides

Linaria simplex
Linum strictum aggr.
Lomelosia stellata
Lotus ornithopodioides
Medicago littoralis
Medicago minima
Medicago rigidula
Melilotus neapolitana
Micropus supinus
Microrrhinum minus
Minuartia hamata
Minuartia hybrida aggr.
Minuartia mediterranea
Minuartia montana
Moraea sisyrinchium
Neatostema apulum
Nepeta hispanica
Odontites longiflora
Odontites purpurea
Odontites viscosus
Omphalodes commutata
Omphalodes linifolia
Onobrychis caput-galli
Ononis ornithopodioides
Ononis pendula
Ononis pubescens
Ononis reclinata
Ononis viscosa
Orlaya grandiflora
Parapholis strigosa
Petrohragia saxifraga
Pistorinia breviflora
Plantago albicans
Plantago amplexicaulis
Plantago bellardi
Platycapnos tenuiloba
Polygala monspeliaca
Ptilostemon stellatus
Romulea columnae
Salvia verbenaca
Scorpiurus muricatus
Sherardia arvensis
Sideritis romana
Silene almolae
Silene germana
Silene inaperta
Silene psammitis
Stipa capensis
Thymelaea passerina
Trachynia distachya
Trifolium cherleri
Trifolium stellatum
Trisetaria loeflingiana

Trisetaria scabriuscula
Valerianella eriocarpa
Valerianella multidentata
Valerianella rimosa
Velezia rigida
Vulpia ciliata
Vulpia ligustica
Vulpia unilateralis
Wangenheimia lima
Xeranthemum annuum

##D +04 R1G-Iberian-oromediterranean-siliceous-dry-grassland

Agrostis tileni
Androsace rioxana
Armeria caespitosa
Armeria duriaei
Artemisia granatensis
Erigeron frigidus
Eryngium glaciale
Festuca clementei
Festuca indigesta
Festuca pseudeskia
Herniaria boissieri
Hormathophylla purpurea
Jasione crispa
Leucanthemopsis flaveola
Luzula caespitosa
Luzula spicata subsp. nevadensis
Pilosella vahlIIi
Potentilla nevadensis
Silene ciliata
Teesdalia conferta
Trisetum glaciale

##D +04 R1H-Iberian-oromediterranean-basiphilous-dry-grassland

Allium moly
Anthyllis vulneraria
Arenaria aggregata
Artemisia pedemontana
Asperula pyrenaica
Asphodelus albus
Astragalus cavanillesii
Astragalus incanus
Astragalus tremolsianus
Brimeura amethystina
Carex brevicollis
Carlina acanthifolia
Centaurea podospermifolia
Crepis albida
Cytisus ardoinii
Dichoropetalum schottii
Draba hispanica
Erodium cazorlanum

Erodium daucoides
Erodium glandulosum
Eryngium bourgatii
Erysimum humile
Erysimum seipkae
Euphorbia duvalii
Festuca altopyrenaica
Festuca burnatii
Festuca hystrix
Festuca liviense
Festuca marginata subsp. andres-molinae
Festuca nevadensis
Festuca ochroleuca
Fritillaria pyrenaica
Genista lobelii
Genista pilosa
Genista pulchella
Helianthemum nummularium
Helictotrichon sedenense
Helictotrichon sempervirens
Hieracium cerinthoides
Iberis saxatilis
Koeleria vallesiana
Laserpitium nestleri
Lavandula angustifolia
Lavandula latifolia
Leontodon crispus
Leucanthemum burnatii
Leucanthemum graminifolium
Linaria aeruginea
Linum milletii
Linum viscosum
Lomelosia graminifolia
Minuartia villarii
Narcissus assoanus
Onobrychis pyrenaica
Ononis cristata
Ononis striata
Onosma fastigiata
Ornithogalum collinum
Pimpinella tragium
Plantago argentea
Plantago monosperma
Saponaria caespitosa
Saxifraga conifera
Sempervivum calcareum
Senecio doronicum
Senecio lagascanus
Senecio provincialis
Seseli montanum
Sesleria autumnalis
Sideritis glacialis
Sideritis hyssopifolia

Taraxacum aragonicum
Teucrium luteum
Thesium catalaunicum
Thymelaea tinctoria
Thymus godayanus
Thymus mastigophorus
Thymus willkommii
Veronica tenuifolia

##D +04 R1J-Cyrno-Sardean-oromediterranean-siliceous-dry-grassland

Armeria multiceps
Armeria sardoa
Cerastium soleirolii
Festuca morisiana
Genista lobelii
Pilosella soleiroliana
Poa balbisii
Sagina pilifera
Scleranthus perennis subsp. burnatii
Trisetum conradiae

##D +04 R1K-Balkan-and-Anatolian-oromediterranean-dry-grassland

Alopecurus gerardi
Beta nana
Corydalis blanda
Corydalis densiflora
Erigeron epiroticus
Gnaphalium supinum
Herniaria parnassica
Luzula pindica
Phleum alpinum aggr.
Plantago atrata
Plantago holosteum
Poa pumila
Ranunculus sartorianus
Rorippa thracica
Thesium parnassi
Trifolium heldreichianum
Trifolium noricum
Trifolium pallescens
Trifolium parnassii
Trinia guicciardii

##D +04 R1L-Madeiran-oromediterranean-siliceous-dry-grassland

Andryala glandulosa
Anthoxanthum maderense
Anthyllis lemmaniana
Argyranthemum pinnatifidum subsp. montanum
Armeria maderensis
Crepis vesicaria subsp. andryaloides
Deschampsia maderensis
Festuca jubata
Micromeria varia subsp. thymoides

Odontites holliana
Orchis mascula subsp. scopulorum
Parafestuca albida
Rumex bucephalophorus subsp. canariensis
Saxifraga maderensis
Sinapidendron frutescens
Teucrium francoi
Vicia capreolata
Viola paradoxa

##D +04 R1M-Lowland-to-submontane-dry-to-mesic-grassland-usually-Nardus

Ajuga tenorei
Antennaria dioica
Arnica montana
Campanula serrata
Carex ericetorum
Carex leporina
Carex pilulifera
Danthonia decumbens
Dianthus deltoides
Festuca filiformis
Festuca microphylla
Galium saxatile
Gentiana pannonica
Gentiana pneumonanthe
Gnaphalium sylvaticum
Hypericum maculatum
Jasione laevis
Juncus squarrosus
Lathyrus linifolius
Luzula campestris aggr.
Meum athamanticum
Nardus stricta
Pedicularis sylvatica
Pilosella aurantiaca
Pilosella lactucella
Platanthera bifolia
Polygala serpyllifolia
Polygala vulgaris
Potentilla aurea
Potentilla erecta
Ranunculus pollinensis
Scorzoneroides helvetica
Veronica officinalis
Viola canina

##D +04 R1N-Open-Iberian-supramediterranean-dry-acid-and-neutral-grassland

Armeria caballeri
Armeria ciliata
Armeria eriophylla
Armeria langei
Armeria merinoi
Armeria transmontana

Bufonia macropetala
Centaurea borjajae
Centaurea toletana
Dianthus laricifolius
Festuca brigantina
Festuca gredensis
Festuca longiauriculata
Festuca rivas-martinezii
Festuca summilusitana
Herniaria scabrida
Leucanthemopsis pallida
Leucanthemopsis pulverulenta
Linaria aeruginea
Ornithogalum concinnum
Ortegia hispanica
Pilosella castellana
Reseda virgata
Sagina merinoi
Thymus izcoi

##D +04 R1P-Oceanic-to-subcontinental-inland-sand-grassland-on-dry-acid-and-neutral-soils

Agrostis castellana
Agrostis vinealis
Aira caryophyllea
Aira praecox
Arenaria serpyllifolia
Armeria maritima
Armeria rumelica
Carex arenaria
Carex colchica
Cerastium arvense
Cerastium semidecandrum
Cetraria aculeata
Dianthus armeria
Dianthus carthusianorum
Dianthus deltoides
Draba verna aggr.
Erysimum diffusum
Festuca filiformis
Festuca polesica
Festuca stricta subsp. trachyphylla
Filago arvensis
Filago minima
Helichrysum arenarium
Herniaria glabra
Hypochaeris radicata
Jasione heldreichii
Jasione montana
Koeleria glauca
Leontodon saxatilis
Micropyrum tenellum
Myosotis ramosissima
Myosotis stricta

Ornithopus perpusillus
Phelipanche arenaria
Phelipanche purpurea
Pilosella officinarum
Potentilla argentea
Rumex thyrsiflorus
Saxifraga bulbifera
Sedum acre
Sedum sexangulare
Silene otites aggr.
Taraxacum sect. Erythrosperma
Thymus serpyllum
Trifolium arvense
Trifolium campestre
Veronica dillenii
Veronica verna
Vicia lathyroides
Viola tricolor aggr.
Vulpia bromoides
Vulpia myuros

##D +04 R1Q-Inland-sanddrift-and-dune-with-siliceous-grassland

Agrostis vinealis
Aira caryophyllea
Aira praecox
Corynephorus introflexus
Carex arenaria
Cetraria aculeata
Corynephorus canescens
Filago minima
Jasione montana
Ornithopus perpusillus
Spergula morisonii
Teesdalia nudicaulis
Thymus serpyllum
Vulpia myuros

##D +04 R1R-Mediterranean-to-Atlantic-open-dry-acid-and-neutral-grassland

Aira caryophyllea
Aira cupaniana
Aira elegantissima
Aira tenorii
Aiopsis tenella
Andryala integrifolia
Anthoxanthum aristatum
Anthyllis cornicina
Anthyllis lemmaniana
Anthyllis lotoides
Apera interrupta
Aphanes cornucopioides
Arabis nova
Asterolinon linum-stellatum
Astragalus pelecinus

Briza maxima
Briza minor
Campanula lusitanica
Cerastium gracile
Chamaemelum fuscatum
Coronilla dura
Corynephorus divaricatus
Crassula tillaea
Crucianella angustifolia
Ctenopsis delicatula
Eryngium tenue
Filago carpetana
Filago gallica
Filago lutescens
Filago minima
Filago pygmaea
Galium divaricatum
Gaudinia coarctata
Gnaphalium teydeum
Helianthemum aegypticum
Helianthemum sanguineum
Hispidella hispanica
Holcus annuus
Holcus gayanus
Hypochaeris glabra
Jacobaea minuta
Lathyrus angulatus
Lathyrus inconspicuus
Lathyrus sphaericus
Leontodon saxatilis
Linaria elegans
Linaria intricata
Linaria pelisseriana
Linaria saxatilis
Linum trigynum
Lotus conimbricensis
Micropyrum patens
Micropyrum tenellum
Moenchia erecta
Molineriella australis
Molineriella laevis
Molineriella minuta
Myosotis incrassata
Myosotis stricta
Onobrychis caput-galli
Ononis cintrana
Ornithopus compressus
Ornithopus perpusillus
Ornithopus pinnatus
Paronychia cymosa
Paronychia echinulata
Periballia involucrata
Petrorhagia prolifera

Plantago bellardii
Psilurus incurvus
Pterocephalidium diandrum
Rostraria azorica
Rumex bucephalophorus
Scleranthus delortii
Sedum andegavense
Sedum arenarium
Sedum caespitosum
Sedum pedicellatum
Silene mariana
Silene portensis
Silene psammitis
Silene scabriflora
Teesdalia coronopifolia
Teesdalia nudicaulis
Thymus caespititius
Tolpis barbata
Tolpis umbellata
Trifolium bocconeii
Trifolium cherleri
Trifolium phleoides
Trifolium stellatum
Trifolium striatum
Trifolium strictum
Trifolium sylvaticum
Trisetaria ovata
Tuberaria guttata
Viola parvula
Vulpia bromoides
Vulpia ciliata
Vulpia muralis
Vulpia myuros
Vulpia unilateralis

##D +04 R1T-Azorean-open-dry-acid-to-neutral-grassland

Agrostis congestiflora
Agrostis gracililaxa
Brachypodium gaditanum
Carex hochstetteriana
Carex peregrina
Carex vulcani
Centaurium scilloides
Deschampsia foliosa
Euphorbia azorica
Euphrasia azorica
Euphrasia grandiflora
Festuca francoi
Festuca petraea
Holcus rigidus
Leontodon filii
Leontodon rigens
Luzula purpureosplendens

Lysimachia azorica
Myosotis azorica
Scabiosa nitens
Tolpis azorica
Veronica dabneyi

##D +04 R21-Mesic-permanent-pasture-of-lowlands-and-mountains

Achillea millefolium aggr.
Agrostis capillaris
Agrostis stolonifera
Alopecurus geniculatus
Anacamptis coriophora
Anthoxanthum odoratum aggr.
Bellis perennis
Carum carvi
Carum verticillatum
Cerastium fontanum subsp. vulgare
Chamaemelum nobile
Crepis aurea
Cynosurus cristatus
Euphrasia rostkoviana
Festuca rubra aggr.
Hordeum bulbosum
Hordeum secalinum
Hypochaeris radicata
Leontodon hispidus
Lolium perenne
Lotus corniculatus
Phleum pratense
Plantago alpina
Plantago lanceolata
Poa alpina
Poa pratensis aggr.
Poa trivialis
Prunella vulgaris
Ranunculus bulbosus
Ranunculus repens
Schedonorus pratensis
Scorzoneroides autumnalis
Taraxacum sect. Taraxacum
Trifolium badium
Trifolium campestre
Trifolium dubium
Trifolium micranthum
Trifolium pratense
Trifolium repens
Trifolium striatum
Trifolium thalii
Veronica serpyllifolia

##D +04 R22-Low-and-medium-altitude-hay-meadow

Achillea millefolium aggr.
Agrostis capillaris

Alopecurus pratensis
Anthoxanthum odoratum aggr.
Anthriscus sylvestris
Arrhenatherum elatius
Avenula pubescens
Briza media
Bromus hordeaceus
Campanula patula
Centaurea debeauxii
Centaurea jacea
Centaurea nemoralis
Cerastium fontanum subsp. vulgare
Crepis biennis
Crepis capillaris
Dactylis glomerata
Daucus carota
Festuca rubra aggr.
Galium mollugo aggr.
Geranium pratense
Gladiolus imbricatus
Heracleum sphondylium
Holcus lanatus
Knautia arvensis
Lathyrus pratensis
Leontodon hispidus
Leucanthemum vulgare aggr.
Lotus corniculatus
Luzula campestris aggr.
Pastinaca sativa
Pimpinella major
Plantago lanceolata
Poa pratensis aggr.
Poa trivialis
Prunella vulgaris
Ranunculus acris
Ranunculus bulbosus
Ranunculus neapolitanus
Rhinanthus minor
Rumex acetosa
Rumex thyrsiflorus
Salvia pratensis
Schedonorus pratensis
Taraxacum sect. Taraxacum
Trifolium dubium
Trifolium pratense
Trisetum flavescens
Veronica chamaedrys
Vicia cracca

##D +04 R23-Mountain-hay-meadow
Agrostis capillaris
Anthoxanthum odoratum aggr.
Arabidopsis halleri

Astrantia major
Bistorta officinalis
Bistorta vivipara
Briza media
Campanula patula
Campanula serrata
Centaurea phrygia
Cirsium heterophyllum
Crepis mollis
Crepis pyrenaica
Crocus vernus
Festuca rubra aggr.
Geranium sylvaticum aggr.
Hypericum maculatum
Knautia nevadensis
Lathyrus pratensis
Luzula campestris aggr.
Meum athamanticum
Muscari botryoides
Narcissus poeticus
Phleum alpinum aggr.
Phyteuma halleri
Phyteuma orbiculare
Phyteuma spicatum
Phyteuma tetramerum
Phyteuma vagneri
Pimpinella major
Pimpinella serbica
Poa chaixii
Poa pratensis aggr.
Primula elatior
Rhinanthus mediterraneus
Rumex acetosa
Rumex arifolius
Silene dioica
Trifolium pratense
Trisetum flavescens
Viola cornuta

##D +04 R24-Iberian-summer-pasture-vallicar

Agrostis castellana
Anthoxanthum ovatum
Celtica gigantea
Festuca ampla
Festuca elegans
Festuca summilusitana
Gaudinia fragilis
Holcus annuus
Malva tournefortiana
Molineriella minuta
Periballia involucrata
Phalacrocarpum sericeum
Sedum forsterianum

Trifolium cernuum
Trifolium retusum
Vulpia bromoides
Vulpia ciliata
Vulpia myuros

##D +04 R31-Mediterranean-tall-humid-inland-grassland

Agrostis reuteri
Agrostis stolonifera
Anacamptis palustris aggr.
Blackstonia perfoliata
Briza minor
Carex mairei
Centaurea jacea
Cirsium monspessulanum
Cirsium pyrenaicum
Cochlearia glastifolia
Cochlearia megalosperma
Cyperus longus
Dittrichia viscosa
Dorycnium hirsutum
Dorycnium rectum
Epipactis palustris
Eupatorium cannabinum
Euphorbia hirsuta
Galium debile
Galium viridifolium
Genista tinctoria
Hypericum caprifolium
Hypericum hircinum
Hypericum pubescens
Hypericum tetrapterum
Hypericum tomentosum
Imperata cylindrica
Juncus acutus
Juncus inflexus
Juncus littoralis
Juncus maritimus
Juncus striatus
Linum tenue
Lotus maritimus
Lysimachia ephemerum
Melilotus indica
Molinia caerulea aggr.
Oenanthe lachenalii
Oenanthe pimpinelloides
Peucedanum hispanicum
Phalaris aquatica
Prunella vulgaris
Pulicaria dysenterica
Ranunculus bulbosus
Ranunculus granatensis
Ranunculus macrophyllus

Schedonorus arundinaceus
Schoenus nigricans
Scirpoides holoschoenus
Scrophularia auriculata
Senecio doria aggr.
Serapias vomeracea aggr.
Serratula tinctoria
Succisella andreae-molinae
Thalictrum flavum
Thalictrum minus
Thalictrum speciosissimum
Trifolium resupinatum

##D +04 R32-Mediterranean-short-moist-grassland-of-lowlands

Achillea ageratum
Blackstonia perfoliata
Carex flacca
Centaurium pulchellum
Cirsium rosulatum
Deschampsia cespitosa
Deschampsia media
Festuca trichophylla
Gaudinia fragilis
Gentianella amarella
Hordeum bulbosum
Hypericum tomentosum
Jasonia tuberosa
Leontodon hirtus
Leucanthemum aligulatum
Linum suffruticosum aggr.
Phalaris coerulescens
Plantago maritima
Prunella hyssopifolia
Sanguisorba lateriflora
Schedonorus arundinaceus
Senecio carpetanus
Trifolium lappaceum

##D +04 R33-Mediterranean-short-moist-grassland-of-mountains

Agrostis castellana
Agrostis nevadensis
Allium schoenoprasum
Armeria sampaioi
Armeria splendens
Bellium bellidioides
Botrychium matricariifolium
Botrychium simplex
Campanula herminii
Carex caryophyllea
Carex flava
Carex furva
Carex leporina
Carex nigra

Carum verticillatum
Colchicum alpinum
Cynosurus cristatus
Dactylis glomerata
Danthonia decumbens
Deschampsia cespitosa
Dianthus langeanus
Dianthus legionensis
Erodium carvifolium
Festuca henriquesii
Festuca iberica
Festuca microphylla
Festuca rothmaleri
Galium saxatile
Gentiana boryi
Gentiana lutea
Gentiana pneumonanthe
Jasione laevis
Juncus squarrosus
Lotus glacialis
Lotus glareosus
Luzula campestris aggr.
Luzula spicata
Meum athamanticum
Narcissus bulbocodium
Ophioglossum azoricum
Ophioglossum vulgatum
Pedicularis sylvatica
Phleum bertolonii
Pilosella officinarum
Plantago alpina
Plantago nivalis
Plantago subulata
Poa legionensis
Polygala serpyllifolia
Potentilla anglica
Potentilla asturica
Potentilla erecta
Potentilla nevadensis
Potentilla reuteri
Ranunculus abnormis
Ranunculus acetosellifolius
Ranunculus bulbosus
Ranunculus demissus
Sagina saginoides
Scorzoneroides carpetana
Scorzoneroides microcephala
Sedum melanantherum
Trifolium repens
Veronica repens

##D +04 R34-Submediterranean-moist-meadow

Achillea millefolium aggr.

Agrostis stolonifera
Alopecurus pratensis
Alopecurus rendlei
Anthoxanthum odoratum aggr.
Anacamptis palustris aggr.
Bellevallia romana
Bromus racemosus
Carex cuprina
Carex distans
Carex hirta
Centaurea jacea
Cichorium intybus
Cirsium canum
Clematis integrifolia
Colchicum lusitanum
Crepis setosa
Cynosurus cristatus
Daucus carota
Deschampsia cespitosa
Deschampsia media
Elytrigia repens
Galium debile
Galium verum
Gaudinia fragilis
Gratiola officinalis
Holcus lanatus
Hordeum secalinum
Lathyrus nissolia
Lathyrus pannonicus
Lathyrus pratensis
Leucanthemum vulgare aggr.
Leucojum aestivum
Lolium perenne
Lotus corniculatus
Lysimachia nummularia
Medicago arabica
Medicago polymorpha
Moenchia mantica
Molinia caerulea aggr.
Narcissus poeticus
Oenanthe peucedanifolia
Oenanthe silaifolia
Ophioglossum vulgatum
Ornithogalum collinum
Peucedanum coriaceum
Peucedanum officinale
Plantago lanceolata
Poa pratensis aggr.
Poa trivialis
Podospermum canum
Potentilla reptans
Prunella vulgaris
Ranunculus acris

Ranunculus marginatus
Ranunculus pedatus
Ranunculus polyanthemus
Ranunculus repens
Ranunculus sardous
Ranunculus velutinus
Rhinanthus minor
Rumex acetosa
Rumex crispus
Schedonorus pratensis
Scilla litardierei
Scutellaria hastifolia
Serratula tinctoria
Silene flos-cuculi
Taraxacum sect. Taraxacum
Tragopogon pratensis
Trifolium angulatum
Trifolium cinctum
Trifolium dubium
Trifolium fragiferum
Trifolium michelianum
Trifolium pallidum
Trifolium patens
Trifolium pratense
Trifolium repens
Trifolium resupinatum
Trifolium subterraneum

##D +04 R35-Moist-or-wet-mesotrophic-to-eutrophic-hay-meadow

Achillea millefolium aggr.
Agrostis stolonifera
Allium angulosum
Alopecurus arundinaceus
Alopecurus bulbosus
Alopecurus pratensis
Bistorta officinalis
Bromus racemosus
Caltha palustris
Cardamine matthioli
Cardamine pratensis
Carex melanostachya
Centaurea jacea
Centaurea nigrescens
Cerastium dubium
Cirsium canum
Cirsium heterophyllum
Cirsium oleraceum
Cirsium palustre
Cirsium rivulare
Colchicum autumnale
Crepis paludosa
Dactylorhiza majalis
Deschampsia cespitosa

Elytrigia repens
Equisetum palustre
Filipendula ulmaria
Fritillaria meleagris
Galium debile
Galium uliginosum
Geranium palustre
Geum coccineum
Geum rivale
Gratiola officinalis
Holcus lanatus
Inula britannica
Jacobaea aquatica
Juncus conglomeratus
Juncus effusus
Lathyrus palustris
Lathyrus pratensis
Leucosium aestivum
Lotus pedunculatus
Lysimachia nummularia
Lysimachia vulgaris
Lythrum virgatum
Myosotis scorpioides aggr.
Oenanthe fistulosa
Oenanthe silaifolia
Plantago altissima
Potentilla reptans
Ranunculus acris
Ranunculus ophioglossifolius
Rhinanthus angustifolius
Sanguisorba officinalis
Scirpus sylvaticus
Scutellaria hastifolia
Selinum dubium
Silaum silaus
Silene flos-cuculi
Stachys palustris
Symphytum officinale
Thalictrum flavum
Thalictrum lucidum
Thalictrum simplex
Trifolium michelianum
Trollius europaeus
Valeriana officinalis
Veronica longifolia
Viola elatior
Viola pumila

##D +04 R36-Moist-or-wet-mesotrophic-to-eutrophic-pasture

Achillea millefolium aggr.
Agrostis stolonifera
Alopecurus bulbosus
Alopecurus geniculatus

Argentina anserina
Blysmus compressus
Cardamine parviflora
Carex cuprina
Carex hirta
Carex vulpina
Inula britannica
Juncus articulatus
Juncus compressus
Juncus conglomeratus
Juncus effusus
Juncus inflexus
Lathyrus pratensis
Lolium perenne
Mentha longifolia
Mentha pulegium
Mentha suaveolens
Nasturtium microphyllum
Oenanthe fistulosa
Plantago major
Poa trivialis
Potentilla reptans
Pulicaria dysenterica
Pulicaria vulgaris
Ranunculus repens
Ranunculus sardous
Rorippa sylvestris
Rumex conglomeratus
Rumex crispus
Schedonorus arundinaceus
Teucrium scordium
Trifolium fragiferum
Trifolium repens
Triglochin palustris

##D +04 R37-Temperate-and-boreal-moist-or-wet-oligotrophic-grassland

Achillea millefolium aggr.
Anthoxanthum odoratum aggr.
Avenula pubescens
Briza media
Cardamine pratensis
Carex echinata
Carex flacca
Carex hartmanii
Carex pallescens
Carex panicea
Cirsium dissectum
Cirsium tuberosum
Crepis paludosa
Dactylorhiza maculata aggr.
Dianthus superbus
Galium boreale
Galium uliginosum

Gentiana pneumonanthe
Gladiolus imbricatus
Holcus lanatus
Hypericum undulatum
Inula salicina
Iris sibirica
Juncus acutiflorus
Listera ovata
Molinia caerulea aggr.
Parnassia palustris
Polygala amarella
Potentilla erecta
Ranunculus acris
Sanguisorba officinalis
Scorzonera humilis
Scutellaria minor
Selinum carvifolia
Serratula tinctoria
Silaum silaus
Stachys alopecuroides
Stachys officinalis
Succisa pratensis
Tofieldia calyculata
Viola stagnina

##D +04 R41-Snow-bed-vegetation

Achillea clusiana
Alchemilla fissa
Alchemilla pentaphyllea
Alopecurus gerardi
Alopecurus riloensis
Arabis caerulea
Cardamine alpina
Carex foetida
Carex kitaibeliana
Carex lachenalii
Carex norvegica
Carex pyrenaica
Cerastium cerastoides
Crocus scardicus
Crocus veluchensis
Draba crassifolia
Festuca picturata
Gnaphalium hoppeanum
Gnaphalium supinum
Hornungia alpina
Juncus biglumis
Leucanthemopsis alpina
Luzula alpinopilosa
Luzula confusa
Luzula desvauxii
Luzula nivalis
Phippsia algida

Plantago atrata
Poa arctica
Poa dolosa
Poa granitica
Pohlia drummondii
Polytrichum sexangulare
Potentilla brauneana
Potentilla hyparctica
Primula integrifolia
Ranunculus alpestris
Ranunculus crenatus
Ranunculus glacialis
Ranunculus montanus
Ranunculus nivalis
Ranunculus pseudomontanus
Ranunculus pygmaeus
Ranunculus sulphureus
Sagina saginoides
Salix herbacea
Salix polaris
Saxifraga androsacea
Saxifraga cernua
Saxifraga nivalis
Saxifraga rivularis
Saxifraga tenuis
Saxifraga wahlenbergii
Sedum alpestre
Sedum candolleanum
Sibbaldia procumbens
Soldanella alpina
Soldanella carpatica
Soldanella minima
Taraxacum apenninum
Taraxacum bithynicum
Taraxacum croceum
Veronica alpina

##D +04 R42-Boreal-and-arctic-acidophilous-alpine-grassland

Alchemilla glomerulans
Anthoxanthum odoratum aggr.
Bistorta vivipara
Carex bigelowii
Carex brunnescens
Carex lachenalii
Cassiope hypnoides
Cassiope tetragona
Cerastium alpinum
Epilobium anagallidifolium
Erigeron uniflorus
Gnaphalium supinum
Juncus trifidus
Nardus stricta
Potentilla crantzii

Ranunculus pygmaeus
Saussurea alpina aggr.
Sibbaldia procumbens
Thalictrum alpinum
Trisetum spicatum
Vahlodea atropurpurea
Veronica alpina
Viola biflora

##D +04 R43-Temperate-acidophilous-alpine-grassland

Agrostis rupestris
Alchemilla catalaunica
Alopecurus gerardii
Androsace carnea
Astragalus alpinus
Bellardiochloa variegata
Campanula alpina
Campanula scheuchzeri
Carex bigelowii
Carex brunnescens
Carex curvula
Carex foetida
Carex lachenalii
Carex macrostyla
Cerastium alpinum
Colchicum montanum
Endressia pyrenaica
Epilobium anagallidifolium
Erigeron uniflorus
Festuca airoides
Festuca eskia
Gentiana alpina
Geum montanum
Globularia meridionalis
Gnaphalium supinum
Helictochloa versicolor
Hieracium alpinum
Holcus lanatus
Homogyne alpina
Iris latifolia
Jacobaea abrotanifolia
Jacobaea incana
Juncus squarrosus
Juncus trifidus
Koeleria lobata
Leontodon pyrenaicus
Leucanthemopsis alpina
Ligusticum corsicum
Ligusticum mutellina
Lotus alpinus
Luzula pediformis
Luzula spicata
Minuartia verna

Nardus stricta
Oreochloa disticha
Pedicularis pyrenaica
Phleum alpinum aggr.
Plantago alpina
Plantago holosteum
Plantago monosperma
Poa alpina
Polygala edmundii
Potentilla aurea
Potentilla crantzii
Primula minima
Pulsatilla alpina
Ranunculus pyrenaicus
Sagina pilifera
Saussurea alpina aggr.
Scorzoneroides cantabrica
Scorzoneroides microcephala
Selinum pyrenaicum
Thalictrum alpinum
Thymus alpestris
Thymus nervosus
Trifolium alpinum
Trisetum spicatum
Veronica alpina
Viola biflora

##D +04 R44-Arctic-alpine-calcareous-grassland

Achillea clavennae
Androsace chamaejasme
Androsace villosa
Androsace vitaliana
Aster alpinus
Astragalus alpinus
Astragalus frigidus
Astragalus penduliflorus
Bartsia alpina
Bellidiastrum michelii
Biscutella laevigata
Calamagrostis varia
Campanula thyrsoidea
Carex australpina
Carex baldensis
Carex ferruginea
Carex firma
Carex mucronata
Carex ornithopoda
Carex sempervirens
Dactylorhiza viridis
Draba aizoides
Dryas octopetala
Festuca versicolor
Galium anisophyllum

Gentiana clusii
Gentiana nivalis
Gentiana verna
Globularia cordifolia
Gymnadenia nigra aggr.
Helianthemum alpestre
Helianthemum nummularium
Hieracium villosum
Homogyne discolor
Jacobaea abrotanifolia
Kobresia myosuroides
Kobresia simpliciuscula
Leontopodium nivale
Minuartia langii
Myosotis alpestris
Onobrychis montana
Oxytropis campestris
Oxytropis carpatica
Oxytropis halleri
Pedicularis foliosa
Pedicularis rostratocapitata
Phyteuma orbiculare
Phyteuma sieberi
Primula auricula
Primula clusiana
Ranunculus hybridus
Ranunculus thora
Rhinanthus gracilis
Rhodax alpestris
Saussurea alpina aggr.
Saussurea pygmaea
Saxifraga caesia
Saxifraga paniculata
Senecio doronicum
Sesleria caerulea
Sesleria coerulans
Stachys alopecuros
Thesium alpinum
Thymus pulcherrimus
Veronica aphylla
Veronica fruticans

##D +04 R45-Alpine-and-subalpine-calcareous-grassland-of-the-Balkans-and-Apennines

Achillea holosericea
Aethionema saxatile
Anthyllis aurea
Asperula aristata
Asplenium fissum
Aster alpinus
Astragalus mayeri
Asyneuma limonifolium
Biscutella laevigata
Carex kitaibeliana

Clinopodium alpinum
Cyanus triumfettii
Dianthus integer
Dianthus sylvestris
Dichoropetalum schottii
Draba aizoides
Draba lasiocarpa
Edraianthus graminifolius
Fritillaria orientalis
Galium oreophilum
Geranium subcaulescens
Helianthemum canum
Helianthemum nummularium
Hieracium pannosum
Iberis sempervirens
Leontodon crispus
Linum alpinum
Linum capitatum
Minuartia verna
Oxytropis campestris
Oxytropis neglecta
Oxytropis purpurea
Pedicularis comosa
Pedicularis verticillata
Phyteuma orbiculare
Plantago argentea
Polygala alpestris
Polygala comosa
Potentilla crantzii
Pulsatilla alpina
Ranunculus breyninus
Satureja montana
Senecio procerus
Sesleria juncifolia
Sesleria nitida
Sideritis raeseri
Teucrium montanum
Thalictrum minus
Thymus ciliatopubescens
Thymus praecox
Trinia dalechampii

##D +04 R51-Thermophilous-forest-fringe-of-base-rich-soils

Aconitum anthora
Aegonychon purpurocaeruleum
Agrimonia eupatoria
Anemone sylvestris
Aquilegia vulgaris
Astragalus glycyphyllos
Bupleurum falcatum
Campanula bononiensis
Campanula persicifolia
Clematis recta

Clinopodium nepeta
Clinopodium vulgare
Crepis praemorsa aggr.
Cyanus triumfettii
Dictamnus albus
Digitalis grandiflora
Ferulago campestris
Ferulago granatensis
Geranium sanguineum
Hesperis sylvestris
Inula conyzae
Inula germanica
Inula hirta
Inula salicina
Iris graminea
Iris variegata
Knautia drymeia
Knautia fleischmannii
Knautia illyrica
Lactuca quercina
Laser trilobum
Laserpitium latifolium
Laserpitium siler
Lathyrus heterophyllus
Lathyrus pannonicus
Lathyrus sylvestris
Lembotropis nigricans
Lithospermum officinale
Melampyrum cristatum
Melampyrum nemorosum aggr.
Melampyrum velebiticum
Melittis melissophyllum
Odontites tenuifolius
Origanum vulgare
Paeonia mascula
Paeonia officinalis
Peucedanum alsaticum
Peucedanum cervaria
Peucedanum oreoselinum
Polygonatum odoratum
Potentilla hirta
Pseudoturritis turrita
Seseli libanotis
Silene coronaria
Silene italica
Stachys officinalis
Tanacetum corymbosum
Tephrosia longifolia
Trifolium medium
Trifolium rubens
Valeriana stolonifera
Verbascum chaixii
Veronica barrelieri

Vicia cassubica
Vicia dumetorum
Vicia pisiformis
Vicia sylvatica
Vincetoxicum hirundinaria

##D +04 R52-Forest-fringe-of-acidic-nutrient-poor-soils

Campanula baumgartenii
Hieracium lachenalii
Hieracium laevigatum
Hieracium murorum
Hieracium sabaudum
Holcus mollis
Hypericum pulchrum
Jacobaea adonidifolia
Lathyrus linifolius
Lonicera periclymenum
Melampyrum pratense
Melampyrum sylvaticum
Peucedanum gallicum
Peucedanum oreoselinum
Pulmonaria longifolia
Solidago virgaurea
Teucrium scorodonia
Vicia orobus

##D +04 R53-Macaronesian-thermophilous-forest-fringe

Ammi huntii
Ammi trifoliatum
Angelica lignescens
Chaerophyllum azoricum
Dactylorhiza foliosa
Geranium palmatum
Geranium reuteri
Lactuca watsoniana
Myosotis latifolia
Pericallis appendiculata
Pericallis aurita
Pericallis cruenta
Pericallis echinata
Pericallis malvifolia
Pericallis tussilaginis
Pimpinella dendrotragium
Ranunculus cortusifolius
Rumex maderensis
Scrophularia smithii
Teucrium francoi
Viola paradoxa

##D +04 R55-Lowland-moist-or-wet-tall-herb-and-fern-fringe

Achillea ptarmica
Aegopodium podagraria
Agrostis stolonifera

Alliaria petiolata
Althaea officinalis
Angelica archangelica
Angelica heterocarpa
Angelica sylvestris
Anthriscus sylvestris
Aristolochia clematitidis
Asparagus asparagoides
Bidens pilosa
Brachypodium sylvaticum
Caltha palustris
Calystegia sepium
Calystegia silvatica
Cardiospermum grandiflorum
Carduus crispus
Carex pendula
Carex sylvatica
Chaerophyllum aromaticum
Chaerophyllum hirsutum
Circaea lutetiana
Conyza primulifolia
Crepis paludosa
Cuscuta europaea
Cynanchum acutum
Dactylorhiza maculata aggr.
Dipsacus fullonum
Dipsacus laciniatus
Dorycnium rectum
Dryopteris filix-mas
Echinochloa crus-galli
Echinocystis lobata
Epilobium hirsutum
Epilobium montanum
Equisetum ramosissimum
Equisetum telmateia
Eupatorium cannabinum
Euphorbia lucida
Fallopia dumetorum
Filipendula ulmaria
Fragaria vesca
Galeopsis speciosa
Galium aparine
Galium odoratum
Galium uliginosum
Geranium palustre
Geranium phaeum
Geranium robertianum
Geum rivale
Geum urbanum
Glechoma hederacea
Glycyrrhiza echinata
Heracleum sphondylium
Humulus lupulus

Impatiens balfourii
Impatiens glandulifera
Impatiens noli-tangere
Inula helenium
Ipomoea indica
Ipomoea sagittata
Juncus inflexus
Lactuca muralis
Lamium album
Lamium maculatum
Lapsana communis
Leersia oryzoides
Lunaria rediviva
Lycopus europaeus
Lysimachia vulgaris
Lythrum salicaria
Mentha longifolia
Myosoton aquaticum
Parietaria officinalis
Petasites albus
Petasites hybridus
Phalaroides arundinacea
Physalis alkekengi
Poa trivialis
Pulicaria dysenterica
Rubus caesius
Rubus ulmifolius
Rumex conglomeratus
Salvia glutinosa
Schedonorus giganteus
Scrophularia umbrosa
Silene baccifera
Silene dioica
Solidago canadensis
Solidago gigantea
Stachys sylvatica
Symphyotrichum novi-belgii aggr.
Symphytum officinale
Tanacetum vulgare
Telekia speciosa
Trifolium repens
Trollius europaeus
Tropaeolum majus
Urtica dioica
Valeriana excelsa
Veronica longifolia

R55-Lowland-moist-or-wet-tall-herb-and-fern-fringe-dominants

Carex pendula
Chaerophyllum aromaticum
Chaerophyllum hirsutum
Echinocystis lobata
Equisetum telmateia

Eupatorium cannabinum
Filipendula ulmaria
Geranium palustre
Humulus lupulus
Impatiens balfourii
Impatiens glandulifera
Inula helenium
Lysimachia vulgaris
Scrophularia umbrosa
Symphyotrichum novi-belgii aggr.

##D +04 R56-Montane-subalpine-moist-or-wet-tall-herb-and-fern-fringe

Aconitum burnatii
Aconitum lycoctonum
Aconitum napellus aggr.
Aconogonon alpinum
Adenostyles alliariae
Adenostyles alpina
Angelica archangelica
Aquilegia bernardii
Aquilegia cazorlensis
Athyrium distentifolium
Atropa baetica
Cardamine acris
Cardamine rivularis
Carduus personata
Chaerophyllum villarsii
Cirsium appendiculatum
Cirsium erisithales
Cirsium pyrenaicum
Cirsium tymphaeum
Delphinium elatum
Doronicum austriacum
Doronicum corsicum
Doronicum grandiflorum
Epilobium lactiflorum
Geranium asphodeloides
Geranium sylvaticum aggr.
Geum coccineum
Heracleum elegans
Heracleum sphondylium
Heracleum transsilvanicum
Jacobaea alpina
Jacobaea subalpina
Lactuca alpina
Lactuca pancicii
Lactuca plumieri
Laserpitium longiradium
Leucanthemum rotundifolium
Myosotis soleirolii
Pedicularis foliosa
Petasites albus
Petasites kablikianus

Peucedanum ostruthium
Ranunculus aconitifolius
Ranunculus platanifolius
Rhaponticum scariosum
Rhodiola rosea
Rumex alpinus
Rumex arifolius
Saxifraga rotundifolia
Scrophularia auriculata
Scrophularia scopolii
Silene dioica
Telekia speciosa
Tephrosieris elodes
Thalictrum aquilegifolium
Thelypteris limbosperma
Valeriana pyrenaica
Veratrum album
Viola biflora

##D +04 R57-Herbaceous-forest-clearing-vegetation

Ageratina adenophora
Alliaria petiolata
Anaphalis margaritacea
Arctium nemorosum
Atropa bella-donna
Avenella flexuosa
Bromopsis ramosa aggr.
Calamagrostis epigejos
Carex muricata
Carex spicata
Centaurium erythraea
Chaerophyllum temulum
Chelidonium majus
Digitalis grandiflora
Digitalis purpurea
Epilobium angustifolium
Erechtites hieraciifolius
Eupatorium cannabinum
Fallopia convolvulus
Fallopia dumetorum
Fragaria vesca
Galeopsis bifida
Galeopsis pubescens
Galeopsis speciosa
Galeopsis tetrahit
Galium aparine
Geranium robertianum
Geum urbanum
Glechoma hederacea
Gnaphalium sylvaticum
Hypericum hirsutum
Impatiens parviflora
Lactuca muralis

Lamium maculatum
Lapsana communis
Lupinus polyphyllus
Myosotis sylvatica
Sambucus ebulus
Senecio nemorensis aggr.
Senecio sylvaticus
Senecio viscosus
Sisymbrium strictissimum
Stachys alpina
Stachys sylvatica
Torilis japonica
Urtica dioica
Valeriana officinalis
Verbascum thapsus
Veronica sublobata

##D +04 R61-Mediterranean-inland-salt-steppe

Aeluropus littoralis
Bassia hirsuta
Camphorosma monspeliaca
Carex lainzii
Elytrigia curvifolia
Frankenia corymbosa
Frankenia pulverulenta
Gypsophila tomentosa
Halocnemum strobilaceum
Halopeplis amplexicaulis
Helianthemum polygonoides
Hordeum marinum
Hornungia procumbens
Jacobaea auricula
Juncus subulatus
Lepidium cardamines
Limonium angustebracteatum
Limonium aragonense
Limonium caesium
Limonium carpetanicum
Limonium catalaunicum
Limonium cofrentanum
Limonium cordovillense
Limonium cossonianum
Limonium costae
Limonium delicatulum
Limonium dichotomum
Limonium erectum
Limonium eugeniae
Limonium furfuraceum
Limonium insigne
Limonium latebracteatum
Limonium lobetanicum
Limonium majus
Limonium minus

Limonium pinillense
Limonium quesadense
Limonium ruizii
Limonium santapolense
Limonium soboliferum
Limonium squarrosum
Limonium stenophyllum
Limonium sucronicum
Limonium supinum
Limonium toletanum
Limonium tournefortii
Limonium viciosoi
Microcnemum coralloides
Parapholis strigosa
Plantago maritima
Puccinellia caespitosa
Puccinellia festuciformis
Puccinellia hispanica
Salicornia europaea aggr.
Sonchus crassifolius
Sphenopus divaricatus
Suaeda braun-blanquetii
Suaeda maritima aggr.
Suaeda splendens
Suaeda vera

##D +04 R62-Continental-inland-salt-steppe

Artemisia santonicum
Artemisia taurica
Bassia hirsuta
Bassia sedoides
Bupleurum tenuissimum
Camphorosma annua
Camphorosma monspeliaca
Carex stenophylla
Dianthus guttatus
Eremopyrum orientale
Eremopyrum triticeum
Ferula euxina
Galatella sedifolia
Hordeum geniculatum
Lepidium cartilagineum
Limonium gmelinii
Limonium meyeri
Limonium tomentellum
Lotus angustissimus
Petrosimonia brachiata
Petrosimonia oppositifolia
Petrosimonia triandra
Pholiurus pannonicus
Plantago maritima
Plantago tenuiflora
Podospermum canum

Puccinellia distans
Puccinellia dolicholepis
Puccinellia festuciformis
Ranunculus pedatus
Salicornia europaea aggr.
Spergularia marina
Suaeda acuminata
Suaeda corniculata
Suaeda maritima aggr.
Trifolium retusum

##D +04 R63-Temperate-inland-salt-marsh

Atriplex prostrata
Bassia hirsuta
Bolboschoenus maritimus
Bolboschoenus planiculmis
Bupleurum tenuissimum
Carex cuprina
Carex divisa
Carex distans
Centaurium pulchellum
Cerastium dubium
Cirsium brachycephalum
Cirsium esculentum
Eleocharis uniglumis
Glaux maritima
Halimione pedunculata
Halimione verrucifera
Halocnemum strobilaceum
Hordeum geniculatum
Hordeum marinum
Iris spuria
Juncus gerardi
Limonium tomentellum
Lotus tenuis
Melilotus dentatus
Mentha pulegium
Plantago maritima
Plantago tenuiflora
Podospermum canum
Puccinellia distans
Puccinellia gigantea
Ranunculus sardous
Salicornia europaea aggr.
Schoenoplectus lacustris subsp. *glaucus*
Spergularia marina
Spergularia media
Taraxacum besarabicum
Trifolium fragiferum
Triglochin maritima
Tripolium pannonicum

##D +04 R64-Semi-desert-salt-pan

Aeluropus lagopoides
Anabasis aphylla
Anabasis salsa
Atriplex aucheri
Atriplex cana
Atriplex sphaeromorpha
Bienertia cycloptera
Climacoptera aralensis
Climacoptera brachiata
Climacoptera crassa
Climacoptera lanata
Climacoptera transoxana
Climacoptera turcomanica
Corispermum aralocaspicum
Corispermum filifolium
Corispermum orientale
Corispermum uralense
Girgensohnia oppositifolia
Halimione verrucifera
Halimocnemis sclerosperma
Halocnemum strobilaceum
Halogeton glomeratus
Halostachys belangeriana
Kalidium caspicum
Kalidium foliatum
Karelinia caspia
Limonium danubiale
Limonium gmelinii
Limonium scoparium
Limonium suffruticosum
Nanophyton erinaceum
Noaea mucronata
Ofaiston monandrum
Petrosimonia brachiata
Petrosimonia brachyphylla
Petrosimonia glaucescens
Petrosimonia litwinowii
Petrosimonia monandra
Petrosimonia oppositifolia
Petrosimonia triandra
Puccinellia dolicholepis
Salsola acutifolia
Salsola dendroides
Salsola foliosa
Salsola laricina
Salsola nitraria
Salsola orientale
Salsola kali aggr.
Suaeda dendroides
Suaeda physophora

##D +04 R65-Continental-subsaline-alluvial-pasture-and-meadow

Aeluropus littoralis

Bassia hyssopifolia
Beckmannia eruciformis
Carex stenophylla
Dodartia orientalis
Eryngium planum
Limonium reniforme
Medicago caerulea
Rhaponticum repens

##D +04 I1-Arable-land-and-market-gardens

Abutilon theophrasti
Adonis aestivalis
Adonis annua
Adonis flammea
Adonis microcarpa
Aethusa cynapium
Agrostemma githago
Ajuga chamaepitys
Ajuga iva
Allium vineale
Alopecurus myosuroides
Amaranthus powellii
Amaranthus retroflexus
Ambrosia artemisiifolia
Ammi majus
Ammi visnaga
Anagallis arvensis
Anagallis foemina
Androsace maxima
Anthemis arvensis
Anthemis ruthenica
Anthoxanthum aristatum
Anthoxanthum ovatum
Apera spica-venti
Aphanes arvensis
Aphanes australis
Arabidopsis thaliana
Arnoseric minima
Asperula arvensis
Avena sativa
Bifora radians
Bifora testiculata
Brassica napus
Brassica rapa
Bromus arvensis
Bromus grossus
Bromus secalinus
Buglossoides arvensis
Bupleurum rotundifolium
Camelina alyssum
Camelina microcarpa
Camelina rumelica
Camelina sativa

Capsella bursa-pastoris
Caucalis platycarpus
Cephalaria transsylvanica
Chrozophora plicata
Chrozophora tinctoria
Cirsium arvense
Conringia orientalis
Consolida ajacis
Consolida hispanica
Consolida mauritanica
Consolida orientalis
Consolida pubescens
Consolida regalis
Convolvulus arvensis
Coriandrum sativum
Cota austriaca
Cota segetalis
Cuscuta campestris
Cuscuta epilinum
Cyanus segetum
Diplotaxis catholica
Diplotaxis eruroides
Euphorbia exigua
Euphorbia falcata
Euphorbia helioscopia
Euphorbia lagascae
Euphorbia lathyris
Euphorbia peplus
Euphorbia platyphyllos
Euphorbia segetalis
Euphorbia taurinensis
Fagopyrum esculentum
Fagopyrum tataricum
Fallopia baldschuanica
Fallopia convolvulus
Fumaria agraria
Fumaria officinalis
Gagea villosa
Galeopsis segetum
Galeopsis tetrahit
Galinsoga parviflora
Galinsoga quadriradiata
Galium parisiense
Galium spurium
Kickxia elatine
Kickxia spuria
Lamium amplexicaule
Lamium purpureum
Lathyrus tuberosus
Legousia speculum-veneris
Lens culinaris
Linaria arvensis
Linum usitatissimum

Lipandra polysperma
Lolium remotum
Lolium temulentum
Lycopsis arvensis
Matricaria chamomilla
Melampyrum arvense
Melampyrum barbatum
Mentha arvensis
Mercurialis annua
Mibora minima
Myagrum perfoliatum
Myosotis arvensis
Neslia paniculata
Nigella arvensis
Ornithogalum umbellatum
Ornithopus perpusillus
Oxalis corniculata
Oxalis debilis
Oxalis dillenii
Oxalis pes-caprae
Oxalis stricta
Papaver argemone
Papaver dubium
Papaver hybridum
Papaver rhoeas
Papaver somniferum
Persicaria lapathifolia
Persicaria maculosa
Persicaria orientalis
Persicaria pennsylvanica
Pisum sativum
Potentilla norvegica
Ranunculus arvensis
Raphanus raphanistrum
Raphanus sativus
Ridolfia segetum
Roemeria hybrida
Rumex acetosella
Scandix pecten-veneris
Scleranthus annuus
Senecio vulgaris
Sherardia arvensis
Silene linicola
Sinapis alba
Sinapis arvensis
Solanum nigrum
Sonchus asper
Sonchus oleraceus
Spergula arvensis
Stachys annua
Stachys arvensis
Stellaria media
Thlaspi alliaceum

Thlaspi arvense
Thymelaea passerina
Torilis arvensis
Tripleurospermum maritimum aggr.
Ventenata dubia
Veronica agrestis
Veronica arvensis
Veronica hederifolia
Veronica opaca
Veronica persica
Veronica polita
Veronica triloba
Veronica triphyllos
Vicia hirsuta
Vicia pannonica
Vicia sativa
Vicia tetrasperma
Viola arvensis

##D +04 I14-Inundated-or-inundatable-croplands-including-rice-fields

Ammannia auriculata
Ammannia baccifera
Ammannia coccinea
Ammannia robusta
Ammannia verticillata
Bergia capensis
Crassula peduncularis
Cyperus difformis
Cyperus iria
Cyperus serotinus
Echinochloa colonum
Echinochloa crus-galli
Echinochloa oryzicola
Echinochloa oryzoides
Fimbristylis bisumbellata
Heteranthera reniformis
Lindernia dubia
Monochoria korsakowii
Rotala filiformis
Rotala indica
Schoenoplectus mucronatus
Schoenoplectus supinus

##D +04 IE16-Subnitrophilous-annual-grassland

Althaea longiflora
Anisantha madritensis
Astragalus hamosus
Avena barbata
Avena sterilis
Bromus diandrus
Bromus lanceolatus
Bromus rigidus
Bromus rubens

Catapodium rigidum
Centaurea melitensis
Centaurea pullata
Cullen americanum
Dasypyrum villosum
Gastridium phleoides
Hedypnois cretica
Hordeum murinum
Leontodon salzmannii
Lolium rigidum
Lotus edulis
Lotus ornithopodioides
Lupinus angustifolius
Lupinus luteus
Malva hispanica
Matthiola parviflora
Medicago orbicularis
Medicago rigidula
Medicago truncatula
Melilotus spicatus
Melilotus sulcatus
Nonea vesicaria
Phalaris brachystachys
Phalaris canariensis
Phalaris minor
Plantago afra
Reichardia picroides
Podospermum laciniatum
Senecio gallicus
Silene gallica
Thesium humile
Trifolium angustifolium
Trifolium cherleri
Trifolium hirtum
Trigonella foenum-graecum
Trigonella monspeliaca
Trigonella polyceratia
Trisetum paniceum
Urospermum picroides
Vulpia ciliata

##D +04 IE1E-Trampled-xeric-grassland-with-annuals

Alternanthera caracasana
Alternanthera pungens
Ceratodon purpureus
Cotula australis
Crepis pusilla
Cynodon dactylon
Dichondra micrantha
Digitaria ischaemum
Digitaria sanguinalis
Diplotaxis muralis
Diplotaxis tenuifolia

Dysphania pumilio
Eleusine tristachya
Eleusine indica
Eragrostis barrelieri
Eragrostis cilianensis
Eragrostis frankii
Eragrostis minor
Eragrostis multicaulis
Eragrostis papposa
Eragrostis pectinacea
Eragrostis pilosa
Eragrostis virescens
Erigeron bonariensis
Erigeron sumatrensis
Euclidium syriacum
Euphorbia chamaesyce
Euphorbia humifusa
Euphorbia maculata
Euphorbia nutans
Euphorbia prostrata
Euphorbia serpens
Euphorbia humistrata
Filago congesta
Heliotropium europaeum
Heliotropium curassavicum
Guizotia abyssinica
Filago desertorum
Filago petro-ianii
Herniaria hirsuta
Lepidium densiflorum
Matricaria aurea
Ochlopoa infirma
Plantago coronopus aggr.
Polygonum aviculare
Polygonum depressum
Pseudocrossidium hornschurchianum
Ptychostomum archangelicum
Ptychostomum imbricatum
Sclerochloa dura
Setaria adhaerens
Setaria verticillata
Soliva stolonifera
Tribulus terrestris
Trifolium suffocatum

##D +04 IE28-Trampled-mesophilous-grassland-with-annuals

Barbula convoluta
Barbula unguiculata
Bryum argenteum
Polycarpon tetraphyllum
Plantago major
Ochlopoa annua
Bryum dichotomum

Bryum funckii
Bryum gemmilucens
Bryum ruderales
Bryum versicolor
Herniaria glabra
Lepidium didymum
Lepidium perfoliatum
Lepidium ruderales
Lepidium squamatum
Lunularia cruciata
Marchantia polymorpha
Matricaria discoidea
Sagina apetala
Sagina procumbens
Spargularia purpurea
Spargularia rubra

##D +04 IE51-Anthropogenic-herb-stands

Acalypha virginica
Acanthus mollis
Achillea filipendulina
Achillea santolinoides
Aegilops cylindrica
Aegilops neglecta
Aegilops triuncialis
Aegilops ventricosa
Aegopodium podagraria
Aethusa cynapium
Ageratina adenophora
Aizoanthes hispanica
Aizoon canariense
Alcea biennis
Alcea rosea
Alchemilla glabra
Allium neapolitanum
Allium nigrum
Allium paradoxum
Allium polyanthum
Allium scaberrimum
Allium scorodoprasum
Allium trifoliatum
Allium triquetrum
Althaea longiflora
Amaranthus bouchonii
Amaranthus caudatus
Amaranthus hybridus
Amaranthus hypochondriacus
Amaranthus palmeri
Amaranthus powellii
Amaranthus retroflexus
Amaranthus standleyanus
Ambrosia artemisiifolia
Ambrosia psilostachya

Ambrosia trifida
Anacyclus clavatus
Anacyclus radiatus
Anacyclus valentinus
Anagallis arvensis
Anagallis foemina
Anaphalis margaritacea
Anchusa azurea
Anchusa ochroleuca
Anchusa officinalis
Androsace maxima
Andryala arenaria
Anethum graveolens
Anisantha diandra
Anisantha fasciculata
Anisantha madritensis
Anisantha rigida
Anisantha rubens
Anisantha sterilis
Anisantha tectorum
Anredera cordifolia
Anthemis arvensis
Anthemis cotula
Anthoxanthum amarum
Anthriscus caucalis
Anthriscus cerefolium
Anthriscus sylvestris
Arctium lappa
Arctium minus
Arctotheca calendula
Arenaria cerastioides
Arenaria hispanica
Armoracia rusticana
Artemisia abrotanum
Artemisia absinthium
Artemisia annua
Artemisia biennis
Artemisia dracunculus
Artemisia scoparia
Artemisia verlotiorum
Artemisia vulgaris
Arum italicum
Asparagus asparagoides
Asperugo procumbens
Asphodelus albus
Asphodelus fistulosus
Asphodelus lusitanicus
Asphodelus macrocarpus
Astragalus hamosus
Astragalus longidentatus
Atriplex hortensis
Atriplex micrantha
Atriplex oblongifolia

Atriplex patula
Atriplex rosea
Atriplex sagittata
Atriplex tatarica
Avena barbata
Avena fatua
Avena longiglumis
Avena nuda
Avena sativa
Avena sterilis
Avena strigosa
Axyris amaranthoides
Ballota nigra
Barbarea bracteosa
Barbarea stricta
Bassia hyssopifolia
Bellardia trixago
Berteroa incana
Bidens bipinnatus
Bidens subalternans
Biscutella auriculata
Blitum bonus-henricus
Blitum capitatum
Blitum petiolare
Blitum virgatum
Bonannia graeca
Bongardia chrysogonum
Borago officinalis
Bowlesia glandulosa
Brassica barrelieri
Brassica elongata
Brassica fruticulosa
Brassica geniculata
Brassica nigra
Brassica oxyrrhina
Brassica tournefortii
Bromopsis inermis
Bromus hordeaceus
Bromus intermedius
Bromus japonicus
Bromus lanceolatus
Bromus lepidus
Bromus scoparius
Bromus squarrosus
Bryonia alba
Bryonia dioica
Buglossoides arvensis
Buglossoides incrassata
Bunias erucago
Bunias orientalis
Bunium bulbocastanum
Bunium ferulaceum
Bunium pachypodium

Bupleurum lancifolium
Bupleurum subovatum
Calamagrostis epigejos
Calendula arvensis
Calendula officinalis
Calendula tripterocarpa
Calepina irregularis
Callistephus chinensis
Calystegia pulchra
Calystegia silvatica
Campanula ramosissima
Cannabis sativa
Capsella bursa-pastoris
Capsella grandiflora
Capsella rubella
Cardamine hirsuta
Cardiospermum grandiflorum
Carduus acanthoides
Carduus argyrea
Carduus asturicus
Carduus bourgeanus
Carduus candicans
Carduus carpetanus
Carduus crispus
Carduus hamulosus
Carduus litigiosus
Carduus meoanthus
Carduus nigrescens
Carduus nutans
Carduus pycnocephalus
Carduus tenuiflorus
Carlina lanata
Carpesium abrotanoides
Carpesium cernuum
Carrichtera annua
Carthamus caeruleus
Carthamus lanatus
Carthamus tinctorius
Catananche lutea
Catapodium rigidum
Centaurea aspera
Centaurea benedicta
Centaurea calcitrapa
Centaurea collina
Centaurea diffusa
Centaurea iberica
Centaurea lagascana
Centaurea melitensis
Centaurea pullata
Centaurea salonitana
Centaurea solstitialis
Centranthus calcitrapae
Centranthus macrosiphon

Cephalaria transsylvanica
Cerastium dichotomum
Cerastium glomeratum
Cerastium gracile
Cerastium nemorale
Cerastium perfoliatum
Ceratocarpus claviculata
Ceratocarpus heterocarpa
Ceratocarpus falcata
Cerinthe glabra
Cerinthe gymnandra
Cerinthe major
Cerinthe minor
Cerinthe retorta
Chaerophyllum aromaticum
Chaerophyllum aureum
Chaerophyllum nodosum
Chaerophyllum temulum
Chaiturus marrubiastrum
Chamaemelum fuscatum
Chelidonium majus
Chenopodiastrum hybridum
Chenopodiastrum murale
Chenopodium album
Chenopodium giganteum
Chenopodium opulifolium
Chenopodium probstii
Chenopodium strictum
Chenopodium suecicum
Chenopodium vulvaria
Chondrilla juncea
Cichorium intybus
Cichorium pumilum
Cirsium arvense
Cirsium boujartii
Cirsium decussatum
Cirsium echinatum
Cirsium eriophorum
Cirsium ferox
Cirsium furiens
Cirsium italicum
Cirsium morisianum
Cirsium odontolepis
Cirsium richterianum
Cirsium scabrum
Cirsium spathulatum
Cirsium vallis-demonis
Cirsium vulgare
Cladanthus mixtus
Claytonia perfoliata
Clematis tangutica
Cleome dodecandra
Cleome hassleriana

Cleome violacea
Clinopodium graveolens
Coincya monensis
Coincya transtagana
Coleostephus myconis
Collomia grandiflora
Collomia linearis
Commelina communis
Conium maculatum
Consolida regalis
Convolvulus arvensis
Convolvulus meoanthus
Convolvulus tricolor
Coronilla scorpioides
Corydalis capnoides
Cota altissima
Cota tinctoria
Crepis bursifolia
Crepis foetida
Crepis pulchra
Crepis sancta
Crepis setosa
Crepis tectorum
Crepis vesicaria
Crepis zacintha
Cruciata laevipes
Cryptotaenia thomasii
Cuscuta europaea
Cuscuta gronovii
Cuscuta scandens
Cyclanthera pedata
Cynanchum acutum
Cynara algarbiensis
Cynara baetica
Cynara cardunculus
Cynara humilis
Cynoglossum cheirifolium
Cynoglossum columnae
Cynoglossum creticum
Cynoglossum dioscoridis
Cynoglossum nebrodense
Cynoglossum officinale
Cyperus esculentus
Cyperus rotundus
Dasypyrum villosum
Datura metel
Datura stramonium
Daucus carota
Daucus guttatus
Daucus muricatus
Delphinium pentagynum
Descurainia sophia
Diplotaxis harra

Diploaxis siifolia
Diploaxis viminea
Diploaxis virgata
Dipsacus fullonum
Dipsacus laciniatus
Dipsacus pilosus
Dittrichia graveolens
Dittrichia viscosa
Drabella muralis
Dracocephalum thymiflorum
Ecballium elaterium
Echinaria capitata
Echinops bannaticus
Echinops exaltatus
Echinops sphaerocephalus
Echinops strigosus
Echium asperrimum
Echium boissieri
Echium italicum
Echium plantagineum
Echium rosulatum
Echium salmanticum
Echium tuberculatum
Echium vulgare
Elytrigia intermedia
Elytrigia obtusiflora
Elytrigia repens
Emex spinosa
Epilobium brachycarpum
Epilobium ciliatum
Epilobium hirsutum
Epilobium parviflorum
Epilobium tetragonum
Equisetum arvense
Erechtites hieraciifolius
Erigeron acris
Erigeron annuus
Erigeron bonariensis
Erigeron canadensis
Erigeron primulifolius
Erigeron sumatrensis
Erodium chium
Erodium ciconium
Erodium cicutarium
Erodium malacoides
Erodium moschatum
Erodium neuradifolium
Eruca vesicaria
Erucastrum gallicum
Erucastrum nasturtiifolium
Eryngium creticum
Erysimum cheiranthoides
Erysimum graecum

Erysimum hieracifolium
Erysimum repandum
Eschscholzia californica
Euphorbia esula
Euphorbia illirica
Euphorbia peplus
Euphorbia serrata
Euphorbia stricta
Euthamia graminifolia
Falcaria vulgaris
Fallopia baldschuanica
Fallopia dumetorum
Fedia cornucopiae
Fedia graciliflora
Fedia scorpioides
Filago arvensis
Filago pyramidata
Foeniculum vulgare
Fumaria barnolae
Fumaria bastardii
Fumaria bicolor
Fumaria capreolata
Fumaria densiflora
Fumaria faurei
Fumaria flabellata
Fumaria gaillardotii
Fumaria kralikii
Fumaria macrocarpa
Fumaria macrosepala
Fumaria mirabilis
Fumaria muralis
Fumaria officinalis
Fumaria parviflora
Fumaria petteri
Fumaria rostellata
Fumaria schleicheri
Fumaria sepium
Fumaria vaillantii
Galactites duriaei
Galactites tomentosus
Galeopsis bifida
Galeopsis pubescens
Galeopsis speciosa
Galeopsis tetrahit
Galium aparine
Galium lucidum
Galium minutulum
Galium murale
Galium parisiense
Galium spurium
Galium tricornutum
Galium verrucosum
Galium verticillatum

Gastridium phleoides
Gastridium ventricosum

Geranium bohemicum
Geranium columbinum
Geranium dissectum
Geranium lucidum
Geranium molle
Geranium purpureum
Geranium pusillum
Geranium pyrenaicum
Geranium robertianum
Geranium rotundifolium
Geranium sibiricum
Geranium tuberosum
Geranium yeoi
Geropogon hybridus
Geum aleppicum
Geum urbanum
Gladiolus italicus
Glebionis coronaria
Glebionis segetum
Glossopappus macrotus
Guiraoa arvensis
Hackelia deflexa
Halogeton sativus
Hedypnois rhagadioloides
Helianthus decapetalus
Helianthus giganteus
Helianthus pauciflorus
Helianthus tuberosus
Helminthotheca echioides
Heracleum mantegazzianum
Heracleum sphondylium
Herniaria lusitanica
Hesperis matronalis
Hordeum jubatum
Hordeum murinum
Humulus japonicus
Hyoscyamus albus
Hyoscyamus niger
Hypocoum imberbe
Hypocoum pendulum
Hypocoum procumbens
Hypericum triquetrifolium
Iberis amara
Iberis pinnata
Iberis umbellata
Impatiens balfourii
Impatiens glandulifera
Impatiens parviflora
Inula helenium
Inula helvetica

Ipomoea sagittata
Isatis praecox
Isatis tinctoria
Iva xanthiifolia
Jacobaea erucifolia
Kickxia lanigera
Kickxia spuria
Knautia integrifolia
Kundmannia sicula
Lactuca macrophylla
Lactuca muralis
Lactuca saligna
Lactuca sativa
Lactuca serriola
Lactuca tatarica
Lactuca virosa
Lagurus ovatus
Lamium album
Lamium purpureum
Lamyropsis cynaroides
Lappula heteracantha
Lappula squarrosa
Lapsana communis
Lathyrus angulatus
Lathyrus annuus
Lathyrus aphaca
Lathyrus cicera
Lathyrus clymenum
Lathyrus hirsutus
Lathyrus inconspicuus
Lathyrus nissolia
Lathyrus ochrus
Lathyrus odoratus
Lathyrus sativus
Lathyrus setifolius
Lathyrus sphaericus
Launaea nudicaulis
Legousia hybrida
Legousia scabra
Legousia speculum-veneris
Leontice leontopetalum
Leontodon maroccanus
Leonurus cardiaca
Lepidium campestre
Lepidium densiflorum
Lepidium draba
Lepidium hirtum
Lepidium ruderales
Lepidium virginicum
Linaria amethystea
Linaria chalepensis
Linaria hirta
Linaria latifolia

Linaria micrantha
Linaria nivea
Linaria orbensis
Linaria peloponnesiaca
Linaria ricardoi
Linaria triphylla
Linaria viscosa
Linaria vulgaris
Lobularia libyca
Lolium subulatum
Lotus edulis
Lotus ornithopodioides
Lotus tetragonolobus
Lunaria annua
Magydaris panacifolia
Malope malacoides
Malope trifida
Malva aegyptia
Malva alcea
Malva cretica
Malva durieui
Malva empedoclis
Malva hispanica
Malva lusitanica
Malva moschata
Malva multiflora
Malva neglecta
Malva nicaeensis
Malva parviflora
Malva pusilla
Malva setigera
Malva sylvestris
Malva thuringiaca
Malva trimestris
Malva verticillata
Mandragora officinarum
Mantisalca salmantica
Marrubium incanum
Marrubium peregrinum
Marrubium vulgare
Matricaria chamomilla
Matthiola lunata
Matthiola parviflora
Mauranthemum paludosum
Medicago arabica
Medicago intertexta
Medicago lupulina
Medicago monspeliaca
Medicago murex
Medicago orbicularis
Medicago polyceratia
Medicago polymorpha
Medicago rigidula

Medicago sativa
Medicago scutellata
Medicago tornata
Medicago truncatula
Melica transsilvanica
Melilotus albus
Melilotus altissima
Melilotus elegans
Melilotus indicus
Melilotus infestus
Melilotus italicus
Melilotus neapolitanus
Melilotus officinalis
Melilotus segetalis
Melilotus sulcatus
Melissa officinalis
Mentha spicata
Mercurialis elliptica
Mercurialis reverchonii
Microrrhinum minus
Misopates calycinum
Misopates orontium
Mollugo cerviana
Moricandia arvensis
Moricandia moricandioides
Muhlenbergia schreberi
Muscari armeniacum
Muscari commutatum
Myosotis decumbens
Myosotis persoonii
Myosotis speluncicola
Nepeta apuleii
Nepeta cataria
Nepeta latifolia
Nicandra physalodes
Nigella arvensis
Nigella damascena
Nigella hispanica
Nigella orientalis
Nigella papillosa
Noccaea perfoliata
Nonea erecta
Nonea lutea
Nonea vesicaria
Notobasis syriaca
Odontites vulgaris aggr.
Oenothera ammophila
Oenothera angustissima
Oenothera biennis
Oenothera canovirens
Oenothera deflexa
Oenothera depressa
Oenothera fallax

Oenothera glazioviana
Oenothera issleri
Oenothera oakesiana
Oenothera oehlkersii
Oenothera parviflora
Oenothera perangusta
Oenothera pycnocarpa
Oenothera rosea
Oenothera rubricaulis
Oenothera silesiaca
Oenothera suaveolens
Oenothera subterminalis
Oenothera victorini
Oenothera villosa
Omphalodes kuzinskyanae
Ononis alopecuroides
Ononis pinnata
Onopordum acanthium
Onopordum acaulon
Onopordum carduelium
Onopordum corymbosum
Onopordum dissectum
Onopordum horridum
Onopordum illyricum
Onopordum macracanthum
Onopordum nervosum
Onopordum tauricum
Opopanax chironium
Orlaya daucoides
Ornithogalum arabicum
Ornithogalum divergens
Ornithogalum nutans
Ornithogalum pyramidale
Orobanche artemisiae-campestris
Orobanche crenata
Otospermum glabrum
Oxalis articulata
Oxalis pes-caprae
Oxalis stricta
Oxybasis urbica
Papaver apulum
Papaver pinnatifidum
Papaver setigerum
Parentucellia viscosa
Parietaria debilis
Parietaria judaica
Parietaria lusitanica
Parietaria mauritanica
Parietaria officinalis
Parvotrisetum myrianthum
Patellifolia procumbens
Peltaria alliacea
Pentaglottis sempervirens

Persicaria wallichii
Petagnaea gussonei
Petasites pyrenaicus
Phacelia tanacetifolia
Phalaris brachystachys
Phalaris canariensis
Phalaris minor
Phalaris paradoxa
Phelipanche mutelii
Phelipanche ramosa
Phleum paniculatum
Phygelius capensis
Physalis alkekengi
Phyteuma persicifolium
Phytolacca acinosa
Phytolacca americana
Picnomon acarna
Picris hieracioides
Pimpinella anisum
Pimpinella bicknellii
Piptatherum miliaceum
Plantago afra
Plantago lagopus
Plantago ovata
Platycapnos spicata
Poa compressa
Potentilla argentea
Potentilla multifida
Pulicaria arabica
Pulicaria dysenterica
Ranunculus chius
Ranunculus muricatus
Ranunculus parviflorus
Ranunculus trilobus
Raphanus raphanistrum
Rapistrum perenne
Rapistrum rugosum
Reichardia gaditana
Reichardia intermedia
Reichardia picroides
Reichardia tingitana
Reseda alba
Reseda barrelieri
Reseda lanceolata
Reseda lutea
Reseda luteola
Reseda phyteuma
Reseda stricta
Reseda suffruticosa
Reseda undata
Reynoutria japonica
Reynoutria sachalinensis
Rhagadiolus stellatus

Rodgersia podophylla
Rostraria cristata
Rostraria salzmannii
Rubia tinctorium
Rudbeckia hirta
Rudbeckia laciniata
Rumex alpinus
Rumex aquitanicus
Rumex intermedius
Rumex kernerii
Rumex longifolius
Rumex nepalensis
Rumex obtusifolius
Rumex patientia
Rumex pulcher
Salpichroa organifolia
Salsola kali aggr.
Salvia argentea
Salvia nemorosa
Salvia sclarea
Salvia verbenaca
Salvia viridis
Saponaria glutinosa
Saponaria officinalis
Scandix australis
Scandix pecten-veneris
Scandix stellata
Scolymus grandiflorus
Scolymus hispanicus
Scolymus maculatus
Scorpiurus muricatus
Scorpiurus vermiculatus
Scorzoneroides salzmannii
Scrophularia auriculata
Scrophularia grandiflora
Scrophularia herminii
Scrophularia peregrina
Securigera cretica
Senecio gallicus
Senecio inaequidens
Senecio lividus
Senecio sylvaticus
Senecio vulgaris
Sida spinosa
Silene apetala
Silene baccifera
Silene chalcedonica
Silene conoidea
Silene dichotoma
Silene disticha
Silene exaltata
Silene fuscata
Silene gallica

Silene gracilis
Silene latifolia
Silene longipetala
Silene muscipula
Silene noctiflora
Silene nocturna
Silene pendula
Silene rubella
Silene scabriflora
Silene sennenii
Silene stricta
Silene tridentata
Silene vulgaris
Silybum eburneum
Silybum marianum
Sinapis alba
Sinapis arvensis
Sinapis flexuosa
Sinapis pubescens
Sison amomum
Sisymbrium altissimum
Sisymbrium austriacum
Sisymbrium crassifolium
Sisymbrium erysimoides
Sisymbrium fugax
Sisymbrium irio
Sisymbrium loeselii
Sisymbrium macroloma
Sisymbrium officinale
Sisymbrium orientale
Sisymbrium polyceratium
Sisymbrium runcinatum
Sisymbrium strictissimum
Sisymbrium volgense
Sixalix atropurpurea
Smyrnum olusatrum
Solanum alatum
Solanum americanum
Solanum carolinense
Solanum chenopodioides
Solanum decipiens
Solanum mauritianum
Solanum nigrum
Solanum physalifolium
Solanum rostratum
Solanum sarrachoides
Solanum villosum
Solenanthes apenninus
Solidago canadensis
Solidago gigantea
Sonchus arvensis
Sonchus asper
Sonchus oleraceus

Sonchus tenerrimus
Spergularia bocconei
Spergularia nicaeensis
Spergularia purpurea
Spergularia segetalis
Stachys byzantina
Stachys circinata
Stachys cretica
Stachys ocymastrum
Staphisagria macrosperma
Staphisagria picta
Stellaria media
Stellaria neglecta
Stellaria pallida
Strigosella africana
Succowia balearica
Sulla capitata
Sulla coronaria
Symphyotrichum ciliatum
Symphyotrichum novae-angliae
Symphyotrichum novi-belgii aggr.
Symphyotrichum pilosum
Symphyotrichum squamatum
Symphytum asperum
Symphytum officinale
Taeniatherum caput-medusae
Tanacetum balsamita
Tanacetum parthenium
Tanacetum vulgare
Teesdalia coronopifolia
Tellima grandiflora
Tetragonia tetragonoides
Teucrium spinosum
Theligonum cynocrambe
Thladiantha dubia
Thlaspi alliaceum
Thymelaea passerina
Tordylium apulum
Tordylium maximum
Torilis africana
Torilis arvensis
Torilis elongata
Torilis japonica
Torilis leptophylla
Torilis nodosa
Tradescantia virginiana
Tragopogon dubius
Trifolium affine
Trifolium angustifolium
Trifolium argutum
Trifolium cherleri
Trifolium clusii
Trifolium clypeatum

Trifolium constantinopolitanum
Trifolium dasyurum
Trifolium diffusum
Trifolium dubium
Trifolium echinatum
Trifolium glomeratum
Trifolium grandiflorum
Trifolium hirtum
Trifolium hybridum
Trifolium michelianum
Trifolium mutabile
Trifolium neglectum
Trifolium nigrescens
Trifolium patens
Trifolium pauciflorum
Trifolium pilulare
Trifolium spumosum
Trifolium tomentosum
Trifolium uniflorum
Trifolium vesiculosum
Trigonella caerulea
Trigonella esculenta
Trigonella foenum-graecum
Triguera osbeckii
Tripleurospermum maritimum aggr.
Trisetaria ovata
Trisetaria panicea
Tropaeolum majus
Tulipa agenensis
Tulipa clusiana
Tulipa orphanidea
Tulipa sylvestris
Tulipa undulatifolia
Turgenia latifolia
Tussilago farfara
Tyrimnus leucographus
Urospermum dalechampii
Urospermum picroides
Urtica dioica
Urtica membranacea
Urtica pilulifera
Urtica stachyoides
Urtica urens
Vaccaria hispanica
Valantia muralis
Valerianella carinata
Valerianella coronata
Valerianella discoidea
Valerianella echinata
Valerianella locusta
Valerianella martinii
Valerianella microcarpa
Valerianella rimosa

Verbascum alpinum
Verbascum blattaria
Verbascum boerhavii
Verbascum densiflorum
Verbascum giganteum
Verbascum litigiosum
Verbascum macrurum
Verbascum phlomoides
Verbascum pulverulentum
Verbascum rotundifolium
Verbascum sinuatum
Verbascum speciosum
Verbascum thapsus
Verbascum virgatum
Verbena bonariensis
Verbena officinalis
Veronica cymbalaria
Veronica glauca
Vicia articulata
Vicia benghalensis
Vicia bithynica
Vicia ervilia
Vicia hybrida
Vicia lutea
Vicia microphylla
Vicia monantha
Vicia parviflora
Vicia peregrina
Vicia sativa
Vicia serratifolia
Vicia sibthorpii
Vicia sicula
Vicia villosa
Vinca major
Viola odorata
Vogtia annua
Vogtia microphylla
Volutaria lippii
Vulpia alopecuroides
Vulpia ciliata
Vulpia geniculata
Vulpiella stipoides
Xanthium spinosum
Xanthium strumarium

##D +05 Acidophilous-forest-species

Avenella flexuosa
Blechnum spicant
Calamagrostis arundinacea
Calamagrostis villosa
Calluna vulgaris
Carex pilulifera
Ceratocarpus claviculata

Convallaria majalis
Dicranum majus
Dicranum scoparium
Drymochloa drymeja
Frangula alnus
Galium saxatile
Hieracium lachenalii
Hieracium murorum
Holcus mollis
Huperzia selago
Hypericum pulchrum
Ilex aquifolium
Lembotropis nigricans
Leucobryum glaucum
Lonicera periclymenum
Luzula luzuloides
Luzula nivea
Luzula pilosa
Luzula sylvatica
Lycopodium clavatum
Maianthemum bifolium
Melampyrum pratense
Melampyrum sylvaticum
Mnium hornum
Orthilia secunda
Poa chaixii
Pteridium aquilinum
Pyrola minor
Teucrium scorodonia
Trientalis europaea
Vaccinium myrtillus
Vaccinium vitis-idaea
Veronica officinalis

##D +05 Alder-carr-species

Calamagrostis canescens
Calla palustris
Caltha palustris
Carex acutiformis
Carex elata
Carex elongata
Carex paniculata
Carex pseudocyperus
Dryopteris carthusiana
Dryopteris carthusiana aggr.
Frangula alnus
Galium palustre aggr.
Glyceria maxima
Lysimachia vulgaris
Molinia caerulea aggr.
Peucedanum palustre
Phalaris arundinacea
Scirpus sylvaticus

Sphagnum palustre
Sphagnum squarrosum
Thelypteris palustris

##D +05 Eutrophic-deciduous-forest-species

Aconitum lycoctonum
Actaea spicata
Adoxa moschatellina
Aegopodium podagraria
Alliaria petiolata
Allium cyrilli
Allium ursinum
Anemone apennina
Anemone nemorosa
Anemone ranunculoides
Anemone trifolia
Anthriscus nitida
Aposeris foetida
Aquilegia vulgaris
Arabis sagittata
Aremonia agrimonoides
Arum cylindraceum
Arum elongatum
Arum maculatum
Arum orientale
Aruncus dioicus
Asarum europaeum
Asparagus tenuifolius
Asperula cymulosa
Asperula involucrata
Asperula taurina
Astrantia carniolica
Astrantia major
Brachypodium sylvaticum
Bromopsis ramosa aggr.
Calamintha grandiflora
Campanula rapunculoides
Campanula trachelium
Cardamine bulbifera
Cardamine enneaphyllos
Cardamine flexuosa
Cardamine glanduligera
Cardamine heptaphylla
Cardamine impatiens
Cardamine kitaibelii
Cardamine pentaphyllos
Cardamine polyphylla
Cardamine quinquefolia
Cardamine trifolia
Cardamine waldsteinii
Carex alba
Carex depauperata
Carex digitata

Carex halleriana
Carex pilosa
Carpesium cernuum
Cephalanthera damasonium
Cephalanthera longifolia
Cephalanthera rubra
Clinopodium umbrosum
Corallorrhiza trifida
Corydalis cava
Corydalis fabacea
Corydalis intermedia
Corydalis paczoskii
Corydalis pumila
Corydalis solida
Cruciata glabra
Cyclamen coum
Cyclamen purpurascens
Daphne mezereum
Digitalis schischkinii
Drymochloa drymeja
Drymochloa sylvatica
Dryopteris filix-mas
Epimedium alpinum
Epimedium pinnatum
Epimedium pubigerum
Epipactis helleborine
Erythronium dens-canis
Euonymus europaeus
Euonymus latifolius
Euonymus verrucosus
Euphorbia amygdaloides
Euphorbia carniolica
Euphorbia dulcis
Euphorbia squamosa
Fragaria moschata
Gagea lutea
Gagea minima
Galium aristatum
Galium intermedium
Galium odoratum
Galium paschale
Galium pseudaristatum
Galium sylvaticum
Geranium gracile
Geranium macrorrhizum
Geranium phaeum
Geranium robertianum
Geranium versicolor
Geum urbanum
Glechoma hirsuta
Hacquetia epipactis
Hedera colchica
Hedera helix

Hedera pastuchowii
Helleborus dumetorum
Helleborus foetidus
Helleborus niger
Helleborus odorus
Helleborus orientalis
Helleborus purpurascens
Hepatica nobilis
Hepatica transsilvanica
Heracleum sphondylium
Hesperis matronalis
Hesperis sylvestris
Hordelymus europaeus
Hyacinthoides non-scripta
Hypericum androsaemum
Hypericum calycinum
Hypericum hirsutum
Hypericum xylosteifolium
Isopyrum thalictroides
Knautia drymeia
Lamium galeobdolon
Lamium maculatum
Lamium orvala
Lathraea squamaria
Lathyrus aureus
Lathyrus laxiflorus
Lathyrus niger
Lathyrus roseus
Lathyrus venetus
Lathyrus vernus
Lilium martagon
Lonicera alpigena
Lonicera nigra
Lonicera xylosteum
Lunaria rediviva
Luzula pilosa
Lysimachia nemorum
Melampyrum nemorosum aggr.
Melica nutans
Melica uniflora
Melittis melissophyllum
Mercurialis perennis
Milium effusum
Moehringia trinervia
Neottia nidus-avis
Omphalodes cappadocica
Omphalodes nitida
Omphalodes scorpioides
Omphalodes verna
Orobanche hederæ
Orobanche salviae
Paeonia daurica
Paris quadrifolia

Physospermum verticillatum
Phyteuma spicatum
Pimpinella tripartita
Polygonatum hirtum
Polygonatum multiflorum
Polygonatum orientale
Potentilla sterilis
Prenanthes purpurea
Primula acaulis
Primula elatior
Primula megaseifolia
Pseudostellaria europaea
Pseudoturritis turrita
Pulmonaria affinis
Pulmonaria apennina
Pulmonaria dacica
Pulmonaria longifolia
Pulmonaria montana
Pulmonaria obscura
Pulmonaria officinalis
Pulmonaria rubra
Pulmonaria stiriaca
Ranunculus lanuginosus
Ranunculus villosus
Ribes alpinum
Ribes uva-crispa
Rosa arvensis
Ruscus colchicus
Ruscus hypoglossum
Ruscus hypophyllum
Salvia glutinosa
Sanicula europaea
Saxifraga hirsuta
Saxifraga rotundifolia
Scilla bifolia
Scilla sibirica
Scopolia carniolica
Scrophularia vernalis
Silene dioica
Smilax excelsa
Stellaria holostea
Symphytum cordatum
Symphytum grandiflorum
Symphytum tauricum
Symphytum tuberosum aggr.
Teucrium siculum
Trachystemon orientalis
Veronica montana
Veronica peduncularis
Veronica urticifolia
Vicia oroboides
Vicia sepium
Vinca minor

Viola alba
Viola collina
Viola mirabilis
Viola reichenbachiana
Viola riviniana
Viola sieheana
Waldsteinia geoides
Waldsteinia ternata

##D +05 Temperate-riparian-forest-species

Aegopodium podagraria
Ajuga reptans
Anemone nemorosa
Angelica sylvestris
Anthriscus nitida
Brachypodium sylvaticum
Caltha palustris
Calystegia sepium
Carex acutiformis
Carex brizoides
Carex remota
Carex riparia
Carex sylvatica
Chaerophyllum hirsutum
Chrysosplenium alternifolium
Circaea lutetiana
Crepis paludosa
Deschampsia cespitosa
Eupatorium cannabinum
Ficaria verna
Filipendula ulmaria
Frangula alnus
Gagea lutea
Galanthus nivalis
Galium aparine
Galium palustre aggr.
Geum rivale
Geum urbanum
Hedera helix
Humulus lupulus
Impatiens noli-tangere
Iris pseudacorus
Juncus effusus
Lamium galeobdolon
Lamium maculatum
Leucojum vernum
Lycopus europaeus
Lysimachia nummularia
Lysimachia vulgaris
Matteucia struthiopteris
Oenanthe aquatica
Oenanthe banatica
Petasites albus

Phalaroides arundinacea
Poa trivialis
Prunus padus
Pulmonaria officinalis
Ranunculus lanuginosus
Ranunculus repens
Ribes rubrum aggr.
Rubus caesius
Rumex sanguineus
Sambucus nigra
Sambucus racemosa
Schedonorus giganteus
Scirpus sylvaticus
Silene dioica
Stachys sylvatica
Stellaria nemorum
Symphytum officinale
Telekia speciosa
Thalictrum aquilegiifolium
Urtica dioica

##D +05 Thermophilous-oak-forest-species

Achillea distans
Aegonychon purpurocaeruleum
Alliaria petiolata
Anemone apennina
Anemone ranunculoides
Anemone sylvestris
Anthericum ramosum
Asparagus officinalis
Asparagus tenuifolius
Brachypodium pinnatum
Brachypodium rupestre
Brachypodium sylvaticum
Buxus sempervirens
Calamintha grandiflora
Campanula bononiensis
Campanula persicifolia
Campanula rapunculoides
Caragana arborescens
Caragana frutex
Carex depauperata
Carex fritschii
Carex halleriana
Carex humilis
Carex michelii
Carex montana
Chaerophyllum nodosum
Clematis recta
Clinopodium vulgare
Colutea arborescens
Convallaria majalis
Cornus mas

Cotinus coggygria
Cotoneaster integerrimus
Cotoneaster niger
Cotoneaster tomentosus
Cytisus ruthenicus
Dictamnus albus
Digitalis lanata
Digitalis ferruginea
Erysimum odoratum
Euonymus verrucosus
Euphorbia cyparissias
Euphorbia epithymoides
Euphorbia semivillosa
Festuca heterophylla
Fritillaria ruthenica
Galium boreale
Geranium sanguineum
Geum urbanum
Helleborus odorus
Hypericum montanum
Inula hirta
Iris graminea
Iris variegata
Jasminum fruticans
Laser trilobum
Laserpitium latifolium
Lathyrus niger
Lathyrus venetus
Lonicera caprifolium
Lonicera etrusca
Luzula forsteri
Melittis melissophyllum
Mercurialis ovata
Orchis purpurea
Origanum vulgare
Paeonia peregrina
Peucedanum cervaria
Peucedanum oreoselinum
Piptatherum holciforme
Piptatherum virescens
Poa pratensis aggr.
Potentilla alba
Potentilla micrantha
Primula veris
Prunus mahaleb
Pulmonaria angustifolia
Pulmonaria mollis
Pyrus communis
Pyrus nivalis
Pyrus spinosa
Ruscus aculeatus
Scorzonera humilis
Scutellaria altissima

Securigera varia
Sedum cepaea
Serratula tinctoria
Silene coronaria
Silene viridiflora
Stachys officinalis
Syringa vulgaris
Tanacetum corymbosum
Teucrium chamaedrys
Thalictrum minus
Trifolium alpestre
Trifolium medium
Verbascum chaixii
Veronica teucrium
Viburnum lantana
Vicia cassubica
Vinca herbacea
Vincetoxicum hirundinaria
Viola alba
Viola collina
Viola hirta

##D +40 Extremely-rich-moss-sedge-fen-species

Agrostis canina
Andromeda polifolia
Aneura pinguis
Aulacomnium palustre
Bryum pseudotriquetrum
Calliergon giganteum
Calliergon richardsonii
Campylium stellatum
Carex appropinquata
Carex capitata
Carex davalliana
Carex demissa
Carex diandra
Carex dioica
Carex echinata
Carex flava
Carex lapponica
Carex lasiocarpa
Carex nigra
Carex panicea
Carex parallela
Carex rariflora
Carex rostrata
Carex saxatilis
Carex tenuiflora
Carex vaginata
Cinclidium stygium
Cinclidium subrotundum
Comarum palustre
Dactylorhiza majalis

Dicranum bonjeanii
Drosera rotundifolia
Epilobium palustre
Equisetum fluviatile
Equisetum palustre
Eriophorum angustifolium
Eriophorum latifolium
Fissidens adianthoides
Fissidens osmundoides
Gymnocolea borealis
Hamatocaulis lapponicus
Hamatocaulis vernicosus
Helodium blandowii
Juncus alpinoarticulatus
Juncus bulbosus
Loeskyllum badium
Meesia hexasticha
Meesia longiseta
Meesia triquetra
Meesia uliginosa
Menyanthes trifoliata
Paludella squarrosa
Parnassia palustris
Pedicularis palustris
Philonotis fontana
Pseudobryum cinclidioides
Rhynchospora alba
Scorpidium revolvens aggr.
Selaginella selaginoides
Sphagnum contortum
Sphagnum subfulvum
Sphagnum subnitens
Sphagnum teres
Sphagnum warnstorffii
Succisa pratensis
Tomentypnum nitens
Trichophorum alpinum
Trichophorum cespitosum
Triglochin palustris
Tritomaria polita
Utricularia minor
Vaccinium oxycoccos
Valeriana dioica
Viola palustris
Warnstorffia tundrae

##D +40 Intermediate-fen-and-soft-water-spring-mire

Agrostis canina
Allium schoenoprasum
Anagallis tenella
Andromeda polifolia
Aneura pinguis
Aulacomnium palustre

Betula nana
Bryum pseudotriquetrum
Calamagrostis neglecta
Calliergon cordifolium
Carex canescens
Carex demissa
Carex diandra
Carex dioica
Carex echinata
Carex lachenalii
Carex lasiocarpa
Carex limosa
Carex magellanica
Carex nigra
Carex panicea
Carex rariflora
Carex rostrata
Carex rotundata
Carex saxatilis
Carum verticillatum
Cinclidium subrotundum
Comarum palustre
Dactylorhiza maculata aggr.
Dactylorhiza majalis
Dactylorhiza traunsteineri
Drosera intermedia
Drosera longifolia
Drosera rotundifolia
Eleocharis multicaulis
Epilobium palustre
Equisetum fluviatile
Equisetum palustre
Eriophorum angustifolium
Eriophorum gracile
Eriophorum scheuchzeri
Galium palustre aggr.
Hamatocaulis vernicosus
Hydrocotyle vulgaris
Hypericum elodes
Juncus articulatus
Juncus bulbosus
Juncus filiformis
Menyanthes trifoliata
Montia fontana
Parnassia palustris
Pedicularis palustris
Pedicularis sylvatica
Peucedanum palustre
Philonotis fontana
Philonotis seriata
Potamogeton polygonifolius
Potentilla erecta
Pseudobryum cinclidioides

Ranunculus flammula
Ranunculus reptans
Rhynchospora alba
Rhynchospora fusca
Sedum villosum
Sphagnum auriculatum+inundatum
Sphagnum obtusum
Sphagnum platyphyllum
Sphagnum subsecundum
Sphagnum teres
Straminergon stramineum
Succisa pratensis
Swertia perennis
Trichophorum cespitosum
Vaccinium oxycoccus
Valeriana dioica
Veronica scutellata
Viola palustris
Wahlenbergia hederacea
Warnstorfia exannulata
Warnstorfia sarmentosa
Willemetia stipitata

##D +40 Calcareous-quaking-mire

Calliergon giganteum
Carex buxbaumii
Carex diandra
Carex flava
Carex chordorrhiza
Carex lasiocarpa
Carex limosa
Carex livida
Carex rariflora
Carex rostrata
Carex rotundata
Carex saxatilis
Cinclidium stygium
Comarum palustre
Drosera intermedia
Drosera longifolia
Drosera rotundifolia
Equisetum fluviatile
Eriophorum angustifolium
Eriophorum gracile
Hamatocaulis lapponicus
Hamatocaulis vernicosus
Juncus stygius
Meesia triquetra
Menyanthes trifoliata
Parnassia palustris
Pedicularis palustris
Pseudocalliergon trifarium
Rhizomnium pseudopunctatum

Rhynchospora alba
Rhynchospora fusca
Scorpidium revolvens aggr.
Scorpidium scorpioides
Sphagnum contortum
Sphagnum platyphyllum
Trichophorum alpinum
Trichophorum cespitosum
Utricularia bremii
Utricularia intermedia
Utricularia minor
Utricularia ochroleuca
Warnstorfia tundrae

##D +10 Aquatic-species

Aldrovanda vesiculosa
Alisma gramineum
Althenia filiformis
Althenia orientalis
Aneura pinguis
Antinoria agrostidea
Aristavena setacea
Azolla caroliniana
Azolla cristata
Azolla filiculoides
Azolla species
Baldellia alpestris
Baldellia ranunculoides
Botrydium granulatum
Callitriche brutia
Callitriche cophocarpa
Callitriche cribosea
Callitriche hamulata
Callitriche hermaphroditica
Callitriche lenisulca
Callitriche lusitanica
Callitriche obtusangula
Callitriche palustris
Callitriche platycarpa
Callitriche pulchra
Callitriche regis-jubae
Callitriche stagnalis
Callitriche truncata
Ceramium arachnoideum
Ceramium rubrum
Ceratophyllum demersum
Ceratophyllum species
Ceratophyllum submersum
Chaetophora incrassata
Chara aculeolata
Chara aspera
Chara baltica
Chara braunii

Chara canescens
Chara connivens
Chara contraria
Chara delicatula
Chara filiformis
Chara foetida
Chara fragifera
Chara galioides
Chara globularis
Chara gymnophylla
Chara hispida
Chara horrida
Chara intermedia
Chara jubata
Chara muscosa
Chara pedunculata
Chara rudis
Chara species
Chara tenuispina
Chara tomentosa
Chara virgata
Chara vulgaris
Characeae species
Chiloscyphus polyanthos
Cladophora fracta
Cladophora glomerata
Cladophora rivularis
Cladophora species
Cladopodiella fluitans
Drepanocladus aduncus
Egeria densa
Eichhornia crassipes
Elodea callitrichoides
Elodea canadensis
Elodea nuttallii
Elodea species
Enterographa species
Enteromorpha intestinalis
Enteromorpha prolifera
Eriocaulon aquaticum
Fontinalis dalecarlica
Fontinalis hypnoides
Fontinalis species
Fontinalis squamosa
Fucus serratus
Fucus vesiculosus
Groenlandia densa
Heteranthera reniformis
Hottonia palustris
Hydrocharis morsus-ranae
Hydrocotyle ranunculoides
Hydrocotyle vulgaris
Hydrodictyon reticulatum

Hygroamblystegium fluviatile
Hygroamblystegium tenax
Hygrohypnum luridum
Hygrohypnum ochraceum
Hygrohypnum smithii
Isoetes boryana
Isoetes echinospora
Isoetes lacustris
Isoetes longissima
Isoetes malinverniana
Isoetes setacea
Isoetes velata
Isolepis fluitans
Juncus bulbosus
Juncus emmanuelis
Juncus heterophyllus
Lagarosiphon major
Landoltia punctata
Lemna aequinoctialis
Lemna gibba
Lemna minor
Lemna minuta
Lemna perpusilla
Lemna species
Lemna trisulca
Lemna turionifera
Lemna valdiviana
Limnophila indica
Lobelia dortmanna
Ludwigia grandiflora
Ludwigia repens
Luronium natans
Lycopodiella inundata
Marsilea quadrifolia
Marsilea species
Marsilea strigosa
Myriophyllum alterniflorum
Myriophyllum aquaticum
Myriophyllum heterophyllum
Myriophyllum species
Myriophyllum spicatum
Myriophyllum verticillatum
Najas flexilis
Najas gracillima
Najas marina
Najas minor
Nelumbo nucifera
Nitella capillaris
Nitella flexilis
Nitella gracilis
Nitella hyalina
Nitella mucronata
Nitella opaca

Nitella species
Nitella syncarpa
Nitella translucens
Nitellopsis obtusa
Nuphar lutea
Nuphar pumila
Nuphar species
Nuphar x spenneriana
Nymphaea alba
Nymphaea candida
Nymphaea lotus
Nymphaea species
Nymphaea tetragona
Nymphoides peltata
Oenanthe fluviatilis
Palmogloea protuberans
Pilularia globulifera
Pilularia minuta
Pistia stratiotes
Plantago uniflora
Potamogeton Xzizii
Potamogeton acutifolius
Potamogeton alpinus
Potamogeton antaicus
Potamogeton berchtoldii
Potamogeton coloratus
Potamogeton compressus
Potamogeton crispus
Potamogeton epihydrus
Potamogeton friesii
Potamogeton gramineus
Potamogeton lucens
Potamogeton lucens x perfoliatus
Potamogeton natans
Potamogeton nodosus
Potamogeton obtusifolius
Potamogeton perfoliatus
Potamogeton polygonifolius
Potamogeton praelongus
Potamogeton pusillus
Potamogeton pusillus aggr.
Potamogeton rutilus
Potamogeton schweinfurthii
Potamogeton species
Potamogeton trichoides
Potamogeton x fluitans
Potamogeton x nitens
Potamogeton x sparganifolius
Potamogeton x variifolius
Potamogeton x zizii
Ranunculus aquatilis
Ranunculus circinatus
Ranunculus flammula

Ranunculus fluitans
Ranunculus hederaceus
Ranunculus ololeucos
Ranunculus omiophyllus
Ranunculus peltatus
Ranunculus peltatus subsp. baudotii
Ranunculus penicillatus
Ranunculus polyphyllus
Ranunculus reptans
Ranunculus rionii
Ranunculus trichophyllus
Ranunculus tripartitus
Rhynchosygium riparioides
Riccia fluitans
Riccia rhenana
Ricciocarpos natans
Rivularia atra
Ruppia cirrhosa
Ruppia maritima
Ruppia species
Salvinia auriculata
Salvinia molesta
Salvinia natans
Samolus valerandi
Sparganium angustifolium
Sparganium natans
Spirodela polyrhiza
Spirodela species
Spirogyra maxima
Stratiotes aloides
Stuckenia filiformis
Stuckenia pectinata
Stuckenia vaginata
Subularia aquatica
Tolypella glomerata
Tolypella intricata
Tolypella nidifica
Tolypella prolifera
Tolypella species
Trapa natans
Ulothrix zonata
Ulva lactuca
Utricularia australis
Utricularia bremii
Utricularia gibba
Utricularia intermedia
Utricularia minor
Utricularia ochroleuca
Utricularia vulgaris
Vallisneria spiralis
Vaucheria dichotoma
Vaucheria geminata
Vaucheria species

Wolffia arrhiza
Zannichellia contorta
Zannichellia obtusifolia
Zannichellia palustris
Zannichellia pedicellata
Zannichellia pedunculata
Zannichellia peltata
Zostera marina
Zostera noltii
Zygogonium ericetorum

##D +10 Grassland-species

Abietinella abietina
Aconitum anthora
Aconitum burnatii
Aconitum lycoctonum
Aconitum napellus aggr.
Aconogonon alpinum
Achillea ageratum
Achillea clavennae
Achillea clusiana
Achillea coarctata
Achillea holosericea
Achillea micrantha
Achillea millefolium aggr.
Achillea pseudopectinata
Achillea ptarmica
Adenostyles alliariae
Adenostyles alpina
Adonis vernalis
Aegilops geniculata
Aegonychon purpurocaeruleum
Aegopodium podagraria
Aeluropus lagopoides
Aeluropus littoralis
Aethionema saxatile
Agrimonia eupatoria
Agropyron cristatum
Agropyron dasyanthum
Agrostis capillaris
Agrostis castellana
Agrostis vinealis
Agrostis tileni
Agrostis stolonifera
Agrostis rupestris
Agrostis nevadensis
Agrostis gracililaxa
Agrostis congestiflora
Aira caryophyllea
Aira cupaniana
Aira elegantissima
Aira praecox
Aira tenorii

Airopsis tenella
Aizoanthes hispanica
Ajuga tenorei
Alchemilla catalaunica
Alchemilla fissa
Alchemilla glomerulans
Alchemilla pentaphyllea
Alkanna tinctoria
Alliaria petiolata
Allium angulosum
Allium baeticum
Allium ericetorum
Allium flavum
Allium guttatum
Allium chamaemoly
Allium lusitanicum
Allium melananthum
Allium moly
Allium moschatum
Allium pallens
Allium pentadactyli
Allium schoenoprasum
Allium sphaerocephalon
Allium sphaeropodium
Allium subvillosum
Alopecurus bulbosus
Alopecurus geniculatus
Alopecurus gerardi
Alopecurus pratensis
Alopecurus rendlei
Alopecurus riloensis
Althaea officinalis
Alyssoides utriculata
Alyssum alyssoides
Alyssum diffusum
Alyssum granatense
Alyssum montanum
Alyssum simplex
Alyssum turkestanicum
Ammi huntii
Ammi trifoliatum
Ammoides pusilla
Ampelodesmos mauritanicus
Anabasis aphylla
Anabasis salsa
Anacamptis coriophora
Anacamptis palustris aggr.
Anacamptis papilionacea
Anacamptis pyramidalis
Andropogon distachyos
Androsace carnea
Androsace elongata
Androsace chamaejasme

Androsace rioxana
Androsace septentrionalis
Androsace villosa
Androsace vitaliana
Andryala glandulosa
Andryala integrifolia
Andryala laxiflora
Anemone sylvestris
Angelica archangelica
Angelica heterocarpa
Angelica lignescens
Angelica sylvestris
Anchusa ochroleuca
Anisantha fasciculata
Antennaria dioica
Anthemis arvensis
Anthericum ramosum
Anthoxanthum aristatum
Anthoxanthum maderense
Anthoxanthum odoratum aggr.
Anthoxanthum ovatum
Anthriscus sylvestris
Anthyllis aurea
Anthyllis cornicina
Anthyllis cytisoides
Anthyllis lemnniana
Anthyllis lotoides
Anthyllis montana
Anthyllis vulneraria
Apera interrupta
Aphanes cornucopioides
Aphanes microcarpa
Aquilegia bernardii
Aquilegia cazorlensis
Aquilegia vulgaris
Arabidopsis arenosa
Arabidopsis halleri
Arabidopsis thaliana
Arabis auriculata
Arabis caerulea
Arabis hirsuta
Arabis nova
Arenaria aggregata
Arenaria armerina
Arenaria arundana
Arenaria capillipes
Arenaria conimbricensis
Arenaria aggregata
Arenaria leptoclados
Arenaria modesta
Arenaria obtusiflora
Arenaria pomelii
Arenaria retusa

Arenaria serpyllifolia
Arenaria valentina
Arenaria x decipiens
Argentina anserina
Argyranthemum pinnatifidum subsp. montanum
Aristida adscensionis
Aristolochia clematitidis
Armeria arenaria
Armeria caballeroi
Armeria caespitosa
Armeria canescens
Armeria castroviejoi
Armeria ciliata
Armeria denticulata
Armeria duriaei
Armeria eriophylla
Armeria langei
Armeria maderensis
Armeria maritima
Armeria merinoi
Armeria multiceps
Armeria rumelica
Armeria sardo
Armeria splendens
Armeria trachyphylla
Armeria transmontana
Arnica montana
Arrhenatherum album
Arrhenatherum elatius
Artemisia alba
Artemisia austriaca
Artemisia campestris
Artemisia granatensis
Artemisia hololeuca
Artemisia lerchiana
Artemisia nutans
Artemisia pedemontana
Artemisia pontica
Artemisia rupestris
Artemisia salsoloides
Artemisia santonicum
Artemisia vulgaris
Arthrocnemum macrostachyum
Aruncus dioicus
Asparagus asparagoides
Asparagus horridus
Asperula aristata
Asperula cynanchica
Asperula graveolens
Asperula purpurea
Asperula pyrenaica
Asperula tenella
Asperula tephrocarpa

Asphodeline lutea
Asphodelus albus
Asphodelus ayardii
Asphodelus cerasiferus
Asphodelus macrocarpus
Asphodelus ramosus
Asplenium fissum
Aster alpinus
Asteriscus aquaticus
Asterolinon linum-stellatum
Astragalus albicaulis
Astragalus alpinus
Astragalus arenarius
Astragalus cavanillesii
Astragalus cymbicarpos
Astragalus echinatus
Astragalus exscapus
Astragalus frigidus
Astragalus glycyphyllos
Astragalus incanus
Astragalus macropus
Astragalus macrorhizus
Astragalus mayeri
Astragalus onobrychis
Astragalus pelecinus
Astragalus penduliflorus
Astragalus scorpioides
Astragalus sesameus
Astragalus stella
Astragalus tremolsianus
Astragalus varius
Astrantia major
Asyneuma limonifolium
Athalamia hyalina
Athyrium distentifolium
Atractylis cancellata
Atractylis humilis
Atriplex aucheri
Atriplex cana
Atriplex prostrata
Atriplex sagittata
Atriplex sphaeromorpha
Atropa baetica
Aurinia saxatilis
Avena barbata
Avenula pubescens
Barbarea bracteosa
Barbula convoluta
Bassia hirsuta
Bassia hyssopifolia
Bassia laniflora
Bassia prostrata
Bassia sedoides

Bellardiochloa variegata
Bellevalia romana
Bellidiastrum michelii
Bellis annua
Bellis perennis
Bellis sylvestris
Bellium bellidioides
Beta nana
Biarum dispar
Bidens pilosa
Bienertia cycloptera
Biscutella baetica
Biscutella laevigata
Biscutella lyrata
Bistorta officinalis
Bistorta vivipara
Bituminaria bituminosa
Blackstonia perfoliata
Blysmopsis rufa
Blysmus compressus
Bolboschoenus maritimus
Bolboschoenus planiculmis
Bombycilaena erecta
Bothriochloa ischaemum
Botrychium matricariifolium
Botrychium simplex
Brachypodium boissieri
Brachypodium gaditanum
Brachypodium genuense
Brachypodium phoenicoides
Brachypodium pinnatum
Brachypodium retusum
Brachypodium rupestre
Brassica elongata
Brassica elongata subsp. pinnatifida
Brimeura amethystina
Briza media
Briza minor
Bromopsis erecta
Bromopsis inermis
Bromopsis pannonica
Bromopsis riparia
Bromus hordeaceus
Bromus racemosus
Bryum caespiticium
Bryum elegans
Bufonia macropetala
Buglossoides incrassata
Bupleurum baldense
Bupleurum falcatum
Bupleurum gerardi
Bupleurum gracile
Bupleurum semicompositum

Bupleurum tenuissimum
Calamagrostis varia
Callipeltis cucullaria
Caltha palustris
Calystegia sepium
Calystegia silvatica
Campanula alpina
Campanula baumgartenii
Campanula bononiensis
Campanula dichotoma
Campanula erinus
Campanula glomerata
Campanula herminii
Campanula lusitanica
Campanula patula
Campanula serrata
Campanula scheuchzeri
Campanula sibirica
Campanula thyrsoides
Camphorosma annua
Camphorosma monspeliaca
Campylopus introflexus
Cardamine acris
Cardamine alpina
Cardamine matthioli
Cardamine parviflora
Cardamine pratensis
Cardamine rivularis
Cardiospermum grandiflorum
Carduus personata
Carex arenaria
Carex atrata
Carex australpina
Carex baldensis
Carex bigelowii
Carex brunnescens
Carex caryophyllea
Carex colchica
Carex cuprina
Carex curvula
Carex distans
Carex divisa
Carex ericetorum
Carex ferruginea
Carex firma
Carex flacca
Carex flava
Carex foetida
Carex furva
Carex hirta
Carex hochstetteriana
Carex humilis
Carex kitaibeliana

Carex lachenalii
Carex lainzii
Carex leporina
Carex macrolepis
Carex macrostyla
Carex mairei
Carex melanostachya
Carex michelii
Carex montana
Carex mucronata
Carex nigra
Carex norvegica
Carex ornithopoda
Carex pallescens
Carex panicea
Carex peregrina
Carex pilulifera
Carex pyrenaica
Carex sempervirens
Carex stenophylla
Carex supina
Carex vulcani
Carex vulpina
Carlina acanthifolia
Carlina acaulis
Carlina biebersteinii
Carlina corymbosa
Carlina graeca
Carlina vulgaris
Carum carvi
Carum verticillatum
Cassiope hypnoides
Cassiope tetragona
Catananche lutea
Catapodium rigidum
Celtica gigantea
Cenchrus setaceus
Centaurea ambigua
Centaurea aplolepa
Centaurea arenaria aggr.
Centaurea borjajae
Centaurea grisebachii
Centaurea jacea
Centaurea kosaninii
Centaurea nemoralis
Centaurea nigrescens
Centaurea phrygia
Centaurea podospermifolia
Centaurea pulvinata
Centaurea rupestris aggr.
Centaurea scabiosa
Centaurea stoebe
Centaurea toletana

Centaureum pulchellum
Centaureum scilloides
Cephalaria leucantha
Cephalaria uralensis
Cerastium alpinum
Cerastium arvense
Cerastium brachypetalum
Cerastium cerastoides
Cerastium dubium
Cerastium fontanum subsp. vulgare
Cerastium gracile
Cerastium pumilum
Cerastium semidecandrum
Cerastium soleirolii
Ceratodon purpureus
Cetraria aculeata
Chaenorhinum grandiflorum
Chaenorhinum macropodum
Chaenorhinum rubrifolium
Chaerophyllum aromaticum
Chaerophyllum azoricum
Chaerophyllum hirsutum
Chaerophyllum villarsii
Chamaemelum fuscatum
Chamaemelum nobile
Chrysopogon gryllus
Cichorium intybus
Circaea lutetiana
Cirsium acaulon
Cirsium appendiculatum
Cirsium brachycephalum
Cirsium canum
Cirsium dissectum
Cirsium erisithales
Cirsium esculentum
Cirsium heterophyllum
Cirsium monspessulanum
Cirsium oleraceum
Cirsium palustre
Cirsium pannonicum
Cirsium pyrenaicum
Cirsium rivulare
Cirsium rosulatum
Cirsium tuberosum
Cirsium tymphaeum
Cistus clusii
Cladonia cervicornis
Cladonia foliacea
Cladonia symphylicarpia
Cladonia zopfii
Cleistogenes serotina
Clematis integrifolia
Clematis recta

Climacoptera aralensis
Climacoptera brachiata
Climacoptera crassa
Climacoptera lanata
Climacoptera transoxana
Climacoptera turcomanica
Clinopodium acinos
Clinopodium alpinum
Clinopodium nepeta
Clinopodium suaveolens
Clinopodium vulgare
Clypeola jonthlaspi
Cochlearia glastifolia
Cochlearia megalosperma
Colchicum alpinum
Colchicum arenarium
Colchicum autumnale
Colchicum filifolium
Colchicum lusitanum
Colchicum montanum
Colchicum triphyllum
Convolvulus althaeoides
Convolvulus lineatus
Conyza primulifolia
Corispermum aralocaspicum
Corispermum filifolium
Corispermum nitidum
Corispermum orientale
Corispermum uralense
Coronilla dura
Coronilla minima
Coronilla scorpioides
Corydalis blanda
Corydalis densiflora
Corynephorus canescens
Corynephorus divaricatus
Crambe tataria
Crassula tillaea
Crepis albida
Crepis aurea
Crepis biennis
Crepis capillaris
Crepis chondrilloides
Crepis foliosa
Crepis lacera
Crepis mollis
Crepis neglecta
Crepis paludosa
Crepis praemorsa aggr.
Crepis setosa
Crepis vesicaria subsp. andryaloides
Crepis zacintha
Crocus veluchensis

Crocus vernus
Crucianella angustifolia
Cruciata glabra
Crypsis schoenoides
Ctenopsis delicatula
Ctenopsis gypsophila
Cuscuta europaea
Cyanus triumfettii
Cynanchum acutum
Cynosurus cristatus
Cyperus eragrostis
Cyperus longus
Cytisus ardoinii
Cytisus austriacus
Cytisus spinescens
Dactylis glomerata
Dactylorhiza foliosa
Dactylorhiza maculata aggr.
Dactylorhiza majalis
Dactylorhiza viridis
Danthonia alpina
Danthonia decumbens
Daucus carota
Daucus crinitus
Daucus durieua
Daucus muricatus
Daucus setifolius
Delphinium elatum
Deschampsia cespitosa
Deschampsia foliosa
Deschampsia maderensis
Deschampsia media
Dianthus arenarius
Dianthus armeria
Dianthus borbasii
Dianthus carthusianorum
Dianthus ciliatus
Dianthus deltoides
Dianthus diutinus
Dianthus garganicus
Dianthus giganteus
Dianthus humilis
Dianthus integer
Dianthus langeanus
Dianthus laricifolius
Dianthus legionensis
Dianthus microlepis
Dianthus platyodon
Dianthus plumarius
Dianthus pontederiae
Dianthus praecox
Dianthus serotinus
Dianthus superbus

Dianthus sylvestris
Dichoropetalum schottii
Dictamnus albus
Didymodon fallax
Didymodon ferrugineus
Didymodon rigidulus
Digitalis grandiflora
Dipcadi serotinum
Diplotaxis cretacea
Dipsacus fullonum
Dipsacus laciniatus
Distichium capillaceum
Distichoselinum tenuifolium
Dittrichia viscosa
Dodartia orientalis
Doronicum corsicum
Doronicum grandiflorum
Dorycnium hirsutum
Dorycnium rectum
Draba aizoides
Draba crassifolia
Draba hispanica
Draba lasiocarpa
Draba verna aggr.
Dracocephalum austriacum
Drimia maritima
Drimia undata
Drymocallis rupestris
Echinaria capitata
Echinops ritro
Echium rubrum
Edraianthus graminifolius
Eleocharis uniglumis
Elytrigia curvifolia
Elytrigia intermedia
Elytrigia repens
Encalypta rhaptocarpa
Encalypta streptocarpa
Encalypta vulgaris
Entodon concinnus
Ephedra distachya
Epilobium anagallidifolium
Epilobium hirsutum
Epilobium lactiflorum
Epilobium montanum
Epipactis palustris
Equisetum palustre
Equisetum ramosissimum
Equisetum telmateia
Eremogone koriniana
Erigeron epiroticus
Erigeron frigidus
Erigeron uniflorus

Erodium botrys
Erodium carvifolium
Erodium cazorlanum
Erodium cicutarium
Erodium daucoides
Erodium foetidum
Erodium glandulosum
Erodium laciniatum
Erodium recoderi
Eryngium amethystinum
Eryngium bourgatii
Eryngium campestre
Eryngium dichotomum
Eryngium dilatatum
Eryngium glaciale
Eryngium grosii
Eryngium planum
Eryngium tenue
Eryngium triquetrum
Erysimum canum
Erysimum diffusum
Erysimum humile
Erysimum incanum
Erysimum linariifolium
Erysimum montanum
Erysimum nevadense aggr.
Erysimum odoratum
Erysimum pseudorhaeticum
Erysimum seipkae
Erysimum witmannii
Eupatorium cannabinum
Euphorbia azorica
Euphorbia cyparissias
Euphorbia duvalii
Euphorbia exigua
Euphorbia falcata
Euphorbia glabriflora
Euphorbia hirsuta
Euphorbia lucida
Euphorbia montenegrina
Euphorbia nicaeensis
Euphorbia petrophila
Euphorbia seguieriana
Euphorbia spinosa
Euphorbia sulcata
Euphrasia azorica
Euphrasia grandiflora
Euphrasia illyrica
Euphrasia nemorosa
Euphrasia rostkoviana
Fallopia dumetorum
Ferula caspica
Ferula loscosii

Ferula tatarica
Ferulago campestris
Ferulago granatensis
Festuca airoides
Festuca altopyrenaica
Festuca ampla
Festuca auquieri
Festuca beckeri
Festuca brigantina
Festuca burnatii
Festuca caeruleascens
Festuca capillifolia
Festuca circummediterranea
Festuca clementei
Festuca csikhegyensis
Festuca elegans
Festuca eskia
Festuca filiformis
Festuca francoi
Festuca gredensis
Festuca henriquesii
Festuca hystrix
Festuca iberica
Festuca indigesta
Festuca inops
Festuca jubata
Festuca liviense
Festuca longiauriculata
Festuca marginata subsp. *andres-molinae*
Festuca marginata subsp. *gallica*
Festuca microphylla
Festuca morisiana
Festuca nevadensis
Festuca ochroleuca
Festuca oelandica
Festuca pallens
Festuca petraea
Festuca picturata
Festuca polesica
Festuca psammophila
Festuca pseudeskia
Festuca rivas-martinezii
Festuca robustifolia
Festuca rothmaleri
Festuca rubra aggr.
Festuca scariosa
Festuca stricta subsp. *stricta*
Festuca stricta subsp. *sulcata*
Festuca stricta subsp. *trachyphylla*
Festuca summilusitana
Festuca trichophylla
Festuca vaginata
Festuca valesiaca aggr.

Festuca versicolor
Festuca wagneri
Filago arvensis
Filago carpetana
Filago eriocephala
Filago gallica
Filago lutescens
Filago minima
Filago pygmaea
Filago pyramidata
Filipendula ulmaria
Filipendula vulgaris
Fragaria vesca
Fragaria viridis
Frankenia corymbosa
Frankenia hirsuta
Frankenia pulverulenta
Fritillaria meleagris
Fritillaria orientalis
Fritillaria pyrenaica
Fumana bonapartei
Fumana ericoides
Fumana procumbens
Fumana thymifolia
Gagea bohemica
Galatella sedifolia
Galatella tatarica
Galatella villosa
Galeopsis speciosa
Galium anisophyllum
Galium aparine
Galium austriacum
Galium boreale
Galium debile
Galium divaricatum
Galium mollugo aggr.
Galium murale
Galium octonarium
Galium odoratum
Galium oelandicum
Galium oreophilum
Galium parisiense
Galium pumilum
Galium ruthenicum
Galium saxatile
Galium sternerii
Galium uliginosum
Galium verum
Gastridium ventricosum
Gaudinia coarctata
Gaudinia fragilis
Genista januensis
Genista lobelii

Genista pilosa
Genista pulchella
Genista sericea
Genista tinctoria
Gentiana alpina
Gentiana boryi
Gentiana clusii
Gentiana cruciata
Gentiana pannonica
Gentiana pneumonanthe
Gentiana verna
Gentianella amarella
Gentianella ciliata
Gentianella germanica
Geranium asphodeloides
Geranium palmatum
Geranium palustre
Geranium phaeum
Geranium pratense
Geranium reuteri
Geranium robertianum
Geranium sanguineum
Geranium subcaulescens
Geranium sylvaticum aggr.
Geum coccineum
Geum montanum
Geum rivale
Geum urbanum
Girgensohnia oppositifolia
Gladiolus imbricatus
Gladiolus italicus
Glaux maritima
Glechoma hederacea
Globularia bisnagarica
Globularia cordifolia
Globularia meridionalis
Glycyrrhiza echinata
Glycyrrhiza glabra
Gnaphalium hoppeanum
Gnaphalium supinum
Gnaphalium sylvaticum
Gnaphalium teydeum
Goniolimon besseranum
Goniolimon collinum
Goniolimon tataricum
Gratiola officinalis
Gymnadenia conopsea
Gymnadenia nigra aggr.
Gypsophila altissima
Gypsophila fastigiata
Gypsophila paniculata
Gypsophila spergulifolia
Gypsophila tomentosa

Halacsya sendtneri
Halimione pedunculata
Halimione verrucifera
Halimocnemis sclerosperma
Halocnemun strobilaceum
Halogeton glomeratus
Halopeplis amplexicaulis
Halostachys belangeriana
Haplophyllum boissierianum
Hedypnois cretica
Hedysarum humile
Hedysarum spinosissimum
Helianthemum aegypticum
Helianthemum alpestre
Helianthemum angustatum
Helianthemum apenninum
Helianthemum canum
Helianthemum cinereum
Helianthemum masquindalii
Helianthemum nummularium
Helianthemum polygonoides
Helianthemum salicifolium
Helianthemum sanguineum
Helichrysum arenarium
Helictochloa bromoides
Helictochloa gervaisii
Helictochloa pratensis
Helictochloa versicolor
Helictotrichon decorum
Helictotrichon desertorum
Helictotrichon filifolium
Helictotrichon sedenense
Helictotrichon sempervirens
Heracleum elegans
Heracleum sphondylium
Heracleum transsilvanicum
Herniaria boissieri
Herniaria glabra
Herniaria parnassica
Herniaria scabrida
Hesperis sylvestris
Heteropogon contortus
Hieracium bupleuroides
Hieracium cerinthoides
Hieracium lachenalii
Hieracium laevigatum
Hieracium pannosum
Hieracium villosum
Hippocrepis biflora
Hippocrepis ciliata
Hippocrepis comosa
Hippocrepis glauca
Hispidella hispanica

Holcus annuus
Holcus gayanus
Holcus lanatus
Holcus mollis
Holcus rigidus
Holosteum umbellatum
Homalothecium lutescens
Homalothecium sericeum
Homogyne alpina
Homogyne discolor
Hordeum bulbosum
Hordeum geniculatum
Hordeum marinum
Hordeum murinum
Hordeum secalinum
Hormathophylla purpurea
Hornungia alpina
Hornungia petraea
Hornungia procumbens
Humulus lupulus
Hyparrhenia hirta
Hyparrhenia sinaica
Hypericum caprifolium
Hypericum elegans
Hypericum hircinum
Hypericum maculatum
Hypericum perforatum
Hypericum pubescens
Hyssopus officinalis
Hypochaeris robertia
Hypochaeris radicata
Hypochaeris maculata
Hypochaeris glabra
Hypochaeris cretensis
Hypochaeris achyrophorus
Hypericum tomentosum
Hypericum tetrapterum
Hypericum pulchrum
Iberis fontqueri
Iberis saxatilis
Iberis sempervirens
Impatiens balfourii
Impatiens glandulifera
Impatiens noli-tangere
Imperata cylindrica
Inula britannica
Inula conyzae
Inula ensifolia
Inula germanica
Inula helenium
Inula hirta
Inula montana
Inula oculus-christi

Inula salicina
Ipomoea indica
Ipomoea sagittata
Iris latifolia
Iris pseudopumila
Iris pumila
Iris sibirica
Iris spuria
Iris variegata
Jacobaea abrotanifolia
Jacobaea adonidifolia
Jacobaea alpina
Jacobaea aquatica
Jacobaea auricula
Jacobaea borysthenica
Jacobaea erucifolia
Jacobaea incana
Jacobaea minuta
Jacobaea subalpina
Jacobaea vulgaris
Jasione crispa
Jasione heldreichii
Jasione laevis
Jasione montana
Jasione penicillata
Jasonia tuberosa
Jovibarba globifera
Juncus acutus
Juncus articulatus
Juncus biglumis
Juncus bufonius aggr.
Juncus compressus
Juncus conglomeratus
Juncus effusus
Juncus gerardi
Juncus inflexus
Juncus littoralis
Juncus maritimus
Juncus squarrosus
Juncus striatus
Juncus subulatus
Juncus trifidus
Jurinea arachnoidea
Jurinea cyanooides
Jurinea mollis
Jurinea multiflora
Jurinea stoechadifolia
Kalidium caspicum
Kalidium foliatum
Karelinia caspia
Kernera saxatilis
Knautia arvensis
Knautia fleischmannii

Knautia illyrica
Knautia nevadensis
Knautia purpurea
Kobresia myosuroides
Koeleria brevis
Koeleria glauca
Koeleria lobata
Koeleria macrantha
Koeleria pyramidata
Koeleria splendens
Koeleria talievii
Koeleria vallesiana
Lactuca alpina
Lactuca muralis
Lactuca pancicii
Lactuca plumieri
Lactuca quercina
Lactuca viminea
Lactuca watsoniana
Lagurus ovatus
Lamium album
Lamium maculatum
Lapiedra martinezii
Lapsana communis
Laserpitium latifolium
Laserpitium longiradium
Laserpitium nestleri
Laserpitium siler
Lathyrus angulatus
Lathyrus clymenum
Lathyrus heterophyllus
Lathyrus inconspicuus
Lathyrus latifolius
Lathyrus linifolius
Lathyrus nissolia
Lathyrus palustris
Lathyrus pannonicus
Lathyrus pratensis
Lathyrus sphaericus
Lathyrus sylvestris
Lavandula multifida
Leersia oryzoides
Lembotropis nigricans
Leontodon crispus
Leontodon filii
Leontodon hirtus
Leontodon hispidus
Leontodon incanus
Leontodon rigens
Leontodon saxatilis
Leontodon tuberosus
Leontopodium nivale
Leonurus cardiaca

Lepidium cartilagineum
Leptogium schraderi
Leucanthemopsis alpina
Leucanthemopsis flaveola
Leucanthemopsis pallida
Leucanthemopsis pulverulenta
Leucanthemum aligulatum
Leucanthemum burnatii
Leucanthemum graminifolium
Leucanthemum rotundifolium
Leucanthemum vulgare aggr.
Leucojum aestivum
Leucojum valentinum
Leymus ramosus
Ligusticum corsicum
Ligusticum mutellina
Limonium angustebracteatum
Limonium aragonense
Limonium bellidifolium
Limonium caesium
Limonium carpetanicum
Limonium catalaunicum
Limonium cofrentanum
Limonium cordovillense
Limonium cossonianum
Limonium costae
Limonium danubiale
Limonium delicatulum
Limonium dichotomum
Limonium echioides
Limonium erectum
Limonium furfuraceum
Limonium gmelinii
Limonium insigne
Limonium lobetanicum
Limonium majus
Limonium minus
Limonium pinillense
Limonium quesadense
Limonium reniforme
Limonium ruizii
Limonium santapolense
Limonium scoparium
Limonium soboliferum
Limonium squarrosus
Limonium stenophyllum
Limonium sucronicum
Limonium suffruticosum
Limonium supinum
Limonium toletanum
Limonium tournefortii
Limonium viciosoi
Linaria aeruginea

Linaria elegans
Linaria genistifolia
Linaria huteri
Linaria intricata
Linaria micrantha
Linaria oblongifolia
Linaria pelisseriana
Linaria platycalyx
Linaria salzmännii
Linaria saturejoides
Linaria saxatilis
Linaria simplex
Linaria spartea
Linum alpinum
Linum austriacum
Linum capitatum
Linum catharticum
Linum hirsutum
Linum milletii
Linum narbonense
Linum strictum aggr.
Linum suffruticosum aggr.
Linum tenue
Linum tenuifolium
Linum tommasinii
Linum trigynum
Linum ucranicum
Linum viscosum
Lithospermum officinale
Lobularia maritima
Lolium perenne
Lomelosia graminifolia
Lomelosia stellata
Lonicera periclymenum
Lotus alpinus
Lotus angustissimus
Lotus conimbricensis
Lotus corniculatus
Lotus glacialis
Lotus glareosus
Lotus maritimus
Lotus ornithopodioides
Lotus pedunculatus
Lotus tenuis
Lunaria rediviva
Lupinus micranthus
Luzula alpinopilosa
Luzula caespitosa
Luzula campestris aggr.
Luzula confusa
Luzula desvauxii
Luzula nivalis
Luzula pediformis

Luzula pindica
Luzula purpureosplendens
Luzula spicata
Lycopus europaeus
Lygeum spartum
Lysimachia azorica
Lysimachia ephemerum
Lysimachia nummularia
Lysimachia vulgaris
Lythrum salicaria
Lythrum virgatum
Macrochloa tenacissima
Malva tournefortiana
Medicago arabica
Medicago caerulea
Medicago intertexta
Medicago littoralis
Medicago minima
Medicago monspeliaca
Medicago polymorpha
Medicago prostrata
Medicago rigidula
Melampyrum cristatum
Melampyrum nemorosum aggr.
Melampyrum pratense
Melampyrum sylvaticum
Melampyrum velebiticum
Melica ciliata
Melica transsilvanica
Melilotus dentatus
Melilotus indica
Melilotus neapolitana
Melittis melissophyllum
Meniocus linifolius
Mentha longifolia
Mentha pulegium
Mentha suaveolens
Mesembryanthemum crystallinum
Mesembryanthemum nodiflorum
Meum athamanticum
Microcnemum coralloides
Micromeria graeca
Micromeria varia
Micromeria varia subsp. thymoides
Micropus supinus
Micropyrum patens
Micropyrum tenellum
Microrrhinum minus
Minuartia glaucina
Minuartia greuteriana
Minuartia hamata
Minuartia hybrida aggr.
Minuartia langii

Minuartia laricifolia
Minuartia laricifolia subsp. *ophiolitica*
Minuartia mediterranea
Minuartia mesogitana
Minuartia montana
Minuartia recurva
Minuartia setacea
Minuartia verna
Minuartia villarii
Moenchia erecta
Moenchia mantica
Molineriella australis
Molineriella laevis
Molineriella minuta
Molinia caerulea aggr.
Molopospermum peloponnesiacum
Moraea sisyrrinchium
Moricandia arvensis
Mycobilimbia lurida
Myosotis azorica
Myosotis incrassata
Myosotis latifolia
Myosotis ramosissima
Myosotis scorpioides aggr.
Myosotis soleirolii
Myosotis stricta
Myosoton aquaticum
Nanophyton erinaceum
Narcissus assoanus
Narcissus bulbocodium
Narcissus dubius
Narcissus poeticus
Nardus stricta
Nasturtium microphyllum
Neatostema apulum
Neotinea ustulata
Nepeta hispanica
Nepeta ucranica
Noaea mucronata
Noccaea kovatsii
Noccaea ochroleuca
Noccaea perfoliata
Noccaea praecox
Nonea pulla
Odontarrhena bertolonii
Odontarrhena borzaeana
Odontarrhena heldreichii
Odontarrhena markgrafii
Odontarrhena tortuosa
Odontites holliana
Odontites longiflora
Odontites purpurea
Odontites tenuifolius

Odontites viscosus
Oenanthe fistulosa
Oenanthe lachenalii
Oenanthe peucedanifolia
Oenanthe pimpinelloides
Oenanthe silaifolia
Ofaiston monandrum
Omphalodes commutata
Omphalodes linifolia
Onobrychis arenaria
Onobrychis caput-galli
Onobrychis montana
Onobrychis pyrenaica
Onobrychis viciifolia
Ononis cintrana
Ononis cristata
Ononis ornithopodioides
Ononis pendula
Ononis pubescens
Ononis pusilla
Ononis reclinata
Ononis spinosa
Ononis striata
Ononis viscosa
Onosma arenaria
Onosma fastigiata
Onosma simplicissima
Ophioglossum azoricum
Ophioglossum vulgatum
Ophrys apifera
Ophrys bombyliflora
Ophrys holosericea
Ophrys insectifera
Ophrys lutea
Ophrys omegaifera
Ophrys speculum
Ophrys sphegodes
Ophrys tenthredinifera
Oreochloa disticha
Orchis anthropophora
Orchis mascula
Orchis mascula subsp. scopulorum
Orchis militaris
Orchis purpurea
Origanum vulgare
Orlaya grandiflora
Ornithogalum collinum
Ornithogalum concinnum
Ornithogalum narbonense
Ornithopus compressus
Ornithopus perpusillus
Ornithopus pinnatus
Orobanche teucrii

Ortegia hispanica
Otospermum glabrum
Oxytropis campestris
Oxytropis carpatica
Oxytropis halleri
Oxytropis neglecta
Oxytropis pilosa
Oxytropis purpurea
Paeonia mascula
Paeonia officinalis
Paeonia tenuifolia
Pallenis spinosa
Parafestuca albida
Paragymnopteris marantae
Parapholis strigosa
Parentucellia latifolia
Paronychia argentea
Paronychia cephalotes
Paronychia cymosa
Paronychia echinulata
Pastinaca sativa
Pedicularis comosa
Pedicularis foliosa
Pedicularis rostratocapitata
Pedicularis sylvatica
Pedicularis verticillata
Periballia involucrata
Pericallis appendiculata
Pericallis aurita
Pericallis cruenta
Pericallis echinata
Pericallis malvifolia
Pericallis tussilaginis
Petasites albus
Petasites hybridus
Petrorhagia prolifera
Petrorhagia saxifraga
Petrosimonia brachiata
Petrosimonia brachyphylla
Petrosimonia glaucescens
Petrosimonia litwinowii
Petrosimonia monandra
Petrosimonia oppositifolia
Petrosimonia triandra
Peucedanum alsaticum
Peucedanum arenarium
Peucedanum cervaria
Peucedanum coriaceum
Peucedanum gallicum
Peucedanum hispanicum
Peucedanum officinale
Peucedanum oreoselinum
Peucedanum ostruthium

Phagnalon rupestre
Phagnalon saxatile
Phalacrocarpum oppositifolium
Phalacrocarpum sericeum
Phalaris aquatica
Phalaris coerulescens
Phalaroides arundinacea
Phelipanche arenaria
Phelipanche purpurea
Phippsia algida
Phleum alpinum aggr.
Phleum ambiguum
Phleum bertolonii
Phleum pratense
Phlomis herba-venti
Phlomis lychnitis
Phlomis tuberosa
Pholiurus pannonicus
Physalis alkekengi
Phyteuma hemisphaericum
Phyteuma orbiculare
Phyteuma sieberi
Phyteuma spicatum
Pilosella aurantiaca
Pilosella castellana
Pilosella echioides
Pilosella lactucella
Pilosella officinarum
Pilosella soleiroliana
Pilosella vahlia
Pimpinella dendrotragium
Pimpinella major
Pimpinella nigra
Pimpinella saxifraga
Pimpinella serbica
Pimpinella tragium
Pistorinia breviflora
Pistorinia hispanica
Plantago albicans
Plantago alpina
Plantago altissima
Plantago amplexicaulis
Plantago arborescens
Plantago argentea
Plantago atrata
Plantago bellardi
Plantago bellardii
Plantago cornuti
Plantago coronopus aggr.
Plantago holosteam
Plantago lagopus
Plantago lanceolata
Plantago loeflingii

Plantago major
Plantago maritima
Plantago media
Plantago monosperma
Plantago nivalis
Plantago serraria
Plantago subulata
Plantago tenuiflora
Platanthera bifolia
Platycapnos tenuiloba
Poa alpina
Poa arctica
Poa badensis aggr.
Poa balbisii
Poa bulbosa
Poa compressa
Poa dolosa
Poa glauca
Poa granitica
Poa chaixii
Poa legionensis
Poa perconcinna
Poa pratensis aggr.
Poa pumila
Poa trivialis
Podospermum canum
Polygala alpestris
Polygala amara
Polygala amarella
Polygala comosa
Polygala cretacea
Polygala edmundii
Polygala major
Polygala monspeliaca
Polygala serpyllifolia
Polygala vulgaris
Polygonatum odoratum
Polygonum albanicum
Polygonum arenarium
Polytrichum piliferum
Pontechium maculatum
Potentilla anglica
Potentilla argentea
Potentilla astracanica
Potentilla asturica
Potentilla aurea
Potentilla brauneana
Potentilla calabra
Potentilla crantzii
Potentilla erecta
Potentilla heptaphylla
Potentilla hirta
Potentilla hyparctica

Potentilla incana
Potentilla nevadensis
Potentilla reptans
Potentilla reuteri
Potentilla rigoana
Potentilla tabernaemontani
Potentilla visianii
Primula clusiana
Primula elatior
Primula integrifolia
Primula minima
Primula veris
Prunella grandiflora
Prunella hyssopifolia
Prunella laciniata
Prunella vulgaris
Psathyrostachys juncea
Pseudoturritis turrita
Psilurus incurvus
Psora decipiens
Ptercephalidium diandrum
Ptilostemon stellatus
Puccinellia caespitosa
Puccinellia distans
Puccinellia dolicholepis
Puccinellia fasciculata
Puccinellia festuciformis
Puccinellia hispanica
Pulicaria dysenterica
Pulicaria vulgaris
Pulmonaria longifolia
Pulsatilla alpina
Pulsatilla halleri
Racomitrium canescens
Racomitrium elongatum
Ranunculus abnormis
Ranunculus acetosellifolius
Ranunculus aconitifolius
Ranunculus acris
Ranunculus alpestris
Ranunculus breyninus
Ranunculus bulbosus
Ranunculus bullatus
Ranunculus cortusifolius
Ranunculus crenatus
Ranunculus demissus
Ranunculus glacialis
Ranunculus gramineus
Ranunculus granatensis
Ranunculus hybridus
Ranunculus illyricus
Ranunculus macrophyllus
Ranunculus marginatus

Ranunculus montanus
Ranunculus neapolitanus
Ranunculus nivalis
Ranunculus ophioglossifolius
Ranunculus paludosus
Ranunculus pedatus
Ranunculus platanifolius
Ranunculus pollinensis
Ranunculus polyanthemus
Ranunculus pseudomillefoliatus
Ranunculus pseudomontanus
Ranunculus pygmaeus
Ranunculus pyrenaicus
Ranunculus repens
Ranunculus sardous
Ranunculus sartorianus
Ranunculus sulphureus
Ranunculus thora
Ranunculus velutinus
Reichardia picroides
Reseda phyteuma
Reseda virgata
Rhaponticoides ruthenica
Rhaponticum coniferum
Rhaponticum repens
Rhaponticum scariosum
Rhinanthus alectorolophus
Rhinanthus angustifolius
Rhinanthus gracilis
Rhinanthus mediterraneus
Rhinanthus minor
Rhodiola rosea
Romulea bulbocodium
Romulea columnae
Romulea linaresii
Romulea ramiflora
Rorippa sylvestris
Rorippa thracica
Rostraria azorica
Rubus caesius
Rubus ulmifolius
Rumex acetosa
Rumex alpinus
Rumex arifolius
Rumex bucephalophorus
Rumex bucephalophorus subsp. canariensis
Rumex conglomeratus
Rumex crispus
Rumex maderensis
Rumex thyrsiflorus
Ruta angustifolia
Ruta graveolens
Sagina maritima

Sagina merinoi
Sagina pilifera
Sagina saginoides
Salicornia europaea aggr.
Salix herbacea
Salix polaris
Salsola acutifolia
Salsola dendroides
Salsola foliosa
Salsola kali aggr.
Salsola laricina
Salsola nitraria
Salsola orientale
Salsola soda
Salvia aethiopis
Salvia austriaca
Salvia nemorosa
Salvia nutans
Salvia officinalis
Salvia pratensis
Salvia verbenaca
Salvia verticillata
Sanguisorba lateriflora
Sanguisorba minor
Sanguisorba officinalis
Saponaria caespitosa
Satureja montana
Satureja subspicata
Saussurea alpina aggr.
Saussurea pygmaea
Saxifraga androsacea
Saxifraga bulbifera
Saxifraga caesia
Saxifraga cernua
Saxifraga conifera
Saxifraga maderensis
Saxifraga nivalis
Saxifraga oppositifolia
Saxifraga paniculata
Saxifraga rivularis
Saxifraga rotundifolia
Saxifraga stellaris
Saxifraga tenuis
Saxifraga tridactylites
Saxifraga wahlenbergii
Scabiosa canescens
Scabiosa columbaria
Scabiosa leucophylla
Scabiosa nitens
Scabiosa triandra
Scabiosa ucrainica
Scilla litardierei
Scirpoides holoschoenus

Scirpus sylvaticus
Scleranthus delortii
Scleranthus perennis
Scleranthus perennis subsp. burnatii
Scorpiurus muricatus
Scorpiurus vermiculatus
Scorzonera austriaca
Scorzonera cretica
Scorzonera ensifolia
Scorzonera humilis
Scorzonera parviflora
Scorzonera villosa
Scorzoneroides autumnalis
Scorzoneroides cantabrica
Scorzoneroides carpetana
Scorzoneroides cichoriacea
Scorzoneroides helvetica
Scorzoneroides microcephala
Scorzoneroides pyrenaica
Scrophularia auriculata
Scrophularia canina
Scrophularia cretacea
Scrophularia scopolii
Scrophularia smithii
Scrophularia umbrosa
Scutellaria hastifolia
Schedonorus arundinaceus
Schedonorus giganteus
Schedonorus pratensis
Schoenoplectus lacustris subsp. glaucus
Schoenus nigricans
Secale sylvestre
Securigera varia
Sedum acre
Sedum album
Sedum alpestre
Sedum andegavense
Sedum anglicum
Sedum annuum
Sedum arenarium
Sedum brevifolium
Sedum caespitosum
Sedum candolleanum
Sedum forsterianum
Sedum hispanicum
Sedum melanantherum
Sedum ochroleucum
Sedum pedicellatum
Sedum rupestre
Sedum sediforme
Sedum serpentini
Sedum sexangulare
Sedum urvillei

Selinum carvifolia
Selinum dubium
Sempervivum arachnoideum
Sempervivum calcareum
Sempervivum montanum
Senecio carpetanus
Senecio doria aggr.
Senecio doronicum
Senecio lagascanus
Senecio procerus
Senecio provincialis
Serapias vomeracea aggr.
Serratula tinctoria
Sesamoides purpurascens
Seseli annuum
Seseli leucospermum
Seseli libanotis
Seseli montanum
Seseli osseum
Seseli tortuosum
Sesleria caerulea
Sesleria coerulans
Sherardia arvensis
Sesleria rigida
Sesleria nitida
Sesleria latifolia
Sesleria juncifolia
Sibbaldia procumbens
Sideritis glacialis
Sideritis hyssopifolia
Sideritis raeseri
Sideritis romana
Silaum silaus
Silene almolae
Silene armeria
Silene baccifera
Silene bupleuroides subsp. staticifolia
Silene ciliata
Silene conica
Silene coronaria
Silene cretacea
Silene dioica
Silene flos-cuculi
Silene germana
Silene chlorantha
Silene inaperta
Silene italica
Silene legionensis
Silene mariana
Silene otites aggr.
Silene portensis
Silene psammitis
Silene rupestris

Silene scabriflora
Silene supina
Silene uniflora
Sinapidendron frutescens
Sisymbrium supinum
Smyrnum perfoliatum
Soldanella alpina
Soldanella carpatica
Soldanella minima
Solidago gigantea
Solidago virgaurea
Sonchus crassifolius
Sonchus maritimus
Spergula morisonii
Spergularia diandra
Spergularia marina
Spergularia media
Sphenopus divaricatus
Stachys alopecuros
Stachys officinalis
Stachys palustris
Stachys recta
Stachys scardica
Stachys serotina
Stereocaulon condensatum
Stipa anomala
Stipa apertifolia
Stipa austroitalica
Stipa barbata
Stipa borysthenica aggr.
Stipa capensis
Stipa capillata
Stipa cazorlensis
Stipa clausa
Stipa dasyphylla
Stipa dasyvaginata
Stipa eriocaulis
Stipa etrusca
Stipa iberica
Stipa juncea
Stipa korshinskyi
Stipa lagascae
Stipa lessingiana
Stipa offneri
Stipa parviflora
Stipa pennata
Stipa pulcherrima
Stipa tirsia
Stipa ucrainica
Stipa zalesskii
Suaeda acuminata
Suaeda braun-blanquetii
Suaeda corniculata

Suaeda dendroides
Suaeda maritima aggr.
Suaeda physophora
Suaeda splendens
Suaeda vera
Succisa pratensis
Succisella andreae-molinae
Symphyotrichum novi-belgii aggr.
Symphytum officinale
Syntrichia ruralis aggr.
Tanacetum achilleifolium
Tanacetum corymbosum
Tanacetum vulgare
Taraxacum apenninum
Taraxacum aragonicum
Taraxacum besarabicum
Taraxacum bithynicum
Taraxacum croceum
Taraxacum obovatum
Taraxacum sect. Erythrosperma
Taraxacum sect. Taraxacum
Taraxacum serotinum
Teesdalia conferta
Teesdalia coronopifolia
Teesdalia nudicaulis
Telekia speciosa
Tephrosieris elodes
Tephrosieris longifolia
Teucrium botrys
Teucrium francoi
Teucrium chamaedrys
Teucrium luteum
Teucrium montanum
Teucrium polium aggr.
Teucrium pseudochamaepitys
Teucrium scordium
Teucrium scorodonia
Thalictrum alpinum
Thalictrum aquilegifolium
Thalictrum flavum
Thalictrum lucidum
Thalictrum minus
Thalictrum simplex
Thalictrum speciosissimum
Thapsia garganica
Thapsia villosa
Thelypteris limbosperma
Thesium alpinum
Thesium catalaunicum
Thesium divaricatum
Thesium linophyllum
Thesium parnassi
Thuidium philiberti

Thymelaea passerina
Thymelaea tinctoria
Thymus bracteatus
Thymus caespititius
Thymus calcareus
Thymus ciliatopubescens
Thymus comosus
Thymus godayanus
Thymus izcoi
Thymus longicaulis
Thymus mastigophorus
Thymus nervosus
Thymus orospedanus
Thymus pallasianus
Thymus pannonicus aggr.
Thymus praecox
Thymus pulegioides
Thymus pulcherrimus
Thymus serpyllum
Thymus spinulosus
Thymus striatus
Thymus vulgaris
Thymus willkommii
Thymus zygis
Tolpis azorica
Tolpis barbata
Tolpis umbellata
Tortella inclinata
Tortella rigens
Tortella tortuosa
Tragopogon floccosus
Tragopogon pratensis
Tragopogon tommasinii
Trachynia distachya
Trifolium alpestre
Trifolium alpinum
Trifolium angulatum
Trifolium arvense
Trifolium badium
Trifolium bivonae
Trifolium bocconeii
Trifolium campestre
Trifolium cernuum
Trifolium cinctum
Trifolium dalmaticum
Trifolium dubium
Trifolium fragiferum
Trifolium gemellum
Trifolium glomeratum
Trifolium heldreichianum
Trifolium cherleri
Trifolium incarnatum
Trifolium lappaceum

Trifolium medium
Trifolium micranthum
Trifolium michelianum
Trifolium montanum
Trifolium nigrescens
Trifolium noricum
Trifolium ochroleucon
Trifolium pallescens
Trifolium pallidum
Trifolium parnassii
Trifolium patens
Trifolium phleoides
Trifolium pratense
Trifolium repens
Trifolium resupinatum
Trifolium retusum
Trifolium rubens
Trifolium scabrum
Trifolium stellatum
Trifolium striatum
Trifolium strictum
Trifolium subterraneum
Trifolium suffocatum
Trifolium sylvaticum
Trifolium thalii
Trifolium tomentosum
Triglochin maritima
Triglochin palustris
Trigonella gladiata
Trinia dalechampii
Trinia glauca
Trinia guicciardii
Tripolium pannonicum
Trisetaria loeflingiana
Trisetaria ovata
Trisetaria scabriuscula
Trisetum conradiae
Trisetum flavescens
Trisetum glaciale
Trisetum spicatum
Trisetum velutinum
Trollius europaeus
Tropaeolum majus
Tuberaria guttata
Tulipa biebersteiniana
Urospermum picroides
Urtica dioica
Vahlodea atropurpurea
Valeriana excelsa
Valeriana officinalis
Valeriana pyrenaica
Valeriana stolonifera
Valeriana tuberosa

Valerianella eriocarpa
Valerianella multidentata
Valerianella rimosa
Velezia rigida
Vella pseudocytisus
Veratrum album
Verbascum glabratum
Verbascum chaixii
Verbascum phoeniceum
Veronica alpina
Veronica aphylla
Veronica austriaca
Veronica barrelieri
Veronica dabneyi
Veronica dillenii
Veronica fruticans
Veronica chamaedrys
Veronica longifolia
Veronica officinalis
Veronica praecox
Veronica prostrata
Veronica repens
Veronica serpyllifolia
Veronica tenuifolia
Veronica verna
Vicia capreolata
Vicia cassubica
Vicia cracca
Vicia dumetorum
Vicia lathyroides
Vicia lutea
Vicia orobus
Vicia pisiformis
Vicia sylvatica
Vincetoxicum hirundinaria
Viola canina
Viola cornuta
Viola elatior
Viola hirta
Viola odorata
Viola paradoxa
Viola parvula
Viola pumila
Viola stagnina
Viola tricolor aggr.
Vulpia bromoides
Vulpia ciliata
Vulpia ligustica
Vulpia muralis
Vulpia myuros
Vulpia sicula
Vulpia unilateralis
Wangenheimia lima

Xeranthemum annuum

##D +10 Inland-sparsely-vegetated-habitat-species

Acantholimon ulicinum
Achillea abrotanoides
Achillea ageratifolia
Achillea ambrosiaca
Achillea atrata
Achillea barrelieri
Achillea chamaemelifolia
Achillea clusiana
Achillea cretica
Achillea erba-rotta
Achillea nana
Achillea oxyloba
Achillea pindicola
Achnatherum calamagrostis
Aconogonon alpinum
Adenostyles alpina
Adiantum capillus-veneris
Adiantum reniforme
Adonis distorta
Aeonium aureum
Aeonium balsamiferum
Aeonium canariense
Aeonium castello-paivae
Aeonium cuneatum
Aeonium decorum
Aeonium diplocyclum
Aeonium glandulosum
Aeonium glutinosum
Aeonium gomerense
Aeonium goochiae
Aeonium haworthii
Aeonium hierrense
Aeonium holochrysum
Aeonium lancerottense
Aeonium manriqueorum
Aeonium mascaense
Aeonium nobile
Aeonium palmense
Aeonium percarneum
Aeonium rubrolineatum
Aeonium saundersii
Aeonium sedifolium
Aeonium simsii
Aeonium smithii
Aeonium spathulatum
Aeonium subplanum
Aeonium tabulaeforme
Aeonium undulatum
Aeonium urbicum
Aeonium valverdense

Aeonium vestitum
Aeonium virgineum
Aeonium viscatum
Aeonium x burchardii
Aeonium x meyerheimii
Aethionema cordatum
Aethionema lycium
Aethionema saxatile
Aethionema schistosum
Aethionema speciosum
Aethionema spicatum
Aethionema stylosum
Agrostis castellana
Agrostis rupestris
Agrostis schraderiana
Aichryson bethencourtianum
Aichryson bituminosum
Aichryson bollei
Aichryson brevipetalum
Aichryson divaricatum
Aichryson dumosum
Aichryson laxum
Aichryson pachycaulon
Aichryson parlatorei
Aichryson punctatum
Aichryson tortuosum
Aichryson villosum
Ajuga chamaepitys
Alchemilla alpina
Alchemilla crenulata
Alchemilla decumbens
Alchemilla ellenbergiana
Alchemilla glabra
Alchemilla saxatilis
Alchemilla serratisaxatilis
Allagopappus canariensis
Allium antonii-bolosii
Allium grosii
Allium palentinum
Allium tauricola
Allosorus acrosticus
Allosorus fragilis
Allosorus guanchicus
Allosorus hispanicus
Allosorus persicus
Allosorus pteridioides
Allosorus tinaei
Alopecurus magellanicus
Alopecurus textilis
Alyssoides cretica
Alyssum argyrophyllum
Alyssum chondrogynum
Alyssum cuneifolium

Alyssum fastigiatum
Alyssum handelii
Alyssum repens
Alyssum scardicum
Alyssum sphacioticum
Alyssum troodi
Alyssum wulfenianum
Amelanchier parviflora
Anarrhinum bellidifolium
Androsace alpina
Androsace ciliata
Androsace cylindrica
Androsace hausmannii
Androsace hedraeantha
Androsace helvetica
Androsace lactea
Androsace multiscapa
Androsace vandellii
Androsace villosa
Androsace wulfeniana
Andryala crithmifolia
Andryala glandulosa
Andryala ragusina
Anogramma leptophylla
Anthemis aetnensis
Anthemis pindicola
Anthemis plutonia
Anthericum ramosum
Anthriscus kotschyi
Anthriscus sylvestris
Antirrhinum grosii
Antirrhinum hispanicum
Antirrhinum majus
Antirrhinum microphyllum
Antirrhinum pertegasii
Antirrhinum pulverulentum
Antirrhinum subbaeticum
Antirrhinum valentinum
Aquilegia bernardii
Aquilegia cazorlensis
Aquilegia discolor
Aquilegia pyrenaica
Arabidopsis arenosa
Arabidopsis neglecta
Arabidopsis petraea
Arabidopsis thaliana
Arabis alpina
Arabis bryoides
Arabis caerulea
Arabis ferdinandi-coburgii
Arabis glabra
Arabis pumila
Arabis stellulata

Arenaria balansae
Arenaria balearica
Arenaria bertolonii
Arenaria ciliata
Arenaria conferta
Arenaria cretica
Arenaria deflexa
Arenaria humifusa
Arenaria kotschyana
Arenaria norvegica
Arenaria pamphylica
Arenaria pseudofrigida
Arenaria tmolea
Arenaria uninervia
Argyranthemum tenerifae
Armeria alpina
Armeria leucocephala
Armeria maritima
Arrhenatherum album
Artemisia chamaemelifolia
Artemisia genipi
Artemisia glacialis
Artemisia norvegica
Artemisia umbelliformis
Asarina procumbens
Asperula arcadiensis
Asperula boissieri
Asperula boryana
Asperula hirta
Asperula idaea
Asperula muscosa
Asperula pauiAsperula pubescens
Asperula serotina
Asperula stricta
Asperula tournefortii
Asplenium adiantum-nigrum
Asplenium adiantum-nigrum subsp. serpentini
Asplenium adiantum-nigrum x alternifolium
Asplenium adulterinum
Asplenium aegaeum
Asplenium aethiopicum
Asplenium alternifolium
Asplenium aureum
Asplenium balearicum
Asplenium ceterach
Asplenium creticum
Asplenium fissum
Asplenium fontanum
Asplenium foreziense
Asplenium hemionitis
Asplenium lepidum
Asplenium lolegnamense
Asplenium marinum

Asplenium monanthes
Asplenium obovatum
Asplenium petrarchae
Asplenium ruta-muraria
Asplenium sagittatum
Asplenium scolopendrium
Asplenium seelosii
Asplenium septentrionale
Asplenium tadei
Asplenium trichomanes
Asplenium trichomanes subsp. maderense
Asplenium trichomanes x alternifolium
Asplenium viride
Astragalus alpinus
Astragalus haussknechtii
Astragalus oxytropifolius
Astragalus pelliger
Asyneuma compactum
Asyneuma limonifolium
Asyneuma linifolium
Asyneuma lycium
Athamanta cervariifolia
Athamanta cretensis
Athamanta vayredana
Athyrium distentifolium
Aubrieta canescens
Aubrieta deltoidea
Aubrieta thessala
Aurinia corymbosa
Aurinia saxatilis
Babcockia platylepis
Ballota frutescens
Bellardiochloa variegata
Bellium bellidioides
Bethencourtia palmensis
Biscutella frutescens
Biscutella neustriaca
Biscutella valentina
Blackstonia perfoliata
Borago pygmaea
Bornmuellera baldaccii
Brachypodium pinnatum
Brachypodium rupestre
Brachypodium sylvaticum
Brassica balearica
Brassica cretica
Braya linearis
Braya purpurascens
Bubon albanicum
Bubon macedonicum
Bufonia calyculata
Bufonia macropetala
Bunium alpinum

Bunium macuca
Bunium microcarpum
Bupleurum barceloi
Bupleurum kakiskalae
Bupleurum ranunculoides
Bupleurum stellatum
Calamagrostis varia
Campanula affinis
Campanula aizoon
Campanula arvatica
Campanula celsii
Campanula cespitosa
Campanula cochleariifolia
Campanula cretica
Campanula cymbalaria
Campanula hawkinsiana
Campanula isaurica
Campanula jaubertiana
Campanula laciniata
Campanula mollis
Campanula oreadum
Campanula pelviformis
Campanula pulla
Campanula rotundifolia
Campanula rupestris
Campanula rupicola
Campanula samothracica
Campanula tubulosa
Campanula versicolor
Campanula wanneri
Capparis orientalis
Cardamine carnosa
Cardamine glauca
Cardamine plumierii
Cardamine resedifolia
Carduus carlinoides
Carex bigelowii
Carex brachystachys
Carex capillaris
Carex distans
Carex fuliginosa
Carex glacialis
Carex ornithopoda
Carex rorulenta
Carex rupestris
Carum meoides
Castroviejoa frigida
Centaurea argentea
Centaurea avilae
Centaurea boissieri
Centaurea cariensis
Centaurea clementei
Centaurea cyprensis

Centaurea delucae
Centaurea deustiformis
Centaurea drabifolia
Centaurea idaea
Centaurea lancifolia
Centaurea mariana
Centaurea ossaea
Centaurea parlatoris
Centaurea pectinata
Centaurea poculatoris
Centaurea prolongoi
Centaurea redempta
Centaurea resupinata
Centaurea rouyi
Centaurea rupestris s.l.
Centaurea saxicola
Centaurea segariensis
Centranthus calcitrapae
Centranthus lecoyii
Centranthus nevadensis
Centranthus ruber
Cephalaria squamiflora
Cerastium alpinum
Cerastium carinthiacum
Cerastium cerastoides
Cerastium gnaphalodes
Cerastium nigrescens
Cerastium pedunculatum
Cerastium pyrenaicum
Cerastium regelii
Cerastium soleirolii
Cerastium thomasii
Cerastium tomentosum
Cerastium transsilvanicum
Cerastium uniflorum
Chaenorhinum organifolium
Chaenorhinum tenellum
Chiliadenus glutinosus
Cicer incisum
Clinopodium rouyanum
Clinopodium serpyllifolium
Clinopodium troodi
Cochlearia aragonensis
Cochlearia tatrae
Coincya monensis
Conopodium bunioides
Conopodium thalictrifolium
Corydalis blandaa
Corydalis rutifolia
Corydalis uniflora
Cosentinia vellea
Crambe arborea
Crambe filiformis

Crambe laevigata
Crambe scaberrima
Crepis auriculifolia
Crepis frigida
Crepis granatensis
Crepis oporinoides
Crepis pygmaea
Crepis sibthorpiana
Crepis triasii
Crepis vesicaria subsp. *andryaloides*
Crepis willdenowii
Cresis vesicaria
Crocus cambessedesii
Cryptogramma crispa
Cyanus bourgaei
Cyclotrichium origanifolium
Cymbalaria muralis
Cynoglossum troodii
Cyrtomium falcatum
Cystopteris fragilis
Cystopteris montana
Danthoniastrum compactum
Davallia canariensis
Degenia velebitica
Delphinium oxysepalum
Dendriopoterium menendezii
Dianthus elegans
Dianthus fruticosus
Dianthus graniticus
Dianthus henteri
Dianthus juniperinus
Dianthus nitidus
Dianthus petraeus
Dianthus pyrenaicus
Dianthus rupicola
Dianthus sphacioticus
Dianthus strictus
Dianthus sylvestris
Dianthus tristis
Dianthus xylorrhizus
Digitalis dubia
Digitalis purpurea
Digitalis thapsi
Dioscorea pyrenaica
Dittrichia viscosa
Doronicum cacaliifolium
Doronicum carpaticum
Doronicum clusii
Doronicum grandiflorum
Dorystaechas hastata
Draba acaulis
Draba aizoides
Draba corymbosa

Draba cretica
Draba daurica
Draba dubia
Draba fladnizensis
Draba incana
Draba kotschyi
Draba lacaitae
Draba lasiocarpa
Draba loiseleurii
Draba nivalis
Draba norvegica
Draba pauciflora
Draba sauteri
Draba scardica
Draba tomentosa
Dryas octopetala
Drymocalis malacophylla
Dryopteris mindshelkensis
Dryopteris oreades
Dryopteris pallida
Dryopteris tyrrhena
Dryopteris villarii
Drypis spinosa
Ebenus cretica
Echium albicans
Elytrigia lazica
Elytrigia tauri
Epilobium angustifolium
Epilobium collinum
Epilobium latifolium
Equisetum scirpoides
Equisetum variegatum
Erigeron acris
Erigeron karvinskianus
Erigeron paolii
Erigeron schleicheri
Eritrichium nanum
Erodium reichardii
Erodium rupicola
Erucastrum nasturtiifolium
Eryngium glaciale
Eryngium ternatum
Erysimum candicum
Erysimum duriaei
Erysimum gorbeanum
Erysimum hieraciifolium
Erysimum humile
Erysimum rhaeticum
Eupatorium cannabinum
Euphorbia cassia
Euphorbia deflexa
Euphorbia esula
Euphorbia herniariifolia

Euphorbia nevadensis
Euphorbia pestalozzae
Festuca adanensis
Festuca agustini
Festuca alpina
Festuca anatolica
Festuca glacialis
Festuca picturata
Festuca pseudosupina
Festuca pyrenaica
Festuca sardoa
Festuca stenantha
Festuca vivipara
Festuca xanthina
Ficus carica
Fritillaria crassifolia
Fumana paphlagonica
Galatella cretica
Galeopsis angustifolia
Galeopsis ladanum
Galeopsis pyrenaica
Galeopsis segetum
Galeopsis tetrahit
Galium baldense
Galium canum
Galium cespitosum
Galium cilicicum
Galium cometerhizon
Galium corrudifolium
Galium corsicum
Galium crespianum
Galium degenii
Galium erythrorrhizon
Galium fleurotii
Galium fruticosum
Galium graecum
Galium incanum
Galium megalospermum
Galium noricum
Galium normanii
Galium productum
Galium pyrenaicum
Galium rosellum
Galium stojanovii
Galium verum
Gentiana frigida
Gentiana nivalis
Geocaryum cynapioides
Geranium glaberrimum
Geranium macrorrhizum
Geranium purpureum
Geranium robertianum
Geranium subcaulescens

Geum reptans
Globularia majoricensis
Gnaphalium hoppeanum
Gnaphalium leucopilinum
Gnaphalium pichleri
Gouffeia arenarioides
Grafia golaka
Greenovia dodrentalis
Gymnocarpium robertianum
Gypsophila montserratii
Gypsophila petraea
Gypsophila repens
Habenaria tridactylites
Halacsya sendtneri
Hedysarum cyprium
Hedysarum erythroleucum
Heldreichia bourgaei
Heldreichia bupleurifolia
Heldreichia rotundifolia
Helianthemum hymettium
Helichrysum crassifolium
Helichrysum heldreichii
Helichrysum melitense
Helichrysum orientale
Helictochloa crassifolia
Heracleum humile
Hieracium alpinum
Hieracium amplexicaule
Hieracium aragonense
Hieracium bifidum
Hieracium bourgaei
Hieracium bupleuroides
Hieracium candidum
Hieracium carpetanum
Hieracium elisaeaeum
Hieracium humile
Hieracium laniferum
Hieracium lawsonii
Hieracium loscosianum
Hieracium mixtum
Hieracium pannosum
Hieracium sartorianum
Hieracium scapigerum
Hieracium schmidtii
Hieracium texedense
Hippocrepis balearica
Hippocrepis valentina
Hirtellina fruticosa
Hirtinella lobelii
Holcus annuus
Hormathophylla cadevalliana
Hormathophylla cochleata
Hormathophylla purpurea

Hormathophylla reverchonii
Hornungia alpina
Huperzia selago
Hyacinthella millingenii
Hylotelephium anacampseros
Hylotelephium maximum
Hylotelephium telephium
Hyoscyamus albus
Hypericum aciferum
Hypericum amblycalyx
Hypericum confertum
Hypericum crenulatum
Hypericum cuisinii
Hypericum grandifolium
Hypericum hircinum
Hypericum jovis
Hypericum nummularium
Hypericum organifolium
Hypericum reflexum
Hypericum taygeteum
Hypochaeris oligocephala
Hypochaeris robertia
Iberis carnosa
Iberis ciliata
Iberis gibraltarica
Iberis simplex
Iberis spathulata
Iberis violletii
Inula candida
Inula heterolepis
Inula methanaea
Inula oxylepis
Inula parnassica
Inula pseudolimonella
Inula verbascifolia
Jacobaea gnaphalioides
Jacobaea carniolica
Jacobaea leucophylla
Jankaea heldreichii
Jasione crispa
Jasione foliosa
Jovibarba heuffelii
Juncus trifidus
Jurinea fontqueri
Jurinea moschus
Kernera saxatilis
Kobresia simpliciuscula
Lactuca acanthifolia
Lactuca glareosa
Lactuca intricata
Lactuca muralis
Lactuca singularis
Lactuca tenerrima

Lactuca viminea
Lafuentea rotundifolia
Lamium eriocephalum
Lamium garganicum
Laserpitium gallicum
Laserpitium petrophilum
Leontodon hyoseroides
Lepidium villarsii
Leucanthemum atratum aggr.
Leucanthemum coronopifolium
Leucanthemum corsicum
Leucanthemum laciniatum
Leucanthemum monspeliense
Leucopoa dimorpha
Leucopoa pulchella
Leucopoa spectabilis
Ligusticum ferulaceum
Linaria aeruginea
Linaria alpina
Linaria anticaria
Linaria badalii
Linaria capraria
Linaria cavanillesii
Linaria corifolia
Linaria filicaulis
Linaria glacialis
Linaria microsepala
Linaria propinqua
Linaria purpurea
Linaria repens
Linaria saxatilis
Linaria supina
Linaria verticillata
Lindbergella sintenisii
Linum arboreum
Lomelosia albocincta
Lomelosia crenata
Lomelosia cretica
Lomelosia hymettia
Lomelosia minoana
Lomelosia sphaciotica
Lomelosia variifolia
Luzula alpinopilosa
Luzula arcuata
Luzula confusa
Luzula spicata
Macrotomia densiflora
Malcolmia orsiniana
Matthiola maderensis
Mattiastrum lithospermifolium
Melica ciliata
Melica rectiflora
Michauxia tchihatcheffii

Micromeria filiformis
Micromeria myrtifolia
Micromeria teneriffae
Micromeria varia
Micromeria varia subsp. thymoides
Microrrhinum minus
Minuartia attica
Minuartia biflora
Minuartia cerastiifolia
Minuartia cherlerioides
Minuartia hybrida aggr.
Minuartia juniperina
Minuartia pichleri
Minuartia platyphylla
Minuartia recurva
Minuartia rimarum
Minuartia rubella
Minuartia rupestris
Minuartia sedoides
Minuartia stricta
Minuartia verna
Minuartia viscosa
Moehringia ciliata
Moehringia intricata
Moehringia muscosa
Moehringia trinervia
Monanthes adenoscepes
Monanthes anagensis
Monanthes brachycaulon
Monanthes icterica
Monanthes laxiflora
Monanthes lowei
Monanthes muralis
Monanthes pallens
Monanthes polyphylla
Monizia edulis
Murbeckiella boryi
Musschia aurea
Myosotis alpestris
Myosotis speluncicola
Myosotis suaveolens
Narcissus calcicola
Narcissus rupicola
Naufraga balearica
Nepeta amethystina
Nepeta cilicica
Nepeta concolor
Nepeta nepetella
Nepeta phyllochlamys
Nepeta sphaciotica
Noccaea bellidifolia
Noccaea oppositifolia
Noccaea praecox

Noccaea rotundifolia
Noccaea sintenisii
Noccaea stilosa
Noccaea stylosa
Noccaea zaffranii
Odontarrhena akamasica
Odontarrhena bertolonii
Odontarrhena cyprica
Odontarrhena fragillima
Odontarrhena muralis
Odontites linkii
Omphalodes luciliae
Onobrychis sphaciotica
Onosma echioides
Onosma graeca
Onosma troodi
Oreochloa disticha
Origanum dictamnus
Origanum vulgare
Oxyria digyna
Oxytropis lapponica
Papaver alpinum
Papaver ernesti-mayeri
Papaver laestadianum
Papaver lapeyrousianum
Papaver pyrenaicum
Papaver radicum
Papaver rupifragum
Papaver suaveolens
Paragymnopteris marantae
Parietaria filamentosa
Parietaria judaica
Parietaria officinalis
Pedicularis verticillata
Pellaea calomelanos
Peltaria alliacea
Pericallis lanata
Petasites paradoxus
Petrocallis pyrenaica
Petromarula pinnata
Petrorrhagia dianthoides
Peucedanum alpinum
Phagnalon pygmaeum
Phagnalon rupestre
Phagnalon sordidum
Phegopteris connectilis
Phippsia algida
Phyllis viscosa
Phyllolepidum cyclocarpum
Phyteuma charmelii
Phyteuma cordatum
Phyteuma hemisphaericum
Phyteuma humile

Phyteuma scheuchzeri
Phyteuma serratum
Pimpinella major
Pinguicula alpina
Pinguicula grandiflora
Pinguicula hirtiflora
Plantago leiopetala
Plantago monosperma
Platycapnos saxicola
Poa alpina
Poa arctica
Poa balbisii
Poa cenisia
Poa dolosa
Poa glauca
Poa laxa
Poa minor
Poa nemoralis
Podospermum radicosum
Polycarpaea carnosa
Polygonatum odoratum
Polygonum icaricum
Polypodium cambricum
Polypodium cambricum subsp. azoricum
Polypodium cambricum subsp. macaronesicum
Polypodium interjectum
Polypodium vulgare
Polypodium x fontqueri
Polystichum lonchitis
Potentilla alchimilloides
Potentilla argentea
Potentilla caulescens
Potentilla crantzii
Potentilla crassinervia
Potentilla deorum
Potentilla doerfleri
Potentilla haynaldiana
Potentilla hyparctica
Potentilla kotschyana
Potentilla nivalis
Potentilla nivea
Potentilla pulvinaris
Potentilla saxifraga
Potentilla speciosa
Primula allionii
Primula hirsuta
Primula marginata
Primula minima
Pseudofumaria alba
Pseudoscabiosa grosii
Pseudoscabiosa saxatilis
Ptilostemon afer
Ptilostemon chamaepeuce

Ptilostemon niveus
Ptychotis saxifraga
Ramonda myconi
Ranunculus alpestris
Ranunculus brevifolius
Ranunculus breyninus
Ranunculus cadmicus
Ranunculus carinthiacus
Ranunculus creticus
Ranunculus glacialis
Ranunculus parnassifolius
Ranunculus radinotrichus
Ranunculus sabinii
Ranunculus sulphureus
Ranunculus weyleri
Reseda glauca
Reseda gredensis
Reseda valentina
Rhamnus alpina
Rhamnus integrifolia
Rhamnus libanotica
Rhamnus pumila
Rhamnus sibthorpiana
Rhodiola rosea
Ricotia cretica
Ricotia davisiana
Ricotia varians
Rosa villosa
Rosularia libanotica
Rosularia serpentinica
Rosularia serrata
Rubia angustifolia
Rubus saxatilis
Rumex acetosella
Rumex aetnensis
Rumex scutatus
Rumex suffruticosus
Rupicapnos africana
Salix breviserrata
Salix herbacea
Salix reticulata
Salix retusa
Salix starkeana
Salvia broussonetii
Salvia veneris
Sanguisorba ancistroides
Sanguisorba cretica
Santolina oblongifolia
Saponaria sicula
Sarcocapnos baetica
Sarcocapnos crassifolia
Sarcocapnos enneaphylla
Sarcocapnos pulcherrima

Satureja parnassica
Saxifraga adscendens
Saxifraga aizoides
Saxifraga androsacea
Saxifraga aretioides
Saxifraga aspera
Saxifraga biternata
Saxifraga bourgaeana
Saxifraga bryoides
Saxifraga callosa
Saxifraga camposii
Saxifraga carpatica
Saxifraga cernua
Saxifraga cespitosa
Saxifraga corsica
Saxifraga cotyledon
Saxifraga cuneata
Saxifraga exarata
Saxifraga federici-augusti
Saxifraga florulenta
Saxifraga fragilis
Saxifraga genesiana
Saxifraga glabella
Saxifraga granatensis
Saxifraga hyperborea
Saxifraga hypnoides
Saxifraga juniperifolia
Saxifraga kotschyi
Saxifraga latepetiolata
Saxifraga longifolia
Saxifraga losae
Saxifraga luteoviridis
Saxifraga maderensis
Saxifraga marginata
Saxifraga media
Saxifraga moncayensis
Saxifraga moschata
Saxifraga muscoides
Saxifraga mutata
Saxifraga nevadensis
Saxifraga nivalis
Saxifraga oppositifolia
Saxifraga paniculata
Saxifraga paradoxa
Saxifraga pedemontana
Saxifraga pentadactylis
Saxifraga porophylla
Saxifraga portosanctana
Saxifraga praetermissa
Saxifraga reuteriana
Saxifraga rigoi
Saxifraga rivularis
Saxifraga rosacea

Saxifraga scardica
Saxifraga sedoides
Saxifraga sempervivum
Saxifraga sibirica
Saxifraga sibthorpii
Saxifraga spruneri
Saxifraga taygetea
Saxifraga vayredana
Saxifraga wahlenbergii
Scabiosa corsica
Scleranthus perennis subsp. *vulcanicus*
Scorzonera cretica
Scrophularia canina
Scrophularia depauperata
Scrophularia heterophylla
Scrophularia kotschyana
Scrophularia libanotica
Scrophularia myriophylla
Scrophularia oxyrhyncha
Scrophularia rimarum
Scrophularia sciophila
Scrophularia scorodonia
Scrophularia sublyrata
Scutellaria hirta
Scutellaria orientalis
Secale strictum
Securigera globosa
Sedum annum
Sedum atratum
Sedum brevifolium
Sedum brissemoretii
Sedum dasyphyllum
Sedum farinosum
Sedum fusiforme
Sedum hirsutum
Sedum hispanicum
Sedum magellense
Sedum monregalense
Sedum nudum
Sedum stefco
Selaginella denticulata
Selaginella kraussiana
Sempervivum arachnoideum
Sempervivum calcareum
Sempervivum grandiflorum
Sempervivum marmoreum
Sempervivum minutum
Sempervivum montanum
Sempervivum wulfenii
Senecio castagneanus
Senecio doronicum
Senecio fruticulosus
Senecio pyrenaicus

Senecio squalidus subsp. *aethnensis*
Senecio squalidus subsp. *rupestris*
Senecio thapsoides
Senecio viscosus
Sesamoides purpurascens
Seseli malyi
Sesleria caerulea
Sesleria doerfleri
Sesleria insularis
Sesleria phleoides
Sesleria robusta
Sibthorpia africana
Sideritis glauca
Sideritis perfoliata
Sideritis stachydioides
Silene acaulis
Silene andryalifolia
Silene auriculata
Silene berthelotiana
Silene boryi
Silene caesia
Silene campanula
Silene congesta
Silene dinarica
Silene fabaria
Silene fabarioides
Silene flavescens
Silene foetida
Silene gazulensis
Silene gigantea
Silene haussknechtii
Silene hifacensis
Silene inaperta
Silene italica
Silene leptoclada
Silene lerchenfeldiana
Silene mollissima
Silene multicaulis
Silene nocteolens
Silene nuncupanda
Silene odontopetala
Silene parnassica
Silene pentelica
Silene pusilla
Silene requienii
Silene rupestris
Silene saxifraga
Silene secundiflora
Silene suecica
Silene supina
Silene tomentosa
Silene uniflora
Silene variegata

Silene viscaria
Sinapidendron angustifolium
Sinapidendron frutescens
Sinapidendron gymnocalyx
Sinapidendron rupestre
Sisymbrium supinum
Solenopsis balearica
Solidago virgaurea
Sonchus acaulis
Sonchus congestus
Sonchus gummifer
Sonchus pendulus
Sonchus radicans
Sonchus tectifolius
Sonchus tenerrimus
Sonchus tuberifer
Sonchus ustulatus
Spergula viscosa
Stachys candida
Stachys chrysantha
Stachys parolinii
Stachys spreitzenhoferi
Stachys swainsonii
Staelina petiolata
Stellaria graminea
Symphytum creticum
Tanacetum argenteum
Tanacetum armenum
Taraxacum pyrenaicum
Taraxacum sect. Alpina
Teucrium aroanium
Teucrium botrys
Teucrium buxifolium
Teucrium cuneifolium
Teucrium fragile
Teucrium francisci-wernerii
Teucrium freynii
Teucrium halacsyanum
Teucrium hifacense
Teucrium intricatum
Teucrium montanum
Teucrium rivas-martinezii
Teucrium rivasii
Teucrium rotundifolium
Teucrium thymifolium
Thalictrum alpinum
Thamnosciadium junceum
Theligonum cynocrambe
Thelypteris pozoi
Thlaspi kernerii
Thymus comosus
Thymus integer
Thymus leucotrichus

Thymus pulcherrimus
Thymus richardii
Tofieldia pusilla
Tolpis calderae
Tolpis crassiuscula
Tolpis lagopoda
Tolpis macrorrhiza
Tolpis staticifolia
Tolpis succulenta
Trachelium caeruleum
Trisetum bertolonii
Trisetum distichophyllum
Trisetum hispidum
Trisetum spicatum
Trisetum velutinum
Umbilicus horizontalis
Umbilicus luteus
Umbilicus rupestris
Valantia aprica
Valeriana apula
Valeriana asarifolia
Valeriana bertiscea
Valeriana elongata
Valeriana longiflora
Valeriana officinalis
Valeriana saxatilis
Valeriana sisymbriifolia
Valeriana speluncaria
Valeriana tripteris
Vavilovia formosa
Verbascum arcturus
Verbascum conocarpum
Verbascum nigrum
Verbascum pestalozzae
Verbascum thapsus
Veronica alpina
Veronica aragonensis
Veronica bachofenii
Veronica baumgartenii
Veronica bellidioides
Veronica caespitosa
Veronica cuneifolia
Veronica fruticans
Veronica kotschyana
Veronica mampodrensis
Veronica nummularia
Veronica saturejoides
Veronica tauricola
Veronica thessalica
Vicia alpestris
Vicia canescens
Vicia glauca
Vieraea laevigata

Viola albanica
Viola calcarata
Viola cheiranthifolia
Viola chelmea
Viola crassifolia
Viola crassiuscula
Viola diversifolia
Viola dukadjinica
Viola fragrans
Viola grisebachiana
Viola herzogii
Viola hispida
Viola magellensis
Viola palustris
Viola parnonia
Viola perinensis
Viola poetica
Viola sandrasea
Viola striis-notata
Viola tricolor aggr.
Woodsia alpina
Woodsia ilvensis
Woodsia pulchella
Woodwardia radicans
Xatardia scabra

##D +10 Mire-species

Agrostis canina
Anacamptis palustris aggr.
Anagallis tenella
Andromeda polifolia
Aneura pinguis
Aulacomnium palustre
Bartsia alpina
Bellis bernardii
Bellium nivale
Betula nana
Blysmus compressus
Bryum pseudotriquetrum
Calamagrostis neglecta
Calliergon giganteum
Campyliadelphus elodes
Campylium stellatum
Carex appropinquata
Carex aquatilis
Carex atrofusca
Carex bicolor
Carex bulgarica
Carex buxbaumii
Carex canescens
Carex capillaris
Carex capitata
Carex davalliana

Carex demissa
Carex diandra
Carex dioica
Carex durieui
Carex echinata
Carex flava
Carex frigida
Carex heleonastes
Carex hostiana
Carex chordorrhiza
Carex lachenalii
Carex lapponica
Carex lasiocarpa
Carex laxa
Carex lepidocarpa
Carex limosa
Carex livida
Carex loliacea
Carex magellanica
Carex maritima
Carex microglochin
Carex nevadensis
Carex nigra
Carex norvegica
Carex panicea
Carex parallela
Carex pauciflora
Carex pulicaris
Carex rariflora
Carex rostrata
Carex rotundata
Carex saxatilis
Carex trinervis
Carex vaginata
Carex vesicaria
Carex viridula
Centaureum littorale
Cinclidium arcticum
Cinclidium stygium
Cinclidium subrotundum
Cirsium heterotrichum
Cladium mariscus
Cladopodiella fluitans
Comarum palustre
Dactylorhiza cordigera
Dactylorhiza incarnata
Dactylorhiza maculata aggr.
Dactylorhiza majalis
Dactylorhiza traunsteineri
Drosera intermedia
Drosera longifolia
Drosera rotundifolia
Dryopteris cristata

Dupontia fisheri
Eleocharis quinqueflora
Epilobium palustre
Epilobium palustre
Equisetum fluviatile
Equisetum palustre
Equisetum variegatum
Erica tetralix
Eriophorum angustifolium
Eriophorum gracile
Eriophorum latifolium
Eriophorum russeolum
Eriophorum scheuchzeri
Eriophorum triste
Eriophorum vaginatum
Festuca frigida
Fissidens adianthoides
Fissidens osmundoides
Gymnadenia frivaldii
Gymnocolea inflata
Hamatocaulis lapponicus
Hamatocaulis vernicosus
Hammarbya paludosa
Hypericum elodes
Chamaedaphne calyculata
Juncus alpinoarticulatus
Juncus arcticus
Juncus articulatus
Juncus biglumis
Juncus bulbosus
Juncus castaneus
Juncus filiformis
Juncus requienii
Juncus stygius
Juncus subnodulosus
Juncus thomasi
Juncus triglumis
Kobresia simpliciuscula
Leontodon croceus
Liparis loeselii
Loeskyppnum badium
Meesia triquetra
Menyanthes trifoliata
Myrica gale
Nartheceum ossifragum
Nartheceum scardicum
Paludella squarrosa
Parnassia palustris
Pedicularis mixta
Pedicularis palustris
Pedicularis sceptrum-carolinum
Pedicularis sylvatica
Pedicularis verticillata

Peucedanum palustre
Philonotis calcarea
Philonotis fontana
Pinguicula balcanica
Pinguicula corsica
Pinguicula grandiflora
Pinguicula lusitanica
Pinguicula nevadensis
Pinguicula villosa
Pinguicula vulgaris
Pinus mugo subsp. rotundata
Plantago gentianoides
Polygala amarella
Polygala serpyllifolia
Polytrichum commune
Potamogeton polygonifolius
Potentilla anglica
Primula deorum
Primula farinosa
Primula nutans
Primula scandinavica
Primula stricta
Pseudocalliergon lycopodioides
Pseudocalliergon trifarium
Ranunculus cordiger
Ranunculus hyperboreus
Ranunculus pyrenaeus
Rhododendron tomentosum
Rhynchospora alba
Rhynchospora fusca
Rubus chamaemorus
Sagina nodosa
Salix lapponum
Salix myrsinites
Salix myrtilloides
Salix repens
Salix reticulata
Salix rosmarinifolia
Saussurea alpina aggr.
Saxifraga foliolosa
Saxifraga hirculus
Scorpidium revolvens aggr.
Scorpidium scorpioides
Scorzoneroides microcephala
Scheuchzeria palustris
Schoenus ferrugineus
Schoenus nigricans
Sedum villosum
Silene asterias
Soldanella pindicola
Sphagnum affine
Sphagnum angermanicum
Sphagnum annulatum

Sphagnum aongstroemii
Sphagnum auriculatum+inundatum
Sphagnum austinii
Sphagnum balticum
Sphagnum contortum
Sphagnum cuspidatum
Sphagnum fuscum
Sphagnum jensenii
Sphagnum lenense
Sphagnum lindbergii
Sphagnum magellanicum aggr.
Sphagnum majus
Sphagnum molle
Sphagnum obtusum
Sphagnum palustre aggr.
Sphagnum papillosum
Sphagnum platyphyllum
Sphagnum pulchrum
Sphagnum recurvum aggr.
Sphagnum rubellum
Sphagnum subfulvum
Sphagnum subnitens
Sphagnum subsecundum
Sphagnum tenellum
Sphagnum teres
Sphagnum tundrae
Sphagnum warnstorffii
Spiranthes aestivalis
Stellaria palustris
Straminergon stramineum
Succisa pratensis
Tofieldia calyculata
Tofieldia pusilla
Tomentypnum nitens
Trientalis europaea
Triglochin maritima
Triglochin palustris
Trichophorum alpinum
Trichophorum cespitosum
Trichophorum pumilum
Typha lugdunensis
Typha minima
Typha shuttleworthii
Utricularia intermedia
Utricularia minor
Vaccinium microcarpum
Vaccinium oxycoccos
Vaccinium uliginosum
Valeriana dioica
Veronica nevadensis
Veronica scutellata
Viola epipsila
Viola palustris

Warnstorfia exannulata
Warnstorfia fluitans
Warnstorfia sarmentosa
Willemetia stipitata

##D +10 Synanthropic-species

Abutilon theophrasti
Acalypha virginica
Acanthus mollis
Achillea filipendulina
Achillea santolinoides
Adonis aestivalis
Adonis annua
Adonis flammea
Adonis microcarpa
Aegilops cylindrica
Aegilops geniculata
Aegilops neglecta
Aegilops triuncialis
Aegilops ventricosa
Aegopodium podagraria
Aethusa cynapium
Ageratina adenophora
Agrostemma githago
Aizoanthes hispanica
Aizoon canariense
Ajuga chamaepitys
Ajuga iva
Alcea biennis
Alcea rosea
Alchemilla glabra
Allium cepa
Allium neapolitanum
Allium nigrum
Allium paradoxum
Allium polyanthum
Allium sativum
Allium scaberrimum
Allium scorodoprasum
Allium trifoliatum
Allium triquetrum
Allium vineale
Alopecurus myosuroides
Alternanthera caracasana
Alternanthera pungens
Althaea longiflora
Alyssum granatense
Alyssum simplex
Amaranthus bouchonii
Amaranthus caudatus
Amaranthus hybridus
Amaranthus hypochondriacus
Amaranthus palmeri

Amaranthus powellii
Amaranthus powellii
Amaranthus retroflexus
Amaranthus standleyanus
Ambrosia artemisiifolia
Ambrosia psilostachya
Ambrosia trifida
Ammannia auriculata
Ammannia baccifera
Ammannia coccinea
Ammannia robusta
Ammannia verticillata
Ammi majus
Ammi visnaga
Anacyclus clavatus
Anacyclus radiatus
Anacyclus valentinus
Anagallis arvensis
Anagallis foemina
Anaphalis margaritacea
Anchusa azurea
Anchusa ochroleuca
Anchusa officinalis
Androsace maxima
Andryala arenaria
Anethum graveolens
Anisantha diandra
Anisantha fasciculata
Anisantha madritensis
Anisantha rigida
Anisantha rubens
Anisantha sterilis
Anisantha tectorum
Anredera cordifolia
Anthemis arvensis
Anthemis cotula
Anthemis ruthenica
Anthoxanthum amarum
Anthoxanthum aristatum
Anthoxanthum ovatum
Anthriscus caucalis
Anthriscus cerefolium
Anthriscus sylvestris
Apera spica-venti
Aphanes arvensis
Aphanes australis
Arabidopsis thaliana
Arctium lappa
Arctium minus
Arctotheca calendula
Arenaria cerastioides
Arenaria hispanica
Armoracia rusticana

Arnoseric minima
Artemisia abrotanum
Artemisia absinthium
Artemisia annua
Artemisia biennis
Artemisia dracunculus
Artemisia scoparia
Artemisia verlotiorum
Artemisia vulgaris
Arum italicum
Asparagus asparagoides
Asperugo procumbens
Asperula arvensis
Asphodelus albus
Asphodelus fistulosus
Asphodelus lusitanicus
Asphodelus macrocarpus
Astragalus hamosus
Astragalus longidentatus
Atriplex hortensis
Atriplex micrantha
Atriplex oblongifolia
Atriplex patula
Atriplex rosea
Atriplex sagittata
Atriplex tatarica
Avena barbata
Avena fatua
Avena longiglumis
Avena nuda
Avena sativa
Avena sterilis
Avena strigosa
Axyris amaranthoides
Ballota nigra
Barbarea bracteosa
Barbarea stricta
Barbula convoluta
Barbula unguiculata
Bassia hyssopifolia
Bellardia trixago
Bergia capensis
Berteroa incana
Beta vulgaris subsp. vulgaris
Bidens bipinnatus
Bidens subalternans
Bifora radians
Bifora testiculata
Biscutella auriculata
Blitum bonus-henricus
Blitum capitatum
Blitum petiolare
Blitum virgatum

Bonannia graeca
Bongardia chrysogonum
Borago officinalis
Bowlesia glandulosa
Brassica barrelieri
Brassica elongata
Brassica fruticulosa
Brassica geniculata
Brassica napus
Brassica nigra
Brassica oleracea
Brassica oxyrrhina
Brassica rapa
Brassica tournefortii
Bromopsis inermis
Bromus arvensis
Bromus diandrus
Bromus grossus
Bromus hordeaceus
Bromus intermedius
Bromus japonicus
Bromus lanceolatus
Bromus lepidus
Anisantha madritensis
Bromus rigidus
Bromus rubens
Bromus scoparius
Bromus secalinus
Bromus squarrosus
Bryonia alba
Bryonia dioica
Bryum argenteum
Bryum dichotomum
Bryum funckii
Bryum gemmilucens
Bryum ruderales
Bryum versicolor
Buglossoides arvensis
Buglossoides incrassata
Bunias erucago
Bunias orientalis
Bunium bulbocastanum
Bunium ferulaceum
Bunium pachypodium
Bupleurum lancifolium
Bupleurum rotundifolium
Bupleurum subovatum
Calamagrostis epigejos
Calendula arvensis
Calendula officinalis
Calendula tripterocarpa
Calepina irregularis
Callistephus chinensis

Calystegia pulchra
Calystegia silvatica
Camelina alyssum
Camelina microcarpa
Camelina rumelica
Camelina sativa
Campanula ramosissima
Cannabis sativa
Capsella bursa-pastoris
Capsella grandiflora
Capsella rubella
Capsicum annuum
Cardamine hirsuta
Cardiospermum grandiflorum
Carduus acanthoides
Carduus argyrea
Carduus asturicus
Carduus bourgeanus
Carduus candicans
Carduus carpetanus
Carduus crispus
Carduus hamulosus
Carduus litigiosus
Carduus meoanthus
Carduus nigrescens
Carduus nutans
Carduus pycnocephalus
Carduus tenuiflorus
Carlina corymbosa
Carlina lanata
Carpesium abrotanoides
Carpesium cernuum
Carrichtera annua
Carthamus caeruleus
Carthamus lanatus
Carthamus tinctorius
Catananche lutea
Catapodium rigidum
Caucalis platycarpus
Centaurea aspera
Centaurea benedicta
Centaurea calcitrapa
Centaurea collina
Centaurea diffusa
Centaurea iberica
Centaurea lagascana
Centaurea melitensis
Centaurea pullata
Centaurea salonitana
Centaurea solstitialis
Centranthus calcitrapae
Centranthus macrosiphon
Cephalaria transsylvanica

Cerastium dichotomum
Cerastium glomeratum
Cerastium gracile
Cerastium nemorale
Cerastium perfoliatum
Ceratocapnos claviculata
Ceratocapnos heterocarpa
Ceratocephala falcata
Ceratodon purpureus
Cerinthe glabra
Cerinthe gymnandra
Cerinthe major
Cerinthe minor
Cerinthe retorta
Chaerophyllum aromaticum
Chaerophyllum aureum
Chaerophyllum nodosum
Chaerophyllum temulum
Chaiturus marrubiastrum
Chamaemelum fuscatum
Chelidonium majus
Chenopodiastrum hybridum
Chenopodiastrum murale
Chenopodium album
Chenopodium giganteum
Chenopodium opulifolium
Chenopodium probstii
Chenopodium strictum
Chenopodium suecicum
Chenopodium vulvaria
Chondrilla juncea
Chrozophora plicata
Chrozophora tinctoria
Cicer arietinum
Cichorium intybus
Cichorium pumilum
Cirsium arvense
Cirsium boujartii
Cirsium decussatum
Cirsium echinatum
Cirsium eriophorum
Cirsium ferox
Cirsium furiens
Cirsium italicum
Cirsium morisianum
Cirsium odontolepis
Cirsium richterianum
Cirsium scabrum
Cirsium spathulatum
Cirsium vallis-demonis
Cirsium vulgare
Citrullus lanatus
Cladanthus mixtus

Claytonia perfoliata
Clematis tangutica
Cleome dodecandra
Cleome hassleriana
Cleome violacea
Clinopodium graveolens
Coincya monensis
Coincya transtagana
Coleostephus myconis
Collomia grandiflora
Collomia linearis
Commelina communis
Conium maculatum
Conringia orientalis
Consolida ajacis
Consolida hispanica
Consolida mauritanica
Consolida orientalis
Consolida pubescens
Consolida regalis
Convolvulus arvensis
Convolvulus meonanthus
Convolvulus tricolor
Coriandrum sativum
Coronilla scorpioides
Corydalis capnoides
Cota altissima
Cota austriaca
Cota segetalis
Cota tinctoria
Cotula australis
Crassula peduncularis
Crepis bursifolia
Crepis foetida
Crepis pulchra
Crepis pusilla
Crepis sancta
Crepis setosa
Crepis tectorum
Crepis vesicaria
Crepis zacintha
Cruciata laevipes
Cryptotaenia thomasii
Cucumis melo
Cucumis sativus
Cucurbita maxima
Cucurbita pepo
Cullen americanum
Cuscuta campestris
Cuscuta epilinum
Cuscuta europaea
Cuscuta gronovii
Cuscuta scandens

Cyanus segetum
Cyclanthera pedata
Cynanchum acutum
Cynara algarbiensis
Cynara baetica
Cynara cardunculus
Cynara humilis
Cynara scolymus
Cynodon dactylon
Cynoglossum cheirifolium
Cynoglossum columnae
Cynoglossum creticum
Cynoglossum dioscoridis
Cynoglossum nebrodense
Cynoglossum officinale
Cyperus difformis
Cyperus esculentus
Cyperus iria
Cyperus rotundus
Cyperus serotinus
Dasypyrum villosum
Datura metel
Datura stramonium
Daucus carota
Daucus guttatus
Daucus muricatus
Delphinium pentagynum
Descurainia sophia
Dichondra micrantha
Digitaria ischaemum
Digitaria sanguinalis
Diplotaxis catholica
Diplotaxis eruroides
Diplotaxis harra
Diplotaxis muralis
Diplotaxis siifolia
Diplotaxis tenuifolia
Diplotaxis viminea
Diplotaxis virgata
Dipsacus fullonum
Dipsacus laciniatus
Dipsacus pilosus
Dittrichia graveolens
Dittrichia viscosa
Drabella muralis
Dracocephalum thymiflorum
Dysphania pumilio
Ecballium elaterium
Echinaria capitata
Echinochloa colonum
Echinochloa crus-galli
Echinochloa oryzicola
Echinochloa oryzoides

Echinops bannaticus
Echinops exaltatus
Echinops sphaerocephalus
Echinops strigosus
Echium asperrimum
Echium boissieri
Echium italicum
Echium plantagineum
Echium rosulatum
Echium salmanticum
Echium tuberculatum
Echium vulgare
Eleusine indica
Eleusine tristachya
Elytrigia intermedia
Elytrigia obtusiflora
Elytrigia repens
Emex spinosa
Epilobium brachycarpum
Epilobium ciliatum
Epilobium hirsutum
Epilobium parviflorum
Epilobium tetragonum
Equisetum arvense
Eragrostis barrelieri
Eragrostis cilianensis
Eragrostis frankii
Eragrostis minor
Eragrostis multicaulis
Eragrostis papposa
Eragrostis pectinacea
Eragrostis pilosa
Eragrostis virescens
Erechtites hieraciifolius
Erigeron acris
Erigeron annuus
Erigeron bonariensis
Erigeron canadensis
Erigeron primulifolius
Erigeron sumatrensis
Erodium chium
Erodium ciconium
Erodium cicutarium
Erodium malacoides
Erodium moschatum
Erodium neuradifolium
Eruca vesicaria
Erucastrum gallicum
Erucastrum nasturtiifolium
Eryngium creticum
Erysimum cheiranthoides
Erysimum graecum
Erysimum hieracifolium

Erysimum repandum
Eschscholzia californica
Euclidium syriacum
Euphorbia chamaesyce
Euphorbia esula
Euphorbia exigua
Euphorbia falcata
Euphorbia helioscopia
Euphorbia humifusa
Euphorbia humistrata
Euphorbia illirica
Euphorbia lagascae
Euphorbia lathyris
Euphorbia maculata
Euphorbia nutans
Euphorbia peplus
Euphorbia platyphyllos
Euphorbia prostrata
Euphorbia segetalis
Euphorbia serpens
Euphorbia serrata
Euphorbia stricta
Euphorbia taurinensis
Euthamia graminifolia
Fagopyrum esculentum
Fagopyrum tataricum
Falcaria vulgaris
Fallopia baldschuanica
Fallopia convolvulus
Fallopia dumetorum
Fedia cornucopiae
Fedia graciliflora
Fedia scorpioides
Filago arvensis
Filago congesta
Filago desertorum
Filago petro-ianii
Filago pyramidata
Fimbristylis bisumbellata
Foeniculum vulgare
Fumaria agraria
Fumaria barnolae
Fumaria bastardii
Fumaria bicolor
Fumaria capreolata
Fumaria densiflora
Fumaria faurei
Fumaria flabellata
Fumaria gaillardotii
Fumaria kralikii
Fumaria macrocarpa
Fumaria macrosepala
Fumaria mirabilis

Fumaria muralis
Fumaria officinalis
Fumaria parviflora
Fumaria petteri
Fumaria rostellata
Fumaria schleicheri
Fumaria sepium
Fumaria vaillantii
Gagea villosa
Galactites duriaei
Galactites tomentosus
Galeopsis bifida
Galeopsis pubescens
Galeopsis segetum
Galeopsis speciosa
Galeopsis tetrahit
Galinsoga parviflora
Galinsoga quadriradiata
Galium aparine
Galium lucidum
Galium minutulum
Galium murale
Galium parisiense
Galium spurium
Galium tricornutum
Galium verrucosum
Galium verticillatum
Gastridium phleoides
Gastridium ventricosum
Geranium bohemicum
Geranium columbinum
Geranium dissectum
Geranium lucidum
Geranium molle
Geranium purpureum
Geranium pusillum
Geranium pyrenaicum
Geranium robertianum
Geranium rotundifolium
Geranium sibiricum
Geranium tuberosum
Geranium yeoi
Geropogon hybridus
Geum aleppicum
Geum urbanum
Gladiolus italicus
Glebionis coronaria
Glebionis segetum
Glossopappus macrotus
Glycine max
Gossypium hirsutum
Guiraoa arvensis
Guizotia abyssinica

Hackelia deflexa
Halogeton sativus
Hedypnois cretica
Hedypnois rhagadioloides
Helianthus annuus
Helianthus decapetalus
Helianthus giganteus
Helianthus pauciflorus
Helianthus tuberosus
Heliotropium curassavicum
Heliotropium europaeum
Helminthotheca echioides
Heracleum mantegazzianum
Heracleum sphondylium
Herniaria glabra
Herniaria hirsuta
Herniaria lusitanica
Hesperis matronalis
Heteranthera reniformis
Hordeum jubatum
Hordeum murinum
Hordeum vulgare
Humulus japonicus
Humulus lupulus
Hyoscyamus albus
Hyoscyamus niger
Hypocoum imberbe
Hypocoum pendulum
Hypocoum procumbens
Hypericum triquetrifolium
Iberis amara
Iberis pinnata
Iberis umbellata
Impatiens balfourii
Impatiens glandulifera
Impatiens parviflora
Inula helenium
Inula helvetica
Ipomoea sagittata
Isatis praecox
Isatis tinctoria
Iva xanthiifolia
Jacobaea erucifolia
Kickxia elatine
Kickxia lanigera
Kickxia spuria
Knautia integrifolia
Kundmannia sicula
Lactuca macrophylla
Lactuca muralis
Lactuca saligna
Lactuca sativa
Lactuca serriola

Lactuca tatarica
Lactuca virosa
Lagurus ovatus
Lamium album
Lamium amplexicaule
Lamium purpureum
Lamyropsis cynaroides
Lappula heteracantha
Lappula squarrosa
Lapsana communis
Lathyrus angulatus
Lathyrus annuus
Lathyrus aphaca
Lathyrus cicera
Lathyrus clymenum
Lathyrus hirsutus
Lathyrus inconspicuus
Lathyrus nissolia
Lathyrus ochrus
Lathyrus odoratus
Lathyrus sativus
Lathyrus setifolius
Lathyrus sphaericus
Lathyrus tuberosus
Launaea nudicaulis
Legousia hybrida
Legousia scabra
Legousia speculum-veneris
Lens culinaris
Leontice leontopetalum
Leontodon maroccanus
Leontodon salzmannii
Leonurus cardiaca
Lepidium campestre
Lepidium densiflorum
Lepidium didymum
Lepidium draba
Lepidium hirtum
Lepidium perfoliatum
Lepidium ruderales
Lepidium squamatum
Lepidium virginicum
Linaria amethystea
Linaria arvensis
Linaria chalepensis
Linaria hirta
Linaria latifolia
Linaria micrantha
Linaria nivea
Linaria orbensis
Linaria peloponnesiaca
Linaria ricardoi
Linaria triphylla

Linaria viscosa
Linaria vulgaris
Lindernia dubia
Linum usitatissimum
Linum usitatissium
Lipandra polysperma
Lobularia libyca
Lolium remotum
Lolium rigidum
Lolium subulatum
Lolium temulentum
Lotus edulis
Lotus ornithopodioides
Lotus tetragonolobus
Lunaria annua
Lunularia cruciata
Lupinus angustifolius
Lupinus luteus
Lycopsis arvensis
Magydaris panacifolia
Malope malacoides
Malope trifida
Malva aegyptia
Malva alcea
Malva cretica
Malva durieui
Malva empedoclis
Malva hispanica
Malva lusitanica
Malva moschata
Malva multiflora
Malva neglecta
Malva nicaeensis
Malva parviflora
Malva pusilla
Malva setigera
Malva sylvestris
Malva thuringiaca
Malva trimestris
Malva verticillata
Mandragora officinarum
Mantisalca salmantica
Marchantia polymorpha
Marrubium incanum
Marrubium peregrinum
Marrubium vulgare
Matricaria aurea
Matricaria chamomilla
Matricaria discoidea
Matthiola lunata
Matthiola parviflora
Mauranthemum paludosum
Medicago arabica

Medicago intertexta
Medicago lupulina
Medicago monspeliaca
Medicago murex
Medicago orbicularis
Medicago polyceratia
Medicago polymorpha
Medicago rigidula
Medicago sativa
Medicago scutellata
Medicago tornata
Medicago truncatula
Melampyrum arvense
Melampyrum barbatum
Melica transsilvanica
Melilotus albus
Melilotus altissima
Melilotus elegans
Melilotus indicus
Melilotus infestus
Melilotus italicus
Melilotus neapolitanus
Melilotus officinalis
Melilotus segetalis
Melilotus spicatus
Melilotus sulcatus
Melissa officinalis
Mentha arvensis
Mentha spicata
Mercurialis annua
Mercurialis elliptica
Mercurialis reverchonii
Mibora minima
Microrrhinum minus
Misopates calycinum
Misopates orontium
Mollugo cerviana
Monochoria korsakowii
Moricandia arvensis
Moricandia moricandioides
Muhlenbergia schreberi
Muscari armeniacum
Muscari commutatum
Myagrum perfoliatum
Myosotis arvensis
Myosotis decumbens
Myosotis persoonii
Myosotis speluncicola
Nepeta apuleii
Nepeta cataria
Nepeta latifolia
Neslia paniculata
Nicandra physalodes

Nicotiana tabacum
Nigella arvensis
Nigella damascena
Nigella hispanica
Nigella orientalis
Nigella papillosa
Noccaea perfoliata
Nonea erecta
Nonea lutea
Nonea vesicaria
Notobasis syriaca
Ochlopoa annua
Ochlopoa infirma
Odontites vulgaris aggr.
Oenothera ammophila
Oenothera angustissima
Oenothera biennis
Oenothera canovirens
Oenothera deflexa
Oenothera depressa
Oenothera fallax
Oenothera glazioviana
Oenothera issleri
Oenothera oakesiana
Oenothera oehlkersii
Oenothera parviflora
Oenothera perangusta
Oenothera pycnocarpa
Oenothera rosea
Oenothera rubricaulis
Oenothera silesiaca
Oenothera suaveolens
Oenothera subterminalis
Oenothera victorini
Oenothera villosa
Omphalodes kuzinskyanae
Ononis alopecuroides
Ononis pinnata
Onopordum acanthium
Onopordum acaulon
Onopordum carduelium
Onopordum corymbosum
Onopordum dissectum
Onopordum horridum
Onopordum illyricum
Onopordum macracanthum
Onopordum nervosum
Onopordum tauricum
Opopanax chironium
Orlaya daucoides
Orlaya grandiflora
Ornithogalum arabicum
Ornithogalum divergens

Ornithogalum nutans
Ornithogalum pyramidale
Ornithogalum umbellatum
Ornithopus perpusillus
Orobanche artemisiae-campestris
Orobanche crenata
Otospermum glabrum
Oxalis articulata
Oxalis corniculata
Oxalis debilis
Oxalis dillenii
Oxalis pes-caprae
Oxalis stricta
Oxybasis urbica
Papaver apulum
Papaver argemone
Papaver dubium
Papaver hybridum
Papaver pinnatifidum
Papaver rhoeas
Papaver setigerum
Papaver somniferum
Parentucellia viscosa
Parietaria debilis
Parietaria judaica
Parietaria lusitanica
Parietaria mauritanica
Parietaria officinalis
Parvotrisetum myrianthum
Patellifolia procumbens
Peltaria alliacea
Pentaglottis sempervirens
Persicaria lapathifolia
Persicaria maculosa
Persicaria orientalis
Persicaria pensylvanica
Persicaria wallichii
Petagnaëa gussonei
Petasites pyrenaicus
Petroselinum crispum
Phacelia tanacetifolia
Phalaris brachystachys
Phalaris canariensis
Phalaris minor
Phalaris paradoxa
Phaseolus vulgaris
Phelipanche mutelii
Phelipanche ramosa
Phleum paniculatum
Phygelius capensis
Physalis alkekengi
Phyteuma persicifolium
Phytolacca acinosa

Phytolacca americana
Picnemon acarna
Picris hieracioides
Pimpinella anisum
Pimpinella bicknellii
Piptatherum miliaceum
Pisum sativum
Plantago afra
Plantago coronopus aggr.
Plantago lagopus
Plantago major
Plantago ovata
Platycapnos spicata
Poa compressa
Polycarpon tetraphyllum
Polygonum aviculare
Polygonum depressum
Potentilla argentea
Potentilla multifida
Potentilla norvegica
Pseudocrossidium hornschuchianum
Ptychostomum archangelicum
Ptychostomum imbricatum
Pulicaria arabica
Pulicaria dysenterica
Ranunculus arvensis
Ranunculus chius
Ranunculus muricatus
Ranunculus parviflorus
Ranunculus trilobus
Raphanus raphanistrum
Raphanus sativus
Rapistrum perenne
Rapistrum rugosum
Reichardia gaditana
Reichardia intermedia
Reichardia picroides
Reichardia tingitana
Reseda alba
Reseda barrelieri
Reseda lanceolata
Reseda lutea
Reseda luteola
Reseda phyteuma
Reseda stricta
Reseda suffruticosa
Reseda undata
Reynoutria japonica
Reynoutria sachalinensis
Rhagadiolus stellatus
Ridolfia segetum
Rodgersia podophylla
Roemeria hybrida

Rostraria cristata
Rostraria salzmannii
Rotala filiformis
Rotala indica
Rubia tinctorium
Rudbeckia hirta
Rudbeckia laciniata
Rumex acetosella
Rumex alpinus
Rumex aquitanicus
Rumex intermedius
Rumex kernerii
Rumex longifolius
Rumex nepalensis
Rumex obtusifolius
Rumex patientia
Rumex pulcher
Sagina apetala
Sagina procumbens
Salpichroa origanifolia
Salsola kali aggr.
Salvia argentea
Salvia nemorosa
Salvia sclarea
Salvia verbenaca
Salvia viridis
Saponaria glutinosa
Saponaria officinalis
Scandix australis
Scandix pecten-veneris
Scandix stellata
Schoenoplectus mucronatus
Schoenoplectus supinus
Scleranthus annuus
Sclerochloa dura
Scolymus grandiflorus
Scolymus hispanicus
Scolymus maculatus
Scorpiurus muricatus
Scorpiurus vermiculatus
Podospermum laciniatum
Scorzoneroides salzmannii
Scrophularia auriculata
Scrophularia grandiflora
Scrophularia herminii
Scrophularia peregrina
Secale cereale
Securigera cretica
Senecio gallicus
Senecio inaequidens
Senecio lividus
Senecio sylvaticus
Senecio vulgaris

Sesamum indicum
Setaria adhaerens
Setaria verticillata
Sherardia arvensis
Sida spinosa
Silene apetala
Silene baccifera
Silene chalcedonica
Silene conoidea
Silene dichotoma
Silene disticha
Silene exaltata
Silene fuscata
Silene gallica
Silene gracilis
Silene latifolia
Silene linicola
Silene longipetala
Silene muscipula
Silene noctiflora
Silene nocturna
Silene pendula
Silene rubella
Silene scabriflora
Silene sennenii
Silene stricta
Silene tridentata
Silene vulgaris
Silybum eburneum
Silybum marianum
Sinapis alba
Sinapis arvensis
Sinapis flexuosa
Sinapis pubescens
Sison amomum
Sisymbrium altissimum
Sisymbrium austriacum
Sisymbrium crassifolium
Sisymbrium erysimoides
Sisymbrium fugax
Sisymbrium irio
Sisymbrium loeselii
Sisymbrium macroloma
Sisymbrium officinale
Sisymbrium orientale
Sisymbrium polyceratium
Sisymbrium runcinatum
Sisymbrium strictissimum
Sisymbrium volgense
Sixalix atropurpurea
Smyrnum olusatrum
Solanum alatum
Solanum americanum

Solanum carolinense
Solanum chenopodioides
Solanum decipiens
Solanum lycopersicum
Solanum mauritianum
Solanum nigrum
Solanum physalifolium
Solanum rostratum
Solanum sarrachoides
Solanum tuberosum
Solanum villosum
Solenanthes apenninus
Solidago canadensis
Solidago gigantea
Soliva stolonifera
Sonchus arvensis
Sonchus asper
Sonchus oleraceus
Sonchus tenerrimus
Sorghum bicolor
Spargula arvensis
Spargularia bocconeii
Spargularia nicaeensis
Spargularia purpurea
Spargularia rubra
Spargularia segetalis
Stachys annua
Stachys arvensis
Stachys byzantina
Stachys circinata
Stachys cretica
Stachys ocymastrum
Staphisagria macrosperma
Staphisagria picta
Stellaria media
Stellaria neglecta
Stellaria pallida
Strigosella africana
Succowia balearica
Sulla capitata
Sulla coronaria
Symphyotrichum ciliatum
Symphyotrichum novae-angliae
Symphyotrichum novi-belgii aggr.
Symphyotrichum pilosum
Symphyotrichum squamatum
Symphytum asperum
Symphytum officinale
Taeniatherum caput-medusae
Tanacetum balsamita
Tanacetum parthenium
Tanacetum vulgare
Teesdalia coronopifolia

Tellima grandiflora
Tetragonia tetragonoides
Teucrium spinosum
Theligonum cynocrambe
Thesium humile
Thladiantha dubia
Thlaspi alliaceum
Thlaspi arvense
Thymelaea passerina
Tordylium apulum
Tordylium maximum
Torilis africana
Torilis arvensis
Torilis elongata
Torilis japonica
Torilis leptophylla
Torilis nodosa
Tradescantia virginiana
Tragopogon dubius
Tribulus terrestris
Trifolium affine
Trifolium angustifolium
Trifolium argutum
Trifolium cherleri
Trifolium clusii
Trifolium clypeatum
Trifolium constantinopolitanum
Trifolium dasyurum
Trifolium diffusum
Trifolium dubium
Trifolium echinatum
Trifolium glomeratum
Trifolium grandiflorum
Trifolium hirtum
Trifolium hybridum
Trifolium michelianum
Trifolium mutabile
Trifolium neglectum
Trifolium nigrescens
Trifolium patens
Trifolium pauciflorum
Trifolium pilulare
Trifolium spumosum
Trifolium suffocatum
Trifolium tomentosum
Trifolium uniflorum
Trifolium vesiculosum
Trigonella caerulea
Trigonella esculenta
Trigonella foenum-graecum
Trigonella monspeliaca
Trigonella polyceratia
Triguera osbeckii

Tripleurospermum maritimum aggr.
Trisetaria ovata
Trisetaria panicea
Trisetum paniceum
Triticosecale rimpai
Triticum aestivum
Triticum monococcum
Triticum turgidum
Tropaeolum majus
Tulipa agenensis
Tulipa clusiana
Tulipa orphanidea
Tulipa sylvestris
Tulipa undulatifolia
Turgenia latifolia
Tussilago farfara
Tyrimnus leucographus
Urospermum dalechampii
Urospermum picroides
Urtica dioica
Urtica membranacea
Urtica pilulifera
Urtica stachyoides
Urtica urens
Vaccaria hispanica
Valantia muralis
Valerianella carinata
Valerianella coronata
Valerianella discoidea
Valerianella echinata
Valerianella locusta
Valerianella martinii
Valerianella microcarpa
Valerianella rimosa
Ventenata dubia
Verbascum alpinum
Verbascum blattaria
Verbascum boerhavii
Verbascum densiflorum
Verbascum giganteum
Verbascum litigiosum
Verbascum macrurum
Verbascum phlomoides
Verbascum pulverulentum
Verbascum rotundifolium
Verbascum sinuatum
Verbascum speciosum
Verbascum thapsus
Verbascum virgatum
Verbena bonariensis
Verbena officinalis
Veronica agrestis
Veronica arvensis

Veronica cymbalaria
Veronica glauca
Veronica hederifolia
Veronica opaca
Veronica persica
Veronica polita
Veronica triloba
Veronica triphyllos
Vicia articulata
Vicia benghalensis
Vicia bithynica
Vicia ervilia
Vicia faba
Vicia hirsuta
Vicia hybrida
Vicia lutea
Vicia microphylla
Vicia monantha
Vicia pannonica
Vicia parviflora
Vicia peregrina
Vicia sativa
Vicia serratifolia
Vicia sibthorpii
Vicia sicula
Vicia tetrasperma
Vicia villosa
Vinca major
Viola arvensis
Viola odorata
Vogtia annua
Vogtia microphylla
Volutaria lippii
Vulpia alopecuros
Vulpia ciliata
Vulpia geniculata
Vulpiella stipoides
Xanthium spinosum
Xanthium strumarium
Xeranthemum annuum
Zea mays

##D +10 Wetland-species

Acorus calamus
Alisma gramineum
Alisma lanceolata
Alisma plantago-aquatica
Alopecurus aequalis
Anagallis minima
Berula erecta
Bidens cernuus
Bidens connata
Bidens frondosus

Bidens radiatus
Bidens tripartitus
Bolboschoenus glaucus
Bolboschoenus laticarpus
Bolboschoenus maritimus
Bolboschoenus planiculmis
Bolboschoenus yagara
Butomus umbellatus
Calamagrostis canescens
Calamagrostis neglecta
Calamagrostis pseudophragmites
Calamagrostis purpurea
Calla palustris
Calystegia sepium
Carex acuta
Carex acutiformis
Carex appropinquata
Carex aquatilis
Carex bohémica
Carex buxbaumii
Carex cespitosa
Carex diandra
Carex distachya
Carex disticha
Carex elata
Carex extensa
Carex hispida
Carex lasiocarpa
Carex lyngbyei
Carex melanostachya
Carex nigra
Carex paniculata
Carex pseudocyperus
Carex randalpina
Carex reuteriana
Carex rhynchophysa
Carex riparia
Carex rostrata
Carex vesicaria
Carex vulpina
Centaurium pulchellum
Cerastium dubium
Chaetopogon fasciculatus
Chondrilla chondrilloides
Cicendia filiformis
Cicuta virosa
Cirsium brachycephalum
Cladium mariscus
Coleanthus subtilis
Comarum palustre
Corrigiola litoralis
Corrigiola telephiifolia
Cotoneaster cinnabarinus

Crassula aquatica
Crassula tillaea
Cressa cretica
Crypsis aculeata
Crypsis alopecuroides
Crypsis schoenoides
Cyperus flavescens
Cyperus fuscus
Cyperus longus
Cyperus michelianus
Cyperus pannonicus
Damasonium alisma
Deschampsia cespitosa
Digitaria debilis
Elatine alsinastrum
Elatine hexandra
Elatine hydropiper
Elatine macropoda
Elatine triandra
Eleocharis acicularis
Eleocharis carniolica
Eleocharis mamillata
Eleocharis ovata
Eleocharis palustris
Eleocharis uniglumis
Elymus alaskanus
Elymus fibrosus
Elymus transbaicalensis
Epilobium dodonaei
Epilobium fleischeri
Epilobium latifolium
Epilobium palustre
Epilobium roseum
Equisetum fluviatile
Equisetum variegatum
Erigeron acris
Eupatorium cannabinum
Euphorbia chamaesyce
Festuca vivipara
Fimbristylis bisumbellata
Fimbristylis dichotoma
Glinus lotoides
Glyceria declinata
Glyceria fluitans
Glyceria maxima
Glyceria nemoralis
Glyceria notata
Glyceria spicata
Gnaphalium uliginosum
Heliotropium supinum
Helosciadium bermejoi
Helosciadium nodiflorum
Hypericum humifusum

Hippuris vulgaris
Illecebrum verticillatum
Iris pseudacorus
Isoetes durieui
Isoetes histrix
Isoetes velata
Isolepis setacea
Juncus acutus
Juncus articulatus
Juncus biglumis
Juncus bufonius aggr.
Juncus capitatus
Juncus effusus
Juncus gerardi
Juncus inflexus
Juncus maritimus
Juncus pygmaeus
Juncus subnodulosus
Juncus subulatus
Juncus tenageia
Juncus triglumis
Koenigia islandica
Leersia oryzoides
Lepidium coronopus
Lepidium latifolium
Limosella aquatica
Lindernia dubia
Lindernia procumbens
Lotus tenuis
Ludwigia palustris
Lycopus europaeus
Lysimachia vulgaris
Lythrum hyssopifolia
Lythrum portula
Lythrum salicaria
Lythrum tribracteatum
Melilotus dentatus
Mentha aquatica
Mentha pulegium
Menyanthes trifoliata
Myosotis scorpioides aggr.
Myosoton aquaticum
Myosurus minimus
Nasturtium officinale
Neoschischkinia pourrettii
Oenanthe aquatica
Oenanthe crocata
Oxybasis glauca
Oxybasis rubra
Panicum debile
Paspalum distichum
Persicaria dubia
Persicaria foliosa

Persicaria hydropiper
Persicaria lapathifolia
Persicaria minor
Petasites hybridus
Petasites kablikianus
Phalaroides arundinacea
Phragmites australis
Plantago major
Poa palustris
Poa trivialis
Polygonum salsugineum
Polypogon maritimus
Polypogon monspeliensis
Potentilla supina
Ptychotis saxifraga
Puccinellia distans
Puccinellia peisonis
Pulicaria arabica
Pulicaria sicula
Pulicaria vulgaris
Radiola linoides
Ranunculus lateriflorus
Ranunculus muricatus
Ranunculus ophioglossifolius
Ranunculus repens
Ranunculus sardous
Ranunculus sceleratus
Rorippa amphibia
Rorippa palustris
Rumex hydrolapathum
Rumex maritimus
Rumex scutatus
Sagina apetala
Sagina nodosa
Sagittaria sagittifolia
Samolus valerandi
Saxifraga aizoides
Scolochloa festucacea
Scorzonera parviflora
Scrophularia canina
Schoenoplectus corymbosus
Sedum villosum
Schoenoplectus lacustris
Schoenoplectus lacustris subsp. glaucus
Schoenoplectus litoralis
Schoenoplectus pungens
Schoenoplectus triqueter
Sium latifolium
Solanum dulcamara
Solenopsis laurentia
Solenopsis minuta
Sparganium emersum
Sparganium erectum aggr.

Spargularia echinosperma
Spargularia marina
Spargularia media
Spargularia rubra
Tephrosia palustris
Thelypteris palustris
Tolpis staticifolia
Trifolium fragiferum
Trifolium saxatile
Tripolium pannonicum
Typha angustifolia
Typha domingensis
Typha latifolia
Typha laxmannii
Typha minima
Typha shuttleworthii
Verbena supina
Veronica anagallis-aquatica
Veronica anagalloides
Veronica beccabunga
Veronica catenata
Veronica scardica

Formal definitions of of the revised EUNIS habitat types, groups N and Q

- 6 A25a Arctic coastal salt marsh
((<#TC +01 A25a-Arctic-coastal-salt-marsh GR #T\$> AND <##Q +01 A25a-Arctic-coastal-salt-marsh> NOT <#TC Trees|#TC Shrubs GR 15>) AND <\$\$C Coast_EEA EQ ARC_COAST>)
- 6 A25b Baltic coastal meadow
((<#TC +01 A25b-Baltic-coastal-meadow GR #T\$> AND <##Q +01 A25b-Baltic-coastal-meadow>) NOT <#TC Trees|#TC Shrubs GR 15>) AND <\$\$C Coast_EEA EQ BAL_COAST>)
- 6 A25c Atlantic coastal salt marsh
((<#TC +01 A25c-Atlantic-coastal-salt-marsh GR #T\$> AND <##Q +01 A25c-Atlantic-coastal-salt-marsh>) NOT <#TC Trees|#TC Shrubs GR 15>) AND <\$\$C Coast_EEA EQ ATL_COAST>)
- 6 A25d Mediterranean and Black Sea coastal salt marsh
((<#TC +02 A25d-Mediterranean-and-Black-Sea-coastal-salt-marsh GR #T\$> AND <##Q +02 A25d-Mediterranean-and-Black-Sea-coastal-salt-marsh>) NOT <#TC Trees|#TC Shrubs GR 15>) AND (<\$\$C Coast_EEA EQ MED_COAST> OR <\$\$C Coast_EEA EQ BLA_COAST>)
- 6 N11 Atlantic, Baltic and Arctic sand beach
((<#TC +01 N11-Atlantic-Baltic-and-Arctic-sand-beach GR #T\$> AND <##Q +01 N11-Atlantic-Baltic-and-Arctic-sand-beach>) NOT <#TC Trees|#TC Shrubs GR 15>) AND ((<\$\$C Coast_EEA EQ ATL_COAST> OR <\$\$C Coast_EEA EQ BAL_COAST> OR <\$\$C Coast_EEA EQ ARC_COAST>)) NOT ((<\$\$N DEG_LON GR -50> NOT <\$\$N DEG_LON GR -11>) AND (<\$\$N DEG_LAT GR 0> NOT <\$\$N DEG_LAT GR 40>))
- 6 N12 Mediterranean and Black Sea sand beach
((<#TC +02 N12-Mediterranean-and-Black-Sea-sand-beach GR #T\$> AND <##Q +02 N12-Mediterranean-and-Black-Sea-sand-beach>) NOT <#TC Trees|#TC Shrubs GR 15>) AND ((<\$\$C Coast_EEA EQ MED_COAST> OR <\$\$C Coast_EEA EQ BLA_COAST>) OR ((<\$\$N DEG_LON GR -50> NOT <\$\$N DEG_LON GR -11>) AND (<\$\$N DEG_LAT GR 0> NOT <\$\$N DEG_LAT GR 40>)))
- 6 N13 Atlantic and Baltic shifting coastal dune
((<#TC +01 N13-Atlantic-and-Baltic-shifting-coastal-dune GR #T\$> AND <##Q +01 N13-Atlantic-and-Baltic-shifting-coastal-dune>) NOT <#TC Trees|#TC Shrubs GR 15>) AND ((<\$\$C Coast_EEA EQ ATL_COAST> OR <\$\$C Coast_EEA EQ BAL_COAST>) NOT ((<\$\$N DEG_LON GR -50> NOT <\$\$N DEG_LON GR -11>) AND (<\$\$N DEG_LAT GR 0> NOT <\$\$N DEG_LAT GR 40>)))
- 6 N14 Mediterranean, Macaronesian and Black Sea shifting coastal dune
((<#TC +02 N14-Mediterranean-Macaronesian-and-Black-Sea-shifting-coastal-dune GR #T\$> AND <##Q +02 N14-Mediterranean-Macaronesian-and-Black-Sea-shifting-coastal-dune>) NOT <#TC Trees|#TC Shrubs GR 15>) AND ((<\$\$C Coast_EEA EQ MED_COAST> OR <\$\$C Coast_EEA EQ BLA_COAST>) OR ((<\$\$N DEG_LON GR -50> NOT <\$\$N DEG_LON GR -11>) AND (<\$\$N DEG_LAT GR 0> NOT <\$\$N DEG_LAT GR 40>)))
- 6 N15 Atlantic and Baltic coastal dune grassland (grey dune)
((<#TC +01 N15-Atlantic-and-Baltic-coastal-dune-grassland-grey-dune GR #T\$> AND <##Q +01 N15-Atlantic-and-Baltic-coastal-dune-grassland-grey-dune>) NOT <#TC Trees|#TC Shrubs GR 15>) AND ((<\$\$C Coast_EEA EQ ATL_COAST> OR <\$\$C Coast_EEA EQ BAL_COAST>) NOT ((<\$\$N DEG_LON GR -50> NOT <\$\$N DEG_LON GR -11>) AND (<\$\$N DEG_LAT GR 0> NOT <\$\$N DEG_LAT GR 40>)))

4 N15! Atlantic and Baltic coastal dune grassland (grey dune)
 <#02 N15-Atlantic-and-Baltic-coastal-dune-grassland-grey-dune-specialists> NOT <#TC Trees|#TC
 Shrubs GR 15>

2 N15!!Atlantic and Baltic coastal dune grassland (grey dune)
 ((<##Q +04 R1Q-Inland-sanddrift-and-dune-with-siliceous-grassland> AND <#02 +04 R1Q-Inland-
 sanddrift-and-dune-with-siliceous-grassland>) NOT <#TC Trees|#TC Shrubs GR 15>)
 AND (<\$\$C Coast_EEA EQ ATL_COAST> OR <\$\$C Coast_EEA EQ BAL_COAST>))

6 N16 Mediterranean and Macaronesian coastal dune grassland (grey dune)
 ((<#TC +02 N16-Mediterranean-and-Macaronesian-coastal-dune-grassland-grey-dune GR #T\$> AND <##Q
 +02 N16-Mediterranean-and-Macaronesian-coastal-dune-grassland-grey-dune>) NOT
 <#TC Trees|#TC Shrubs GR 15>) AND (<\$\$C Coast_EEA EQ MED_COAST> OR ((<\$\$N DEG_LON
 GR -50> NOT <\$\$N DEG_LON GR -11>) AND (<\$\$N DEG_LAT GR 0> NOT <\$\$N DEG_LAT GR
 40>)))

4 N16! Mediterranean and Macaronesian coastal dune grassland (grey dune)
 <#02 N16-Mediterranean-and-Macaronesian-coastal-dune-grassland-grey-dune-specialists> NOT <#TC
 Trees|#TC Shrubs GR 15>

2 N16!!Mediterranean and Macaronesian coastal dune grassland (grey dune)
 (<##Q +04 N16-Mediterranean-and-Macaronesian-coastal-dune-grassland-grey-dune> NOT <#TC
 Trees|#TC Shrubs GR 15>) AND (<\$\$C Coast_EEA EQ MED_COAST> OR ((<\$\$N DEG_LON GR
 -50> NOT <\$\$N DEG_LON GR -11>) AND (<\$\$N DEG_LAT GR 0> NOT <\$\$N DEG_LAT GR
 40>)))

6 N17 Black Sea coastal dune grassland (grey dune)
 ((<#TC +02 N17-Black-Sea-coastal-dune-grassland-grey-dune GR #T\$> AND <##Q +02 N17-Black-Sea-
 coastal-dune-grassland-grey-dune>) NOT <#TC Trees|#TC Shrubs GR 15>) AND <\$\$C
 Coast_EEA EQ BLA_COAST>

4 N17! Black Sea coastal dune grassland (grey dune)
 (<#02 N17-Black-Sea-coastal-dune-grassland-grey-dune-specialists> NOT <#TC Trees|#TC Shrubs GR
 15>) AND <\$\$C Coast_EEA EQ BLA_COAST>

2 N17!!Black Sea coastal dune grassland (grey dune)
 (<##Q +04 N17-Black-Sea-coastal-dune-grassland-grey-dune> NOT <#TC Trees|#TC Shrubs GR 15>) AND
 <\$\$C Coast_EEA EQ BLA_COAST>

7 N18 Atlantic and Baltic coastal Empetrum heath
 ((<#TC Dry-and-wet-heath-shrubs|#TC Dry-heath-shrubs GR #T\$> AND <Empetrum nigrum aggr. GR 05>)
 NOT (<Ulex europaeus GR 25> OR <#TC Trees GR 05>)) AND ((<\$\$C Coast_EEA EQ
 ATL_COAST> OR <\$\$C Coast_EEA EQ BAL_COAST>) AND (<\$\$C Dunes_Bohn EQ Y_DUNES> OR
 <#02 +01 N15-Atlantic-and-Baltic-coastal-dune-grassland-grey-dune>))

7 N19 Atlantic coastal Calluna and Ulex heath
 (<#TC Dry-and-wet-heath-shrubs|#TC Dry-heath-shrubs GR #T\$> NOT (<Empetrum nigrum aggr. GR 05>
 OR <#TC Trees GR 05>)) AND ((<\$\$C Coast_EEA EQ ATL_COAST> AND (<\$\$C Dunes_Bohn
 EQ Y_DUNES> OR <#02 +01 N15-Atlantic-and-Baltic-coastal-dune-grassland-grey-
 dune>)) NOT ((<\$\$N DEG_LON GR -50> NOT <\$\$N DEG_LON GR -11>) AND (<\$\$N DEG_LAT
 GR 0> NOT <\$\$N DEG_LAT GR 40>)))

7 N1A Atlantic and Baltic coastal dune scrub
(<#TC Shrubs GR 25> NOT (<#TC Trees GR 25> OR <#TC Native-light-canopy-trees GR 15>)) AND (<\$\$C Dunes_Bohn EQ Y_DUNES> AND (<\$\$C Coast_EEA EQ ATL_COAST> OR <\$\$C Coast_EEA EQ BAL_COAST>))

7 N1B Mediterranean and Black Sea coastal dune scrub
(<#TC Shrubs GR 25> NOT (<#TC Trees GR 25> OR <#TC Native-light-canopy-trees GR 15>)) AND (<\$\$C Dunes_Bohn EQ Y_DUNES> AND (<\$\$C Coast_EEA EQ MED_COAST> OR <\$\$C Coast_EEA EQ BLA_COAST>))

7 N1C Macaronesian coastal dune scrub
<#TC Macaronesian-coastal-dune-scrub GR 15>

7 N1D Atlantic and Baltic broad-leaved coastal dune forest
(<#TC Native-broadleaf-trees GR 25> AND <#TC Native-broadleaf-trees GR #TC Trees EXCEPT #TC Native-broadleaf-trees>) AND (<\$\$C Dunes_Bohn EQ Y_DUNES> AND (<\$\$C Coast_EEA EQ ATL_COAST> OR <\$\$C Coast_EEA EQ BAL_COAST>))

7 N1E Black Sea broad-leaved coastal dune forest
(<#TC Native-broadleaf-trees GR 25> AND <#TC Native-broadleaf-trees GR #TC Trees EXCEPT #TC Native-broadleaf-trees>) AND (<\$\$C Dunes_Bohn EQ Y_DUNES> AND <\$\$C Coast_EEA EQ BLA_COAST>))

7 N1F Baltic coniferous coastal dune forest
(<#TC Native-conifer-trees GR 15> AND <#TC Native-conifer-trees GR #TC Trees EXCEPT #TC Native-conifer-trees>) AND (<\$\$C Dunes_Bohn EQ Y_DUNES> AND <\$\$C Coast_EEA EQ BAL_COAST>))

7 N1G Mediterranean coniferous coastal dune forest
(<#TC Native-conifer-trees GR 15> AND <#TC Native-conifer-trees GR #TC Trees EXCEPT #TC Native-conifer-trees>) AND (<\$\$C Dunes_Bohn EQ Y_DUNES> AND <\$\$C Coast_EEA EQ MED_COAST>))

6 N1H Atlantic and Baltic moist and wet dune slack
(<##Q +01 N1H-Atlantic-and-Baltic-moist-and-wet-dune-slack> NOT <#TC Trees|#TC Shrubs GR 15>) AND (<\$\$C Dunes_Bohn EQ Y_DUNES> AND (<\$\$C Coast_EEA EQ ATL_COAST> OR <\$\$C Coast_EEA EQ BAL_COAST>))

6 N1J Mediterranean and Black Sea moist and wet dune slack
(<##Q +02 N1J-Mediterranean-and-Black-Sea-moist-and-wet-dune-slack> NOT <#TC Trees|#TC Shrubs GR 15>) AND (<\$\$C Dunes_Bohn EQ Y_DUNES> AND (<\$\$C Coast_EEA EQ MED_COAST> OR <\$\$C Coast_EEA EQ BLA_COAST>))

6 N21 Atlantic, Baltic and Arctic coastal shingle beach
((<#TC +01 N21-Atlantic-Baltic-and-Arctic-coastal-shingle-beach GR #T\$> AND <##Q +01 N21-Atlantic-Baltic-and-Arctic-coastal-shingle-beach>) NOT <#TC Trees|#TC Shrubs GR 15>) AND ((<\$\$C Coast_EEA EQ ATL_COAST> OR <\$\$C Coast_EEA EQ BAL_COAST>) OR <\$\$C Coast_EEA EQ ARC_COAST>))

6 N22 Mediterranean and Black Sea coastal shingle beach
((<#TC +02 N22-Mediterranean-and-Black-Sea-coastal-shingle-beach GR #T\$> AND (<#TC N22-Mediterranean-and-Black-Sea-coastal-shingle-beach-specialists GR 10> OR

<Crithmum maritimum GR 10>)) NOT <#TC Trees|#TC Shrubs GR 15>) AND (<\$\$C Coast_EEA EQ MED_COAST> OR <\$\$C Coast_EEA EQ BLA_COAST>)

6 N31 Atlantic and Baltic rocky sea cliff and shore
 ((<#TC +01 N31-Atlantic-and-Baltic-rocky-sea-cliff-and-shore GR #T\$> AND <##Q +01 N31-Atlantic-and-Baltic-rocky-sea-cliff-and-shore>) NOT <#TC Trees|#TC Shrubs GR 15>) AND ((<\$\$C Coast_EEA EQ ATL_COAST> OR <\$\$C Coast_EEA EQ BAL_COAST>) NOT ((<\$\$N DEG_LON GR -50> NOT <\$\$N DEG_LON GR -11>) AND (<\$\$N DEG_LAT GR 0> NOT <\$\$N DEG_LAT GR 40>)))

6 N32 Mediterranean and Black Sea rocky sea cliff and shore
 ((<#TC +02 N32-Mediterranean-and-Black-Sea-rocky-sea-cliff-and-shore GR #T\$> AND <##Q +02 N32-Mediterranean-and-Black-Sea-rocky-sea-cliff-and-shore>) NOT <#TC Trees|#TC Shrubs GR 15>) AND (<\$\$C Coast_EEA EQ MED_COAST> OR <\$\$C Coast_EEA EQ BLA_COAST>)

6 N33 Macaronesian rocky sea cliff and shore
 ((<#TC +02 N33-Macaronesian-rocky-sea-cliff-and-shore GR #T\$> AND <##Q +02 N33-Macaronesian-rocky-sea-cliff-and-shore>) NOT <#TC Trees|#TC Shrubs GR 15>) AND (<\$\$C Coast_EEA EQ ATL_COAST> AND (<\$\$N DEG_LON GR -50> NOT <\$\$N DEG_LON GR -12>))

6 N34 Atlantic and Baltic soft sea cliff
 (((<#TC +01 N34-Atlantic-and-Baltic-soft-sea-cliff GR #T\$> AND <##Q +01 N34-Atlantic-and-Baltic-soft-sea-cliff>) AND (<#01 Atlantic-and-Baltic-soft-sea-cliff-clay-indicators> AND <#01 Atlantic-and-Baltic-soft-sea-cliff-salt-indicators>)) NOT <#TC Trees|#TC Shrubs GR 15>) AND (<\$\$C Coast_EEA EQ ATL_COAST> OR <\$\$C Coast_EEA EQ BAL_COAST>)

6 N35 Mediterranean and Black Sea soft sea cliff
 ((<#TC +02 N35-Mediterranean-and-Black-Sea-soft-sea-cliff GR #T\$> AND <##Q +02 N35-Mediterranean-and-Black-Sea-soft-sea-cliff>) NOT <#TC Trees|#TC Shrubs GR 15>) AND (<\$\$C Coast_EEA EQ MED_COAST> OR <\$\$C Coast_EEA EQ BLA_COAST>)

2 Q11 Raised bog
 ((<##Q +10 Mire-species> AND <##Q +04 Bog-species>) AND (<##Q +06 Continental-bog> AND (<##Q +08 Q11-Raised-bog> AND <#TC Raised-bog-Sphagnum GR 15>))) NOT ((<#TC Alpine-subalpine-ericoid-dwarf-shrubs GR05> OR <#02 +04 R22-Low-and-medium-altitude-hay-meadow>) OR (<#TC Trees GR 25> OR <#TC Shrubs GR 15>))

2 Q12 Blanket bog
 (((<##Q +10 Mire-species> AND <##Q +04 Bog-species>) AND (<##Q +06 Atlantic-bog> AND <#02 Blanket-bog-specialists>)) NOT (<#TC Trees GR 15> OR <#TC Shrubs GR 15>)) NOT <\$\$C Country EQ France>

2 Q21 Oceanic valley mire
 ((<##Q +10 Mire-species> AND <##Q +04 Bog-species>) AND (<##Q +06 Atlantic-bog> AND <#03 Valley-bog-specialists>)) NOT (<#02 Blanket-bog-specialists> OR (<#TC Trees GR 15> OR <#TC Shrubs GR 15>))

2 Q22 Poor fen
 ((<##Q +10 Mire-species> AND <##Q +04 Fen-species>) AND (<##Q +09 Acidophilous-fen-species> AND (<##Q +07 Poor-fen> AND <#TC +09 Acidophilous-fen-species GR 25>))) NOT (<#TC Trees GR 15> OR <#TC Shrubs GR 15>)

2 Q23 Relict mire of Mediterranean mountains
 ((<##Q +10 Mire-species> AND <##Q +04 Fen-species>) AND (<##Q +09 Non-acidophilous-fen-species>
 AND <#03 Mediterranean-mountain-relict-mire-species>)) NOT (<#TC Trees GR 15>
 OR <#TC Shrubs GR 15>)

2 Q24 Intermediate fen and soft-water spring mire
 ((<##Q +10 Mire-species> AND <##Q +04 Fen-species>) AND (<##Q +09 Non-acidophilous-fen-species>
 AND <##Q +40 Intermediate-fen-and-soft-water-spring-mire>)) NOT ((<#TC Fen-
 with-calcium-carbonate-precipitation-species GR 15> OR <#02 Mediterranean-
 mountain-relict-mire-species>) OR (<#TC Trees GR 15> OR <#TC Shrubs GR 15>))

2 Q25 Non-calcareous quaking mire
 ((<##Q +10 Mire-species> AND <##Q +04 Fen-species>) AND (<##Q +09 Acidophilous-fen-species> AND
 (<##Q +07 Non-calcareous-quaking-mire> AND <#TC Quaking-non-calcareous-fen-
 bryophytes GR05>)) NOT (<#02 +04 R22-Low-and-medium-altitude-hay-meadow> OR
 (<#TC Trees GR 05> OR <#TC Shrubs GR 05>))

2 Q3132Palsa and polygon mires
 ((<##Q +10 Mire-species> AND (<##Q +04 Bog-species> AND <##Q +06 Continental-bog>)) AND (<##Q
 +08 Q31-Palsa-mire> AND <#02 Palsa-specialists>)) NOT (<#TC Dry-and-wet-heath-
 shrubs GR00> OR (<#TC Trees GR 00> OR <#TC Shrubs GR 05>))

2 Q41 Alkaline, calcareous, carbonate-rich small-sedge spring fen
 ((<##Q +10 Mire-species> AND <##Q +04 Fen-species>) AND (<##Q +09 Non-acidophilous-fen-species>
 AND (<##Q +40 Calcareous-non-quaking-fen-species> AND <#TC Calcium-rich-spring-
 mires GR 00>))) NOT (((<#02 Halophytic-fen-species> AND <\$\$N DEG_LON GR 15>) OR
 ((<#TC Sphagnum GR 00> OR (<#TC W-basic-garrigue-shrubs GR 00> OR (<#TC +01
 A25a-Arctic-coastal-salt-marsh GR 50> OR <#TC Atlantic-heath-shrubs GR 10>)))
 OR ((<#TC Tall-fen-sedges GR 25> OR <#02 Mediterranean-mountain-relict-mire-
 species>) OR (<#TC Trees GR 15> OR <#TC Shrubs GR 15>)))) OR <\$\$C Dunes_Bohn EQ
 Y_DUNES>)

2 Q42 Extremely rich moss-sedge fen
 ((<##Q +10 Mire-species> AND <##Q +04 Fen-species>) AND (<##Q +09 Non-acidophilous-fen-species>
 AND (<##Q +40 Extremely-rich-moss-sedge-fen-species> AND <#TC Calcium-tolerant-
 Sphagna-and-boreal-rich-fen-bryophytes GR00>))) NOT (<#02 Mediterranean-
 mountain-relict-mire-species> OR (<#TC Trees GR 15> OR <#TC Shrubs GR 15>))

2 Q43 Tall-sedge base-rich fen
 ((<##Q +10 Mire-species> AND <##Q +04 Fen-species>) AND (<##Q +09 Non-acidophilous-fen-species>
 AND (<##Q +40 Calcareous-non-quaking-fen-species> AND <#TC Tall-fen-sedges GR
 25>))) NOT ((<#TC Sphagnum GR05> OR <#02 Mediterranean-mountain-relict-mire-
 species>) OR (<#TC Trees GR 15> OR <#TC Shrubs GR 15>))

2 Q44 Calcareous quaking mire
 ((<##Q +10 Mire-species> AND <##Q +04 Fen-species>) AND (<##Q +09 Non-acidophilous-fen-species>
 AND <##Q +40 Calcareous-quaking-mire>)) NOT ((<#02 Mediterranean-mountain-
 relict-mire-species> OR <#TC Atlantic-heath-shrubs GR 10>) OR (<#TC Trees GR
 05> OR <#TC Shrubs GR 05>))

2 Q45 Arctic-alpine rich fen
 ((<##Q +10 Mire-species> AND <##Q +04 Fen-species>) AND (<##Q +09 Non-acidophilous-fen-species>
 AND (<##Q +40 Arcto-alpine-rich-fen-species> AND <#02 Arcto-alpine-rich-fen-
 species>))

specialists>))) NOT (((<#TC Sphagnum GR 15> OR <#TC +06 Atlantic-bog GR05>) OR <#02 Mediterranean-mountain-relict-mire-species>) OR (<#TC Trees GR 15> OR <#TC Shrubs GR 15>))

2 Q46 Carpathian travertine fen with halophytes
((<##Q +10 Mire-species> AND <##Q +04 Fen-species>) AND (<##Q +09 Non-acidophilous-fen-species> AND ((<##Q +40 Calcareous-non-quaking-fen-species> AND <#TC Calcium-rich-spring-mires GR 00>) AND (<#02 Halophytic-fen-species> AND <\$\$N DEG_LON GR 15>)))) NOT ((<#TC Sphagnum GR 00> OR (<#TC W-basic-garrigue-shrubs GR 00> OR <#TC +01 A25a-Arctic-coastal-salt-marsh GR 50>)) OR (((<#TC Tall-fen-sedges GR 25> OR <#02 Mediterranean-mountain-relict-mire-species>) OR <\$\$N DEG_LAT GR 50>) OR (<#TC Trees GR 15> OR <#TC Shrubs GR 15>))

2 Q51 Tall-helophyte bed
<##Q +04 Q51-Tall-helophyte-bed> NOT <#TC Trees|#TC Shrubs GR 15>

2 Q52 Small-helophyte bed
<##Q +04 Q52-Small-helophyte-bed> NOT <#TC Trees|#TC Shrubs GR 15>

2 Q53 Tall-sedge bed
<##Q +04 Q53-Tall-sedge-bed> NOT <#TC Trees|#TC Shrubs GR 15>

2 Q54 Inland saline or brackish helophyte bed
((<##Q +04 Q54-Inland-saline-or-brackish-helophyte-bed> NOT <#TC Trees|#TC Shrubs GR 15>) AND <\$\$C Coast_EEA EQ N_COAST>) NOT (((<\$\$C Country EQ Netherlands> OR <\$\$C Country EQ United Kingdom>) OR (<\$\$C Country EQ Ireland> OR <\$\$C Country EQ Belgium>)) OR ((<\$\$C Country EQ Netherlands> OR <\$\$C Country EQ Denmark>) OR <\$\$C Country EQ Norway>))

2 R11 Pannonian and Pontic sandy steppe
(<##Q +04 R11-Pannonian-and-Pontic-sandy-steppe> AND <#03 +04 R11-Pannonian-and-Pontic-sandy-steppe>) NOT <#TC Trees|#TC Shrubs GR 15>

4 R11! Pannonian and Pontic sandy steppe
<#TC R11-Pannonian-and-Pontic-sandy-steppe-specialists GR 15> NOT <#TC Trees|#TC Shrubs GR 15>

2 R12 Cryptogam- and annual-dominated vegetation on siliceous rock outcrops
((<##Q +04 R12-Cryptogam-and-annual-dominated-vegetation-on-siliceous-rock-outcrops> AND <#03 +04 R12-Cryptogam-and-annual-dominated-vegetation-on-siliceous-rock-outcrops>) AND <#TC +04 R12-Cryptogam-and-annual-dominated-vegetation-on-siliceous-rock-outcrops GR #TC Hemicryptophytes>) NOT <#TC Trees|#TC Shrubs GR 15>

2 R13 Cryptogam- and annual-dominated vegetation on calcareous and ultramafic rock outcrops
((<##Q +04 R13-Cryptogam-and-annual-dominated-vegetation-on-calcareous-and-ultramafic-rock-outcrops> AND <#03 +04 R13-Cryptogam-and-annual-dominated-vegetation-on-calcareous-and-ultramafic-rock-outcrops>) AND <#TC +04 R13-Cryptogam-and-annual-dominated-vegetation-on-calcareous-and-ultramafic-rock-outcrops GR #TC Hemicryptophytes EXCEPT #TC +04 R13-Cryptogam-and-annual-dominated-vegetation-on-calcareous-and-ultramafic-rock-outcrops>) NOT (<#01 R11-Pannonian-and-Pontic-sandy-steppe-specialists> OR <#TC Trees|#TC Shrubs GR 15>)

2 R14 Perennial rocky grassland of the Italian Peninsula

((<##Q +04 R14-Perennial-rocky-grassland-of-the-Italian-Peninsula> AND <#03 +04 R14-Perennial-rocky-grassland-of-the-Italian-Peninsula>) NOT (<#TC Trees|#TC Shrubs GR 15> OR <#TC Garrigue-and-micro-garrigue-species GR 25>)) AND <\$C Country EQ Italy>

4 R15 Continental dry rocky steppic grassland and dwarf scrub on chalk outcrops
(<#TC R15-Continental-dry-rocky-steppic-grassland-and-dwarf-scrub-on-chalk-outcrops-specialists GR 25> OR <#02 R15-Continental-dry-rocky-steppic-grassland-and-dwarf-scrub-on-chalk-outcrops-specialists>) NOT <#TC Trees|#TC Shrubs GR 15>

2 R16 Perennial rocky grassland of Central and South-Eastern Europe
((<##Q +04 R16-Perennial-rocky-grassland-of-Central-and-South-Eastern-Europe> AND <#03 +04 R16-Perennial-rocky-grassland-of-Central-and-South-Eastern-Europe>) NOT <#TC Trees|#TC Shrubs GR 15>) NOT (((<\$N DEG_LON GR -50> NOT <\$N DEG_LON GR 5>) OR <\$N DEG_LON GR 33>) OR <\$N DEG_LAT GR 52>)

2 R17 Heavy-metal dry grassland of the Balkans
(<##Q +04 R17-Heavy-metal-dry-grassland-of-the-Balkans> AND <#03 +04 R17-Heavy-metal-dry-grassland-of-the-Balkans>) NOT <#TC Trees|#TC Shrubs GR 15>

2 R18 Perennial rocky calcareous grassland of subatlantic-submediterranean Europe
((<##Q +04 R18-Perennial-rocky-calcareous-grassland-of-subatlantic-submediterranean-Europe> AND <#03 +04 R18-Perennial-rocky-calcareous-grassland-of-subatlantic-submediterranean-Europe>) NOT <#TC Trees|#TC Shrubs GR 15>) AND (<\$N DEG_LON GR -10> NOT <\$N DEG_LON GR 9>)

2 R19 Dry steppic submediterranean pasture of the Amphi-Adriatic region
((<##Q +04 R19-Dry-steppic-submediterranean-pasture-of-the-Amphi-Adriatic-region> AND <#04 +04 R19-Dry-steppic-submediterranean-pasture-of-the-Amphi-Adriatic-region>) NOT <#TC Trees|#TC Shrubs GR 15>) NOT ((<\$N DEG_LON GR -50> NOT <\$N DEG_LON GR 9>) OR <\$N DEG_LAT GR 46.5>)

2 R1A Semi-dry perennial calcareous grassland (meadow steppe)
(<##Q +04 R1A-Semi-dry-perennial-calcareous-grassland> AND <#03 +04 R1A-Semi-dry-perennial-calcareous-grassland>) NOT <#TC Trees|#TC Shrubs GR 15>

2 R1B Continental dry grassland (true steppe)
(<##Q +04 R1B-Continental-dry-grassland-true-steppe> AND (<#02 +04 R1B-Continental-dry-grassland-true-steppe> AND (<### +04 R1B-Continental-dry-grassland-true-steppe GR ### +04 R14-Perennial-rocky-grassland-of-the-Italian-Peninsula> AND (<### +04 R1B-Continental-dry-grassland-true-steppe GR ### +04 R1F-Mediterranean-annual-rich-dry-grassland> AND <### +04 R1B-Continental-dry-grassland-true-steppe GR ### +04 R1E-Mediterranean-tall-perennial-dry-grassland>)))) NOT (<#TC Trees GR 05> OR (<#TC Shrubs GR 10> OR (<#TC Dwarf-shrubs GR 10> OR (<#TC R15-Continental-dry-rocky-steppic-grassland-and-dwarf-scrub-on-chalk-outcrops-specialists GR 25> OR (<#02 R15-Continental-dry-rocky-steppic-grassland-and-dwarf-scrub-on-chalk-outcrops-specialists> OR <#TC Garrigue-and-micro-garrigue-species GR 05>))))))

4 R1B! Continental dry grassland (true steppe)
(<#TC R1B-Continental-dry-grassland-true-steppe-specialists GR 25> AND (<#03 +04 R1B-Continental-dry-grassland-true-steppe> AND (<### +04 R1B-Continental-dry-grassland-true-steppe GR ### +04 R14-Perennial-rocky-grassland-of-the-Italian-Peninsula> AND (<### +04 R1B-Continental-dry-grassland-true-steppe GR ### +04

R1F-Mediterranean-annual-rich-dry-grassland> AND <### +04 R1B-Continental-dry-grassland-true-steppe GR ### +04 R1E-Mediterranean-tall-perennial-dry-grassland>))) NOT <#TC Trees|#TC Shrubs GR 15>

2 R1C Desert steppe
((<##Q +04 R1C-Desert-steppe> AND <#02 +04 R1C-Desert-steppe>) NOT <#TC Trees|#TC Shrubs GR 15> NOT (<\$\$N DEG_LON GR -10> NOT <\$\$N DEG_LON GR 32>))

2 R1D Mediterranean closely grazed dry grassland
((<##Q +04 R1D-Mediterranean-closely-grazed-dry-grassland> AND <#02 +04 R1D-Mediterranean-closely-grazed-dry-grassland>) NOT (<#TC Trees|#TC Shrubs GR 15> OR (<#TC Crops GR 05> OR <#TC R1B-Continental-dry-grassland-true-steppe-specialists GR 25>))) NOT (<\$\$N DEG_LAT GR 45.5> OR <\$\$C Coast_EEA EQ ATL_COAST>)

2 R1E Mediterranean tall perennial dry grassland
((<##Q +04 R1E-Mediterranean-tall-perennial-dry-grassland> AND <#03 +04 R1E-Mediterranean-tall-perennial-dry-grassland>) NOT (<#TC Trees|#TC Shrubs GR 15> OR <#TC Garrigue-and-micro-garrigue-species GR 05>)) NOT <\$\$C Coast_EEA EQ ATL_COAST>

4 R1E! Mediterranean tall perennial dry grassland
<#TC R1E-Mediterranean-tall-perennial-dry-grassland-specialists GR 50> NOT <#TC Trees|#TC Shrubs GR 15>

2 R1F Mediterranean annual-rich dry grassland
((<##Q +04 R1F-Mediterranean-annual-rich-dry-grassland> AND <#03 +04 R1F-Mediterranean-annual-rich-dry-grassland>) NOT <#TC Trees|#TC Shrubs|#TC Dwarf-shrubs|#TC Chamaephytes|#TC Hemicryptophytes GR 15>)

2 R1G Iberian oromediterranean siliceous dry grassland
((<##Q +04 R1G-Iberian-oromediterranean-siliceous-dry-grassland> AND <#02 +04 R1G-Iberian-oromediterranean-siliceous-dry-grassland>) NOT (<#02 +04 R1H-Iberian-oromediterranean-basiphilous-dry-grassland> OR <#TC Trees|#TC Shrubs GR 15>))

4 R1G! Iberian oromediterranean siliceous dry grassland
<#TC R1G-Iberian-oromediterranean-siliceous-dry-grassland-specialists GR 10> NOT <#TC Trees|#TC Shrubs GR 15>

2 R1H Iberian oromediterranean basiphilous dry grassland
((<##Q +04 R1H-Iberian-oromediterranean-basiphilous-dry-grassland> AND <#01 R1H-Iberian-oromediterranean-basiphilous-dry-grassland-specialists>) NOT <#TC Trees|#TC Shrubs GR 15>)

4 R1H! Iberian oromediterranean basiphilous dry grassland
<#TC R1H-Iberian-oromediterranean-basiphilous-dry-grassland-specialists GR 10> NOT <#TC Trees|#TC Shrubs GR 15>

2 R1J Cyrno-Sardean oromediterranean siliceous dry grassland
<##Q +04 R1J-Cyrno-Sardean-oromediterranean-siliceous-dry-grassland> NOT <#TC Trees|#TC Shrubs GR 15>

4 R1J! Cyrno-Sardean oromediterranean siliceous dry grassland
<#TC R1J-Cyrno-Sardean-oromediterranean-siliceous-dry-grassland-specialists GR 10> NOT <#TC Trees|#TC Shrubs GR 15>

2 R1K Balkan and Anatolian oromediterranean dry grassland
(<##Q +04 R1K-Balkan-and-Anatolian-oromediterranean-dry-grassland> AND <#01 R1K-Balkan-and-Anatolian-oromediterranean-dry-grassland-specialists>) NOT <#TC Trees|#TC Shrubs GR 15>

4 R1K! Balkan and Anatolian oromediterranean dry grassland
<#TC R1K-Balkan-and-Anatolian-oromediterranean-dry-grassland-specialists GR 10> NOT <#TC Trees|#TC Shrubs GR 15>

2 R1L Madeiran oromediterranean siliceous dry grassland
<##Q +04 R1L-Madeiran-oromediterranean-siliceous-dry-grassland> NOT <#TC Trees|#TC Shrubs GR 15>

4 R1L! Madeiran oromediterranean siliceous dry grassland
<#TC R1L-Madeiran-oromediterranean-siliceous-dry-grassland-specialists GR 10> NOT <#TC Trees|#TC Shrubs GR 15>

2 R1M Lowland to montane, dry to mesic grassland usually dominated by *Nardus stricta*
(<##Q +04 R1M-Lowland-to-submontane-dry-to-mesic-grassland-usually-Nardus> AND <#03 +04 R1M-Lowland-to-submontane-dry-to-mesic-grassland-usually-Nardus>) NOT (<#02 +04 R43-Temperate-acidophilous-alpine-grassland> OR (<#TC Trees|#TC Shrubs GR 15> OR <#TC Dwarf-shrubs GR 15>))

2 R1N Open Iberian supramediterranean dry acid and neutral grassland
<##Q +04 R1N-Open-Iberian-supramediterranean-dry-acid-and-neutral-grassland> NOT <#TC Trees|#TC Shrubs GR 15>

4 R1N! Open Iberian supramediterranean dry acid and neutral grassland
<#TC R1N-Open-Iberian-supramediterranean-dry-acid-and-neutral-grassland-specialists GR 10> NOT <#TC Trees|#TC Shrubs GR 15>

2 R1P Oceanic to subcontinental inland sand grassland on dry acid and neutral soils
((<##Q +04 R1P-Oceanic-to-subcontinental-inland-sand-grassland-on-dry-acid-and-neutral-soils> AND <#03 +04 R1P-Oceanic-to-subcontinental-inland-sand-grassland-on-dry-acid-and-neutral-soils>) NOT (<#03 +04 R1B-Continental-dry-grassland-true-steppe> OR <#TC Trees|#TC Shrubs GR 15>)) AND <\$\$C Coast_EEA EQ N_COAST>

2 R1Q Inland sanddrift and dune with siliceous grassland
((<##Q +04 R1Q-Inland-sanddrift-and-dune-with-siliceous-grassland> AND <#03 +04 R1Q-Inland-sanddrift-and-dune-with-siliceous-grassland>) NOT <#TC Trees|#TC Shrubs GR 15>) AND <\$\$C Coast_EEA EQ N_COAST>

4 R1Q! Inland sanddrift and dune with siliceous grassland
(<#TC R1Q-Inland-sanddrift-and-dune-with-siliceous-grassland-specialists GR 50> NOT <#TC Trees|#TC Shrubs GR 15>) AND <\$\$C Coast_EEA EQ N_COAST>

2 R1R Mediterranean to Atlantic open, dry, acid and neutral grassland
(<##Q +04 R1R-Mediterranean-to-Atlantic-open-dry-acid-and-neutral-grassland> AND <#03 +04 R1R-Mediterranean-to-Atlantic-open-dry-acid-and-neutral-grassland>) NOT (<#TC Trees|#TC Shrubs GR 15> OR (<#TC Crops GR 05> OR (<#03 N16-Mediterranean-and-Macaronesian-coastal-dune-grassland-grey-dune-specialists> OR <#TC +04 R1F-Mediterranean-annual-rich-dry-grassland GR 25>)))

4 R1S Heavy-metal grassland in Western and Central Europe
 ((<#02 R1S-Heavy-metal-grassland-in-Western-and-Central-Europe-specialists> OR <#TC R1S-Heavy-metal-grassland-in-Western-and-Central-Europe-specialists GR 05>) NOT <#TC Trees|#TC Shrubs GR 15>) NOT (<\$\$C Coast_EEA EQ ATL_COAST> OR <\$\$C Coast_EEA EQ BAL_COAST>)

2 R1T Azorean open, dry, acid to neutral grassland
 <##Q +04 R1T-Azorean-open-dry-acid-to-neutral-grassland> NOT <#TC Trees|#TC Shrubs GR 15>

2 R21 Mesic permanent pasture of lowlands and mountains
 ((<##Q +04 R21-Mesic-permanent-pasture-of-lowlands-and-mountains> AND <#TC +04 R21-Mesic-permanent-pasture-of-lowlands-and-mountains GR \$50>) AND <#03 +04 R21-Mesic-permanent-pasture-of-lowlands-and-mountains>) NOT <#TC Trees|#TC Shrubs GR 15>

2 R22 Low and medium altitude hay meadow
 ((<##Q +04 R22-Low-and-medium-altitude-hay-meadow> AND <#TC +04 R22-Low-and-medium-altitude-hay-meadow GR \$50>) AND (<#03 +04 R22-Low-and-medium-altitude-hay-meadow> AND <### +04 R22-Low-and-medium-altitude-hay-meadow GR ### +04 R1A-Semi-dry-perennial-calcareous-grassland>)) NOT (<#TC +04 R1M-Lowland-to-submontane-dry-to-mesic-grassland-usually-Nardus GR 25> OR <#TC Trees|#TC Shrubs GR 15>)

2 R23 Mountain hay meadow
 (((<##Q +04 R23-Mountain-hay-meadow> AND <#TC +04 R23-Mountain-hay-meadow GR \$50>) AND <#02 R23-Mountain-hay-meadow-specialists>) NOT <#TC Trees|#TC Shrubs GR 15>) NOT (<\$\$C Country EQ Latvia> OR <\$\$C Country EQ Lithuania>)

4 R23! Mountain hay meadow
 (<#03 R23-Mountain-hay-meadow-specialists> NOT <#TC Trees|#TC Shrubs GR 15>) NOT (<\$\$C Country EQ Latvia> OR <\$\$C Country EQ Lithuania>)

2 R24 Iberian summer pasture (vallicar)
 (<##Q +04 R24-Iberian-summer-pasture-vallicar> AND <#01 R24-Iberian-summer-pasture-vallicar-specialists>) NOT <#TC Trees|#TC Shrubs GR 15>

4 R24! Iberian summer pasture (vallicar)
 (<#TC R24-Iberian-summer-pasture-vallicar-specialists GR 25> AND <#02 R24-Iberian-summer-pasture-vallicar-specialists>) NOT <#TC Trees|#TC Shrubs GR 15>

2 R31 Mediterranean tall humid inland grassland
 ((<##Q +04 R31-Mediterranean-tall-humid-inland-grassland> AND <#01 R31-Mediterranean-tall-humid-inland-grassland-specialists>) NOT <#TC Trees|#TC Shrubs GR 15>) NOT <\$\$C Coast_EEA EQ ATL_COAST>

2 R32 Mediterranean short moist grassland of lowlands
 (<##Q +04 R32-Mediterranean-short-moist-grassland-of-lowlands> AND <#03 +04 R32-Mediterranean-short-moist-grassland-of-lowlands>) NOT <#TC Trees|#TC Shrubs GR 15>

2 R33 Mediterranean short moist grassland of mountains
 (<##Q +04 R33-Mediterranean-short-moist-grassland-of-mountains> AND <#01 R33-Mediterranean-short-moist-grassland-of-mountains-specialists>) NOT <#TC Trees|#TC Shrubs GR 15>

2 R34 Submediterranean moist meadow
(<##Q +04 R34-Submediterranean-moist-meadow> AND <#02 R34-Submediterranean-moist-meadow-specialists>) NOT <#TC Trees|#TC Shrubs GR 15>

2 R35 Moist or wet mesotrophic to eutrophic hay meadow
(<##Q +04 R35-Moist-or-wet-mesotrophic-to-eutrophic-hay-meadow> AND <#03 +04 R35-Moist-or-wet-mesotrophic-to-eutrophic-hay-meadow>) NOT <#TC Trees|#TC Shrubs GR 15>

2 R36 Moist or wet mesotrophic to eutrophic pasture
(<##Q +04 R36-Moist-or-wet-mesotrophic-to-eutrophic-pasture> AND <#03 +04 R36-Moist-or-wet-mesotrophic-to-eutrophic-pasture>) NOT <#TC Trees|#TC Shrubs GR 15>

2 R37 Temperate and boreal moist or wet oligotrophic grassland
(<##Q +04 R37-Temperate-and-boreal-moist-or-wet-oligotrophic-grassland> AND <#03 +04 R37-Temperate-and-boreal-moist-or-wet-oligotrophic-grassland>) NOT <#TC Trees|#TC Shrubs GR 15>

2 R41 Snow-bed vegetation
((<##Q +04 R41-Snow-bed-vegetation> AND <#01 R41-Snow-bed-vegetation-specialists>) NOT ((<#TC Arctic-alpine-dwarf-willows GR 15> AND (<#TC Arctic-alpine-dwarf-willows GE \$25> OR <#SC Arctic-alpine-dwarf-willows GE \$\$\$>)) OR <#TC Trees|#TC Shrubs GR 15>)) NOT ((<\$N DEG_LAT GR 0> NOT <\$N DEG_LAT GR 60>) AND (<\$N Altitude (m) GR 0> NOT <\$N Altitude (m) GR 500>))

4 R41! Snow-bed vegetation
(<#03 R41-Snow-bed-vegetation-specialists> NOT ((<#TC Arctic-alpine-dwarf-willows GR 15> AND (<#TC Arctic-alpine-dwarf-willows GE \$25> OR <#SC Arctic-alpine-dwarf-willows GE \$\$\$>)) OR <#TC Trees|#TC Shrubs GR 15>)) NOT ((<\$N DEG_LAT GR 0> NOT <\$N DEG_LAT GR 60>) AND (<\$N Altitude (m) GR 0> NOT <\$N Altitude (m) GR 500>))

2 R42 Boreal and arctic acidophilous alpine grassland
((<##Q +04 R42-Boreal-and-arctic-acidophilous-alpine-grassland> AND <#02 +04 R42-Boreal-and-arctic-acidophilous-alpine-grassland>) NOT <#TC Trees|#TC Shrubs GR 15>) NOT (<\$N DEG_LAT GR 0> NOT <\$N DEG_LAT GR 55>)

4 R42! Boreal and arctic acidophilous alpine grassland
<#TC R42-Boreal-and-arctic-acidophilous-alpine-grassland-specialists GR 10> NOT <#TC Trees|#TC Shrubs GR 15>

2 R43 Temperate acidophilous alpine grassland
(((<##Q +04 R43-Temperate-acidophilous-alpine-grassland> AND <#02 +04 R43-Temperate-acidophilous-alpine-grassland>) NOT (<#TC Trees|#TC Shrubs GR 15> OR (<#TC Arctic-alpine-dwarf-shrubs GR 25> OR <#TC Lowland-to-alpine-heath-dwarf-shrubs GR 25>))) NOT <\$N DEG_LAT GR 52>) NOT (<\$C Country EQ Spain> AND (<\$N DEG_LAT GR 0> NOT <\$N DEG_LAT GR 42>))

4 R43! Temperate acidophilous alpine grassland
(<#TC R43-Temperate-acidophilous-alpine-grassland-specialists GR 25> NOT <#TC Trees|#TC Shrubs GR 15>) NOT (<\$C Country EQ Spain> AND (<\$N DEG_LAT GR 0> NOT <\$N DEG_LAT GR 42>))

2 R44 Arctic-alpine calcareous grassland

(<##Q +04 R44-Arctic-alpine-calcareous-grassland> AND <#01 R44-Arctic-alpine-calcareous-grassland-specialists>) NOT ((<#01 R43-Temperate-acidophilous-alpine-grassland-specialists> OR <#01 R1H-Iberian-oromediterranean-basiphilous-dry-grassland-specialists>) OR <#TC Trees|#TC Shrubs GR 15>)

2 R45 Alpine and subalpine calcareous grassland of the Balkans and Apennines
(<##Q +04 R45-Alpine-and-subalpine-calcareous-grassland-of-the-Balkans-and-Apennines> AND <#01 R45-Alpine-and-subalpine-calcareous-grassland-of-the-Balkans-and-Apennines-specialists>) NOT <#TC Trees|#TC Shrubs GR 15>

4 R45! Alpine and subalpine calcareous grassland of the Balkans and Apennines
<#TC R45-Alpine-and-subalpine-calcareous-grassland-of-the-Balkans-and-Apennines-specialists GR 10> NOT <#TC Trees|#TC Shrubs GR 15>

2 R51 Thermophilous forest fringe of base-rich soils
((<##Q +04 R51-Thermophilous-forest-fringe-of-base-rich-soils> AND <#02 +04 R51-Thermophilous-forest-fringe-of-base-rich-soils>) AND (<#TC +04 R51-Thermophilous-forest-fringe-of-base-rich-soils GR 25> OR <#SC +04 R51-Thermophilous-forest-fringe-of-base-rich-soils GE \$\$\$>)) NOT ((<#01 R52-Forest-fringe-of-acidic-nutrient-poor-soils-specialists> OR <Pteridium aquilinum GR 00>) OR <#TC Trees|#TC Shrubs GR 15>)

4 R51! Thermophilous forest fringe of base-rich soils
<#TC R51-Thermophilous-forest-fringe-of-base-rich-soils-specialists GR 50> NOT <#TC Trees|#TC Shrubs GR 15>

2 R52 Forest fringe of acidic nutrient-poor soils
((<##Q +04 R52-Forest-fringe-of-acidic-nutrient-poor-soils> AND <#02 +04 R52-Forest-fringe-of-acidic-nutrient-poor-soils>) AND (<#TC +04 R52-Forest-fringe-of-acidic-nutrient-poor-soils GR 25> OR <#SC +04 R52-Forest-fringe-of-acidic-nutrient-poor-soils GE \$\$\$>)) NOT <#TC Trees|#TC Shrubs GR 15>

4 R52! Forest fringe of acidic nutrient-poor soils
<#TC R52-Forest-fringe-of-acidic-nutrient-poor-soils-specialists GR 50> NOT <#TC Trees|#TC Shrubs GR 15>

2 R53 Macaronesian thermophilous forest fringe
<##Q +04 R53-Macaronesian-thermophilous-forest-fringe> NOT <#TC Trees|#TC Shrubs GR 15>

4 R53! Macaronesian thermophilous forest fringe
<#TC R53-Macaronesian-thermophilous-forest-fringe-specialists GR 25> NOT <#TC Trees|#TC Shrubs GR 15>

4 R54 Pteridium aquilinum vegetation
(<Pteridium aquilinum GR 50> OR <#TC Pteridium aquilinum GR #T\$>) NOT <#TC Trees|#TC Shrubs GR 15>

2 R55 Lowland moist or wet tall-herb and fern fringe
((<##Q +04 R55-Lowland-moist-or-wet-tall-herb-and-fern-fringe> AND <#03 +04 R55-Lowland-moist-or-wet-tall-herb-and-fern-fringe>) OR <#TC R55-Lowland-moist-or-wet-tall-herb-and-fern-fringe-dominants GR 50>) NOT (<#TC Trees GR 05> OR (<#TC Shrubs GR 05> OR (<#TC +04 Q51-Tall-helophyte-bed GR 25> OR <#TC +04 Q53-Tall-sedge-bed GR 25>)))

2 R56 Montane to subalpine moist or wet tall-herb and fern fringe
 ((<##Q +04 R56-Montane-subalpine-moist-or-wet-tall-herb-and-fern-fringe> AND <#03 +04 R56-
 Montane-subalpine-moist-or-wet-tall-herb-and-fern-fringe>) OR <#TC R56-
 Montane-subalpine-moist-or-wet-tall-herb-and-fern-fringe-dominants GR 50>) NOT
 <#TC Trees|#TC Shrubs GR 15>

2 R57 Herbaceous forest clearing vegetation
 (<##Q +04 R57-Herbaceous-forest-clearing-vegetation> AND <#03 +04 R57-Herbaceous-forest-
 clearing-vegetation>) NOT (<#TC Trees GR 10> OR <#TC Shrubs GR 25>)

2 R61 Mediterranean inland salt steppe
 (<##Q +04 R61-Mediterranean-inland-salt-steppe> NOT (<#01 Continental-inland-salt-steppe-
 specialists> OR <#TC Trees|#TC Shrubs GR 15>)) AND (<\$\$C Coast_EEA EQ N_COAST>
 NOT <\$\$N DEG_LAT GR 44>)

2 R62 Continental inland salt steppe
 (<##Q +04 R62-Continental-inland-salt-steppe> NOT <#TC Trees|#TC Shrubs GR 15>) AND <\$\$C
 Coast_EEA EQ N_COAST>

2 R63 Temperate inland salt marsh
 ((<##Q +04 R63-Temperate-inland-salt-marsh> NOT <#TC Trees|#TC Shrubs GR 15>) AND <\$\$C Coast_EEA
 EQ N_COAST>) NOT (<\$\$C Country EQ Portugal> OR (<\$\$C Country EQ Spain> OR (<\$\$C
 Country EQ United Kingdom> OR (<\$\$C Country EQ Ireland> OR (<\$\$C Country EQ
 Belgium> OR (<\$\$C Country EQ Netherlands> OR (<\$\$C Country EQ Denmark> OR (<\$\$C
 Country EQ Norway> OR (<\$\$C Country EQ France> AND (<\$\$N DEG_LON GR -10> AND
 <\$\$N DEG_LON GR 1>))))))))))

2 R64 Semi-desert salt pan
 (<##Q +04 R64-Semi-desert-salt-pan> NOT <#TC Trees|#TC Shrubs GR 15>) AND <\$\$C Coast_EEA EQ
 N_COAST>

2 R65 Continental subsaline alluvial pasture and meadow
 <##Q +04 R65-Continental-subsaline-alluvial-pasture-and-meadow> NOT <#TC Trees|#TC Shrubs GR
 15>

4 S11 Shrub tundra
 (((<#TC Arctic-ericoid-dwarf-shrubs GR 15> AND (<#TC Arctic-ericoid-dwarf-shrubs GE \$50> OR <#SC
 Arctic-ericoid-dwarf-shrubs GE \$\$\$>)) OR ((<#TC Arctic-alpine-dwarf-shrubs GR
 15> AND (<#TC Arctic-alpine-dwarf-shrubs GE \$50> OR <#SC Arctic-alpine-dwarf-
 shrubs GE \$\$\$>)) OR (<#TC Lowland-to-alpine-heath-dwarf-shrubs GR 15> AND (<#TC
 Lowland-to-alpine-heath-dwarf-shrubs GE \$50> OR <#SC Lowland-to-alpine-heath-
 dwarf-shrubs GE \$\$\$>)))) NOT (<#TC Sphagnum GR 25> OR <#TC Trees GR 10>)) AND
 (<\$\$N DEG_LAT GR 64> NOT (<\$\$C Ecoreg_WWF EQ PA0608> OR <\$\$C Country EQ
 Iceland>))

4 S12 Moss and lichen tundra
 ((<#TC Arctic-alpine-bryophytes-lichens GR 15> AND (<#TC Arctic-alpine-bryophytes-lichens GR
 \$75> AND <#02 Arctic-alpine-bryophytes-lichens>)) NOT (<#TC Sphagnum GR 05> OR
 <#TC Trees GR 05>)) AND (<\$\$N DEG_LAT GR 64> NOT (<\$\$C Ecoreg_WWF EQ PA0608> OR
 <\$\$C Country EQ Iceland>))

4 S21 Subarctic and alpine dwarf Salix scrub

(<#TC Arctic-alpine-dwarf-willows GR 15> AND (<#TC Arctic-alpine-dwarf-willows GE \$25> OR <#SC Arctic-alpine-dwarf-willows GE \$\$\$>)) NOT ((<\$N DEG_LAT GR 0> NOT <\$N DEG_LAT GR 60>) AND (<\$N Altitude (m) GR 0> NOT <\$N Altitude (m) GR 500>))

4 S22 Alpine and subalpine ericoid heath

(((((<#TC Alpine-subalpine-ericoid-dwarf-shrubs GR 15> AND (<#TC Alpine-subalpine-ericoid-dwarf-shrubs GE \$50> OR <#SC Alpine-subalpine-ericoid-dwarf-shrubs GE \$\$\$>)) OR (<#TC Dryas GR 15> AND (<#TC Dryas GE \$50> OR <#SC Dryas GE \$\$\$>))) OR (((<#TC Arctic-alpine-dwarf-shrubs GR 15> AND (<#TC Arctic-alpine-dwarf-shrubs GE \$50> OR <#SC Arctic-alpine-dwarf-shrubs GE \$\$\$>)) OR (<#TC Lowland-to-alpine-heath-dwarf-shrubs GR 15> AND (<#TC Lowland-to-alpine-heath-dwarf-shrubs GE \$50> OR <#SC Lowland-to-alpine-heath-dwarf-shrubs GE \$\$\$>))) AND (<#01 Alpine-subalpine-ericoid-dwarf-shrubs> OR (<#02 Alpine-acidophilous-herbs> OR <#TC Alpine-acidophilous-herbs GR 05>)))) OR (((<#TC Arctic-alpine-dwarf-shrubs GR 15> AND (<#TC Arctic-alpine-dwarf-shrubs GE \$50> OR <#SC Arctic-alpine-dwarf-shrubs GE \$\$\$>)) OR (<#TC Lowland-to-alpine-heath-dwarf-shrubs GR 15> AND (<#TC Lowland-to-alpine-heath-dwarf-shrubs GE \$50> OR <#SC Lowland-to-alpine-heath-dwarf-shrubs GE \$\$\$>))) AND (<\$N Altitude (m) GR 1500> AND (<\$N DEG_LAT GR 0> NOT <\$N DEG_LAT GR 65>)))) NOT ((<#TC Sphagnum GR 25> OR <#TC Bog-vascular-plants-specialists GR 10>) OR (<#TC Trees GR 05> OR <Pinus mugo GR 25>))

4 S23 Alpine and subalpine Juniperus scrub

(((<#TC Arctic-alpine-shrubby-junipers GR 25> AND <#TC Arctic-alpine-shrubby-junipers GE \$50>) OR <#SC Arctic-alpine-shrubby-junipers GE \$\$\$>) NOT <#TC Trees GR 05>) NOT ((<\$N DEG_LAT GR 0> NOT <\$N DEG_LAT GR 65>) AND (<\$N Altitude (m) GR 0> NOT <\$N Altitude (m) GR 800>))

4 S24 Subalpine genistoid scrub of the Amphi-Adriatic region

(<#TC Adriatic-Genista GR 25> AND (<#TC Adriatic-Genista GE \$50> OR <#SC Adriatic-Genista GE \$\$\$>)) NOT (<#TC Trees GR 10> OR <#TC Shrubs GR 25>)

4 S25 Subalpine and subarctic deciduous scrub

((<#TC Subalpine-and-subarctic-deciduous-shrubs GR 25> AND (<#TC Subalpine-and-subarctic-deciduous-shrubs GE #TC Shrubs EXCEPT #TC Subalpine-and-subarctic-deciduous-shrubs> OR <#SC Subalpine-and-subarctic-deciduous-shrubs GE \$\$\$>)) NOT (<#TC Sphagnum GR 25> OR <#TC Trees GR 10>)) NOT ((<\$N DEG_LAT GR 0> NOT <\$N DEG_LAT GR 65>) AND (<\$N Altitude (m) GR 0> NOT <\$N Altitude (m) GR 800>))

4 S26 Subalpine Pinus mugo scrub

((<Pinus mugo GR 25> AND (<#TC Pinus mugo GR #TC Shrubs EXCEPT #TC Pinus mugo> OR <Pinus mugo GE \$\$\$>)) NOT ((<#TC Sphagnum GR 25> OR <#TC Bog-vascular-plants-specialists GR 10>) OR <#TC Trees GR 10>)) NOT ((<\$N DEG_LAT GR 52> OR (<\$N DEG_LON GR -10> NOT <\$N DEG_LON GR 7.5>)) OR (<\$N Altitude (m) GE 0> NOT <\$N Altitude (m) GR 900>))

4 S26! Subalpine Pinus mugo scrub

(<Pinus mugo aggr. GR 25> AND <#TC Pinus mugo aggr. GR #TC Trees|#TC Shrubs EXCEPT #TC Pinus mugo aggr.>) NOT (((<#TC Sphagnum GR 25> OR <#TC Bog-vascular-plants-specialists GR 10>) AND (<\$N DEG_LON GR 7.5> NOT (<\$N Altitude (m) GE 0> NOT <\$N Altitude (m) GR 900>))))

4 S31 Lowland to montane temperate and submediterranean Juniperus scrub

(<Juniperus communis subsp. communis GR 25> AND <#TC Juniperus communis subsp. communis GR #TC Shrubs EXCEPT #TC Juniperus communis subsp. communis>) NOT <#TC Trees GR 10>

4 S32 Temperate Rubus scrub
(<#TC Temperate-Rubus GR 25> AND (<#TC Temperate-Rubus GR \$50> OR <#SC Temperate-Rubus GR #\$\$>)) NOT <#TC Trees GR 10>

4 S33 Lowland to montane temperate and submediterranean genistoid scrub
(<#TC Genistoid-shrubs GR 25> AND (<#TC Genistoid-shrubs GE \$50> OR <#SC Genistoid-shrubs GE #\$\$>)) NOT <#TC Trees GR 10>

4 S34 Balkan-Anatolian submontane genistoid scrub
(<Genista lydia GR 25> AND (<Genista lydia GE \$50> OR <Genista lydia GE #\$\$>)) NOT (<#TC Trees GR 10> OR <#TC Shrubs GR 25>)

4 S35 Temperate and submediterranean thorn scrub
(<#TC Temperate-submediterranean-deciduous-shrubs GR 25> AND (<#TC Temperate-submediterranean-deciduous-shrubs GR \$50> OR <#SC Temperate-submediterranean-deciduous-shrubs GR #\$\$>)) NOT (<#TC Mesomediterranean-maquis-shrubs GR 05> OR <#TC Trees GR 10>)

4 S36 Low steppic scrub
(<#TC Low-steppic-shrubs GR 25> AND (<#TC Low-steppic-shrubs GE \$50> OR <#SC Low-steppic-shrubs GE #\$\$>)) NOT <#TC Trees GR 10>

4 S37 Corylus avellana scrub
(<Corylus avellana GR 25> AND <Corylus avellana GR #SC Shrubs>) NOT <#TC Trees GR 10>

4 S38 Temperate forest clearing scrub
((((<Salix caprea GR 25> AND <Salix caprea GR #SC Trees>) OR (<Sambucus racemosa GR 25> AND (<Sambucus racemosa GR #SC Shrubs> AND <Sambucus racemosa GR #SC Trees>))) OR ((<#TC Forest-clearing-trees-and-shrubs GR 25> AND <#TC Forest-clearing-trees-and-shrubs GR #TC Trees EXCEPT #TC Forest-clearing-trees-and-shrubs>) AND (<#TC Forest-clearing-herbs GR 25> AND <#02 Forest-clearing-herbs>))) NOT <\$\$N DEG_LON GR 60>

4 S41 Wet heath
(((<Erica tetralix GR 25> AND (<Erica tetralix GE \$50> OR <Erica tetralix GE #\$\$>)) OR ((<#TC Dry-and-wet-heath-shrubs GR 25> AND (<#TC Dry-and-wet-heath-shrubs GE \$50> OR <#SC Dry-and-wet-heath-shrubs GE #\$\$>)) AND <#03 Wet-heath-herbs-and-mosses>)) NOT (<#01 Raised-bog-Sphagnum> OR <#TC Trees|#TC Shrubs GR 15>)

4 S42 Dry heath
(<#TC Dry-heath-shrubs|#TC Dry-and-wet-heath-shrubs GR 25> AND (<#TC Dry-heath-shrubs|#TC Dry-and-wet-heath-shrubs GE \$50> OR <#SC Dry-heath-shrubs|#TC Dry-and-wet-heath-shrubs GE #\$\$>)) NOT (((<#TC Arctic-alpine-dwarf-shrubs|#TC Arctic-ericoid-dwarf-shrubs|#TC Alpine-subalpine-ericoid-dwarf-shrubs|#TC Blanket-bog-specialists|#TC +10 Mire-species|#TC Raised-bog-Sphagnum|#TC Wet-heath-herbs-and-mosses GR 05> OR <#01 Alpine-acidophilous-herbs>) OR <#TC Trees|#TC Shrubs GR 15>) OR <\$\$N Altitude (m) GR 1500>)

7 S43 Macaronesian heath
((((<#TC Macaronesian-low-heath-shrubs GR 25> AND (<#TC Macaronesian-low-heath-shrubs GE \$50> OR <#SC Macaronesian-low-heath-shrubs GE #\$\$>)) AND <#TC Macaronesian-low-heath-

shrubs GR #TC Macaronesian-tall-heath-shrubs>) NOT <#TC Trees GR 10>) NOT (<\$N DEG_LAT GR 40> OR <\$N DEG_LON GR -12>)

4 S51 Mediterranean maquis and arborescent matorral
((<#TC Mesomediterranean-maquis-shrubs GR 25> AND <#TC Mesomediterranean-maquis-shrubs GR #TC Shrubs EXCEPT #TC Mesomediterranean-maquis-shrubs>) NOT <#TC Trees GR 10>) NOT (<\$N DEG_LON GR -50> NOT <\$N DEG_LON GR -12>) OR <\$N DEG_LAT GR 47>)

4 S52 Submediterranean pseudomaquis
(((<#TC Mesomediterranean-maquis-shrubs GR 20> AND (<#TC Submediterranean-deciduous-shrubs GR 20> OR <#TC Thermophilous-oak-forest-trees GR 05>)) OR (<Buxus sempervirens GR 25> AND (<Buxus sempervirens GE \$50> OR <Buxus sempervirens GE #\$\$>))) NOT (<Juniperus phoenicea GR 05> OR <#TC Trees GR 15>)) NOT <\$N DEG_LAT GR 46.5>

4 S53 Spartium junceum scrub
<Spartium junceum GR 25> AND <#TC Spartium junceum GR #TC Shrubs EXCEPT #TC Spartium junceum>

4 S54 Thermomediterranean arid scrub
(<#TC Thermomediterranean-shrubs GR 25> AND <#TC Thermomediterranean-shrubs GE #TC Shrubs EXCEPT #TC Thermomediterranean-shrubs>) NOT <#TC Trees GR 10>

4 S61 Western basiphilous garrigue
(((<#TC W-basic-garrigue-shrubs GR 25> AND (<#TC W-basic-garrigue-shrubs GE \$50> OR <#SC W-basic-garrigue-shrubs GE #\$\$>)) AND <#01 W-basic-garrigue-herbs>) OR ((<#TC Pan-Mediterranean-basic-garrigue-shrubs GR 25> AND (<#TC Pan-Mediterranean-basic-garrigue-shrubs GE \$50> OR <#SC Pan-Mediterranean-basic-garrigue-shrubs GE #\$\$>)) AND (<#03 W-basic-garrigue-herbs> AND <### W-basic-garrigue-herbs GR ### E-garrigue-herbs>))) NOT ((<#01 Phrygana-shrubs> OR <#05 +04 R1A-Semi-dry-perennial-calcareous-grassland>) OR <#TC Trees GR 10>)

4 S62 Western acidophilous garrigue
(((<#TC W-acidic-garrigue-shrubs GR 25> AND (<#TC W-acidic-garrigue-shrubs GE \$50> OR <#SC W-acidic-garrigue-shrubs GE #\$\$>)) AND <#01 W-acidic-garrigue-herbs>) OR ((<#TC Pan-Mediterranean-acidic-garrigue-shrubs GR 25> AND (<#TC Pan-Mediterranean-acidic-garrigue-shrubs GE \$50> OR <#SC Pan-Mediterranean-acidic-garrigue-shrubs GE #\$\$>)) AND <#03 W-acidic-garrigue-herbs>))) NOT (<#01 Phrygana-shrubs> OR <#TC Trees GR 10>)

4 S63 Eastern garrigue
((<#TC E-garrigue-shrubs GR 25> AND (<#TC E-garrigue-shrubs GE \$50> OR <#SC E-garrigue-shrubs GE #\$\$>)) OR (((<#TC Pan-Mediterranean-acidic-garrigue-shrubs GR 25> AND (<#TC Pan-Mediterranean-acidic-garrigue-shrubs GE \$50> OR <#SC Pan-Mediterranean-acidic-garrigue-shrubs GE #\$\$>)) AND <#03 E-garrigue-herbs>) OR ((<#TC Pan-Mediterranean-basic-garrigue-shrubs GR 25> AND (<#TC Pan-Mediterranean-basic-garrigue-shrubs GE \$50> OR <#SC Pan-Mediterranean-basic-garrigue-shrubs GE #\$\$>)) AND <#03 E-garrigue-herbs>))) NOT <#TC Trees GR 10>

4 S64 Macaronesian garrigue

((<#TC Macaronesian-garrigue-shrubs GR 25> AND (<#TC Macaronesian-garrigue-shrubs GE \$50> OR <#SC Macaronesian-garrigue-shrubs GE \$\$\$>)) OR ((<Cistus monspeliensis GR 25> AND (<Cistus monspeliensis GE \$50> OR <Cistus monspeliensis GE \$\$\$>)) AND <#01 Macaronesian-garrigue-shrubs>)) NOT <#TC Trees GR 10>

4 S65 Mediterranean gypsum scrub
(<#TC Gypsophilous-dwarf-shrubs GR 10> OR ((<#TC W-basic-garrigue-shrubs GR 25> OR <#TC Pan-Mediterranean-basic-garrigue-shrubs GR 25>) AND <#03 Gypsophilous-herbs>)) NOT (<#TC Trees GR 10> OR <#TC Shrubs GR 05>)

4 S66 Mediterranean halo-nitrophilous scrub
(((<#TC Mediterranean-halo-nitrophilous-scrub-species GE \$50> OR <#SC Mediterranean-halo-nitrophilous-scrub-species GE \$\$\$>) AND <#02 Mediterranean-halo-nitrophilous-scrub-species>) NOT <#TC Trees GR 10>) NOT <\$\$N DEG_LON GR 40>

4 S66! Mediterranean halo-nitrophilous scrub
(<#TC Macaronesian-xero-halophile-scrub-species GE \$50> OR <#SC Macaronesian-xero-halophile-scrub-species GE \$\$\$>) NOT <#TC Trees GR 10>

4 S67 Aralo-Caspian semi-desert
((((<#TC Aralo-Caspian-semi-desert-species GE \$50> OR <#SC Aralo-Caspian-semi-desert-species GE \$\$\$>) AND <#03 Aralo-Caspian-semi-desert-species>) AND <### Aralo-Caspian-semi-desert-species GE ### Semi-desert-sand-dune-with-sparse-scrub-species>) AND <### Aralo-Caspian-semi-desert-species GR ### +04 R1C-Desert-steppe>) NOT <#TC Trees GR 10>) NOT (<\$\$N DEG_LON GR -50> NOT <\$\$N DEG_LON GR 42>)

4 S68 Semi-desert sand dune with sparse scrub
((((<#TC Semi-desert-sand-dune-with-sparse-scrub-species GE \$50> OR <#SC Semi-desert-sand-dune-with-sparse-scrub-species GE \$\$\$>) AND <#02 Semi-desert-sand-dune-with-sparse-scrub-species>) AND <### Semi-desert-sand-dune-with-sparse-scrub-species GR ### Aralo-Caspian-semi-desert-species>) NOT <#TC Trees GR 10>) NOT (<\$\$N DEG_LON GR -50> NOT <\$\$N DEG_LON GR 42>)

4 S71 Western Mediterranean spiny heath
(<#TC W-Mediterranean-coastal-spiny-shrubs GR 25> AND (<#TC W-Mediterranean-coastal-spiny-shrubs GE \$50> OR <#SC W-Mediterranean-coastal-spiny-shrubs GE \$\$\$>)) NOT <#TC Trees GR 10>

4 S72 Eastern Mediterranean spiny heath (phrygana)
(<#TC Phrygana-shrubs GR 25> AND (<#TC Phrygana-shrubs GE \$50> OR <#SC Phrygana-shrubs GE \$\$\$>)) NOT <#TC Trees GR 10>

4 S73 Western Mediterranean mountain hedgehog-heath
(<#TC W-Mediterranean-mountain-thorny-cushion-shrubs GR 15> AND (<#TC W-Mediterranean-mountain-thorny-cushion-shrubs GE \$50> OR <#SC W-Mediterranean-mountain-thorny-cushion-shrubs GE \$\$\$>)) NOT <#TC Trees GR 10>

4 S74 Central Mediterranean mountain hedgehog-heath
(<#TC C-Mediterranean-mountain-thorny-cushion-shrubs GR 15> AND (<#TC C-Mediterranean-mountain-thorny-cushion-shrubs GE \$50> OR <#SC C-Mediterranean-mountain-thorny-cushion-shrubs GE \$\$\$>)) NOT <#TC Trees GR 10>

4 S75 Eastern Mediterranean mountain hedgehog-heath

(<#TC E-Mediterranean-mountain-thorny-cushion-shrubs GR 15> AND (<#TC E-Mediterranean-mountain-thorny-cushion-shrubs GE \$50> OR <#SC E-Mediterranean-mountain-thorny-cushion-shrubs GE \$\$\$>)) NOT <#TC Trees GR 10>

4 S76 Canary mountain hedgehog-heath
(<#TC Teide-summit-plants GE \$15> AND (<#TC Teide-summit-plants GE \$50> OR <#SC Teide-summit-plants GE \$\$\$>)) NOT <#TC Trees GR 10>

4 S81 Canary xerophytic scrub
((<#TC Canary-Island-xerophytic-scrub-species GR 15> AND (<#TC Canary-Island-xerophytic-scrub-species GE \$50> OR <#SC Canary-Island-xerophytic-scrub-species GE \$\$\$>)) AND (<#TC Canary-Island-xerophytic-scrub-species GR #TC Madeiran-xerophytic-scrub-species> OR (<#TC Canary-Island-xerophytic-scrub-species EQ #TC Madeiran-xerophytic-scrub-species> AND <\$\$N DEG_LAT GR 30>))) NOT <#TC Trees GR 10>

4 S82 Madeiran xerophytic scrub
((<#TC Madeiran-xerophytic-scrub-species GR 15> AND (<#TC Madeiran-xerophytic-scrub-species GE \$50> OR <#SC Madeiran-xerophytic-scrub-species GE \$\$\$>)) AND ((<#TC Madeiran-xerophytic-scrub-species GR #TC Canary-Island-xerophytic-scrub-species> AND <\$\$N DEG_LON GR -20>) OR (<#TC Madeiran-xerophytic-scrub-species EQ #TC Canary-Island-xerophytic-scrub-species> AND <\$\$N DEG_LAT GR 30>))) NOT <#TC Trees GR 10>

4 S91 Temperate riparian scrub
((<#TC Temperate-riparian-shrubs GR 25> AND <#TC Temperate-riparian-shrubs GR #TC Shrubs EXCEPT #TC Temperate-riparian-shrubs>) OR ((<Tamarix ramosissima GR 30> AND <Tamarix ramosissima GE \$50>) AND <#01 Temperate-riparian-shrubs>)) NOT (<#01 Mediterranean-riparian-species> OR <#TC Trees GR 10>)

4 S92 Salix fen scrub
(<#TC Temperate-fen-shrubs GR 25> AND <#TC Temperate-fen-shrubs GR #TC Shrubs EXCEPT #TC Temperate-fen-shrubs>) NOT <#TC Trees GR 10>

4 S93 Mediterranean riparian scrub
((<#TC Mediterranean-riparian-shrubs GR 25> AND <#TC Mediterranean-riparian-shrubs GR #TC Shrubs EXCEPT #TC Mediterranean-riparian-shrubs>) OR ((<Tamarix ramosissima GR 25> AND <Tamarix ramosissima GE \$\$\$>) AND <#01 Mediterranean-riparian-species>)) NOT <#TC Trees GR 10>

4 S94 Semi-desert riparian scrub
((<#TC Semi-desert-riparian-shrubs GR 15> AND <#SC Semi-desert-riparian-shrubs GE \$\$\$>) OR ((<Tamarix ramosissima GR 15> AND <Tamarix ramosissima GE \$\$\$>) AND <#01 Semi-desert-riparian-shrubs>)) NOT <#TC Trees GR 10>

4 T11 Temperate Salix and Populus riparian forest
((<#TC Softwood-riparian-trees GR 25> AND <#TC Softwood-riparian-trees GR #TC Trees EXCEPT #TC Softwood-riparian-trees>) NOT <#01 Mediterranean-riparian-species>) NOT (<\$\$N DEG_LAT GR 00> NOT <\$\$N DEG_LAT GR 40>)

4 T12 Alnus glutinosa-Alnus incana forest on riparian and mineral soils
(((<Alnus incana GR 25> AND <Alnus incana GE #SC Trees>) AND (<#02 +05 Temperate-riparian-forest-species> OR <#03 Temperate-riparian-forest-species-upland>)) OR ((<#TC Alnus-Fraxinus-excelsior GR 25> AND <#TC Alnus-Fraxinus-excelsior GE #TC Trees

EXCEPT #TC Alnus-Fraxinus-excelsior>) AND (<##Q +05 Temperate-riparian-forest-species> AND <#TC Temperate-riparian-forest-species-upland GR #TC Temperate-riparian-forest-species-lowland>))) OR ((<#TC Alnus-Fraxinus-angustifolia-excelsior GR 25> AND <#TC Alnus-Fraxinus-angustifolia-excelsior GE #TC Trees EXCEPT #TC Alnus-Fraxinus-angustifolia-excelsior>) AND (<##Q +05 Temperate-riparian-forest-species> AND <#02 Temperate-riparian-forest-species-western>))

4 T13 Temperate hardwood riparian forest

(((((<#TC Lowland-hardwood-riparian-trees GR 25> AND <#TC Lowland-hardwood-riparian-trees GR #TC Trees EXCEPT #TC Lowland-hardwood-riparian-trees>) AND <##Q +05 Temperate-riparian-forest-species>) NOT (<#02 Temperate-upland-riparian-forest-species> OR <#01 Mediterranean-riparian-species>)) OR ((<#TC Alnus-Fraxinus-angustifolia-excelsior GR 25> AND <#TC Alnus-Fraxinus-angustifolia-excelsior GE #TC Trees EXCEPT #TC Alnus-Fraxinus-angustifolia-excelsior>) AND (<##Q +05 Temperate-riparian-forest-species> AND <#TC Temperate-riparian-forest-species-lowland GR #TC Temperate-riparian-forest-species-upland|#TC Temperate-riparian-forest-species-western>))) NOT <#02 Mediterranean-riparian-species>) NOT (<\$\$N DEG_LAT GR 00> NOT <\$\$N DEG_LAT GR 38>)

4 T14 Mediterranean and Macaronesian riparian forest

(<Platanus orientalis GR 25> OR (((<Alnus glutinosa GR 25> OR <Fraxinus angustifolia GR 25>) OR <#TC Softwood-riparian-trees GR 25>) AND <#02 Mediterranean-riparian-species>)) NOT <\$\$N DEG_LAT GR 40>

4 T15 Broadleaved swamp forest on non-acid peat

((<Alnus glutinosa GR 25> AND <#TC Alnus glutinosa GR #TC Trees EXCEPT #TC Alnus glutinosa>) AND <##Q +05 Alder-carr-species>) NOT <Salix cinerea GR 25>

4 T16 Broadleaved mire forest on acid peat

(<#TC Betula pendula-pubescens GR 15> AND <#TC Betula pendula-pubescens GR #TC Trees EXCEPT #TC Betula pendula-pubescens>) AND (<#TC Birch-bog-forest-species GR 10> OR <#TC Sphagnum GR 25>)

4 T17 Fagus forest on non-acid soils

(((<#TC Fagus-sylvatica-orientalis GR 30> AND (<Fagus sylvatica GR #SC Trees> OR <Fagus orientalis GR #SC Trees>)) AND <### +05 Eutrophic-deciduous-forest-species GR ### +05 Acidophilous-forest-species>) NOT <#TC +05 Acidophilous-forest-species GR 25>) NOT ((<\$\$C Country EQ Ireland> OR (<\$\$C Country EQ United Kingdom> AND <\$\$N DEG_LAT GR 53>)) OR ((<\$\$N DEG_LAT GR 48> AND <\$\$N DEG_LON GR 26.5>) OR (<\$\$N DEG_LAT GR 55> AND <\$\$N DEG_LON GR 19>)))

4 T18 Fagus forest on acid soils

(((<#TC Fagus-sylvatica-orientalis GR 30> AND (<Fagus sylvatica GR #SC Trees> OR <Fagus orientalis GR #SC Trees>)) AND <### +05 Acidophilous-forest-species GR ### +05 Eutrophic-deciduous-forest-species>) NOT <#TC +05 Eutrophic-deciduous-forest-species GR 25>) NOT ((<\$\$C Country EQ Ireland> OR (<\$\$C Country EQ United Kingdom> AND <\$\$N DEG_LAT GR 53>)) OR ((<\$\$N DEG_LAT GR 48> AND <\$\$N DEG_LON GR 26.5>) OR (<\$\$N DEG_LAT GR 55> AND <\$\$N DEG_LON GR 19>)))

4 T19 Temperate and submediterranean thermophilous deciduous forest

(((<#TC Thermophilous-oak-forest-trees-specialists GR 15> AND <#TC Thermophilous-oak-forest-trees-specialists GR #TC Trees EXCEPT #TC Thermophilous-oak-forest-trees-specialists>) NOT <Carpinus betulus GR 25>) OR ((<#TC Thermophilous-oak-forest-

trees GR 15> AND <#TC Thermophilous-oak-forest-trees GR #TC Trees EXCEPT #TC Thermophilous-oak-forest-trees>) AND (<##Q +05 Thermophilous-oak-forest-species> OR (<Buxus sempervirens GR 15> AND <#TC Thermophilous-oak-forest-trees GR #TC Buxus sempervirens>))) NOT (<#TC +05 Acidophilous-forest-species GR 15> OR (<#TC Olea-Ceratonia-woodland-shrubs|#TC Sclerophyllous-tree-Quercus|#TC Mesomediterranean-maquis-shrubs GR 25> AND <#02 Mesomediterranean-maquis-shrubs>))

4 T1A Mediterranean thermophilous deciduous forest
((<Quercus ithaburensis GR 15> AND <Quercus ithaburensis GE #SC Trees>) OR ((<Quercus pubescens GR 15> AND <Quercus pubescens GE #SC Trees>) AND (<#TC Olea-Ceratonia-woodland-shrubs|#TC Sclerophyllous-tree-Quercus|#TC Mesomediterranean-maquis-shrubs GR 30> AND <#02 Mesomediterranean-maquis-shrubs>))) NOT <\$\$N DEG_LAT GR 46>

4 T1B Acidophilous Quercus forest
((<#TC Acidophilous-oak-forest-trees GR 15> AND <#TC Acidophilous-oak-forest-trees GR #TC Trees EXCEPT #TC Acidophilous-oak-forest-trees>) AND <##Q +05 Acidophilous-forest-species>) NOT (<#TC +05 Thermophilous-oak-forest-species GR 15> OR <#TC +05 Eutrophic-deciduous-forest-species GR 15>)

4 T1C Temperate and boreal mountain Betula and Populus tremula forest on mineral soils
(((<#TC Boreo-temperate-mountain-Betula GR 15> AND <#TC Boreo-temperate-mountain-Betula GR #TC Trees EXCEPT #TC Boreo-temperate-mountain-Betula>) NOT (<#TC Birch-bog-forest-species GR 25> OR <#TC Sphagnum GR 25>)) AND (<\$\$N Altitude (m) GR 300> OR <\$\$N DEG_LAT GR 67>)) NOT <\$\$C Country EQ Spain>

4 T1C! Temperate and boreal mountain Betula and Populus tremula forest on mineral soils
((<Betula pubescens GR 15> AND <#TC Betula pubescens GR #TC Trees EXCEPT #TC Betula pubescens>) NOT (<#TC Birch-bog-forest-species GR 25> OR <#TC Sphagnum GR 25>)) AND ((<\$\$N DEG_LAT GR 55> AND <\$\$N Altitude (m) GR 300>) OR (<\$\$N DEG_LAT GR 44.5> AND <\$\$N Altitude (m) GR 800>))

4 T1C!!Temperate and boreal mountain Betula and Populus tremula forest on mineral soils
((<Populus tremula GR 15> AND <#TC Populus tremula GR #TC Trees EXCEPT #TC Populus tremula>) NOT (<#TC Birch-bog-forest-species GR 25> OR <#TC Sphagnum GR 25>)) AND ((<\$\$N DEG_LAT GR 55> AND <\$\$N Altitude (m) GR 300>) OR (<\$\$N DEG_LAT GR 44.5> AND <\$\$N Altitude (m) GR 800>))

4 T1D Southern European mountain Betula and Populus tremula forest on mineral soils
<Betula pendula var. fontqueri GR 15> AND <Betula pendula var. fontqueri GE #SC Trees>

4 T1D! Southern European mountain Betula and Populus tremula forest on mineral soils
(<Betula pendula GR 15> AND <#TC Betula pendula GR #TC Trees EXCEPT #TC Betula pendula>) AND ((<\$\$N DEG_LAT GR 34> NOT <\$\$N DEG_LAT GR 44.5>) NOT (<\$\$N Altitude (m) GE 0> NOT <\$\$N Altitude (m) GR 1000>))

4 T1D!!Southern European mountain Betula and Populus tremula forest on mineral soils
(<Populus tremula GR 15> AND <#TC Populus tremula GR #TC Trees EXCEPT #TC Populus tremula>) AND ((<\$\$N DEG_LAT GR 34> NOT <\$\$N DEG_LAT GR 44.5>) NOT (<\$\$N Altitude (m) GE 0> NOT <\$\$N Altitude (m) GR 1000>))

4 T1E Carpinus and Quercus mesic deciduous forest

(((<#TC Carpinus betulus GR 25> AND <#TC Carpinus betulus GR #TC Trees EXCEPT #TC Carpinus betulus>) OR ((<#TC Oak-hornbeam-forest-trees GR 25> AND <#TC Oak-hornbeam-forest-trees GE #TC Trees EXCEPT #TC Oak-hornbeam-forest-trees>) AND (<##Q +05 Eutrophic-deciduous-forest-species> AND <#TC +05 Eutrophic-deciduous-forest-species GR 05>))) OR ((<#TC Noble-hardwood-trees-generalists GR 25> AND <#TC Noble-hardwood-trees-generalists GE #TC Trees EXCEPT #TC Noble-hardwood-trees-generalists>) AND <##Q +05 Eutrophic-deciduous-forest-species>)) NOT (<#02 Ravine-forest-specialists> OR <#TC Ravine-forest-specialists GR 05>)

4 T1F Ravine forest

((<#TC Noble-hardwood-trees-ravine-specialists GR 25> AND <#TC Noble-hardwood-trees-ravine-specialists GR #TC Trees EXCEPT #TC Noble-hardwood-trees-ravine-specialists>) OR ((<#TC Noble-hardwood-trees GR 25> AND <#TC Noble-hardwood-trees GE #TC Trees EXCEPT #TC Noble-hardwood-trees>) AND (<#02 Ravine-forest-specialists> AND <#TC Ravine-forest-specialists GR 05>))) NOT (<##Q +05 Temperate-riparian-forest-species> OR <#TC Softwood-riparian-trees GR 05>)

4 T1G Alnus cordata forest

(<Alnus cordata GR 25> AND <Alnus cordata GE #SC Trees>) NOT <\$\$N DEG_LAT GR 43>

4 T1H Broadleaved deciduous plantation of non site-native trees

(<#TC Non-native-broadleaf-deciduous-trees GR #TC Native-trees|#TC Non-native-conifer-trees|#TC Non-native-broadleaf-evergreen-trees> AND <#TC Non-native-broadleaf-deciduous-trees GR 15>) OR ((<#TC Fagus-sylvatica-orientalis GR 30> AND <#TC Fagus-sylvatica-orientalis GE #TC Trees EXCEPT #TC Fagus-sylvatica-orientalis>) AND (<\$\$C Country EQ Ireland> OR ((<\$\$C Country EQ United Kingdom> AND <\$\$N DEG_LAT GR 53>) OR ((<\$\$N DEG_LAT GR 48> AND <\$\$N DEG_LON GR 26.5>) OR (<\$\$N DEG_LAT GR 55> AND <\$\$N DEG_LON GR 19>))))))

4 T21 Mediterranean evergreen Quercus forest

((<#TC Sclerophyllous-tree-Quercus GR 25> AND <#TC Sclerophyllous-tree-Quercus GR #TC Trees EXCEPT #TC Sclerophyllous-tree-Quercus>) OR ((<Quercus coccifera GR 25> AND <#TC Quercus coccifera GR #TC Trees EXCEPT #TC Quercus coccifera>) AND <\$\$N DEG_LON GR 19>)) NOT <\$\$N DEG_LAT GR 48>

4 T22 Mainland laurophyllous forest

((<#TC Mainland-laurophyllous GR 25> AND (<#TC Mainland-laurophyllous GR #TC Trees EXCEPT #TC Mainland-laurophyllous> AND <#TC Mainland-laurophyllous GR #TC Shrubs EXCEPT #TC Mainland-laurophyllous>)) NOT <#01 Macaronesian-laurophyllous>) OR ((<Prunus lusitanica GR 25> AND (<#TC Prunus lusitanica GR #TC Trees> AND <#TC Prunus lusitanica GR #TC Shrubs EXCEPT #TC Prunus lusitanica>)) AND <\$\$N DEG_LON GR -10>)

4 T23 Macaronesian laurophyllous forest

(<#TC Macaronesian-laurophyllous GR 25> AND (<#TC Macaronesian-laurophyllous GR #TC Trees EXCEPT #TC Macaronesian-laurophyllous> AND <#TC Macaronesian-laurophyllous GR #TC Shrubs EXCEPT #TC Macaronesian-laurophyllous>)) OR ((<Prunus lusitanica GR 25> AND (<Prunus lusitanica GR #SC Trees> AND <Prunus lusitanica GR #SC Shrubs>)) AND (<\$\$N DEG_LON GR -50> NOT <\$\$N DEG_LON GR -10>))

4 T24 Olea europaea-Ceratonia siliqua forest

(<#TC Olea-Ceratonia-woodland-shrubs GR 25> AND (<#TC Olea-Ceratonia-woodland-shrubs GR #TC Shrubs EXCEPT #TC Olea-Ceratonia-woodland-shrubs> AND <#TC Olea-Ceratonia-

woodland-shrubs GR #TC Trees EXCEPT #TC Olea-Ceratonia-woodland-shrubs>)) NOT
<#TC Mediterranean-Pinus GR 15>

4 T25 Phoenix theophrasti vegetation
<Phoenix theophrasti GR 25>

4 T26 Phoenix canariensis vegetation
<Phoenix canariensis GR 25>

4 T27 Ilex aquifolium forest
<Ilex aquifolium GR 25> AND (<#TC Ilex aquifolium GR #TC Trees EXCEPT #TC Ilex aquifolium> AND
<Ilex aquifolium GR #SC Shrubs>)

4 T28 Macaronesian heathy forest
((<#TC Macaronesian-tall-heath-shrubs GR 25> AND <#TC Macaronesian-tall-heath-shrubs GE #TC
Macaronesian-low-heath-shrubs>) AND (<#TC Macaronesian-tall-heath-shrubs GR #TC
Trees EXCEPT #TC Macaronesian-tall-heath-shrubs> AND <#TC Macaronesian-tall-
heath-shrubs GR #TC Shrubs EXCEPT #TC Macaronesian-tall-heath-shrubs>)) NOT
(<\$\$N DEG_LAT GR 40> OR <\$\$N DEG_LON GR -12>)

4 T29 Broadleaved evergreen plantation of non site-native trees
<#TC Non-native-broadleaf-evergreen-trees GR #TC Native-trees|#TC Non-native-conifer-trees|#TC
Non-native-broadleaf-deciduous-trees> AND <#TC Non-native-broadleaf-evergreen-
trees GR 15>

4 T31 Temperate mountain Picea forest
((<#TC Picea GR 25> AND <#TC Picea GR #TC Trees EXCEPT #TC Picea>) NOT (<Picea obovata GR 00>
OR (<#TC Bog-vascular-plants-specialists GR 10> OR <#TC Sphagnum GR 25>))) AND
(<\$\$N Altitude (m) GR 700> AND (<\$\$N DEG_LON GR 4> AND (<\$\$N DEG_LAT GR 0> NOT
<\$\$N DEG_LAT GR 52>)))

4 T32 Temperate mountain Abies forest
(<#TC Temperate-Abies GR 25> AND (<Abies alba GE #SC Trees> OR <Abies nordmanniana GE #SC
Trees>)) NOT (((((<\$\$N Altitude (m) GR 0> NOT <\$\$N Altitude (m) GR 500>) OR
<\$\$C Ecoreg_WWF EQ PA0402>) OR <\$\$C Country EQ Ireland>) OR <\$\$C Country EQ
United Kingdom>) OR (<\$\$C Country EQ Italy> NOT <\$\$N DEG_LAT GR 43.75>)) OR
(<\$\$C Country EQ Russian Federation> AND <\$\$N DEG_LAT GR 45>))

4 T33 Mediterranean mountain Abies forest
((<#TC Mediterranean-Abies GR 25> AND (<Abies borisii-regis GE #SC Trees> OR (<Abies cephalonica
GE #SC Trees> OR (<Abies cilicica GE #SC Trees> OR (<Abies nebrodensis GE #SC
Trees> OR <Abies pinsapo GE #SC Trees>)))) OR ((<Abies alba GR 25> AND <Abies
alba GE #SC Trees>) AND (<\$\$C Country EQ Italy> AND (<\$\$N DEG_LAT GR 0> NOT
<\$\$N DEG_LAT GR 43.75>)))) NOT <\$\$C Country EQ France>

4 T34 Temperate subalpine Larix, Pinus cembra and Pinus uncinata forest
((<#TC Subalpine-conifer-trees GR 15> AND <#TC Subalpine-conifer-trees GE #TC Trees EXCEPT #TC
Subalpine-conifer-trees>) AND (<#01 Subalpine> OR <\$\$N Altitude (m) GR 1000>))
NOT <\$\$N DEG_LAT GR 49.5>

4 T34! Temperate subalpine Larix, Pinus cembra and Pinus uncinata forest
((<Pinus uncinata GR 15> AND <Pinus uncinata GE #SC Trees>) AND (<#01 Subalpine> OR <\$\$N Altitude
(m) GR 1200>)) NOT <\$\$N DEG_LON GR 11>

4 T35 Temperate continental *Pinus sylvestris* forest
 ((<*Pinus sylvestris* GR 15> AND <#TC *Pinus sylvestris* GR #TC Trees EXCEPT #TC *Pinus sylvestris*>
 NOT (((((((<#01 *Junipero-Pinetea-species*> OR <#01 *Erico-Pinetalia-species*>) OR
 <#01 *W-Mediterranean-mountain-thorny-cushion-shrubs*>) OR <#TC *Sphagnum* GR 10>
 OR <#TC *Bog-vascular-plants-specialists* GR 10>) OR <#02 *Bog-vascular-plants-*
specialists>) OR <#TC +05 *Alder-carr-species* GR 15>) OR <#TC +05 *Eutrophic-*
deciduous-forest-species GR 15>) OR <#01 *Atlantic-forest-species*>)) NOT
 (((((((((((<\$\$N DEG_LON GR 4> AND <\$\$N DEG_LAT GR 56.5>) OR <\$\$C Ecoreg_WWF
 EQ PA0436>) NOT <### *Dry-continental-pine-forest-species* GR ### *Lowland-to-*
alpine-heath-dwarf-shrubs>) OR <\$\$C Ecoreg_WWF EQ PA0520>) OR <\$\$C Ecoreg_WWF
 EQ PA0608>) OR <\$\$C Ecoreg_WWF EQ PA0610>) OR <\$\$C Ecoreg_WWF EQ PA1110>) OR
 <\$\$C Ecoreg_WWF EQ PA0402>) OR <\$\$C Ecoreg_WWF EQ PA0433>) OR (<\$\$C Country EQ
 United Kingdom> NOT <\$\$C Ecoreg_WWF EQ PA0503>)) OR <\$\$C Country EQ Ireland>
 OR <\$\$C Country EQ Portugal>) OR <\$\$C Country EQ Spain>))

4 T36 Temperate and submediterranean montane *Pinus sylvestris*-*Pinus nigra* forest
 ((<#TC *Pinus-sylvestris-nigra* GR 15> AND <#TC *Pinus-sylvestris-nigra* GR #TC Trees EXCEPT #TC
Pinus-sylvestris-nigra>) AND (<#03 *Erico-Pinetalia-species*> OR (<#03 *Pinetalia-*
pallasianae-kochianae-species> AND <\$\$C Country EQ Ukraine>))) NOT (((<#TC +05
Acidophilous-forest-species GR 15> OR <#02 +05 *Acidophilous-forest-species*>) OR
 <#01 *Junipero-Pinetea-species*>) OR <#01 *W-Mediterranean-mountain-thorny-*
cushion-shrubs>) OR ((<\$\$N DEG_LAT GR 00> NOT <\$\$N DEG_LAT GR 38>) OR <\$\$N
 DEG_LON GR 40>))

4 T37 Mediterranean montane *Pinus sylvestris*-*Pinus nigra* forest
 ((<#TC *Pinus-sylvestris-nigra* GR 15> AND <#TC *Pinus-sylvestris-nigra* GR #TC Trees EXCEPT #TC
Pinus-sylvestris-nigra>) AND (<#01 *Junipero-Pinetea-species*> OR <#01 *W-*
Mediterranean-mountain-thorny-cushion-shrubs>)) OR ((<*Pinus nigra* GR 15> AND
 <#TC *Pinus nigra* GR #TC Trees EXCEPT #TC *Pinus nigra*>) AND (<\$\$N Altitude (m)
 GR 1000> AND ((<\$\$N DEG_LAT GR 0> NOT <\$\$N DEG_LAT GR 43>) AND (<\$\$N DEG_LON GR
 -10> NOT <\$\$N DEG_LON GR 10>))))

4 T38 Mediterranean montane *Cedrus* forest
 (<*Cedrus libani* GR 15> AND <*Cedrus libani* GE #SC Trees>) OR ((<*Cedrus atlantica* GR 15> AND
 <*Cedrus atlantica* GE #SC Trees>) NOT <\$\$N DEG_LAT GR 36>)

4 T39 Mediterranean and Balkan subalpine *Pinus heldreichii*-*Pinus peuce* forest
 <#TC *Pinus-heldreichii-peuce* GR 15> AND (<*Pinus heldreichii* GE #SC Trees> OR <*Pinus peuce* GE
 #SC Trees>)

4 T3A Mediterranean lowland to submontane *Pinus* forest
 (<#TC *Mediterranean-Pinus* GR 15> AND <#TC *Mediterranean-Pinus* GR #TC Trees EXCEPT #TC
Mediterranean-Pinus>) NOT ((<\$\$C Ecoreg_WWF EQ PA0402> OR <\$\$C Ecoreg_WWF EQ
 PA0406>) OR <\$\$C Ecoreg_WWF EQ PA0445>)

4 T3B *Pinus canariensis* forest
 (<*Pinus canariensis* GR 15> AND <*Pinus canariensis* GE #SC Trees>) NOT <\$\$N DEG_LON GR -15>

4 T3C *Taxus baccata* forest
 ((<*Taxus baccata* GR 25> AND <*Taxus baccata* GE #SC Trees>) AND <#01 +05 *Eutrophic-deciduous-*
forest-species>) NOT (<\$\$C Country EQ Poland> AND <\$\$N DEG_LAT GR 49.5>)

4 T3D Mediterranean Cupressaceae forest
(<#TC Cupressaceae-trees GR 15> AND <#TC Cupressaceae-trees GE #TC Trees EXCEPT #TC Cupressaceae-trees>) OR ((<Cupressus sempervirens GR 15> AND <Cupressus sempervirens GE #SC Trees>) AND <\$\$N DEG_LON GR 23.5>)

4 T3E Macaronesian Juniperus forest
<#TC Macaronesian-junipers GR 15> AND <#TC Macaronesian-junipers GE #TC Trees EXCEPT #TC Macaronesian-junipers>

4 T3F Dark taiga
((<#TC Dark-taiga-trees GR 15> AND <#TC Dark-taiga-trees GR #TC Trees EXCEPT #TC Dark-taiga-trees>) NOT ((<#03 Bog-vascular-plants-specialists> OR <#TC Bog-vascular-plants-specialists GR 20>) OR <#TC Sphagnum GR 30>)) AND ((((<\$\$C Ecoreg_WWF EQ PA0436> OR <\$\$C Ecoreg_WWF EQ PA0520>) OR <\$\$C Ecoreg_WWF EQ PA0608>) OR <\$\$C Ecoreg_WWF EQ PA0610>) OR <\$\$C Ecoreg_WWF EQ PA1110>) OR (<\$\$C Ecoreg_WWF EQ PA0412> AND ((<\$\$N DEG_LAT GR 51> AND <\$\$N DEG_LON GR 22>) OR (<\$\$N DEG_LAT GR 52> AND <\$\$N DEG_LON GR 19>))))

4 T3G Pinus sylvestris light taiga
((<Pinus sylvestris GR 15> AND <#TC Pinus sylvestris GR #TC Trees EXCEPT #TC Pinus sylvestris>) NOT ((<#03 Bog-vascular-plants-specialists> OR <#TC Bog-vascular-plants-specialists GR 20>) OR <#TC Sphagnum GR 30>)) AND ((((<\$\$C Ecoreg_WWF EQ PA0436> NOT <### Dry-continental-pine-forest-species GR ### Lowland-to-alpine-heath-dwarf-shrubs>) OR <\$\$C Ecoreg_WWF EQ PA0520>) OR <\$\$C Ecoreg_WWF EQ PA0608>) OR <\$\$C Ecoreg_WWF EQ PA0610>) OR <\$\$C Ecoreg_WWF EQ PA1110>))

4 T3H Larix light taiga
(<Larix sibirica GR 15> AND <Larix sibirica GE #SC Trees>) NOT (((<#03 Bog-vascular-plants-specialists> OR <#TC Bog-vascular-plants-specialists GR 20>) OR <#TC Sphagnum GR 30>) OR <\$\$C Ecoreg_WWF EQ PA0436>)

4 T3J Pinus and Larix mire forest
(((<#TC Bog-Pinus GR 10> AND <#TC Bog-Pinus GR #TC Trees|#TC Shrubs EXCEPT #TC Bog-Pinus>) OR (<Larix sibirica GR 10> AND <#TC Larix sibirica GR #TC Trees EXCEPT #TC Larix sibirica>)) AND ((<#02 Bog-vascular-plants-specialists> OR <#TC Bog-vascular-plants-specialists GR 20>) AND <#TC Sphagnum GR 30>)) NOT <\$\$C Country EQ Ireland>

4 T3K Picea mire forest
((<#TC Picea GR 10> AND <#TC Picea GR #TC Trees EXCEPT #TC Picea>) AND <#TC Picea GR #TC Pinus mugo>) AND ((<#02 Bog-vascular-plants-specialists> OR <#TC Bog-vascular-plants-specialists GR 20>) AND <#TC Sphagnum GR 30>)

4 T3M Coniferous plantation of non site-native trees
<#TC Non-native-conifer-trees GR #TC Native-trees|#TC Non-native-broadleaf-deciduous-trees|#TC Non-native-broadleaf-evergreen-trees> AND <#TC Non-native-conifer-trees GR 15>

4 T3M Coniferous plantation of non site-native trees
(<Pinus pinaster GR 15> AND <#TC Pinus pinaster GR #TC Trees EXCEPT #TC Pinus pinaster>) AND (((<\$\$C Ecoreg_WWF EQ PA0402> OR <\$\$C Ecoreg_WWF EQ PA0406>) OR <\$\$C Ecoreg_WWF EQ PA0445>) OR <\$\$C Coast_EEA EQ ATL_COAST>)

4 T3M Coniferous plantation of non site-native trees

(<Pinus canariensis GR 15> AND <#TC Pinus canariensis GR #TC Trees EXCEPT #TC Pinus canariensis>
AND <\$\$N DEG_LON GR -15>

4 T3M Coniferous plantation of non site-native trees
(<Cedrus atlantica GR 15> AND <#TC Cedrus atlantica GR #TC Trees EXCEPT #TC Cedrus atlantica>
AND <\$\$N DEG_LAT GR 36>

4 T3M Coniferous plantation of non site-native trees
(<#TC Picea GR 25> AND <#TC Picea GR #TC Trees EXCEPT #TC Picea>) AND (<\$\$C Country EQ Ireland>
OR (<\$\$C Country EQ United Kingdom> OR (<\$\$C Country EQ Spain> OR (<\$\$C Country
EQ Belgium> OR (<\$\$C Country EQ Netherlands> OR (<\$\$C Country EQ Denmark> OR
((<\$\$C Country EQ Germany> AND <\$\$N DEG_LAT GR 52>) OR (<\$\$C Country EQ France>
AND (<\$\$N DEG_LON GR -5> NOT <\$\$N DEG_LON GR 4>)))))))))

4 T3M Coniferous plantation of non site-native trees
((<#TC Picea GR 25> AND <#TC Picea GR #TC Trees EXCEPT #TC Picea>) NOT ((<#02 Bog-vascular-
plants-specialists> OR <#TC Bog-vascular-plants-specialists GR 20>) AND <#TC
Sphagnum GR 30>)) AND ((<\$\$N DEG_LON GR 4> AND (<\$\$N DEG_LAT GR 0> NOT <\$\$N
DEG_LAT GR 52>)) AND (<\$\$N Altitude (m) GR 0> NOT <\$\$N Altitude (m) GR 500>))

4 T3M Coniferous plantation of non site-native trees
(<#TC Temperate-Abies GR 25> AND <#TC Temperate-Abies GR #TC Trees EXCEPT #TC Temperate-Abies>)
AND (<\$\$C Ecoreg_WWF EQ PA0402> OR (<\$\$C Country EQ Ireland> OR <\$\$C Country EQ
United Kingdom>))

4 T3M Coniferous plantation of non site-native trees
(<Larix decidua GR 25> AND <#TC Larix decidua GR #TC Trees EXCEPT #TC Larix decidua>) AND (<\$\$N
Altitude (m) GR 0> NOT <\$\$N Altitude (m) GR 1000>)

4 T3M Coniferous plantation of non site-native trees
(<Larix sibirica GR 15> AND <Larix sibirica GE #SC Trees>) AND <\$\$C Ecoreg_WWF EQ PA0436>

4 T3M Coniferous plantation of non site-native trees
(<Pinus sylvestris GR 15> AND <#TC Pinus sylvestris GR #TC Trees EXCEPT #TC Pinus sylvestris>)
AND (<\$\$C Ecoreg_WWF EQ PA0402> OR (<\$\$C Country EQ Ireland> OR (<\$\$C Country
EQ United Kingdom> NOT <\$\$C Ecoreg_WWF EQ PA0503>)))

4 T3M Coniferous plantation of non site-native trees
(<Pinus nigra GR 15> AND <#TC Pinus nigra GR #TC Trees EXCEPT #TC Pinus nigra>) AND (<\$\$C
Ecoreg_WWF EQ PA0402> OR ((<\$\$N DEG_LAT GR 45.5> NOT (<\$\$C Country EQ Austria>
OR (<\$\$C Country EQ Italy> OR <\$\$C Country EQ Slovenia>))) OR (<\$\$N Altitude
(m) GR 0> NOT <\$\$N Altitude (m) GR 300>)))

4 T3M Coniferous plantation of non site-native trees
(<Cupressus sempervirens GR 15> AND <#TC Cupressus sempervirens GR #TC Trees EXCEPT #TC Cupressus
sempervirens>) NOT <\$\$N DEG_LON GR 20>

2 C11a Permanent oligotrophic waterbody with very soft-water species
<##Q +04 C11a-Permanent-oligotrophic-waterbody-with-very-soft-water-species> NOT <#TC Trees|#TC
Shrubs GR 15>

2 C11b Permanent oligotrophic to mesotrophic waterbody with soft-water species

<##Q +04 C11b-Permanent-oligotrophic-to-mesotrophic-waterbody-with-soft-water-species> NOT <#TC
Trees|#TC Shrubs GR 15>

2 C12a Permanent oligotrophic to mesotrophic waterbody with Characeae
<##Q +04 C12a-Permanent-oligotrophic-to-mesotrophic-waterbody-with-Characeae> NOT <#TC
Trees|#TC Shrubs GR 15>

2 C12b Mesotrophic to eutrophic waterbody with vascular plants
<##Q +04 C12b-Mesotrophic-to-eutrophic-waterbody-with-vascular-plants> NOT <#TC Trees|#TC
Shrubs GR 15>

2 C14 Permanent dystrophic waterbody
<##Q +04 C14-Permanent-dystrophic-waterbody> NOT <#TC Trees|#TC Shrubs GR 15>

2 C15 Permanent inland saline and brackish waterbody
(<##Q +04 C15-Permanent-inland-saline-and-brackish-waterbody> NOT <#TC Trees|#TC Shrubs GR 15>)
AND <\$\$C Coast_EEA EQ N_COAST>

2 C16b Mediterranean temporary waterbody
<##Q +04 C16b-Mediterranean-temporary-waterbody> NOT <#TC Trees|#TC Shrubs GR 15>

2 C21a Base-poor spring and spring brook
<##Q +04 C21a-Base-poor-spring-and-spring-brook> NOT <#TC Trees|#TC Shrubs GR 15>

2 C21b Calcareous spring and spring brook
<##Q +04 C21b-Calcareous-spring-and-spring-brook> NOT <#TC Trees|#TC Shrubs GR 15>

2 C22a Permanent non-tidal, fast, turbulent watercourse of montane to alpine regions
with mosses
<##Q +04 C22a-Permanent-non-tidal-fast-turbulent-watercourse-of-montane-to-alpine-regions-
with-mosses> NOT <#TC Trees|#TC Shrubs GR 15>

2 C22b Permanent non-tidal, fast, turbulent watercourse of plains and montane regions
with Ranunculus spp.
<##Q +04 C22b-Permanent-non-tidal-fast-turbulent-watercourse-of-plains-montane-regions-with-
Ranunculus> NOT <#TC Trees|#TC Shrubs GR 15>

2 C23 Permanent non-tidal, smooth-flowing watercourse
<##Q +04 C23-Permanent-non-tidal-smooth-flowing-watercourse> NOT <#TC Trees|#TC Shrubs GR 15>

2 C24 Tidal river, upstream from the estuary
<##Q +04 C24-Tidal-river-upstream-from-the-estuary> NOT <#TC Trees|#TC Shrubs GR 15>

2 C25a Temperate temporary running watercourse
<##Q +04 C25a-Temperate-temporary-running-watercourse> NOT <#TC Trees|#TC Shrubs GR 15>

2 C35a Periodically exposed shore with stable, eutrophic sediments with pioneer or
ephemeral vegetation
<##Q +04 C35a-Periodically-exposed-shore-with-stable-eutrophic-sediments-with-pioneer-
vegetation> NOT <#TC Trees|#TC Shrubs GR 15>

2 C35b Periodically exposed shore with stable, mesotrophic sediments with pioneer or
ephemeral vegetation

<##Q +04 C35b-Periodically-exposed-shore-with-stable-mesotrophic-sediments-with-pioneer-vegetation> NOT <#TC Trees|#TC Shrubs GR 15>

2 C35c Periodically exposed saline shore with pioneer or ephemeral vegetation

<##Q +04 C35c-Periodically-exposed-saline-shore-with-pioneer-vegetation> NOT <#TC Trees|#TC Shrubs GR 15>

2 C35d Unvegetated or sparsely vegetated shore with mobile sediments in montane and alpine regions

<##Q +04 C35d-Unvegetated-or-sparsely-vegetated-shore-with-mobile-sediments-in-montane-alpine-regions> NOT <#TC Trees|#TC Shrubs GR 15>

2 C35e Unvegetated or sparsely vegetated shore with mobile sediments in the Mediterranean region

<##Q +04 C35e-Unvegetated-or-sparsely-vegetated-shore-with-mobile-sediments-in-the-Mediterranean-region> NOT <#TC Trees|#TC Shrubs GR 15>

5 H21 Boreal and arctic siliceous scree and block field

((<##Q +03 H21-Boreal-and-arctic-siliceous-scrree-and-block-field> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)) AND (<\$N DEG_LAT GR 58> NOT <\$C Dataset EQ Swedish_National_Forest_Inventory>)

5 H22 Boreal and arctic base-rich scree

((<##Q +03 H22-Boreal-and-arctic-base-rich-scrree> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)) AND <\$N DEG_LAT GR 58>

5 H23 Temperate high-mountain siliceous scree

(<##Q +03 H23-Temperate-high-mountain-siliceous-scrree> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)

5 H24 Temperate high-mountain base-rich scree

(<##Q +03 H24-Temperate-high-mountain-base-rich-scrree> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)

5 H25 Temperate, lowland to montane siliceous scree

(<##Q +03 H25-Temperate-lowland-to-montane-siliceous-scrree> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)

5 H26a Temperate, lowland to montane base-rich scree

(<##Q +03 H26a-Temperate-lowland-to-montane-base-rich-scrree> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)

5 H26b Western Mediterranean base-rich scree

((<##Q +03 H26b-Western-Mediterranean-base-rich-scrree> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)) NOT <\$N DEG_LON GR 15>

5 H26c Eastern Mediterranean base-rich scree

((<##Q +03 H26c-Eastern-Mediterranean-base-rich-scrree> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)) NOT ((<\$N DEG_LON GR 0> NOT <\$N DEG_LON GR 15>) OR <\$N DEG_LAT GR 45>)

5 H31a Boreal and arctic siliceous inland cliff
 ((<##Q +03 H31a-Boreal-and-arctic-siliceous-inland-cliff> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)) NOT (<\$\$N DEG_LAT GR 0> NOT <\$\$N DEG_LAT GR 57>)

5 H31b Temperate high-mountain siliceous inland cliff
 (<##Q +03 H31b-Temperate-high-mountain-siliceous-inland-cliff> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)

5 H31c Temperate, lowland to montane siliceous inland cliff
 (<##Q +03 H31c-Temperate-lowland-to-montane-siliceous-inland-cliff> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)

5 H31d Mediterranean siliceous inland cliff
 (<##Q +03 H31d-Mediterranean-siliceous-inland-cliff> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)

5 H32a Boreal and arctic base-rich inland cliff
 ((<##Q +03 H32a-Boreal-and-arctic-base-rich-inland-cliff> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)) NOT (<\$\$N DEG_LAT GR 0> NOT <\$\$N DEG_LAT GR 57>)

5 H32b Temperate high-mountain base-rich inland cliff
 (<##Q +03 H32b-Temperate-high-mountain-base-rich-inland-cliff> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)

5 H32c Temperate, lowland to montane base-rich inland cliff
 (<##Q +03 H32c-Temperate-lowland-to-montane-base-rich-inland-cliff> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)

5 H32d Mediterranean base-rich inland cliff
 ((<##Q +03 H32d-Mediterranean-base-rich-inland-cliff> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)) AND (<\$\$N DEG_LAT GR 0> NOT <\$\$N DEG_LAT GR 46>)

5 H32e Boreal ultramafic inland cliff
 ((<##Q +03 H32ef-Ultramafic-inland-cliff> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)) AND (((<\$\$C Ecoreg_WWF EQ PA0436> OR <\$\$C Ecoreg_WWF EQ PA0520>) OR <\$\$C Ecoreg_WWF EQ PA0608>) OR <\$\$C Ecoreg_WWF EQ PA0610>) OR <\$\$C Ecoreg_WWF EQ PA1110>)

5 H32f Temperate ultramafic inland cliff
 (<##Q +03 H32ef-Ultramafic-inland-cliff> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT ((<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>) NOT (((<\$\$C Ecoreg_WWF EQ PA0436> OR <\$\$C Ecoreg_WWF EQ PA0520>) OR <\$\$C Ecoreg_WWF EQ PA0608>) OR <\$\$C Ecoreg_WWF EQ PA0610>) OR <\$\$C Ecoreg_WWF EQ PA1110>))

5 H32g Mediterranean ultramafic inland cliff
 (<##Q +03 H32g-Mediterranean-ultramafic-inland-cliff> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)

5 H33 Macaronesian inland cliff
(<##Q +03 H33-Macaronesian-inland-cliff> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)

5 H34 Wet inland cliff
(<##Q +03 H34-Wet-inland-cliff> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)

5 H51b Polar desert
((<##Q +03 H51b-Polar-desert> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)) NOT (<\$N DEG_LAT GR 0> NOT <\$N DEG_LAT GR 65>)

5 H61 Mediterranean and temperate volcanic field
(<##Q +03 H61-Mediterranean-and-temperate-volcanic-field> AND <#01 +10 Inland-sparsely-vegetated-habitat-species>) NOT (<#T\$ GE 30> OR <#TC Trees|#TC Shrubs GR 15>)

4 I1 Arable land and market gardens
<#TC Crops GR 50> OR (<#TC Crops GR #T\$> OR <#SC Crops GR #\$\$>)

2 I1! Arable land and market gardens
((<##Q +04 I1-Arable-land-and-market-gardens> AND <#03 +04 I1-Arable-land-and-market-gardens>) AND <#01 Crops>) NOT <#TC Trees|#TC Shrubs GR 15>

4 I14 Inundated or inundatable croplands, including rice fields
<Oryza sativa GR 50> OR (<#TC Oryza sativa GR #T\$> OR <#SC Oryza sativa GR #\$\$>)

2 I14! Inundated or inundatable croplands, including rice fields
(<##Q +04 I14-Inundated-or-inundatable-croplands-including-rice-fields> AND <#01 +04 I14-Inundated-or-inundatable-croplands-including-rice-fields>) AND <Oryza sativa GR 00>

4 IE16 Subnitrophilous annual grassland
(<#TC +04 IE16-Subnitrophilous-annual-grassland GR 50> AND <#02 +04 IE16-Subnitrophilous-annual-grassland>) NOT <#TC Trees|#TC Shrubs GR 15>

2 IE16!Subnitrophilous annual grassland
<##Q +04 IE16-Subnitrophilous-annual-grassland> NOT <#TC Trees|#TC Shrubs GR 15>

2 IE1E Trampled xeric grassland with annuals
(<##Q +04 IE1E-Trampled-xeric-grassland-with-annuals> AND <#02 +04 IE1E-Trampled-xeric-grassland-with-annuals>) NOT <#TC Trees|#TC Shrubs GR 15>

2 IE28 Trampled mesophilous grassland with annuals
(<##Q +04 IE28-Trampled-mesophilous-grassland-with-annuals> AND <#02 +04 IE28-Trampled-mesophilous-grassland-with-annuals>) NOT <#TC Trees|#TC Shrubs GR 15>

2 IE51 Anthropogenic herb stands
(<##Q +04 IE51-Anthropogenic-herb-stands> AND <#04 +04 IE51-Anthropogenic-herb-stands>) NOT <#TC Trees|#TC Shrubs GR 15>

1 Qa Mires

(<##Q +10 Mire-species> AND (<#03 +10 Mire-species> AND <#01 Mire-specialist-bryophytes>)) NOT
(<#TC Trees GR 15> OR <#TC Shrubs GR 15>)

1 Qb Wetlands

<##Q +10 Wetland-species> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 15>)

1 R Grasslands

<##Q +10 Grassland-species> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 15>)

3 Sa Scrub

((<#TC Shrubs GR 25> AND <#TC Shrubs GR \$50>) AND <#TC Shrubs GR #TC Trees>) NOT (<#TC Trees GR
25> OR <#TC Native-light-canopy-trees GR 15>)

3 Sb Dwarf-shrub vegetation

(<#TC Dwarf-shrubs GR 25> AND (<#TC Dwarf-shrubs GR \$50> OR <#SC Dwarf-shrubs GR ##\$>)) NOT
((<#TC Bog-vascular-plants-specialists GR 10> OR <#TC Sphagnum GR 25>) OR (<#TC
Trees GR 05> OR <#TC Shrubs GR 15>))

3 T Forest

(<#TC Native-trees GR 25> OR <#TC Native-light-canopy-trees GR 15>) NOT <#TC Non-native-trees
GR 15>

1 C Surface waters

(<##Q +10 Aquatic-species> AND <#TC +10 Aquatic-species GR \$75>) NOT <#TC Trees|#TC Shrubs GR
15>

1 H Inland sparsely vegetated

<##Q +10 Inland-sparsely-vegetated-habitat-species> NOT (<#T\$ GE 30> OR (<#TC Trees GR 05> OR
<#TC Shrubs GR 15>))

1 I Anthropogenic herbaceous vegetation

<##Q +10 Synanthropic-species> NOT (<#TC Trees GR 05> OR <#TC Shrubs GR 15>)

Appendix E: Lists of indicator species of the revised EUNIS Coastal habitats (N) and Wetlands (Q)

N11 - Atlantic, Baltic and Arctic sand beach

*Diagnostic species (phi coefficient * 100)*

Honckenya peploides	34.7	Atriplex littoralis	30.7
Atriplex laciniata	28.0	Salsola kali aggr.	26.9
Atriplex prostrata	26.8	Leymus arenarius	22.8
Atriplex calotheca	20.9	Elytrigia juncea	19.9
Atriplex glabriuscula	18.5		

Constant species (occurrence frequencies)

Cakile maritima	89.0	Salsola kali aggr.	49.0
Atriplex prostrata	46.0	Elytrigia juncea	39.0
Honckenya peploides	36.0	Atriplex littoralis	25.0
Leymus arenarius	21.0	Tripleurospermum maritimum aggr.	17.0
Ammophila arenaria	16.0	Atriplex laciniata	15.0
Atriplex calotheca	13.0	Polygonum maritimum	12.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Cakile maritima	17.0	Atriplex prostrata	12.0
Honckenya peploides	10.0	Atriplex littoralis	7.0
Atriplex calotheca	6.0		

N12 - Mediterranean and Black Sea sand beach

*Diagnostic species (phi coefficient * 100)*

Polygonum maritimum	46.5	Cakile maritima	41.6
Euphorbia peplis	36.4	Salsola kali aggr.	34.1
Medicago marina	21.7	Eryngium maritimum	21.7
Xanthium orientale	20.7	Calystegia soldanella	20.0
Sporobolus pungens	17.2	Pancratium maritimum	15.1

Constant species (occurrence frequencies)

Cakile maritima	79.0	Salsola kali aggr.	62.0
Polygonum maritimum	54.0	Eryngium maritimum	41.0
Euphorbia peplis	32.0	Xanthium orientale	29.0
Elytrigia juncea	28.0	Medicago marina	27.0
Calystegia soldanella	24.0	Sporobolus pungens	19.0
Pancratium maritimum	19.0	Cynodon dactylon	15.0
Leymus racemosus	14.0	Matthiola tricuspidata	13.0
Atriplex prostrata	13.0	Euphorbia paralias	12.0

Glaucium flavum 11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Salsola kali aggr. 10.0 Sporobolus pungens 8.0
Cakile maritima 6.0

N13 - Atlantic and Baltic shifting coastal dune

*Diagnostic species (phi coefficient * 100)*

Ammophila arenaria 37.0 Leymus arenarius 32.3
Elytrigia juncea 26.2 x Ammocalamagrostis baltica 26.1
Calystegia soldanella 19.6 Honckenya peploides 19.2
Euphorbia paralias 17.5

Constant species (occurrence frequencies)

Ammophila arenaria 66.0 Elytrigia juncea 51.0
Festuca rubra aggr. 33.0 Leymus arenarius 30.0
Eryngium maritimum 28.0 Calystegia soldanella 24.0
Honckenya peploides 20.0 Euphorbia paralias 20.0
Carex arenaria 19.0 Cakile maritima 18.0
x Ammocalamagrostis baltica 12.0 Sonchus arvensis 12.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Ammophila arenaria 39.0 Elytrigia juncea 15.0
Leymus arenarius 7.0

N14 - Mediterranean, Macaronesian and Black Sea shifting coastal dune

*Diagnostic species (phi coefficient * 100)*

Echinophora spinosa 40.4 Medicago marina 40.0
Elytrigia juncea 38.8 Eryngium maritimum 37.7
Euphorbia paralias 35.3 Cyperus capitatus 31.0
Pancratium maritimum 30.8 Achillea maritima 28.9
Cutandia maritima 27.0 Sporobolus pungens 26.9
Ammophila arenaria 25.9 Calystegia soldanella 24.9
Anthemis maritima 21.2 Matthiola sinuata 16.6
Cakile maritima 16.3

Constant species (occurrence frequencies)

Elytrigia juncea 75.0 Eryngium maritimum 69.0
Medicago marina 49.0 Ammophila arenaria 46.0
Euphorbia paralias 40.0 Pancratium maritimum 39.0
Echinophora spinosa 37.0 Cyperus capitatus 32.0
Cakile maritima 32.0 Sporobolus pungens 30.0

Calystegia soldanella	30.0	Achillea maritima	25.0
Cutandia maritima	19.0	Polygonum maritimum	15.0
Matthiola sinuata	12.0	Anthemis maritima	12.0
Euphorbia peplis	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Ammophila arenaria	26.0	Elytrigia juncea	19.0
Achillea maritima	6.0	Sporobolus pungens	5.0

N15 - Atlantic and Baltic coastal dune grassland (grey dune)

*Diagnostic species (phi coefficient * 100)*

Corynephorus canescens	26.2	Carex arenaria	26.2
Malcolmia littorea	22.8	Armeria welwitschii	21.3
Phleum arenarium	20.9	Euphorbia portlandica	20.3
Festuca polesica	20.1	Galium arenarium	19.5
Verbascum litigiosum	18.7	Ammophila arenaria	18.6
Anchusa calcarea	17.0	Linaria caesia	16.8
Iberis procumbens	16.6	Vulpia alopecuros	16.4
Herniaria ciliolata	16.4	Thymus carnosus	15.7
Crucianella maritima	15.5		

Constant species (occurrence frequencies)

Carex arenaria	56.0	Corynephorus canescens	44.0
Ammophila arenaria	34.0	Festuca rubra aggr.	31.0
Jasione montana	22.0	Artemisia campestris	21.0
Sedum acre	20.0	Hypochaeris radicata	19.0
Hieracium umbellatum	18.0	Rumex acetosella	17.0
Ceratodon purpureus	17.0	Syntrichia ruralis aggr.	15.0
Hypnum cupressiforme aggr.	15.0	Cetraria aculeata	15.0
Plantago lanceolata	14.0	Galium verum	14.0
Euphorbia portlandica	14.0	Cladonia furcata	13.0
Calamagrostis epigejos	13.0	Phleum arenarium	12.0
Leontodon saxatilis	12.0	Dicranum scoparium	12.0
Crucianella maritima	12.0	Aira praecox	12.0
Agrostis capillaris	12.0	Helichrysum italicum	11.0
Eryngium maritimum	11.0	Cerastium semidecandrum	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Corynephorus canescens	11.0	Syntrichia ruralis aggr.	9.0
Calamagrostis epigejos	7.0	Carex arenaria	6.0

N16 - Mediterranean and Macaronesian coastal dune grassland (grey dune)

*Diagnostic species (phi coefficient * 100)*

Medicago marina	29.0	Vulpia fasciculata	27.4
Pancratium maritimum	22.4	Medicago littoralis	22.1
Elytrigia juncea	21.9	Pseudorlaya pumila	21.7
Silene niceensis	20.7	Cyperus capitatus	20.4
Eryngium maritimum	18.3	Crucianella maritima	18.2
Lagurus ovatus	17.4	Sporobolus pungens	17.1
Malcolmia ramosissima	16.9	Ononis variegata	16.8
Euphorbia terracina	16.8	Echinophora spinosa	16.5
Erodium laciniatum	16.2	Centaurea spinosa	15.7
Silene colorata	15.3	Cutandia maritima	15.2
Anthemis maritima	15.2		

Constant species (occurrence frequencies)

Elytrigia juncea	43.0	Medicago marina	36.0
Eryngium maritimum	34.0	Pancratium maritimum	29.0
Lagurus ovatus	26.0	Vulpia fasciculata	21.0
Medicago littoralis	21.0	Cyperus capitatus	21.0
Cakile maritima	21.0	Sporobolus pungens	19.0
Ammophila arenaria	18.0	Lotus cytisoides	17.0
Echinophora spinosa	15.0	Silene colorata	14.0
Crucianella maritima	14.0	Calystegia soldanella	14.0
Pseudorlaya pumila	13.0	Euphorbia paralias	13.0
Helichrysum stoechas	12.0	Euphorbia terracina	12.0
Cynodon dactylon	12.0	Achillea maritima	12.0
Silene niceensis	11.0	Salsola kali aggr.	11.0
Cutandia maritima	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

N17 - Black Sea coastal dune grassland (grey dune)

*Diagnostic species (phi coefficient * 100)*

Centaurea odessana	49.4	Leymus racemosus	43.3
Carex colchica	36.0	Crambe maritima	33.5
Secale sylvestre	31.7	Silene subconica	26.9
Linaria genistifolia	26.9	Alyssum hirsutum	25.7
Silene thymifolia	25.1	Jurinea kilaea	25.0
Eryngium maritimum	21.6	Seseli tortuosum	21.5
Lactuca tatarica	21.2	Centaurea arenaria aggr.	20.5
Silene euxina	19.3	Plantago arenaria	19.2
Artemisia arenaria	19.1	Astragalus varius	18.4
Galium humifusum	18.3	Euphorbia seguieriana	17.9
Lepidotrichum uechtritzianum	17.4	Agropyron cimmericum	16.9
Gypsophila perfoliata	16.3	Silene chersonensis	16.2

Astrodaucus littoralis	16.0	Linaria sabulosa	15.9
Festuca beckeri	15.9	Verbascum pinnatifidum	15.5
Ephedra distachya	15.1		

Constant species (occurrence frequencies)

Leymus racemosus	52.0	Eryngium maritimum	40.0
Carex colchica	35.0	Crambe maritima	33.0
Centaurea odessana	32.0	Euphorbia seguieriana	29.0
Linaria genistifolia	28.0	Secale sylvestre	26.0
Anisantha tectorum	25.0	Lactuca tatarica	24.0
Artemisia campestris	24.0	Teucrium polium aggr.	21.0
Seseli tortuosum	21.0	Syntrichia ruralis aggr.	20.0
Medicago falcata	18.0	Chondrilla juncea	18.0
Galium humifusum	18.0	Eryngium campestre	18.0
Cynanchum acutum	18.0	Centaurea arenaria aggr.	18.0
Artemisia arenaria	18.0	Xanthium orientale	17.0
Ephedra distachya	16.0	Alyssum hirsutum	16.0
Silene subconica	15.0	Senecio leucanthemifolius	15.0
Poa bulbosa	15.0	Astragalus onobrychis	15.0
Plantago arenaria	14.0	Festuca beckeri	14.0
Plantago lanceolata	13.0	Cynodon dactylon	13.0
Astragalus varius	12.0	Artemisia santonicum	12.0
Gypsophila perfoliata	11.0	Alyssum turkestanicum	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Leymus racemosus	9.0	Carex colchica	8.0
Artemisia campestris	5.0	Artemisia arenaria	5.0

N18 - Atlantic and Baltic coastal Empetrum heath

*Diagnostic species (phi coefficient * 100)*

Carex arenaria	36.6	Empetrum nigrum aggr.	32.6
Hieracium umbellatum	32.1	Salix repens	26.3
Carex trinervis	22.7	Hypnum cupressiforme aggr.	21.8
Dicranum scoparium	21.2	Lophocolea bidentata	20.1
Festuca filiformis	19.8	Genista anglica	19.4
Ammophila arenaria	18.1	Cladonia portentosa	16.3

Constant species (occurrence frequencies)

Empetrum nigrum aggr.	100.0	Carex arenaria	77.0
Dicranum scoparium	69.0	Hypnum cupressiforme aggr.	67.0
Hieracium umbellatum	52.0	Calluna vulgaris	52.0
Salix repens	46.0	Pleurozium schreberi	37.0
Ammophila arenaria	33.0	Calamagrostis epigejos	31.0
Luzula campestris aggr.	29.0	Polypodium vulgare	27.0

Erica tetralix	27.0	Pseudoscleropodium purum	25.0
Lophocolea bidentata	25.0	Cladonia arbuscula aggr.	25.0
Festuca filiformis	23.0	Cladonia portentosa	23.0
Genista anglica	17.0	Cladonia pyxidata aggr.	17.0
Avenella flexuosa	17.0	Potentilla erecta	15.0
Poa pratensis aggr.	15.0	Lotus corniculatus	15.0
Festuca rubra aggr.	13.0	Carex trinervis	13.0
Agrostis capillaris	13.0	Hypochaeris radicata	12.0
Cladonia gracilis	12.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Empetrum nigrum aggr.	79.0	Calluna vulgaris	33.0
Hypnum cupressiforme aggr.	29.0	Dicranum scoparium	6.0
Cladonia arbuscula aggr.	6.0		

N19 - Atlantic coastal Calluna and Ulex heath

*Diagnostic species (phi coefficient * 100)*

Erica cinerea	33.9	Ulex europaeus	21.9
Calluna vulgaris	19.9	Scilla verna	19.4
Festuca filiformis	18.0	Carex arenaria	17.7

Constant species (occurrence frequencies)

Calluna vulgaris	83.0	Erica cinerea	54.0
Carex arenaria	38.0	Festuca ovina	34.0
Agrostis capillaris	34.0	Potentilla erecta	33.0
Lotus corniculatus	32.0	Hypnum cupressiforme aggr.	32.0
Ulex europaeus	30.0	Hypochaeris radicata	28.0
Dicranum scoparium	26.0	Anthoxanthum odoratum aggr.	26.0
Danthonia decumbens	24.0	Dactylis glomerata	24.0
Viola riviniana	21.0	Pilosella officinarum	21.0
Leontodon saxatilis	21.0	Festuca filiformis	21.0
Plantago lanceolata	20.0	Thymus praecox	18.0
Holcus lanatus	18.0	Daucus carota	18.0
Jasione montana	17.0	Cladonia portentosa	17.0
Empetrum nigrum aggr.	16.0	Viola canina	14.0
Thymus serpyllum	14.0	Scilla verna	14.0
Salix repens	14.0	Pleurozium schreberi	14.0
Stachys officinalis	13.0	Galium verum	13.0
Festuca rubra aggr.	13.0	Carex caryophylla	13.0
Pseudoscleropodium purum	12.0	Luzula campestris aggr.	12.0
Cladonia arbuscula aggr.	12.0	Ammophila arenaria	12.0
Teucrium scorodonia	11.0	Sedum anglicum	11.0
Rumex acetosella	11.0	Hieracium umbellatum	11.0
Euphorbia portlandica	11.0	Armeria maritima	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Calluna vulgaris	58.0	Erica cinerea	37.0
Ulex europaeus	18.0	Hypnum cupressiforme aggr.	8.0
Ulex minor	7.0	Erica vagans	7.0

N1A - Atlantic and Baltic coastal dune scrub

*Diagnostic species (phi coefficient * 100)*

Hippophae rhamnoides	29.0	Carex arenaria	18.1
Vaccinium macrocarpon	16.9	Rosa rugosa	15.6
Rubus caesius	15.4	Rosa spinosissima	15.4

Constant species (occurrence frequencies)

Carex arenaria	39.0	Rubus caesius	33.0
Calamagrostis epigejos	31.0	Festuca rubra aggr.	30.0
Urtica dioica	23.0	Hippophae rhamnoides	23.0
Poa pratensis aggr.	22.0	Salix repens	20.0
Hypnum cupressiforme aggr.	19.0	Crataegus monogyna	19.0
Ligustrum vulgare	18.0	Sambucus nigra	17.0
Rubus fruticosus aggr.	17.0	Rosa spinosissima	17.0
Holcus lanatus	17.0	Galium verum	17.0
Luzula campestris aggr.	16.0	Brachythecium rutabulum	16.0
Lotus corniculatus	15.0	Jacobaea vulgaris	15.0
Cirsium arvense	15.0	Ammophila arenaria	15.0
Lonicera periclymenum	14.0	Cistus salviifolius	14.0
Solanum dulcamara	13.0	Pseudoscleropodium purum	13.0
Plantago lanceolata	13.0	Galium mollugo aggr.	13.0
Ulex europaeus	12.0	Pinus pinaster	12.0
Galium aparine	12.0	Dactylis glomerata	12.0
Cytisus scoparius	12.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Rubus caesius	14.0	Rosa spinosissima	12.0
Hippophae rhamnoides	9.0	Ligustrum vulgare	8.0
Salix cinerea	7.0	Rubus fruticosus aggr.	7.0
Ulex europaeus	6.0	Sambucus nigra	6.0
Salix repens	6.0	Myrica gale	6.0
Hypnum cupressiforme aggr.	6.0	Festuca rubra aggr.	6.0

N1B - Mediterranean and Black Sea coastal dune scrub

*Diagnostic species (phi coefficient * 100)*

Asparagus acutifolius	19.4	Smilax aspera	18.2
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Lonicera implexa 17.0

Constant species (occurrence frequencies)

Asparagus acutifolius	52.0	Smilax aspera	46.0
Rubia peregrina	39.0	Pistacia lentiscus	33.0
Juniperus oxycedrus aggr.	33.0	Phillyrea latifolia	26.0
Lonicera implexa	26.0	Rhamnus alaternus	24.0
Phillyrea angustifolia	22.0	Rubus ulmifolius	17.0
Daphne gnidium	17.0	Clematis flammula	17.0
Prasium majus	15.0	Helichrysum stoechas	15.0
Spartium junceum	13.0	Quercus ilex	13.0
Dactylis glomerata	13.0	Cistus creticus	13.0
Teucrium flavum	11.0	Ruscus aculeatus	11.0
Pinus halepensis	11.0	Myrtus communis	11.0
Geranium purpureum	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Juniperus oxycedrus aggr.	19.0	Smilax aspera	11.0
Tamarix hampeana	7.0	Spartium junceum	7.0
Phillyrea angustifolia	7.0	Juniperus phoenicea	7.0
Suaeda vera	6.0	Rubus ulmifolius	6.0

N1C - Macaronesian coastal dune scrub

*Diagnostic species (phi coefficient * 100)*

Tetraena fontanesii	68.7	Traganum moquinii	61.5
Polycarpaea nivea	58.4	Frankenia laevis	40.1
Heliotropium crispum	37.4	Atriplex glauca	36.5
Launaea arborescens	31.7	Suaeda vermiculata	29.7
Lotus sessilifolius	23.2	Salsola vermiculata	23.0
Schizogyne sericea	22.9	Reichardia crystallina	21.8
Pulicaria burchardii	20.0	Polycarpaea teneriffae	20.0
Launaea mucronata	20.0	Astragalus solandri	19.9
Echium bonnetii	19.8	Ononis tournefortii	19.5
Ononis serrata	19.5	Citrullus colocynthis	19.5
Medicago laciniata	19.4	Mesembryanthemum nodiflorum	19.2
Helianthemum canariense	18.8	Suaeda vera	18.4
Mairetis microsperma	17.2	Dichanthium foveolatum	17.0
Lotus lancerottensis	16.9	Patellifolia procumbens	16.7
Volutaria lippii	15.9	Launaea nudicaulis	15.6
Artemisia reptans	15.4		

Constant species (occurrence frequencies)

Tetraena fontanesii	68.0	Polycarpaea nivea	44.0
Frankenia laevis	44.0	Traganum moquinii	40.0

Launaea arborescens	40.0	Atriplex glauca	28.0
Suaeda vera	24.0	Schizogyne sericea	24.0
Salsola vermiculata	20.0	Heliotropium crispum	20.0
Suaeda vermiculata	16.0	Mesembryanthemum nodiflorum	16.0
Lotus sessilifolius	16.0	Reichardia crystallina	12.0
Limonium pectinatum	12.0	Helianthemum canariense	12.0
Euphorbia balsamifera	12.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Traganum moquini	28.0	Tetraena fontanesii	28.0
Polycarpha nivea	20.0		

N1D - Atlantic and Baltic broad-leaved coastal dune forest

*Diagnostic species (phi coefficient * 100)*

Lonicera periclymenum	17.5	Kindbergia praelonga	16.2
Ribes rubrum aggr.	16.0		

Constant species (occurrence frequencies)

Quercus robur	43.0	Lonicera periclymenum	43.0
Crataegus monogyna	40.0	Urtica dioica	35.0
Rubus caesius	31.0	Rubus fruticosus aggr.	30.0
Carex arenaria	29.0	Pseudoscleropodium purum	28.0
Hedera helix	28.0	Galium aparine	28.0
Calamagrostis epigejos	28.0	Sorbus aucuparia	27.0
Geum urbanum	27.0	Kindbergia praelonga	25.0
Acer pseudoplatanus	23.0	Brachythecium rutabulum	22.0
Pinus pinaster	21.0	Holcus lanatus	21.0
Ligustrum vulgare	20.0	Rosa canina aggr.	19.0
Poa trivialis	19.0	Moehringia trinervia	19.0
Geranium robertianum	19.0	Dactylis glomerata	19.0
Rubia peregrina	18.0	Hypnum cupressiforme aggr.	18.0
Betula pendula	18.0	Dicranum scoparium	17.0
Sambucus nigra	16.0	Poa pratensis aggr.	16.0
Betula pubescens	16.0	Agrostis capillaris	16.0
Ulex europaeus	15.0	Ribes rubrum aggr.	15.0
Populus tremula	15.0	Glechoma hederacea	15.0
Teucrium scorodonia	14.0	Polypodium vulgare	14.0
Dryopteris dilatata	14.0	Prunus serotina	13.0
Frangula alnus	13.0	Cytisus scoparius	13.0
Ruscus aculeatus	12.0	Plagiomnium affine aggr.	12.0
Mnium hornum	12.0	Ilex aquifolium	12.0
Fraxinus excelsior	12.0	Euonymus europaeus	12.0
Dryopteris filix-mas	12.0	Avenella flexuosa	12.0
Anthriscus sylvestris	12.0	Alnus glutinosa	12.0

Stellaria media	11.0	Festuca rubra aggr.	11.0
Fagus sylvatica	11.0	Corylus avellana	11.0
Cistus salviifolius	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Quercus robur	24.0	Hedera helix	11.0
Betula pubescens	11.0	Quercus ilex	10.0
Populus tremula	9.0	Acer pseudoplatanus	8.0
Pinus pinaster	5.0	Crataegus monogyna	5.0
Betula pendula	5.0	Alnus glutinosa	5.0

N1E - Black Sea broad-leaved coastal dune forest

*Diagnostic species (phi coefficient * 100)*

Elaeagnus angustifolia	83.8	Scorzonera parviflora	35.8
Plantago cornutii	35.7	Inula caspica	34.3
Veronica triphyllos	34.1	Cynoglossum officinale	34.0
Papaver dubium	33.9	Salvia sclarea	33.4
Bupleurum rotundifolium	33.0	Potentilla chrysantha	32.6
Elytrigia elongata	32.5	Astragalus asper	32.5
Echinops bannaticus	32.4	Bryonia alba	31.9
Cirsium alatum	30.8	Achillea euxina	30.4
Euphorbia platyphyllos	30.3	Senecio leucanthemifolius	30.2
Erysimum cuspidatum	29.4	Centaurea salonitana	28.5
Milium vernale	27.5	Melilotus neapolitanus	26.4
Valerianella carinata	25.3	Diploaxis muralis	24.3
Inula aspera	24.2	Erodium ciconium	24.2
Achillea clypeolata	24.2	Sonchus palustris	23.8
Prunus dulcis	23.7	Ruta graveolens	23.5
Typha laxmannii	22.8	Arabidopsis thaliana	22.3
Sisymbrium altissimum	22.1	Cruciata pedemontana	21.6
Seseli rigidum	21.3	Syringa vulgaris	21.0
Viola kitaibeliana	20.9	Tamarix laxa	20.9
Colutea arborescens	20.7	Verbascum blattaria	19.6
Cynanchum acutum	19.5	Limonium meyeri	18.6
Gypsophila perfoliata	18.5	Hypericum rumeliacum	18.4
Jacobaea erucifolia	18.2	Carex extensa	18.1
Stipa borysthena aggr.	18.0	Onobrychis alba	18.0
Jasminum fruticans	17.7	Galium aparine	16.7
Epilobium tetragonum	16.5	Orlaya grandiflora	16.3
Myosotis sicula	16.1	Xeranthemum annuum	15.8
Paliurus spina-christi	15.5	Malva sylvestris	15.5
Calamagrostis epigejos	15.5	Halimione verrucifera	15.2

Constant species (occurrence frequencies)

Elaeagnus angustifolia	88.0	Phragmites australis	50.0
Galium aparine	50.0	Senecio leucanthemifolius	38.0
Elytrigia elongata	38.0	Calamagrostis epigejos	38.0
Veronica triphyllos	25.0	Scorzonera parviflora	25.0
Plantago cornutii	25.0	Papaver dubium	25.0
Limonium meyeri	25.0	Chenopodium album	25.0
Elytrigia repens	25.0	Cynoglossum officinale	25.0
Cynanchum acutum	25.0	Capsella bursa-pastoris	25.0
Arabidopsis thaliana	25.0	Anisantha tectorum	25.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Elaeagnus angustifolia	62.0	Elytrigia elongata	38.0
Fraxinus ornus	12.0	Calamagrostis epigejos	12.0

N1F - Baltic coniferous coastal dune forest

*Diagnostic species (phi coefficient * 100)*

Dicranum undulatum	48.0	Goodyera repens	40.7
Pseudoscleropodium purum	39.4	Carex arenaria	32.9
Chimaphila umbellata	27.2	Moneses uniflora	26.0
Pinus sylvestris	25.8	Hypopitys monotropa	23.5
Pleurozium schreberi	22.0	Hylocomium splendens	22.0
Empetrum nigrum aggr.	21.4	Pyrola chlorantha	20.3
Cladonia portentosa	20.0	Betula pendula	18.7
Melampyrum pratense	18.5	Quercus robur	17.8
Polypodium vulgare	17.1	Neottia cordata	17.1
Dicranum scoparium	16.2	Avenella flexuosa	15.9
Vaccinium vitis-idaea	15.7	Hieracium umbellatum	15.5
Cladonia arbuscula aggr.	15.5	Peltigera polydactyla	15.3
Cladonia scabruscula	15.3	Dicranum polysetum	15.2

Constant species (occurrence frequencies)

Pinus sylvestris	97.0	Pseudoscleropodium purum	87.0
Pleurozium schreberi	82.0	Hylocomium splendens	72.0
Avenella flexuosa	72.0	Carex arenaria	69.0
Empetrum nigrum aggr.	67.0	Vaccinium vitis-idaea	59.0
Quercus robur	56.0	Dicranum scoparium	54.0
Calluna vulgaris	54.0	Betula pendula	54.0
Vaccinium myrtillus	51.0	Dicranum undulatum	46.0
Melampyrum pratense	44.0	Hypnum cupressiforme aggr.	41.0
Sorbus aucuparia	38.0	Goodyera repens	36.0
Polypodium vulgare	33.0	Cladonia arbuscula aggr.	33.0
Frangula alnus	28.0	Cladonia portentosa	28.0
Anthoxanthum odoratum aggr.	28.0	Juniperus communis subsp. communis	26.0

Hieracium umbellatum	26.0	Rhododendron tomentosum	21.0
Dicranum polysetum	21.0	Cladonia furcata	21.0
Vaccinium uliginosum	18.0	Moneses uniflora	18.0
Luzula pilosa	18.0	Leucobryum glaucum	18.0
Salix repens	15.0	Poa pratensis aggr.	15.0
Luzula campestris aggr.	15.0	Hypopitys monotropa	15.0
Erica tetralix	15.0	Sphagnum capillifolium aggr.	13.0
Rubus fruticosus aggr.	13.0	Pyrola chlorantha	13.0
Pohlia nutans	13.0	Picea abies	13.0
Neottia cordata	13.0	Lophocolea bidentata	13.0
Chimaphila umbellata	13.0	Festuca rubra aggr.	13.0
Fagus sylvatica	13.0	Cladonia rangiferina	13.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Pinus sylvestris	95.0	Pseudoscleropodium purum	51.0
Pleurozium schreberi	46.0	Avenella flexuosa	26.0
Empetrum nigrum aggr.	18.0	Calluna vulgaris	18.0
Vaccinium vitis-idaea	15.0	Hylocomium splendens	8.0
Rhododendron tomentosum	5.0	Polypodium vulgare	5.0
Pinus nigra	5.0		

N1G - Mediterranean coniferous coastal dune forest

*Diagnostic species (phi coefficient * 100)*

Pinus pinea	43.6	Pinus halepensis	25.4
Smilax aspera	22.6	Asparagus acutifolius	20.3
Pistacia lentiscus	17.0	Rhamnus alaternus	16.7
Cistus creticus	15.2		

Constant species (occurrence frequencies)

Smilax aspera	57.0	Asparagus acutifolius	54.0
Rubia peregrina	49.0	Pinus pinea	49.0
Pistacia lentiscus	46.0	Pinus halepensis	46.0
Quercus ilex	32.0	Rhamnus alaternus	30.0
Ruscus aculeatus	27.0	Phillyrea latifolia	24.0
Phillyrea angustifolia	24.0	Cistus creticus	24.0
Sonchus bulbosus	19.0	Lonicera implexa	19.0
Lagurus ovatus	19.0	Daphne gnidium	19.0
Clematis flammula	19.0	Quercus coccifera	16.0
Prasium majus	16.0	Myrtus communis	16.0
Juniperus oxycedrus aggr.	16.0	Hedera helix	16.0
Dactylis glomerata	16.0	Brachypodium retusum	16.0
Teucrium chamaedrys	14.0	Piptatherum miliaceum	14.0
Dorycnium hirsutum	14.0	Briza maxima	14.0
Trachynia distachya	11.0	Teucrium polium aggr.	11.0

Sonchus oleraceus	11.0	Rubus ulmifolius	11.0
Rosmarinus officinalis	11.0	Juniperus phoenicea	11.0
Hypochaeris achyrophorus	11.0	Hippocrepis emerus	11.0
Geranium robertianum	11.0	Crepis vesicaria	11.0
Cistus salviifolius	11.0	Carex halleriana	11.0
Anagallis arvensis	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Pinus halepensis	46.0	Pinus pinea	41.0
Brachypodium retusum	11.0	Pistacia lentiscus	8.0
Smilax aspera	5.0	Quercus ilex	5.0
Pinus pinaster	5.0		

N1H - Atlantic and Baltic moist and wet dune slack

*Diagnostic species (phi coefficient * 100)*

Salix repens	19.7	Hydrocotyle vulgaris	17.6
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Constant species (occurrence frequencies)

Agrostis stolonifera	45.0	Salix repens	35.0
Holcus lanatus	31.0	Festuca rubra aggr.	29.0
Phragmites australis	27.0	Lotus corniculatus	25.0
Hydrocotyle vulgaris	25.0	Trifolium repens	24.0
Mentha aquatica	24.0	Carex flacca	23.0
Juncus articulatus	22.0	Calliergonella cuspidata	21.0
Argentina anserina	21.0	Plantago lanceolata	19.0
Ranunculus repens	18.0	Galium palustre aggr.	18.0
Carex arenaria	18.0	Prunella vulgaris	17.0
Carex nigra	17.0	Poa pratensis aggr.	15.0
Ranunculus flammula	14.0	Eleocharis palustris	14.0
Calamagrostis epigejos	14.0	Linum catharticum	13.0
Leontodon saxatilis	13.0	Cerastium fontanum subsp. vulgare	13.0
Anthoxanthum odoratum aggr.	13.0	Ranunculus acris	12.0
Pseudoscleropodium purum	12.0	Potentilla erecta	12.0
Rhytiadelphus squarrosus	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Salix repens	14.0	Phragmites australis	9.0
Agrostis stolonifera	8.0	Calliergonella cuspidata	7.0
Carex nigra	5.0		

N1J - Mediterranean and Black Sea moist and wet dune slack

*Diagnostic species (phi coefficient * 100)*

Juncus littoralis	29.2	Tripidium ravennae	28.8
Schoenus nigricans	24.5	Juncus acutus	23.7
Scirpoides holoschoenus	18.3	Juncus maritimus	18.1
Phragmites australis	17.4	Plantago crassifolia	16.9
Bolboschoenus maritimus	15.8	Centaureum spicatum	15.7

Constant species (occurrence frequencies)

Phragmites australis	60.0	Schoenus nigricans	40.0
Scirpoides holoschoenus	30.0	Bolboschoenus maritimus	28.0
Juncus acutus	24.0	Juncus maritimus	22.0
Tripidium ravennae	18.0	Typha angustifolia	14.0
Tripolium pannonicum	14.0	Dittrichia viscosa	14.0
Salicornia europaea aggr.	12.0	Juncus littoralis	12.0
Hypochaeris radicata	12.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Schoenus nigricans	20.0	Phragmites australis	18.0
Bolboschoenus maritimus	10.0	Tripidium ravennae	8.0
Scirpoides holoschoenus	6.0	Cladium mariscus	6.0

N21 - Atlantic, Baltic and Arctic coastal shingle beach

*Diagnostic species (phi coefficient * 100)*

Honckenya peploides	33.0	Beta vulgaris subsp. maritima	31.4
Tripleurospermum maritimum aggr.	25.7	Atriplex praecox	24.2
Atriplex prostrata	23.8	Atriplex littoralis	21.0
Lathyrus japonicus	20.8	Rumex crispus	20.3
Atriplex glabriuscula	17.7		

Constant species (occurrence frequencies)

Tripleurospermum maritimum aggr.	41.0	Atriplex prostrata	41.0
Rumex crispus	36.0	Honckenya peploides	34.0
Beta vulgaris subsp. maritima	30.0	Festuca rubra aggr.	21.0
Argentina anserina	21.0	Sonchus arvensis	17.0
Atriplex littoralis	17.0	Elytrigia repens	16.0
Elytrigia juncea	16.0	Cakile maritima	14.0
Lathyrus japonicus	13.0	Crambe maritima	13.0
Galium aparine	12.0	Agrostis stolonifera	12.0
Cirsium arvense	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Honckenya peploides	13.0	Atriplex prostrata	10.0
Argentina anserina	8.0	Tripleurospermum maritimum aggr.	7.0
Lathyrus japonicus	7.0	Beta vulgaris subsp. maritima	5.0
Atriplex littoralis	5.0		

N22 - Mediterranean and Black Sea coastal shingle beach

*Diagnostic species (phi coefficient * 100)*

Matthiola tricuspidata	48.0	Crithmum maritimum	37.6
Glaucium flavum	30.1	Eryngium maritimum	26.9
Cakile maritima	23.6	Elytrigia juncea	23.5
Sporobolus pungens	23.3	Silene sericea	19.9
Pancratium maritimum	18.6	Matthiola sinuata	18.2
Anchusa crispa	17.0	Carpobrotus edulis	15.8

Constant species (occurrence frequencies)

Crithmum maritimum	61.0	Eryngium maritimum	50.0
Elytrigia juncea	46.0	Cakile maritima	46.0
Matthiola tricuspidata	41.0	Glaucium flavum	28.0
Sporobolus pungens	26.0	Pancratium maritimum	24.0
Salsola kali aggr.	22.0	Cynodon dactylon	17.0
Calystegia soldanella	17.0	Silene sericea	13.0
Matthiola sinuata	13.0	Echinophora spinosa	13.0
Achillea maritima	13.0	Sonchus tenerrimus	11.0
Medicago marina	11.0	Euphorbia peplis	11.0
Ammophila arenaria	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Crithmum maritimum	30.0	Elytrigia juncea	13.0
Sporobolus pungens	11.0	Matthiola tricuspidata	11.0
Glaucium flavum	9.0	Cakile maritima	7.0

N31 - Atlantic and Baltic rocky sea cliff and shore

*Diagnostic species (phi coefficient * 100)*

Spergularia rupicola	50.2	Crithmum maritimum	37.2
Armeria pubigera	33.1	Limonium binervosum	31.9
Armeria maritima	30.6	Cochlearia danica	23.6
Silene uniflora	22.4	Limonium dodartii	21.1
Limonium ovalifolium	20.6	Limonium binervosum aggr.	19.9
Catapodium marinum	19.7	Cochlearia officinalis	18.8
Limbaria crithmoides	18.6	Plantago coronopus aggr.	17.6
Beta vulgaris subsp. maritima	16.5	Plantago maritima	15.5

Constant species (occurrence frequencies)

Crithmum maritimum	60.0	Festuca rubra aggr.	57.0
Armeria maritima	49.0	Spergularia rupicola	36.0
Plantago coronopus aggr.	34.0	Plantago maritima	31.0

Silene uniflora	24.0	Limbarda crithmoides	19.0
Catapodium marinum	16.0	Beta vulgaris subsp. maritima	16.0
Daucus carota	15.0	Cochlearia danica	15.0
Limonium binervosum	14.0	Armeria pubigera	12.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Crithmum maritimum	21.0	Armeria maritima	10.0
Silene uniflora	7.0		

N32 - Mediterranean and Black Sea rocky sea cliff and shore

*Diagnostic species (phi coefficient * 100)*

Lotus cytisoides	29.8	Silene sedoides	22.9
Jacobaea maritima	21.2	Limonium graecum	20.4
Helichrysum litoreum	20.2	Crithmum maritimum	19.2
Limonium ilvae	16.7	Reichardia picroides	16.3
Limonium minutum	16.3	Catapodium marinum	15.3

Constant species (occurrence frequencies)

Lotus cytisoides	33.0	Crithmum maritimum	31.0
Reichardia picroides	28.0	Daucus carota	24.0
Dactylis glomerata	23.0	Silene sedoides	15.0
Jacobaea maritima	15.0	Plantago coronopus aggr.	14.0
Catapodium marinum	13.0	Parapholis incurva	12.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Thymra capitata	5.0	Elytrigia elongata	5.0
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N33 - Macaronesian rocky sea cliff and shore

*Diagnostic species (phi coefficient * 100)*

Astydamia latifolia	52.3	Limonium pectinatum	48.7
Frankenia ericifolia	45.6	Mesembryanthemum crystallinum	33.1
Schizogyne sericea	31.9	Reichardia crystallina	30.3
Frankenia laevis	30.2	Senecio incrassatus	28.2
Euphorbia balsamifera	27.4	Atriplex semibaccata	25.8
Argyranthemum frutescens	25.6	Lotus glaucus	25.0
Lotus sessilifolius	24.2	Lotus loweanus	23.5
Helichrysum obconicum	23.5	Gymnocarpos decander	23.5
Spergularia azorica	22.7	Atriplex glauca	21.6
Crithmum maritimum	20.3	Aizoon canariense	19.5
Ceballosia fruticosa	19.0	Spergula fallax	18.5
Umbilicus gaditanus	18.3	Hyoscyamus albus	18.3
Matthiola maderensis	18.2	Helichrysum devium	18.2

Nicotiana paniculata	18.0	Asplenium marinum	17.4
Euphorbia aphylla	16.6	Tetraena fontanesii	16.5
Limonium papillatum	16.1	Datura stramonium	16.1
Ricinus communis	16.0		

Constant species (occurrence frequencies)

Limonium pectinatum	44.0	Astydamia latifolia	39.0
Schizogyne sericea	33.0	Frankenia laevis	33.0
Crithmum maritimum	33.0	Frankenia ericifolia	28.0
Euphorbia balsamifera	28.0	Argyranthemum frutescens	22.0
Tetraena fontanesii	17.0	Reichardia crystallina	17.0
Mesembryanthemum crystallinum	17.0	Lotus sessilifolius	17.0
Atriplex glauca	17.0	Umbilicus gaditanus	11.0
Suaeda vera	11.0	Spergularia azorica	11.0
Senecio incrassatus	11.0	Ricinus communis	11.0
Polygonum maritimum	11.0	Plantago coronopus aggr.	11.0
Mesembryanthemum nodiflorum	11.0	Lycium intricatum	11.0
Lotus glaucus	11.0	Launaea arborescens	11.0
Atriplex semibaccata	11.0	Asplenium marinum	11.0
Aizoon canariense	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Astydamia latifolia	39.0	Crithmum maritimum	17.0
Frankenia laevis	11.0	Argyranthemum frutescens	11.0
Salsola oppositifolia	6.0	Lotus loweanus	6.0
Helichrysum devium	6.0	Frankenia ericifolia	6.0
Euphorbia balsamifera	6.0	Aizoon canariense	6.0

N34 - Atlantic and Baltic soft sea cliff

*Diagnostic species (phi coefficient * 100)*

Silene uniflora	51.3	Armeria maritima	43.9
Brassica oleracea	24.6	Anthyllis vulneraria	23.0
Plantago coronopus aggr.	20.6	Cochlearia danica	20.3
Euphrasia tetraquetra	18.9	Daucus carota	18.9
Plantago maritima	18.5	Festuca rubra aggr.	18.5
Jacobaea vulgaris	15.9	Primula scotica	15.8

Constant species (occurrence frequencies)

Festuca rubra aggr.	77.0	Armeria maritima	70.0
Anthyllis vulneraria	63.0	Silene uniflora	53.0
Daucus carota	50.0	Lotus corniculatus	47.0
Plantago coronopus aggr.	40.0	Plantago maritima	37.0
Plantago lanceolata	33.0	Dactylis glomerata	30.0
Jacobaea vulgaris	23.0	Agrostis stolonifera	23.0

Trifolium repens	20.0	Leontodon saxatilis	20.0
Sonchus oleraceus	17.0	Bromus hordeaceus	17.0
Cochlearia danica	13.0	Cerastium fontanum subsp. vulgare	13.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Anthyllis vulneraria	27.0	Plantago maritima	23.0
Silene uniflora	20.0	Festuca rubra aggr.	17.0
Armeria maritima	17.0		

N35 - Mediterranean and Black Sea soft sea cliff

*Diagnostic species (phi coefficient * 100)*

Glycyrrhiza glabra	48.9	Elytrigia elongata	35.1
Cynanchum acutum	31.9	Galium humifusum	28.1
Artemisia santonicum	22.0	Limonium meyeri	21.5
Echinops ossicus	17.8	Lactuca tatarica	16.7
Melilotus hirsutus	15.8	Argusia sibirica	15.3
Cuscuta monogyna	15.1		

Constant species (occurrence frequencies)

Glycyrrhiza glabra	52.0	Elytrigia elongata	40.0
Cynanchum acutum	40.0	Artemisia santonicum	35.0
Limonium meyeri	29.0	Galium humifusum	27.0
Elytrigia repens	27.0	Calamagrostis epigejos	23.0
Phragmites australis	19.0	Lactuca tatarica	19.0
Poa pratensis aggr.	17.0	Cichorium intybus	17.0
Convolvulus arvensis	15.0	Medicago falcata	13.0
Leymus racemosus	13.0	Bromus squarrosus	13.0
Falcaria vulgaris	12.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Glycyrrhiza glabra	40.0	Elytrigia elongata	25.0
Teucrium polium aggr.	8.0	Artemisia santonicum	6.0

Q11 - Raised bog

*Diagnostic species (phi coefficient * 100)*

Sphagnum magellanicum aggr.	39.5	Sphagnum fuscum	35.8
Eriophorum vaginatum	35.1	Sphagnum recurvum aggr.	31.3
Vaccinium oxycoccos	30.9	Chamaedaphne calyculata	29.5
Andromeda polifolia	29.1	Vaccinium microcarpum	28.0
Carex pauciflora	27.4	Polytrichum strictum	26.6
Sphagnum rubellum	23.7	Mylia anomala	21.6
Drosera rotundifolia	20.2	Rubus chamaemorus	19.6

Rhododendron tomentosum	17.8	Sphagnum capillifolium aggr.	17.3
Vaccinium uliginosum	17.0		

Constant species (occurrence frequencies)

Eriophorum vaginatum	82.0	Sphagnum recurvum aggr.	66.0
Sphagnum magellanicum aggr.	63.0	Andromeda polifolia	61.0
Vaccinium oxycoccus	59.0	Vaccinium uliginosum	48.0
Polytrichum strictum	48.0	Calluna vulgaris	48.0
Empetrum nigrum aggr.	47.0	Sphagnum fuscum	42.0
Drosera rotundifolia	40.0	Rubus chamaemorus	39.0
Pinus sylvestris	34.0	Vaccinium myrtillus	32.0
Pleurozium schreberi	32.0	Betula nana	31.0
Rhododendron tomentosum	30.0	Vaccinium microcarpum	29.0
Aulacomnium palustre	29.0	Sphagnum capillifolium aggr.	28.0
Carex pauciflora	26.0	Vaccinium vitis-idaea	25.0
Sphagnum rubellum	22.0	Chamaedaphne calyculata	22.0
Mylia anomala	19.0	Trichophorum cespitosum	18.0
Betula pubescens	18.0	Sphagnum russowii	16.0
Cladonia rangiferina	16.0	Cladonia arbuscula aggr.	16.0
Polytrichum commune	15.0	Molinia caerulea aggr.	15.0
Eriophorum angustifolium	14.0	Picea abies	13.0
Potentilla erecta	12.0	Carex rostrata	12.0
Carex nigra	12.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Sphagnum recurvum aggr.	27.0	Sphagnum fuscum	27.0
Sphagnum magellanicum aggr.	23.0	Eriophorum vaginatum	18.0
Calluna vulgaris	14.0	Sphagnum capillifolium aggr.	12.0
Empetrum nigrum aggr.	8.0	Vaccinium uliginosum	6.0
Sphagnum rubellum	6.0	Rubus chamaemorus	5.0
Chamaedaphne calyculata	5.0		

Q12 - Blanket bog

*Diagnostic species (phi coefficient * 100)*

Pleurozia purpurea	61.5	Campylopus atrovirens	51.0
Racomitrium lanuginosum	46.9	Narthecium ossifragum	43.8
Odontoschisma sphagni	41.9	Sphagnum tenellum	40.1
Carex durieui	35.6	Erica mackaiana	33.9
Erica tetralix	33.5	Trichophorum cespitosum	32.9
Kurzia pauciflora	31.4	Sphagnum subnitens	31.1
Cladonia portentosa	29.6	Mylia taylorii	28.2
Diplophyllum albicans	27.5	Sphagnum papillosum	25.2
Sphagnum capillifolium aggr.	25.1	Erica cinerea	24.2
Breutelia chrysocoma	23.5	Sphagnum auriculatum+inundatum	22.9

Eriophorum angustifolium	22.3	Polygala serpyllifolia	21.3
Molinia caerulea aggr.	21.0	Kurzia trichoclados	20.5
Calluna vulgaris	20.4	Sphagnum compactum	19.4
Drosera rotundifolia	18.9	Nowellia curvifolia	18.3
Cladonia uncialis	17.9	Juncus squarrosus	17.6
Hypnum cupressiforme aggr.	17.6	Scapania gracilis	17.4
Campylopus flexuosus	17.4	Cephalozia connivens	17.3
Rhynchospora alba	16.6	Cephalozia bicuspidata	16.2
Sphagnum rubellum	16.0	Sphagnum cuspidatum	15.5

Constant species (occurrence frequencies)

Calluna vulgaris	85.0	Molinia caerulea aggr.	77.0
Racomitrium lanuginosum	73.0	Erica tetralix	72.0
Trichophorum cespitosum	66.0	Narthecium ossifragum	63.0
Eriophorum angustifolium	62.0	Potentilla erecta	58.0
Hypnum cupressiforme aggr.	55.0	Pleurozia purpurea	44.0
Cladonia portentosa	41.0	Sphagnum tenellum	40.0
Sphagnum capillifolium aggr.	40.0	Odontoschisma sphagni	39.0
Erica cinerea	39.0	Drosera rotundifolia	38.0
Cladonia uncialis	36.0	Sphagnum papillosum	34.0
Eriophorum vaginatum	32.0	Campylopus atrovirens	31.0
Sphagnum subnitens	30.0	Carex panicea	26.0
Sphagnum auriculatum+inundatum	24.0	Juncus squarrosus	24.0
Diplophyllum albicans	22.0	Polygala serpyllifolia	21.0
Schoenus nigricans	20.0	Rhynchospora alba	19.0
Kurzia pauciflora	19.0	Sphagnum cuspidatum	17.0
Sphagnum compactum	17.0	Carex durieui	17.0
Leucobryum glaucum	16.0	Erica mackaiana	16.0
Sphagnum rubellum	15.0	Pleurozium schreberi	14.0
Cephalozia bicuspidata	14.0	Breutelia chrysocoma	14.0
Myrica gale	13.0	Mylia taylorii	13.0
Drosera longifolia	12.0	Rhytidadelphus loreus	11.0
Nardus stricta	11.0	Avenella flexuosa	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Calluna vulgaris	32.0	Molinia caerulea aggr.	26.0
Trichophorum cespitosum	22.0	Racomitrium lanuginosum	14.0
Sphagnum papillosum	11.0	Carex durieui	10.0
Sphagnum capillifolium aggr.	9.0	Eriophorum angustifolium	8.0
Schoenus nigricans	6.0	Erica tetralix	6.0
Narthecium ossifragum	5.0		

Q21 - Oceanic valley mire

*Diagnostic species (phi coefficient * 100)*

Narthecium ossifragum	52.8	Erica tetralix	44.4
Sphagnum papillosum	43.6	Odontoschisma sphagni	35.0
Eriophorum angustifolium	31.6	Sphagnum tenellum	26.8
Drosera rotundifolia	26.6	Trichophorum cespitosum	23.6
Sphagnum capillifolium aggr.	19.6	Eriophorum vaginatum	18.8
Calluna vulgaris	18.2	Cephalozia connivens	17.4
Molinia caerulea aggr.	17.3	Sphagnum rubellum	16.8
Rhynchospora alba	16.3	Sphagnum subnitens	16.1
Kurzia pauciflora	15.8		

Constant species (occurrence frequencies)

Erica tetralix	95.0	Eriophorum angustifolium	86.0
Calluna vulgaris	77.0	Narthecium ossifragum	76.0
Molinia caerulea aggr.	64.0	Sphagnum papillosum	57.0
Drosera rotundifolia	52.0	Trichophorum cespitosum	48.0
Eriophorum vaginatum	45.0	Odontoschisma sphagni	33.0
Sphagnum capillifolium aggr.	32.0	Hypnum cupressiforme aggr.	32.0
Potentilla erecta	30.0	Sphagnum tenellum	27.0
Vaccinium oxycoccos	25.0	Sphagnum magellanicum aggr.	23.0
Sphagnum recurvum aggr.	22.0	Andromeda polifolia	20.0
Rhynchospora alba	19.0	Aulacomnium palustre	19.0
Cladonia portentosa	18.0	Sphagnum subnitens	16.0
Sphagnum rubellum	16.0	Juncus squarrosus	16.0
Pleurozium schreberi	15.0	Sphagnum cuspidatum	14.0
Carex panicea	14.0	Myrica gale	12.0
Cladonia uncialis	12.0	Polygala serpyllifolia	11.0
Mylia anomala	11.0	Dicranum scoparium	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Calluna vulgaris	23.0	Sphagnum papillosum	21.0
Erica tetralix	20.0	Narthecium ossifragum	18.0
Molinia caerulea aggr.	13.0	Eriophorum vaginatum	10.0
Trichophorum cespitosum	9.0	Sphagnum magellanicum aggr.	9.0
Sphagnum capillifolium aggr.	8.0	Sphagnum recurvum aggr.	7.0

Q22 - Poor fen

*Diagnostic species (phi coefficient * 100)*

Sphagnum recurvum aggr.	29.4	Sphagnum palustre aggr.	21.5
Straminergon stramineum	20.9	Viola palustris	17.9
Eriophorum angustifolium	17.8	Carex echinata	17.3
Agrostis canina	16.0	Drosera rotundifolia	15.9
Sphagnum papillosum	15.7	Carex canescens	15.6
Vaccinium oxycoccos	15.5	Carex nigra	15.3
Polytrichum commune	15.0		

Constant species (occurrence frequencies)

Sphagnum recurvum aggr.	62.0	Eriophorum angustifolium	50.0
Carex nigra	42.0	Potentilla erecta	41.0
Molinia caerulea aggr.	39.0	Polytrichum commune	36.0
Carex echinata	34.0	Carex rostrata	33.0
Agrostis canina	33.0	Drosera rotundifolia	32.0
Sphagnum palustre aggr.	31.0	Viola palustris	30.0
Vaccinium oxycoccos	30.0	Aulacomnium palustre	29.0
Straminergon stramineum	26.0	Eriophorum vaginatum	23.0
Sphagnum papillosum	21.0	Carex canescens	19.0
Juncus effusus	18.0	Comarum palustre	17.0
Calluna vulgaris	17.0	Nardus stricta	16.0
Carex panicea	16.0	Anthoxanthum odoratum aggr.	16.0
Menyanthes trifoliata	15.0	Sphagnum magellanicum aggr.	14.0
Betula pubescens	14.0	Sphagnum capillifolium aggr.	13.0
Lysimachia vulgaris	13.0	Andromeda polifolia	13.0
Festuca rubra aggr.	12.0	Erica tetralix	12.0
Sphagnum cuspidatum	11.0	Polytrichum strictum	11.0
Galium palustre aggr.	11.0	Epilobium palustre	11.0
Cirsium palustre	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Sphagnum recurvum aggr.	45.0	Sphagnum palustre aggr.	15.0
Sphagnum papillosum	13.0	Polytrichum commune	10.0
Molinia caerulea aggr.	8.0	Carex rostrata	6.0
Eriophorum angustifolium	5.0	Carex nigra	5.0

Q23 - Relict mire of Mediterranean mountains

*Diagnostic species (phi coefficient * 100)*

Pinguicula balcanica	77.9	Gymnadenia frivaldii	71.9
Primula frondosa	60.6	Dactylorhiza cordigera	53.3
Carex bulgarica	52.9	Plantago gentianoides	51.9
Taraxacum apenninum	46.8	Geum coccineum	45.3
Cardamine rivularis	42.9	Primula deorum	42.1
Soldanella pindicola	42.0	Scapania irrigua	34.9
Eriophorum latifolium	34.9	Narthecium scardicum	34.7
Philonotis seriata	34.0	Carex echinata	32.3
Juncus thomasii	30.6	Warnstorfia sarmentosa	29.2
Sphagnum platyphyllum	29.1	Warnstorfia exannulata	28.7
Carex nigra	28.0	Gentianella bulgarica	26.4
Festuca frigida	25.4	Sphagnum subsecundum	24.1
Epilobium nutans	23.5	Nardus stricta	23.4
Palustriella decipiens	23.1	Silene asterias	22.1

Cirsium heterotrichum	22.0	Bellis bernardii	21.6
Willemetia stipitata	20.9	Sesleria comosa	19.4
Pinguicula corsica	19.4	Parnassia palustris	19.1
Bryum pseudotriquetrum	18.7	Juncus alpinoarticulatus	18.5
Veratrum lobelianum	17.7	Philonotis fontana	17.4
Calliergonella lindbergii	17.4	Scorzoneroides microcephala	17.3
Saxifraga stellaris	17.0	Agrostis canina	16.9
Scapania paludicola	16.7	Sphagnum contortum	16.1
Ranunculus pyrenaicus	15.9	Euphrasia willkommii	15.9
Silene quadridentata	15.8	Narthecium reverchonii	15.5
Dichodontium palustre	15.4	Gentiana pyrenaica	15.3

Constant species (occurrence frequencies)

Carex nigra	75.0	Nardus stricta	68.0
Pinguicula balcanica	65.0	Carex echinata	62.0
Gymnadenia frivaldii	52.0	Eriophorum latifolium	52.0
Parnassia palustris	42.0	Primula frondosa	38.0
Bryum pseudotriquetrum	38.0	Plantago gentianoides	35.0
Luzula campestris aggr.	35.0	Deschampsia cespitosa	35.0
Agrostis canina	35.0	Warnstorfia exannulata	32.0
Juncus articulatus	32.0	Dactylorhiza cordigera	32.0
Carex bulgarica	32.0	Taraxacum apenninum	28.0
Philonotis seriata	28.0	Geum coccineum	28.0
Festuca rubra aggr.	28.0	Cardamine rivularis	25.0
Warnstorfia sarmentosa	22.0	Trichophorum cespitosum	22.0
Sphagnum subsecundum	22.0	Scapania irrigua	22.0
Soldanella pindicola	20.0	Saxifraga stellaris	20.0
Primula deorum	20.0	Potentilla erecta	20.0
Philonotis fontana	20.0	Juncus alpinoarticulatus	20.0
Eriophorum angustifolium	20.0	Campylium stellatum	20.0
Veratrum lobelianum	18.0	Straminergon stramineum	15.0
Sphagnum platyphyllum	15.0	Primula farinosa	15.0
Ligusticum mutellina	15.0	Willemetia stipitata	12.0
Sphagnum contortum	12.0	Silene pusilla	12.0
Sesleria comosa	12.0	Palustriella decipiens	12.0
Narthecium scardicum	12.0	Juncus thomasii	12.0
Juncus filiformis	12.0	Gentianella bulgarica	12.0
Carex viridula	12.0	Carex pallescens	12.0
Carex lepidocarpa	12.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Sphagnum subsecundum	12.0	Carex nigra	12.0
Warnstorfia sarmentosa	10.0	Trichophorum cespitosum	10.0
Eriophorum latifolium	10.0	Warnstorfia exannulata	5.0
Sphagnum warnstorffii	5.0	Philonotis seriata	5.0
Narthecium scardicum	5.0	Carex lepidocarpa	5.0

Carex echinata 5.0

Q24 - Intermediate fen and soft-water spring mire

*Diagnostic species (phi coefficient * 100)*

Warnstorfia exannulata	19.8	Sphagnum subsecundum	17.7
Eriophorum angustifolium	16.2	Comarum palustre	15.1
Sphagnum teres	15.0		

Constant species (occurrence frequencies)

Eriophorum angustifolium	46.0	Carex nigra	38.0
Carex rostrata	34.0	Carex echinata	30.0
Potentilla erecta	29.0	Comarum palustre	29.0
Molinia caerulea aggr.	27.0	Menyanthes trifoliata	27.0
Agrostis canina	27.0	Carex panicea	26.0
Galium palustre aggr.	25.0	Viola palustris	24.0
Warnstorfia exannulata	23.0	Equisetum fluviatile	21.0
Calliergonella cuspidata	20.0	Epilobium palustre	19.0
Straminergon stramineum	18.0	Aulacomnium palustre	18.0
Sphagnum subsecundum	17.0	Drosera rotundifolia	17.0
Carex canescens	17.0	Caltha palustris	17.0
Ranunculus flammula	16.0	Parnassia palustris	16.0
Juncus bulbosus	14.0	Bryum pseudotriquetrum	14.0
Sphagnum teres	13.0	Juncus articulatus	13.0
Festuca rubra aggr.	13.0	Equisetum palustre	13.0
Carex lasiocarpa	13.0	Hydrocotyle vulgaris	12.0
Galium uliginosum	12.0	Valeriana dioica	11.0
Lysimachia vulgaris	11.0	Juncus effusus	11.0
Cirsium palustre	11.0	Carex limosa	11.0
Cardamine pratensis	11.0	Anthoxanthum odoratum aggr.	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Warnstorfia exannulata	8.0	Carex rostrata	8.0
Carex nigra	8.0	Sphagnum subsecundum	7.0
Menyanthes trifoliata	7.0	Sphagnum teres	6.0

Q25 - Non-calcareous quaking mire

*Diagnostic species (phi coefficient * 100)*

Sphagnum cuspidatum	35.3	Scheuchzeria palustris	32.4
Sphagnum lindbergii	27.5	Sphagnum majus	27.2
Carex limosa	24.8	Warnstorfia fluitans	22.1
Sphagnum recurvum aggr.	19.9	Carex rostrata	18.3
Vaccinium oxycoccos	17.6	Sphagnum riparium	17.3

Sphagnum balticum	16.8	Rhynchospora alba	16.3
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Constant species (occurrence frequencies)

Sphagnum recurvum aggr.	42.0	Eriophorum angustifolium	41.0
Carex rostrata	41.0	Sphagnum cuspidatum	39.0
Vaccinium oxycoccos	34.0	Carex limosa	29.0
Andromeda polifolia	26.0	Scheuchzeria palustris	24.0
Drosera rotundifolia	24.0	Menyanthes trifoliata	23.0
Eriophorum vaginatum	21.0	Rhynchospora alba	19.0
Warnstorfia fluitans	17.0	Comarum palustre	17.0
Straminergon stramineum	16.0	Carex lasiocarpa	15.0
Molinia caerulea aggr.	14.0	Sphagnum magellanicum aggr.	13.0
Sphagnum lindbergii	13.0	Sphagnum majus	12.0
Sphagnum papillosum	11.0	Sphagnum balticum	11.0
Equisetum fluviatile	11.0	Carex canescens	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Sphagnum recurvum aggr.	30.0	Sphagnum cuspidatum	28.0
Carex rostrata	13.0	Sphagnum lindbergii	8.0
Sphagnum majus	6.0	Sphagnum balticum	6.0
Rhynchospora alba	5.0	Carex limosa	5.0

Q3132 - Palsa and polygon mires

*Diagnostic species (phi coefficient * 100)*

Dicranum elongatum	79.3	Cladonia amaurocraea	66.0
Sphenolobus minutus	63.6	Cladonia subfurcata	61.2
Cetraria nivalis	57.3	Bryocaulon divergens	55.8
Ochrolechia androgyna	55.7	Alectoria nigricans	52.0
Rubus chamaemorus	51.6	Ochrolechia frigida	51.4
Sphaerophorus globosus aggr.	49.6	Cladonia sulphurina	47.8
Cladonia arbuscula aggr.	46.7	Icmadophila ericetorum	46.1
Cetraria cucullata	46.0	Cladonia stellaris	44.7
Cladonia gracilis	44.2	Cladonia coccifera aggr.	43.8
Cladonia rangiferina	43.4	Ochrolechia inaequatula	42.6
Cladonia bellidiflora	42.5	Cetraria islandica	40.7
Polytrichum hyperboreum	39.3	Rhododendron tomentosum	39.2
Polytrichum strictum	38.4	Cetrariella delisei	38.0
Pertusaria dactylina	37.3	Cladonia cornuta	37.3
Betula nana	36.8	Cladonia deformis aggr.	35.1
Luzula wahlenbergii	33.3	Andromeda polifolia	31.0
Sphagnum fuscum	30.8	Carex rariflora	30.5
Thamnolia vermicularis	30.3	Empetrum nigrum aggr.	30.2
Cladonia uncialis	30.2	Tuckermannopsis inermis	29.4
Polytrichum jensenii	29.1	Botrydina viridis	28.8

Cladonia crispata	28.2	Dicranum flexicaule	27.9
Cladonia groenlandica	27.8	Omphalina umbellifera	26.6
Cladonia macrophylla	26.2	Cladonia squamosa	25.8
Cetrariella fastigiata	24.0	Arctocetraria andrejevii	23.4
Alectoria ochroleuca	23.3	Eriophorum scheuchzeri	22.5
Vaccinium uliginosum	22.4	Vaccinium vitis-idaea	21.7
Vaccinium microcarpum	20.8	Bryoria nitidula	20.5
Coriscium viride	20.2	Sphagnum russowii	20.0
Cladonia rei	19.9	Cladonia maxima	19.5
Peltigera scabrosa	18.6	Omphalina hudsoniana	18.6
Sphagnum balticum	17.8	Aulacomnium turgidum	17.2
Sphagnum lenense	16.9	Cladonia cyanipes	16.2
Poa arctica	15.9		

Constant species (occurrence frequencies)

Rubus chamaemorus	100.0	Dicranum elongatum	100.0
Cladonia arbuscula aggr.	97.0	Empetrum nigrum aggr.	93.0
Cladonia rangiferina	86.0	Cetraria nivalis	81.0
Vaccinium vitis-idaea	80.0	Cladonia gracilis	80.0
Cladonia amaurocraea	80.0	Cetraria islandica	78.0
Betula nana	75.0	Ochrolechia frigida	74.0
Cladonia coccifera aggr.	70.0	Polytrichum strictum	68.0
Andromeda polifolia	65.0	Rhododendron tomentosum	64.0
Vaccinium uliginosum	62.0	Sphaerophorus globosus aggr.	61.0
Cladonia uncialis	59.0	Sphenolobus minutus	55.0
Cladonia bellidiflora	55.0	Cetraria cucullata	52.0
Bryocaulon divergens	52.0	Cladonia stellaris	49.0
Alectoria nigricans	49.0	Ochrolechia androgyna	45.0
Cladonia sulphurina	45.0	Cladonia subfurcata	43.0
Pleurozium schreberi	41.0	Sphagnum fuscum	36.0
Eriophorum vaginatum	36.0	Cladonia cornuta	35.0
Polytrichum hyperboreum	33.0	Ochrolechia inaequatula	33.0
Cladonia crispata	33.0	Icmadophila ericetorum	32.0
Thamnolia vermicularis	30.0	Carex rariflora	30.0
Cladonia deformis aggr.	29.0	Cetrariella delisei	29.0
Pertusaria dactylina	26.0	Cladonia squamosa	23.0
Vaccinium microcarpum	22.0	Sphagnum russowii	22.0
Ptilidium ciliare	22.0	Cladonia macrophylla	22.0
Cladonia pyxidata aggr.	17.0	Alectoria ochroleuca	17.0
Peltigera scabrosa	16.0	Luzula wahlenbergii	13.0
Eriophorum scheuchzeri	13.0	Sphagnum balticum	12.0
Polytrichum jensenii	12.0	Aulacomnium turgidum	12.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Cladonia arbuscula aggr.	23.0	Rhododendron tomentosum	20.0
Rubus chamaemorus	14.0	Cladonia rangiferina	14.0

Cetraria nivalis	9.0	Dicranum elongatum	7.0
Polytrichum strictum	6.0		

Q41 - Alkaline, calcareous, carbonate-rich small-sedge spring fen

*Diagnostic species (phi coefficient * 100)*

Carex davalliana	31.6	Eleocharis quinqueflora	30.1
Eriophorum latifolium	29.2	Carex lepidocarpa	27.1
Carex panicea	26.6	Palustriella commutata aggr.	25.2
Juncus alpinoarticulatus	22.5	Philonotis calcarea	21.7
Campylium stellatum	21.7	Carex hostiana	21.3
Scorpidium revolvens aggr.	20.9	Fissidens adianthoides	20.1
Primula farinosa	19.9	Parnassia palustris	19.9
Bryum pseudotriquetrum	19.3	Dactylorhiza majalis	18.7
Carex flava	18.4	Tofieldia calyculata	18.2
Pinguicula vulgaris	18.1	Valeriana dioica	17.9
Equisetum palustre	16.6	Triglochin palustris	16.2
Epipactis palustris	15.4	Juncus articulatus	15.2

Constant species (occurrence frequencies)

Carex panicea	66.0	Potentilla erecta	55.0
Campylium stellatum	50.0	Carex davalliana	45.0
Parnassia palustris	44.0	Eriophorum latifolium	44.0
Molinia caerulea aggr.	42.0	Scorpidium revolvens aggr.	41.0
Bryum pseudotriquetrum	39.0	Carex nigra	38.0
Equisetum palustre	36.0	Juncus articulatus	34.0
Carex lepidocarpa	34.0	Eriophorum angustifolium	33.0
Eleocharis quinqueflora	33.0	Pinguicula vulgaris	32.0
Calliergonella cuspidata	32.0	Valeriana dioica	28.0
Succisa pratensis	28.0	Palustriella commutata aggr.	28.0
Primula farinosa	27.0	Carex flacca	27.0
Briza media	27.0	Juncus alpinoarticulatus	24.0
Carex hostiana	24.0	Triglochin palustris	23.0
Carex flava	23.0	Tofieldia calyculata	22.0
Epipactis palustris	22.0	Linum catharticum	19.0
Fissidens adianthoides	19.0	Plagiomnium affine aggr.	18.0
Cirsium palustre	18.0	Prunella vulgaris	16.0
Phragmites australis	16.0	Menyanthes trifoliata	16.0
Dactylorhiza majalis	16.0	Caltha palustris	16.0
Agrostis stolonifera	16.0	Equisetum variegatum	15.0
Crepis paludosa	15.0	Selaginella selaginoides	14.0
Festuca rubra aggr.	14.0	Aneura pinguis	14.0
Ranunculus acris	13.0	Deschampsia cespitosa	12.0
Tomentypnum nitens	11.0	Philonotis calcarea	11.0
Mentha aquatica	11.0	Leontodon hispidus	11.0

Galium uliginosum	11.0	Carex rostrata	11.0
Carex echinata	11.0	Carex dioica	11.0
Blysmus compressus	11.0	Bellidiastrum michelii	11.0
Bartsia alpina	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Scorpidium revolvens aggr.	19.0	Carex davalliana	17.0
Palustriella commutata aggr.	12.0	Campylium stellatum	10.0
Eleocharis quinqueflora	9.0	Carex panicea	5.0
Carex lepidocarpa	5.0		

Q42 - Extremely rich moss-sedge fen

*Diagnostic species (phi coefficient * 100)*

Sphagnum warnstorffii	50.2	Paludella squarrosa	36.0
Sphagnum contortum	34.7	Sphagnum teres	32.6
Tomentypnum nitens	29.8	Trichophorum alpinum	26.5
Menyanthes trifoliata	23.2	Aulacomnium palustre	21.7
Carex dioica	21.5	Campylium stellatum	21.2
Scorpidium revolvens aggr.	21.1	Carex rostrata	20.7
Cinclidium stygium	20.6	Carex lasiocarpa	19.8
Straminergon stramineum	19.4	Drosera rotundifolia	18.7
Eriophorum angustifolium	17.6	Helodium blandowii	17.1
Aneura pinguis	16.9	Loeskyppnum badium	16.7
Carex panicea	16.7	Calliergon giganteum	16.3
Hamatocaulis vernicosus	16.2	Galium uliginosum	16.1
Breidleria pratensis	15.9	Carex chordorrhiza	15.7
Viola palustris	15.6	Carex flava	15.6
Carex diandra	15.6	Meesia triquetra	15.1

Constant species (occurrence frequencies)

Eriophorum angustifolium	49.0	Campylium stellatum	49.0
Sphagnum warnstorffii	47.0	Carex rostrata	46.0
Potentilla erecta	45.0	Aulacomnium palustre	45.0
Menyanthes trifoliata	44.0	Carex panicea	42.0
Scorpidium revolvens aggr.	41.0	Carex nigra	40.0
Drosera rotundifolia	37.0	Molinia caerulea aggr.	35.0
Tomentypnum nitens	34.0	Equisetum palustre	32.0
Parnassia palustris	31.0	Bryum pseudotriquetrum	30.0
Vaccinium oxycoccos	29.0	Calliergonella cuspidata	29.0
Sphagnum teres	28.0	Comarum palustre	28.0
Carex lasiocarpa	28.0	Carex echinata	28.0
Sphagnum contortum	27.0	Equisetum fluviatile	27.0
Viola palustris	26.0	Straminergon stramineum	25.0
Galium uliginosum	24.0	Trichophorum alpinum	23.0

Paludella squarrosa	23.0	Carex dioica	23.0
Eriophorum latifolium	22.0	Andromeda polifolia	22.0
Valeriana dioica	21.0	Cirsium palustre	21.0
Agrostis canina	21.0	Trichophorum cespitosum	20.0
Carex flava	20.0	Aneura pinguis	20.0
Plagiomnium affine aggr.	19.0	Festuca rubra aggr.	19.0
Cinclidium stygium	19.0	Epilobium palustre	18.0
Succisa pratensis	17.0	Galium palustre aggr.	17.0
Sphagnum recurvum aggr.	16.0	Crepis paludosa	16.0
Calliergon giganteum	16.0	Briza media	16.0
Betula pubescens	16.0	Selaginella selaginoides	15.0
Carex limosa	15.0	Sphagnum subsecundum	14.0
Phragmites australis	14.0	Carex chordorrhiza	14.0
Caltha palustris	14.0	Scorpidium scorpioides	13.0
Pinguicula vulgaris	13.0	Pedicularis palustris	13.0
Lysimachia vulgaris	13.0	Filipendula ulmaria	13.0
Climacium dendroides	13.0	Anthoxanthum odoratum aggr.	13.0
Triglochin palustris	12.0	Salix repens	12.0
Luzula campestris aggr.	12.0	Juncus articulatus	12.0
Epipactis palustris	12.0	Carex diandra	12.0
Betula nana	12.0	Vaccinium uliginosum	11.0
Peucedanum palustre	11.0	Hamatocaulis vernicosus	11.0
Fissidens adianthoides	11.0	Carex davalliana	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Sphagnum warnstorffii	22.0	Scorpidium revolvens aggr.	13.0
Sphagnum contortum	9.0	Campylium stellatum	9.0
Tomentypnum nitens	7.0	Sphagnum teres	7.0
Carex lasiocarpa	7.0	Trichophorum cespitosum	6.0
Menyanthes trifoliata	6.0	Carex rostrata	5.0

Q43 - Tall-sedge base-rich fen

*Diagnostic species (phi coefficient * 100)*

Schoenus ferrugineus	45.3	Campylium stellatum	29.6
Juncus subnodulosus	29.2	Carex hostiana	28.3
Fissidens adianthoides	24.4	Schoenus nigricans	23.8
Carex panicea	23.3	Scorpidium revolvens aggr.	22.1
Eriophorum latifolium	21.8	Succisa pratensis	21.3
Parnassia palustris	21.3	Molinia caerulea aggr.	20.3
Primula farinosa	19.9	Carex lepidocarpa	19.0
Pinguicula vulgaris	17.6	Epipactis palustris	17.6
Carex davalliana	17.6	Dactylorhiza incarnata	17.1
Valeriana dioica	15.5	Potentilla erecta	15.0

Constant species (occurrence frequencies)

Molinia caerulea aggr.	75.0	Campyllum stellatum	67.0
Potentilla erecta	62.0	Carex panicea	58.0
Parnassia palustris	47.0	Scorpidium revolvens aggr.	43.0
Succisa pratensis	42.0	Schoenus ferrugineus	41.0
Phragmites australis	41.0	Schoenus nigricans	39.0
Juncus subnodulosus	38.0	Eriophorum latifolium	33.0
Carex hostiana	32.0	Pinguicula vulgaris	31.0
Equisetum palustre	28.0	Primula farinosa	27.0
Calliergonella cuspidata	27.0	Carex davalliana	26.0
Epipactis palustris	25.0	Valeriana dioica	24.0
Fissidens adianthoides	24.0	Carex lepidocarpa	24.0
Mentha aquatica	23.0	Cirsium palustre	22.0
Eriophorum angustifolium	21.0	Scorpidium scorpioides	20.0
Bryum pseudotriquetrum	20.0	Menyanthes trifoliata	19.0
Tofieldia calyculata	18.0	Carex flacca	18.0
Linum catharticum	17.0	Aneura pinguis	17.0
Carex nigra	16.0	Galium uliginosum	15.0
Carex flava	15.0	Briza media	15.0
Lythrum salicaria	14.0	Juncus articulatus	14.0
Dactylorhiza incarnata	14.0	Cladium mariscus	14.0
Carex rostrata	14.0	Eupatorium cannabinum	13.0
Ctenidium molluscum	13.0	Carex elata	13.0
Selaginella selaginoides	11.0	Drosera longifolia	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Schoenus ferrugineus	35.0	Schoenus nigricans	29.0
Juncus subnodulosus	26.0	Campyllum stellatum	18.0
Scorpidium revolvens aggr.	13.0	Molinia caerulea aggr.	9.0
Cladium mariscus	5.0		

Q44 - Calcareous quaking mire

*Diagnostic species (phi coefficient * 100)*

Scorpidium scorpioides	59.2	Carex limosa	39.3
Pseudocalliergon trifarium	34.7	Utricularia intermedia	30.3
Carex chordorrhiza	29.5	Menyanthes trifoliata	28.2
Carex lasiocarpa	25.8	Carex livida	24.4
Utricularia minor	22.0	Calliergon giganteum	21.4
Drosera longifolia	21.1	Scorpidium revolvens aggr.	18.5
Carex rostrata	18.3	Carex diandra	15.9
Eriophorum angustifolium	15.8	Equisetum fluviatile	15.0

Constant species (occurrence frequencies)

Scorpidium scorpioides	79.0	Menyanthes trifoliata	53.0
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Carex limosa	46.0	Eriophorum angustifolium	45.0
Carex rostrata	41.0	Scorpidium revolvens aggr.	36.0
Carex lasiocarpa	36.0	Campylium stellatum	31.0
Equisetum fluviatile	30.0	Carex chordorrhiza	26.0
Utricularia intermedia	24.0	Pseudocalliergon trifarium	23.0
Utricularia minor	21.0	Comarum palustre	21.0
Calliergon giganteum	21.0	Drosera longifolia	19.0
Phragmites australis	17.0	Carex panicea	17.0
Rhynchospora alba	15.0	Molinia caerulea aggr.	14.0
Carex elata	13.0	Aneura pinguis	13.0
Trichophorum cespitosum	12.0	Pedicularis palustris	12.0
Carex diandra	12.0	Andromeda polifolia	12.0
Eleocharis quinqueflora	11.0	Cinclidium stygium	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Scorpidium scorpioides	50.0	Scorpidium revolvens aggr.	15.0
Carex limosa	11.0	Carex lasiocarpa	9.0
Menyanthes trifoliata	8.0	Carex rostrata	7.0
Carex chordorrhiza	7.0		

Q45 - Arctic-alpine rich fen

*Diagnostic species (phi coefficient * 100)*

Juncus triglumis	42.1	Carex microglochin	37.7
Tofieldia pusilla	35.2	Carex bicolor	34.6
Carex capillaris	33.7	Thalictrum alpinum	29.7
Oncophorus virens	29.6	Juncus biglumis	29.4
Kobresia simpliciuscula	28.5	Bistorta vivipara	28.4
Salix arbuscula	28.2	Catoscopium nigrum	28.0
Equisetum variegatum	27.5	Scorpidium revolvens aggr.	27.1
Juncus arcticus	25.8	Carex atrofusca	25.5
Carex maritima	24.2	Campylium stellatum	23.8
Salix reticulata	23.2	Saxifraga aizoides	22.8
Selaginella selaginoides	22.3	Juncus alpinoarticulatus	21.2
Carex saxatilis	21.0	Bryum pseudotriquetrum	20.7
Tritomaria polita	20.0	Lophozia bantriensis	19.8
Meesia uliginosa	19.4	Carex parallela	18.2
Juncus castaneus	18.0	Fissidens osmundoides	17.6
Carex norvegica	16.9	Bartsia alpina	16.8
Pinguicula vulgaris	16.5	Bryum pallens	16.4
Aneura pinguis	16.3	Carex dioica	16.0
Carex frigida	15.6	Ranunculus hyperboreus	15.3

Constant species (occurrence frequencies)

Bistorta vivipara	68.0	Campylium stellatum	54.0
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Scorpidium revolvens aggr.	53.0	Juncus triglumis	43.0
Bryum pseudotriquetrum	41.0	Selaginella selaginoides	35.0
Saxifraga aizoides	35.0	Equisetum variegatum	34.0
Carex capillaris	34.0	Thalictrum alpinum	33.0
Tofieldia pusilla	30.0	Eriophorum angustifolium	30.0
Pinguicula vulgaris	29.0	Parnassia palustris	28.0
Carex nigra	25.0	Trichophorum cespitosum	24.0
Salix reticulata	24.0	Juncus alpinoarticulatus	23.0
Bartsia alpina	23.0	Deschampsia cespitosa	22.0
Carex bicolor	19.0	Aneura pinguis	19.0
Primula farinosa	17.0	Carex microglochin	17.0
Carex dioica	17.0	Betula nana	17.0
Agrostis stolonifera	17.0	Philonotis fontana	16.0
Palustriella commutata aggr.	16.0	Tomentypnum nitens	15.0
Saussurea alpina aggr.	15.0	Salix arbuscula	15.0
Juncus biglumis	15.0	Eleocharis quinqueflora	15.0
Carex davalliana	15.0	Festuca rubra aggr.	14.0
Equisetum arvense	14.0	Catoscopium nigrum	14.0
Carex panicea	14.0	Vaccinium uliginosum	13.0
Oncophorus virens	13.0	Cinclidium stygium	13.0
Sanionia uncinata	12.0	Salix myrsinites	12.0
Pinguicula alpina	12.0	Meesia uliginosa	12.0
Carex atrofusca	12.0	Kobresia simpliciuscula	11.0
Equisetum palustre	11.0	Carex saxatilis	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Scorpidium revolvens aggr.	21.0	Campylium stellatum	11.0
Carex microglochin	9.0	Trichophorum cespitosum	8.0

Q46 - Carpathian travertine fen with halophytes

*Diagnostic species (phi coefficient * 100)*

Blysmus compressus	76.1	Trichophorum pumilum	73.6
Schoenoplectus lacustris subsp. glaucus	64.8	Triglochin maritima	57.4
Epipactis palustris	56.2	Primula farinosa	49.7
Carex davalliana	46.6	Pinguicula vulgaris	44.9
Triglochin palustris	40.2	Campylium stellatum	39.6
Carex hostiana	39.2	Centaurium littorale	38.8
Parnassia palustris	35.6	Bryum neodamense	30.4
Polygala amarella	29.5	Valeriana dioica	29.1
Scorpidium revolvens aggr.	28.7	Equisetum variegatum	26.5
Campyliadelphus elodes	25.7	Juncus articulatus	25.0
Schoenus ferrugineus	24.2	Odontites vulgaris aggr.	23.2
Carex panicea	22.4	Bryum pseudotriquetrum	22.3

Eriophorum latifolium	21.9	Eleocharis quinqueflora	20.1
Juncus tenuis	20.2	Campyliadelphus chrysophyllus	18.9
Carex distans	19.5	Tofieldia calyculata	18.0
Glaux maritima	18.2	Taraxacum sect. Palustria	17.0
Carex lepidocarpa	17.7	Potentilla erecta	16.3
Plantago maritima	16.7	Marchantia polymorpha	15.3
Equisetum palustre	15.3	Cirsium palustre	15.1
Calliergonella cuspidata	20.6		

Constant species (occurrence frequencies)

Triglochin maritima	89.0	Schoenoplectus lacustris subsp. glaucus	89.0
Campylium stellatum	89.0	Pinguicula vulgaris	78.0
Parnassia palustris	78.0	Epipactis palustris	78.0
Blysmus compressus	78.0	Primula farinosa	67.0
Potentilla erecta	67.0	Carex davalliana	67.0
Trichophorum pumilum	56.0	Triglochin palustris	56.0
Scorpidium revolvens aggr.	56.0	Molinia caerulea aggr.	56.0
Juncus articulatus	56.0	Carex panicea	56.0
Valeriana dioica	44.0	Carex hostiana	44.0
Calliergonella cuspidata	44.0	Bryum pseudotriquetrum	44.0
Plantago maritima	33.0	Eriophorum latifolium	33.0
Equisetum variegatum	33.0	Equisetum palustre	33.0
Cirsium palustre	33.0	Trifolium pratense	22.0
Tofieldia calyculata	22.0	Succisa pratensis	22.0
Schoenus ferrugineus	22.0	Salix repens	22.0
Salix cinerea	22.0	Polygala amarella	22.0
Odontites vulgaris aggr.	22.0	Glaux maritima	22.0
Frangula alnus	22.0	Festuca rubra aggr.	22.0
Eupatorium cannabinum	22.0	Eriophorum angustifolium	22.0
Eleocharis quinqueflora	22.0	Centaurium littorale	22.0
Carex nigra	22.0	Carex lepidocarpa	22.0
Carex distans	22.0	Briza media	22.0
Agrostis stolonifera	22.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Campylium stellatum	44.0	Scorpidium revolvens aggr.	33.0
Trichophorum pumilum	22.0		

Q51 - Tall-helophyte bed

*Diagnostic species (phi coefficient * 100)*

Glyceria maxima	20.9	Typha latifolia	17.9
Acorus calamus	15.4		

Constant species (occurrence frequencies)

Phragmites australis	42.0	Lythrum salicaria	30.0
Galium palustre aggr.	29.0	Glyceria maxima	28.0
Phalaroides arundinacea	26.0	Typha latifolia	22.0
Lycopus europaeus	22.0	Iris pseudacorus	22.0
Lysimachia vulgaris	21.0	Mentha aquatica	20.0
Equisetum fluviatile	19.0	Lemna minor	18.0
Sparganium erectum aggr.	16.0	Alisma plantago-aquatica	15.0
Typha angustifolia	14.0	Myosotis scorpioides aggr.	14.0
Carex acuta	12.0	Agrostis stolonifera	12.0
Solanum dulcamara	11.0	Schoenoplectus lacustris	11.0
Ranunculus repens	11.0	Persicaria amphibia	11.0
Calystegia sepium	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Phragmites australis	21.0	Glyceria maxima	12.0
Typha latifolia	10.0	Phalaroides arundinacea	7.0
Typha angustifolia	6.0		

Q52 - Small-helophyte bed

*Diagnostic species (phi coefficient * 100)*

Glyceria fluitans	16.4	Alisma plantago-aquatica	16.0
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Constant species (occurrence frequencies)

Galium palustre aggr.	30.0	Glyceria fluitans	28.0
Alisma plantago-aquatica	27.0	Eleocharis palustris	26.0
Myosotis scorpioides aggr.	23.0	Agrostis stolonifera	22.0
Ranunculus repens	21.0	Mentha aquatica	20.0
Ranunculus flammula	19.0	Persicaria amphibia	18.0
Lycopus europaeus	18.0	Lemna minor	16.0
Lythrum salicaria	15.0	Veronica beccabunga	13.0
Oenanthe aquatica	13.0	Juncus effusus	13.0
Rorippa amphibia	12.0	Juncus articulatus	12.0
Phragmites australis	11.0	Phalaroides arundinacea	11.0
Lysimachia vulgaris	11.0	Glyceria maxima	11.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Glyceria fluitans	10.0	Eleocharis palustris	9.0
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Q53 - Tall-sedge bed

*Diagnostic species (phi coefficient * 100)*

Carex acuta	33.4	Carex vesicaria	27.9
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Carex riparia 22.5

Constant species (occurrence frequencies)

Carex acuta	42.0	Galium palustre aggr.	37.0
Lythrum salicaria	33.0	Lysimachia vulgaris	27.0
Carex vesicaria	26.0	Phragmites australis	22.0
Carex riparia	22.0	Iris pseudacorus	20.0
Carex acutiformis	19.0	Phalaroides arundinacea	17.0
Equisetum fluviatile	17.0	Lycopus europaeus	16.0
Caltha palustris	16.0	Ranunculus repens	15.0
Persicaria amphibia	14.0	Equisetum palustre	13.0
Mentha aquatica	12.0	Juncus effusus	12.0
Filipendula ulmaria	12.0	Carex rostrata	12.0
Glyceria maxima	11.0	Carex paniculata	11.0
Carex disticha	11.0		

Dominant species (percentage frequencies of occurrences with cover > 25%)

Carex acuta	31.0	Carex riparia	15.0
Carex vesicaria	13.0	Carex acutiformis	10.0
Cladium mariscus	9.0	Carex paniculata	8.0

Q54 - Inland saline or brackish helophyte bed

*Diagnostic species (phi coefficient * 100)*

Schoenoplectus lacustris subsp. glaucus	27.1	Phragmites australis	23.4
Typha domingensis	21.7	Bolboschoenus maritimus	18.6
Tripolium pannonicum	15.9	Juncus subulatus	15.6

Constant species (occurrence frequencies)

Phragmites australis	79.0	Schoenoplectus lacustris subsp. glaucus	38.0
Bolboschoenus maritimus	33.0	Tripolium pannonicum	25.0
Juncus gerardi	19.0	Agrostis stolonifera	19.0
Atriplex prostrata	17.0	Puccinellia distans	13.0
Typha domingensis	12.0	Juncus maritimus	12.0

Dominant species (percentage frequencies of occurrences with cover > 25%)

Phragmites australis	31.0	Schoenoplectus lacustris subsp. glaucus	15.0
Bolboschoenus maritimus	10.0	Typha domingensis	6.0
Juncus maritimus	6.0		

Appendix F: List of data providers

GIVD code	GIVD database name	Custodian	Deputy custodian	# of plots
00-TR-001	Forest Vegetation Database of Turkey - FVDT	Ali Kavgacı		8,444
00-RU-001	Vegetation Database Forest of Southern Ural	Pavel Shirokikh		222
00-RU-006	Database of non-forests vegetation of the Southern Urals	Sergey Yamalov	Mariya Lebedeva	3,259
AS-RU-005	Nenets Tundra	Igor Lavrinenko		1,108
AS-TR-001	Vegetation Database of the Grassland Communities in Anatolia	Deniz Işık Gürsoy	Didem Ambarlı	2,991
AS-TR-002	Vegetation Database of Oak Communities in Turkey	Emin Uğurlu		1,181
EU-00-002	Nordic-Baltic Grassland Vegetation Database (NBGVD)	Jürgen Dengler	Łukasz Kozub	6,961
EU-00-004	SIVIM	Xavier Font		3,259
EU-00-004	SIVIM - Alpine	Borja Jiménez-Alfaro	Xavier Font	6,010
EU-00-004	SIVIM - Catalonia	Xavier Font		3,854
EU-00-004	SIVIM - Grasslands	Maria Pilar Rodríguez-Rojo	Xavier Font	9,075
EU-00-004	SIVIM - Macaronesia	Borja Jiménez-Alfaro	Xavier Font	3,478
EU-00-004	SIVIM - Sclerophyllous forests	Federico Fernández-González	Xavier Font	12,123
EU-00-004	SIVIM - Shrublands	Rosario G Gavilán	Xavier Font	3,038
EU-00-011	Vegetation-Plot Database of the University of the Basque Country (BIOVEG)	Idoia Biurrun	Itziar García-Mijangos	17,967
EU-00-013	Balkan Dry Grasslands Database	Kiril Vassilev	Armin Macanović	6,942
EU-00-016	Mediterranean Ammophiletea database	Corrado Marcenò	Borja Jiménez-Alfaro	6,149
EU-00-017	European Coastal Vegetation Database	John Janssen		2,263
EU-00-018	The Nordic Vegetation Database	Jonathan Lenoir	Jens-Christian Svenning	8,366
EU-00-019	Balkan Vegetation Database	Kiril Vassilev	Hristo Pedashenko	11,691
EU-00-020	WetVegEurope	Flavia Landucci		12
EU-00-021	SE Europe forest database	Andraž Čarni		3,553
EU-00-022	European Mire Vegetation Database	Tomáš Peterka	Martin Jiroušek	12,359
EU-00-023	SIVIM - Deciduous forests	Juan Antonio Campos	Xavier Font	6,304
EU-00-024	SIVIM - Floodplain forests	Idoia Biurrun	Xavier Font	3,993
EU-00-025	Gravel bar vegetation database	Veronika Kalníková	Helmut Kudrnovsky	1,192
EU-00-026	CircumMed Pine Forest database	Gianmaria Bonari		4,898
EU-00-027	European Boreal Forest Vegetation Database	Anni Kanerva Jašková		11,704
EU-00-028	European Weed Vegetation Database	Filip Kuzmič	Urban Šilc	23,349
EU-00-029	High Mediterranean Mountains Database	Gianpietro Giusso del Galdo	Corrado Marcenò	946
EU-AL-001	Vegetation Database of Albania	Michele De Sanctis	Giuliano Fanelli	529
EU-AT-001	Austrian Vegetation Database	Wolfgang Willner		37,669
EU-BE-002	INBOVEG	Els De Bie		8,487
EU-BG-001	Bulgarian Vegetation Database	Iva Apostolova	Desislava Sopotlieva	1,957

EU-CZ-001	Czech National Phytosociological Database	Milan Chytrý	Ilona Knollová	77,974
EU-DE-001	VegMV	Florian Jansen	Christian Berg	47,240
EU-DE-013	VegetWeb Germany	Florian Jansen	Jörg Ewald	19,747
EU-DE-013	VegetWeb Germany	Friedemann Goral	Florian Jansen	12,605
EU-DE-014	German Vegetation Reference Database (GVRD)	Ute Jandt	Helge Bruelheide	43,097
EU-DE-020	German Grassland Vegetation Database (GrassVeg.DE)	Jürgen Dengler	Ricarda Pätsch	9,409
EU-DE-035	Coastal Vegetation Germany	Maike Isermann	Florian Jansen	28
EU-DE-040	Database Schleswig-Holstein (Northern Germany)	Joachim Schrautzer		2,544
EU-ES-001	Iberian and Macaronesian Vegetation Information System (SIVIM) – Wetlands	Aaron Pérez-Haase	Xavier Font	6,397
EU-FR-003	SOPHY	Henry Brisse	Patrice de Ruffray	148,599
EU-FR-005	EcoPlant	Jean-Claude Gégout	Ingrid Seynave	4,896
EU-GB-001	UK National Vegetation Classification Database	John S. Rodwell		38,010
EU-GR-001	KRITI	Erwin Bergmeier		5,401
EU-GR-005	Hellenic Natura 2000 Vegetation Database (HelNatVeg)	Panayotis Dimopoulos	Ioannis Tsiripidis	4,879
EU-GR-006 + EU-GR-007	Hellenic Woodland Database + Hellenic Beech Forests Database (Hell-Beech-DB)	Ioannis Tsiripidis		636
EU-HR-001	Phytosociological Database of Non-Forest Vegetation in Croatia	Zvezdana Stančić		3,089
EU-HR-002	Croatian Vegetation Database	Željko Škvorc	Daniel Krstonošić	8,387
EU-HU-003	CoenoDat Hungarian Phytosociological Database	János Csiky	Zoltán Botta-Dukát	4,690
EU-CH-005	Swiss Forest Vegetation Database	Thomas Wohlgemuth		14,190
EU-CH-011	Monitoring Effectiveness of Habitat Conservation in Switzerland	Ariel Bergamini	Steffen Boch	6,645
EU-IE-001	Irish Vegetation Database	Úna FitzPatrick	Lynda Weekes	26,092
EU-IT-001	VegItaly	Roberto Venanzoni	Flavia Landucci	21,113
EU-IT-010	Vegetation database of Habitats in the Italian Alps - HabItAlp	Laura Casella	Pierangela Angelini	3,703
EU-IT-011	Vegetation Plot Database - Sapienza University of Rome	Emiliano Agrillo	Fabio Attorre	27,613
EU-IT-019	VIOLA	Angela Stanisci	Maria Laura Carranza	1,164
EU-IT-020	RanVegDunes	Alicia Acosta		1,506
EU-LT-001	Lithuanian vegetation Database	Valerius Rašomavičius	Domas Uogintas	8,318
EU-LV-001	Semi-natural Grassland Vegetation Database of Latvia	Solvita Rūsiņa		6,454
EU-MK-001	Vegetation Database of the Republic of Macedonia	Renata Ćušterevska		382
EU-NL-001	Dutch National Vegetation Database	Stephan Hennekens	Joop Schaminée	77,347
EU-NL-003	Dutch Military Ranges Vegetation Database (DUMIRA)	Iris de Ronde	Rense Haveman	6,806
EU-PL-001	Polish Vegetation Database	Zygmunt Kački	Grzegorz Swacha	77,210
EU-PL-003	Forest Database of Southern Poland	Remigiusz Pielech		3,569
EU-RO-007	Romanian Forest Database	Adrian Indreica	Pavel Dan Turtureanu	7,637
EU-RO-008	Romanian Grassland Database	Eszter Ruprecht	Kiril Vassilev	25,228
EU-RS-002	Vegetation Database Grassland Vegetation of Serbia	Svetlana Ačić	Zora Dajić Stevanović	5586
EU-RS-003 + EU-RS-004	Database of Forest Vegetation in Republic of Serbia + Vegetation Database of Northern Part of Serbia (AP Vojvodina)	Mirjana Krstivojević	Ćuk	992
EU-RU-002	Lower Volga Valley Phytosociological Database	Valentin Golub	Andrei Chuvashov	12,066

EU-RU-003	Vegetation Database of the Volga and the Ural Rivers Basins	Tatiana Lysenko		1,174
EU-RU-011	Vegetation Database of Tatarstan	Vadim Prokhorov		5,378
EU-RU-014	Temperate Forests of European Russia	Larisa Khanina	Maxim Bobrovsky	5,278
EU-SI-001	Vegetation Database of Slovenia	Urban Šilc	Filip Küzmič	18,054
EU-SK-001	Slovak Vegetation Database	Milan Valachovič	Jozef Šibík	37,522
EU-UA-001	Ukrainian Grassland Database	Anna Kuzemko	Yulia Vashenyak	5,615
EU-UA-005	Halophytic and coastal vegetation database of Ukraine	Tetiana Dziuba	Dmytro Dubyna	806
EU-UA-006	Vegetation Database of Ukraine and Adjacent Parts of Russia	Viktor Onyshchenko	Vitaliy Kolomiychuk	3,836
	Teberda - Caucasus Database	Vladimir Onipchenko	Alexei Egorov	1206
	UK Floodplain Meadows Database	Irina Tatarenko		26,655
	Vegetation database of steppe vegetation of Rostov Region	Olga Demina		1145
	CBNA	Sylvain Abdulhak		2248
	European Alpine Vegetation Database	Borja Jiménez-Alfaro	Jozef Šibík	1298
	European Coastal Vegetation Database-B	Corrado Marcenò		682
	Finnish National Forest Inventory (LUKE)	Päivi Merilä		2006
	French National Forest Inventory	https://inventaire-forestier.ign.fr/spip.php?rubrique149		38,550
	Private data of Alicia Acosta	Alicia Acosta		1,901
	Private data of Andraž Čarni	Andraž Čarni		252
	Private data of Andrey Korolyuk	Andrey Korolyuk		1,061
	Private data of Borja Jiménez-Alfaro	Borja Jiménez-Alfaro		6,814
	Private data of Corrado Marcenò	Corrado Marcenò		973
	Private data of Daniel Dítě	Daniel Dítě		1,343
	Private data of Ioannis Tsiripidis	Ioannis Tsiripidis		110
	Private data of Jonathan Lenoir	Jonathan Lenoir	Jens-Christian Svenning	61
	Private data of Pavel Novák	Pavel Novák		327
	Private data of Thomas Michl	Thomas Michl		1,639
	Private data of Veronika Kalníková	Veronika Kalníková	Helmut Kudrnovsky	40
	Private data of Yakiv Didukh	Yakiv Didukh		37
	Swedish National Forest Inventory	https://www.slu.se/nfi		18,063
	Various data of Vegetation Science Group, Masaryk University	Milan Chytrý	Ilona Knollová	442
	Vegetation data of Serra da Estrela	Jan Jansen		1,332

Total

1,192,430

Appendix G: Crosswalks between revised EUNIS habitat classification and the European Red List of habitats for coastal habitats and wetlands

EUNIS revised (new code)	Old code EUNIS	EUNIS revised name	qualifier	Red List habitat code	Red List habitat name (according to Annex A of report Janssen et al. 2016)	Remark (including comments on differences in the distribution maps of similar EUNIS and Red List types)
N11	B1.1; B1.2	Atlantic, Baltic and Arctic sand beach	=	B1.1a	Atlantic, Baltic and Arctic sand beach	
N12	B1.1; B1.2	Mediterranean and Black Sea sand beach	=	B1.1b	Mediterranean and Black Sea sand beach	
N13	B1.31; B1.311; B1.321	Atlantic and Baltic shifting coastal dune	=	B1.3a	Atlantic and Baltic shifting coastal dune	
N14	B1.3	Mediterranean, Macaronesian and Black Sea shifting coastal dune	=	B1.3b	Mediterranean and Black Sea shifting coastal dune	Macaronesian occurrences were included in the Red List type, but not mentioned in the name (and not shown in the distribution map)
N15	B1.4	Atlantic and Baltic coastal dune grassland (grey dune)	≈	B1.4a	Atlantic and Baltic coastal dune grassland (grey dune)	A minor part of the EUNIS habitat N15 is included under B1.9
N15	B1.4	Atlantic and Baltic coastal dune grassland (grey dune)	#	B1.9	Machair	In the new EUNIS proposal machair is considered a complex habitat, combining dry grassland and dune slack types, which will not be included in the coastal habitat types. The Red List type therefore overlaps with two EUNIS habitats
N16	B1.4	Mediterranean and Macaronesian coastal dune grassland (grey dune)	=	B1.4b	Mediterranean and Macaronesian coastal dune grassland (grey dune)	
N17	B1.4	Black Sea coastal dune grassland (grey dune)	=	B1.4c	Black Sea coastal dune grassland (grey dune)	
N18	B1.5; B1.51	Atlantic and Baltic coastal Empetrum heath	=	B1.5a	Atlantic and Baltic coastal Empetrum heath	
N19	B1.5	Atlantic coastal Calluna and Ulex heath	=	B1.5b	Atlantic coastal Calluna and Ulex heath	
N1A	B1.6	Atlantic and Baltic coastal dune scrub	=	B1.6a	Atlantic and Baltic coastal dune scrub	
N1B	B1.6	Mediterranean and Black Sea coastal dune scrub	=	B1.6b	Mediterranean and Black Sea coastal dune scrub	

N1C	B1.6	Macaronesian coastal dune scrub	=	B1.6c	Macaronesian coastal dune scrub	
N1D	B1.7; B1.72	Atlantic and Baltic broad-leaved coastal dune forest	=	B1.7a	Atlantic and Baltic broad-leaved coastal dune woodland	
N1E	B1.7	Black Sea broad-leaved coastal dune forest	=	B1.7b	Black Sea broad-leaved coastal dune woodland	
N1F	B1.7; B1.71	Baltic coniferous coastal dune forest	=	B1.7c	Baltic coniferous coastal dune woodland	
N1G	B1.7; B1.74	Mediterranean coniferous coastal dune forest	=	B1.7d	Mediterranean coniferous coastal dune woodland	
N1H	B1.8	Atlantic and Baltic moist and wet dune slack	≈	B1.8a	Atlantic and Baltic moist and wet dune slack	A minor part of the EUNIS habitat N1H is included under B1.9 in the Red List In the new EUNIS proposal machair is considered a complex habitat, combining dry grassland and dune slack types, which will not be included in the coastal habitat types. The Red List type therefore overlaps with two EUNIS habitats
N1H	B1.8	Atlantic and Baltic moist and wet dune slack	#	B1.9	Machair	
N1J	B1.8	Mediterranean and Black Sea moist and wet dune slack	=	B1.8b	Mediterranean and Black Sea moist and wet dune slack	
N21	B2.1; B2.2; B2.3; B2.4	Atlantic, Baltic and Arctic coastal shingle beach	=	B2.1a	Atlantic, Baltic and Arctic coastal shingle	Slight change in name
N22	B2.1; B2.2; B2.3; B2.4	Mediterranean and Black Sea coastal shingle beach	=	B2.1b	Mediterranean and Black Sea coastal shingle	Slight change in name
N23	B2.5	Shingle and gravel beach with scrub	NA	-		This EUNIS habitat was merged in the Red List with other scrub types, including F3.1b and F3.1e
N24	B2.6	Shingle and gravel beach forest	NA	-		This EUNIS habitat was merged in the Red List with other scrub types, including G1.8 and G1.Aa
N31	B3.2; B3.3	Atlantic and Baltic rocky sea cliff and shore	=	B3.1a	Atlantic and Baltic rocky sea cliff and shore	
N32	B3.2; B3.3	Mediterranean and Black Sea rocky sea cliff and shore	=	B3.1b	Mediterranean and Black Sea rocky sea cliff and shore	
N33	B3.2; B3.3	Macaronesian rocky sea cliff and shore	=	B3.1c	Macaronesian rocky sea cliff and shore	

N34	B3.4	Atlantic and Baltic soft sea cliff	=	B3.4a	Atlantic and Baltic soft sea cliff	
N35	B3.4	Mediterranean and Black Sea soft sea cliff	=	B3.4b	Mediterranean and Black Sea soft sea cliff	
Q11	D1.1	Raised bog	≈	D1.1	Raised bog	A minor part of the EUNIS habitat Q11 is included under D3.2 Aapa mires in the Red List
Q11	D1.1	Raised bog	#	D3.2	Aapa mire	Aapa mires are considered as a mosaic habitat in the new EUNIS proposal; the type consists mainly of a mosaic of raised bog and quaking mires
Q12 Q13	D1.2	Blanket bog Ombrotrophic percolation mire	= NA	D1.2	Blanket bog	Ombrotrophic percolation mires occur only beyond the geographical scope of the Red List. Besides, in the 2019-report (Schaminee et al. Updated crosswalks of the revised EUNIS Habitat Classification with the European Vegetation Classification and the European Red List Habitats for EUNIS coastal habitats and mires) it is written on page 10: To our opinion, the "Ombrotrophic percolation mire", which was proposed as a new habitat type (not distinguished in the old EUNIS Habitat Classification), is not sufficiently supported by data. This habitat type was mentioned to occur in Georgia, but its status as a separate habitat type is questionable.
Q21	D2.1	Oceanic valley mire	=	D2.1	Oceanic valley bog	Slight change of name
Q22	D2.2	Poor fen	=	D2.2a	Poor fen	
Q23	D2.2	Relict mire of Mediterranean mountains	=	D2.2b	Relict mire of mediterranean mountains	
Q24	D2.2	Intermediate fen and soft-water spring mire	=	D2.2c	Intermediate fen and soft water spring mire	
Q25	D2.3	Non-calcareous quaking mire	≈	D2.3a	Non-calcareous quaking mire	A minor part of the EUNIS habitat Q25 is included under D3.2 Aapa mires in the Red List

Q25	D2.3	Non-calcareous quaking mire	#	D3.2	Aapa mire	Aapa mires are considered as a mosaic habitat in the new EUNIS proposal; the type consists mainly of a mosaic of raised bog and quaking mires
Q31	D3.1	Palsa mire	=	D3.1	Palsa mire	Polygon mires occur only beyond the geographical scope of the Red List
Q32	D3.3	Polygon mire	NA			
Q41	D4.1	Alkaline, calcareous, carbonate-rich small-sedge spring fen	<	D4.1a	Small-sedge base-rich fen and calcareous spring mire	The Red List type has been split in the new EUNIS proposal, based on different species composition
Q42	D4.1	Extremely rich moss-sedge fen	<	D4.1a	Small-sedge base-rich fen and calcareous spring mire	The Red List type has been split in the new EUNIS proposal, based on different species composition
Q43	D4.1	Tall-sedge base-rich fen	=	D4.1b	Tall-sedge base-rich fen	Even though this new proposed EUNIS habitat Q46 was part of the old D6.1 EUNIS habitat, in the Red List it was considered part of D4.1a
Q44	D4.1	Calcareous quaking mire	=	D4.1c	Calcareous quaking mire	
Q45	D4.2	Arctic-alpine rich fen	=	D4.2	Arctic-alpine rich fen	
Q46	D6.14	Carpathian travertine fen with halophytes	<	D4.1a	Small-sedge base-rich fen and calcareous spring mire	
Q51	C3.2; C5.1	Tall-helophyte bed	=	C5.1a	Tall-helophyte bed	These helophyte beds were considered under the Freshwater habitats (group C) in the Red List
Q52	C3.1; C3.4	Small-helophyte bed	=	C5.1b	Small-helophyte bed	These helophyte beds were considered under the Freshwater habitats (group C) in the Red List
Q53	D5.2	Tall-sedge bed	=	C5.2	Tall-sedge bed	These helophyte beds were considered under the Freshwater habitats (group C) in the Red List
Q54	D6.2	Inland saline or brackish helophyte bed	=	C5.4	Inland saline or brackish helophyte bed	These helophyte beds were considered under the Freshwater habitats (group C) in the Red List